

TOWARDS THE CREATION OF A ROBUST PRIVATE SECTOR



VOLUME I:
**AACCSA POLICY
PLAN 2025**



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PREFACE

Since its establishment some 72 years ago, AACCSA has been at the fore front in advocating for the evolution of improved doing business environment and private sector development. It has been undertaking evidence-based researches, the outcomes and findings of which have served as inputs in policy advocacy initiatives. It has been promoting synergetic relationship with various stakeholders with the prime objective of enhancing private sector development. The chamber produced various research outputs, policy briefs, surveys and position papers, undertook impact assessment of specific government policies, etc. Cases in point include researches on important industrial issues, on trade, taxation, on SMEs, industry park development, on various Value Chains, women entrepreneurs, land lease rights, private sector development, access to finance, etc. The chamber has been presenting the results of its research works in various forums, seminars, and symposia, and distributing its research findings to various stakeholders. It has actively played its role in sponsoring, organizing and facilitating public-private consultation/dialogue forums and in conducting numerous awareness campaigns through its media outlets.

We are now at a time when the need for alternative, independent and professional policy initiatives concerning the Ethiopian economy and the private sector is evident. We are also aware of the fact that our nation lost opportunities from lack of transparent policy dialogue that could otherwise be mutually beneficial to both the public and private sectors. Our country faces a lot of challenges and working in such a challenging environment makes it all the more urgent that private citizens, associations, chambers of commerce, academia, political parties, and all with various stakes and interests are engaged in the latest policy debates, not only at the national, but also at the regional and international levels. It is this kind of engagement that can test and ensure the feasibility of policy recommendations. The policy plan here in this document, therefore, aims to contribute its share in the national endeavor to strengthen the quality and impact of the policy outputs in a more planned and proactive manner than otherwise have been in the past.

Taking into account its incremental calling to play even higher roles at the national level in the future, AACCSA aspires to be a *unifying force for businesses to making Ethiopia the chosen destination by working together with all relevant actors towards the creation, sustenance, and nurturing of a pro-business environment that is conducive and competitive enough to sustain growth and development!*

It is in this light that AACCSA ventured into developing a comprehensive policy document with the objective of identifying policy, legal and administrative hurdles faced by businesses with a view to *developing concrete policy proposals and recommendations as potential inputs to be incorporated into the Home Grown Reforms package and help guide the policy dialogue between the Government and the private sector, with a clear intent to making Ethiopia's business operating environment more business-friendly, thereby enhancing competitiveness and sustaining economic growth.*

It is also worth mentioning that a combination of different approaches have been pursued in the design and development of this policy document.

- With a view to assess and identify the legal, regulatory and administrative barriers to doing businesses in Ethiopia, a group of prominent consultants were hired to work together with in-house professionals with the purpose to build the rationale for the development of sound and logical policy proposals on pre-identified strategic areas for action. Independent research studies were thus conducted by hiring professional research and consulting firms. The researchers undertook in depth investigations on: Easier to do Business, Better Access to Finance, Lowering Public Deficit and Debt, Improved Competitiveness, Better Access to Land, Better Access to Qualified and Skilled Labor, Increased Trade and Digital Economy and Investment.
- In depth brain storming workshops were organized to gather inputs and reflections from pertinent stakeholders, including from prominent business leaders and sectoral associations representatives;

The final reports of the studies are now complete and they are blended together to form one coherent volume, as elucidated here in this Volume I.

Addis Ababa Chamber of Commerce and Sectoral Associations

February, 2020

Addis Ababa

LIST OF ACRONYMS

AAAA	Addis Ababa Action Agenda	DFID	Department for International Development
AACCSA	Addis Ababa Chamber of Commerce and Sectoral Associations	DSA	Debt Sustainability Analysis
ABE	Alternative Basic Education	ECA	Economic Commission for Africa
ADI	Africa Development Indicators	ECDI	Early Childhood Development Indicator
ADLI	Agricultural Development Led Industrialization	ECM	Error Correction Model
AfCFTA	African Continental Free Trade Area	EDRI	Ethiopian Development Research Institute
AGOA	African Growth and Opportunity Act	EA	Entrepreneurial Activity
AI	Artificial Intelligence	EEDR	Ethiopian Education Development Roadmap
AIC	Akaike Information Criteria	EIC	Ethiopian Investment Commission
ATM	Automated Teller Machine	EMIS	Educational Management Information System
AU	African Union	EPRDF	Ethiopian People's Revolutionary Democratic Front
AUC	African Union Commission	ERCA	Ethiopian Revenue and Customs Authority
BDS	Business Development Services	ES	Enterprise Survey
BI	Business Intelligence	ESDP	Education Sector Development Plan
BIC	Bayesian Information Criteria	ETB	Ethiopian Birr
BMO	Business Membership Organization	ETH	Ethiopia
BPO	Business Process Outsourcing	ETP	Education and Training Policy
CAD	Cash Against Document	EU	European Union
CBE	Commercial Bank of Ethiopia	EVC	Expropriation, Valuation and Compensation
CBRLDP	Community Based Rural Land Development Program	FAO	Food and Agricultural Organization
CCI	Competitiveness Composite Index	FDI	Foreign Direct Investment
CLRM	Classical Linear Regression Model	FDRE	Federal Democratic Republic of Ethiopia
COMESA	Common Market for Eastern and Southern Africa	FESMMIDA	Federal Small and Medium manufacturing Industry Development Agency
CPIA	Country Policy and Institutional Assessment- Africa Region	FFP	Fit For Purpose
CSA	Central Statistical Agency	FJCFSA	Federal Job Creation and Food Security Agency
DB	Doing Business		
DB	Development Bank of Ethiopia		
DBR	Doing Business Report		

FSS	Forum for Social Studies	KII	Key Informants Interview
FTA	Free Trade Area	KM	Kilometer
FX	Foreign Currency	KPI	Key Performance Indicator
GCI	Global Competitiveness Index	KWD	Kuwaiti Dinar
GDP	Growth Domestic Product	LC	Letter of Credit
GDP	Gross Domestic Product	LDCs	Least Developed Counties
GEMM	Grounding Enterprise-Market Model	LIFT	Land Investment for Transformation
GEM	Global Entrepreneurship Monitor	LL	Lower Limit
GEQUIP	General Education Quality Improvement Program	LN	Natural Logarithm
GFI'S	Global Finance Institute	LPI	Logistic Performance Index
GLS	Generalized Least Square	LR	Likelihood Ratio
GLTN	Global Land Tool Network	LTV	Loan to Value Ratio
GNP	Gross National Product	MFIs	Micro Finance Institutions
GO	Governmental Organization	MINT	Ministry of Innovation and Technology
GOE	Government of Ethiopia	MOA	Ministry of Agriculture
GTP	Growth and Transformation Plan	MOE	Ministry of Education
HA	Hectare	MOFEC	Ministry of Finance and Economic Cooperation
HE	Higher Education	MOFED	Ministry of Finance and Development
HIPC	Heavily Indebted Poor Country	MOI	Ministry of Industry
HIV/AIDS	Human Immune Virus/Acquired Immune Deficiency Syndrome	MOLSA	Ministry of Labor and Social Affairs
HR	Human Resources	MOSHE	Ministry of Science and Higher Education
ICT	Information and Communication Technology	MOUDC	Ministry of Urban Development and Construction
IDS	Intrusion Detection System	MOWUD	Ministry of Works and Urban Development
IFC	International Finance Corporation	MPL	Micro Professional Level
IMF	International Monetary Fund	MSE	Micro and Small Enterprises
IOT	Internet of Things	MSMEs	Medium Small and Micro Enterprises
IPDC	Industrial Parks Development Corporation	NBE	National Bank of Ethiopia
ITU	International Telecommunication Union	NCA	Normative Continuous Assessment

NETA	National Education and Training Policy	TTLM	Teaching, Training Materials and Media
NGO	Non-Governmental Organization	TVET	Technical and Vocational Education and Training
NPC	National Plan Commission	UBE	Universal Basic Education
ODI	Official Development Assistance	UFA	Universal Financial Access
OECD	Organization for Economic Cooperation and Development	UL	Upper Limit
OFAG	Office of the Federal Auditor General	UNCTAD	United Nations Conference on Trade and Development
OLS	Ordinary Least Square	UNDP	United Nations Development Program
PLC	Private Limited Company	UNESCO	United Nations Education, Science and Culture Organization
POS	Point of Sale	UNIDO	United Nations Industrial Development Organization
PPP	Public-Private-Partnership	UPE	Universal Free Primary Education
R&D	Research and Development	USAID	United States Agency for International Development
RBV	Resource Based Approach	USD	United States Dollar
RE	Random Effect	VECM	Vector Error Correction Model
REER	Real Effective Exchange Rate	WB	World Bank
SDPRP	Sustainable Development for Poverty Reduction Program	WBGDB	World Bank Group Doing Business
SME	Small and Medium Enterprises	WBGES	World Bank Group Enterprise Survey
SOEs	State Owned Enterprises	WDI	World Development Indicator
SSA	Sub Saharan Africa	WEDP	Women Entrepreneurs Development Program
STATA	Statistical Software Package	WEF	World Economic Forum
STEM	Science, Technology, Engineering and Mathematics	WGI	World Governance Indicator
TOR	Terms of Reference	WTO	World Trade Organization
TOT	Turn Over Tax	3D	Three Dimensional
TPLF	Tigray Peoples' Liberation Front		
TT	Telegraphic Transfer		
TTC	Teachers' Training College		

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Chapter One: Lowering Public Deficit and Debt



Executive Summary

The research project looked at the forces behind public debt and how it affects private sector development. It also looks into the public sector and attempts to determine how spending can be more efficient so debt can be reduced. It looks at literature, laws and econometrics between 1980-2017 using a Dynamic General Equilibrium Model to assess the impact of reallocating government spending from unproductive to productive activities.

The study finds Ethiopia is at crossroads as it faces the daunting challenge of rising debt which adversely affects private sector development. To reduce debt the country should open the economy to the rest of the world, develop infrastructure and grow its Gross Domestic Product. However, inflation, political instability, corruption, government spending and the age/dependency ratio (increasing number of people who are of non-working age, will all hinder debt reduction. The report recommends managing macroeconomic conditions better, and enhancing governance to improve political stability and reduce corruption. The private sector should be given incentives to make it more competitive. Private public partnerships must be strengthened to maintain economic growth, create decent jobs and reduce poverty. The government should also allocate its scarce public resources judiciously to productive activities (manufacturing, infrastructure and agricultural development) to tackle movement of resources which trigger and accumulate public debt. Shifting how resources are allocated initiates structural economic changes that can ultimately reduce public debt. There also needs to be a strong legal and policy framework guiding resource allocation and loan funded development projects. Otherwise, failure to introduce major policy changes and inefficient project management leads to rapidly accumulating debt leaving Ethiopia in a mire of abysmal poverty. Multi-pronged activities to increase productivity and efficiency have to be undertaken to curb a deficit that has already reached its tipping point.

Keywords: External Debt, Fiscal Deficit, Debt Sustainability, Cointegration and Speed of Adjustment

1.1. Background Information

During the socialist regime of the 1980's, the economy grew by 2.3 percent and the population by 3.2 percent. In reality, the per capita GDP deteriorated and the nation experienced a negative growth rate of 0.8 percent. GDP accounted for 70 percent of spending. Around 40 percent of recurrent outlay was allocated for defense, which in turn adversely affected the country's industrial development. The GDP growth rate increased to 3 percent in the 1990s following the move towards a market economy and liberalization. The GDP rose to 7 percent between 2001-2010 in response to a pro-poor economic growth policy and a state-led development program (WB, 2011). This had never happened in Ethiopia before.

In 1991, the incumbent government launched a fiscal federalism system which provided substantial authority to regional states. The total expenditure as a share of GDP that was 29 percent in the 1980s was reduced to 23 percent during the subsequent reformation period. Government spending on capital formation showed a mixed performance. Most of the budget was spent on services, followed by agriculture, and industry. This meant little structural change to the economy because less attention was given to industry.

Ethiopia's debt grew at an average rate of 13.18 percent during 1970-75 and the debt service grew at 3.11 percent. Infrastructure constituted 100 percent of the total debt. Between 1976-91, imprudent economic policies led to inefficiencies in investments and external debt increased by 13.21 percent and the debt service by 7.18 percent. From 1992 to 1998, Ethiopia's foreign debt grew by 10.41 percent while the debt service dropped by 25.03 percent. The debt/GDP ratio fell from 169.22 percent in 1992 to 160.34 percent in 1998. Debt service as a ratio of exports declined from 23.74 percent to 11.23 percent during this period. The study by Geda and Zerfu (1998) reveals that Ethiopia's foreign debt has been increasing in its magnitude and has become large relative to the size of the economy and level of exports. In addition to this, Degefe (1992) also employed a growth-debt model for Ethiopia and concluded that external debt has adversely affected economic growth. Even though the debt service/export ratio is low and declined later on, the country faces severe debt/GDP ratios.

External debt is going up because the government is spending more on economic development and because they wish to attain the Millennium Development Goals (MDGs). For the past twenty years this has been the policy so debt has skyrocketed. Following the state led development program, the ratio of debt to GDP increased to 33.5 percent in 2017 from 26.9 percent in 2008. A report from the World Bank shows Ethiopia's debt was equivalent to 60 percent of the country's Gross Domestic Product in 2018. Government Debt to GDP in Ethiopia averaged 34.57 percent from 1991 through 2018, reaching an all-time high of 60 percent in 2018 and a record low of 24.70 percent in 1997. This is unsustainable for development. The IMF projects, the ratio will be 59.8, 66.4, and 73.9 percent in 2020, 2021, and 2022 respectively.

Obviously, this is going to be a huge problem if not addressed quickly. The government has more debt than export earnings, the growth rate and the level of its gross national product. The external indebtedness is an obstacle to the restoration of the conditions needed for growth. The huge debt burden acts as a threat to the economic performance given the wide spread poverty and structural rigidities.

1.1.1. Objectives of the Research Project

The study examined Ethiopia's debt and its effects on the private sector:

- Examine data and information to see trends in revenue, public expenditure, public deficit and debt burden to justify problems in connection to the strategic action.
- Justify with clear evidence that the huge government deficit and debt is crowding out the participation of the private sector.
- Provide sound and justified policy proposals in which the Addis Chamber becomes engaged in influencing the government to influence policy.
- Set tangible and ambitious targets up to 2025 which serves as key performance indicators to monitor the effectiveness of the policy proposals for strategic action in lowering public deficit and debt.

1.1.2. Reviewing Related Literatures on Debt analysis

Debt can be a positive thing, it finances growth opportunities (project investment and import bills) which they would not be able to do with their own funds and resources. The problem is that it often means losing ownership over the project. According to the Elmendorf and Mankiw (1999), public external debt can be analyzed through a conventional perspective or the Ricardian Equivalence Theory.

The Ricardian approach says that debt doesn't harm the economy. Reducing taxes is like increasing debt and society should understand that tax increases will occur in the future. Instead of consuming more goods people should save to pay future tax and the budget deficit will coincide with an increase in private saving in the framework of the combination of government budget constraint and the permanent income hypothesis (Elmendorf & Mankiw, 1999). The

government budget constraint explains that lower taxes today mean higher taxes tomorrow keeping stable level of government spending. The permanent income hypothesis claims that consumers make their decisions on their income evaluated in the long run.

Foreign debt burden is an indication of somber problems in the economy where the country is incapable of financing its resource gaps, has exchange rate problems, and/or its productivity is low. Countries that follow structural adjustment programs are even more exposed to huge foreign debts than ever before. In general, theories show a positive relation between a reasonable amount of debt for capital scarce countries that benefit in the wake of capital inflows. However, the literature also links larger inflows of debt with lower economic growth. Chenery and Strout (1966) asserts that this finance in the form of aid contributes to growth by discharging some of the possible blockages of savings and foreign exchange. However, several debt-ridden African countries observed sluggish growth in the late 1970s and early 1980s. This sluggish growth caused poverty and inability to pay foreign liabilities. Geda (1997) displays that debt to GDP ratio of Africa has grown from 22 percent in 1972 to 130 percent in 1992. The well-known debt overhang hypothesis is a case in point. It states that the anticipated debt service (which is interest and principal on the debt) is an increasing function of a country's output level. The returns from investing in country, therefore, face a high marginal tax by the external creditors, and new domestic and discouraged foreign investment. (Krugman, 1988; Sachs, 1989; Salih, 1994) inquire into the growth-debt linkage in Africa and present evidence that is consistent with the debt overhang literature.

Krugman's argument states high debt ends up with loss of efficiency and supports the idea of Sachs and Huizinga (1987). The existence of the debt Laffer curve has been used in the argument that 'it is in the creditors' collective interest to forgive some of the external debt of a heavily indebted country. Hussain (1997) shows that a country is on the wrong side of the debt Laffer curve only when it is on the wrong side of its domestic tax Laffer curve. The analysis indicates that fairly strong, and probably unrealistic, assumptions about the domestic tax system are needed to argue that the investment disincentives associated with the debt overhang are large enough to place a country on the wrong side of the debt Laffer curve.

This means that the effect of simple taxation scheme is worse if it specified on the 'wrong side' of its debt Laffer curve (Hussain, 1997). On the other hand, Nikbabakht (1984) confirms that borrowing does not necessarily have a robust relation with the values of economic indicators in developing countries. It is the spending pattern of loans rather than the amount of loans, which have a major impact on growth. In general, illiquidity, disincentives, and imprudent borrowing are worth mentioning causes for a negative effect of debt which lead to unfavorable world macroeconomic conditions and exposed the vulnerability of both the debtors and the creditors (Hajivassiliou, 1989; Dornbusch and Fischer, 1985; Were, 2001; Osei, 1995 and Metwally, 1994).

Following the burden of debt, the Sub-Saharan Africa has received external debt burden reduction, among other things, in the form of the provision of concessional financing from international financial institutions, debt relief from official creditors mainly in the context of Paris Club rescheduling, and, in some cases, through bilateral action by the creditors. Though, these measures have resulted in considerable success in alleviating the external debt burdens of many middle-income countries, the countries in sub Saharan Africa continue to suffer from unacceptable levels of poverty and heavy external debt burdens (IMF, 2001). Corden (1989) and Helpman (1989) note that debt forgiveness may upsurge investment by declining future debt payments. Oxfam International (1997) reveals that African debt servicing absorbs one quarter to one third of foreign exchange earnings, diverting the resources from investment.

There are a number of studies which have been done by many economists and researchers to assess the nexus between external debt and economic growth in the case of both a single country

and cross-country analysis. A study by Jonse (2002) investigated the impact of external debt on economic growth in Ethiopia and the result indicated that external debt affects investment positively and is statistically significant. Hailemariam (2011) and Mulugeta (2014) showed that past debt accumulation has a negative relationship with economic growth (Rahman, 2012 and Peng Lee and Ling Ng, 2015). However, Melese (2005) found that all debt burden indicators have a negative relationship with economic growth in Ethiopia by using a structural macroeconomic model. Uzun, et al., (2012) found a positive relationship between external debt and growth rate of transition countries in long run. Checherita and Rother (2010) also found a non-linear impact of public debt on growth with a turning point beyond which the government debt to GDP ratio has a deleterious impact on long-term growth at about 90-100% of GDP. Their finding also revealed that the negative growth effect of high debt may start already from levels of around 70-80% to GDP ratio. The public debt to GDP ratio negatively and linearly associated with per-capita GDP growth in their study. In contrast, another study by Reinhart and Rogoff (2010), analyzed the developments of public debt and the long-term real GDP growth rate in a sample of 20 developed countries through simple correlation statistics over a period of nearly 200 years (spanning from 1790 to 2009). They found that (i) the relationship between government debt and long-term growth is weak for debt/GDP ratios below a threshold of 90% of GDP; (ii) above 90%, the median growth rate falls by one percent and the average by considerably more.

1.1.3. A Special Focus on Chinese Involvement

China's presence in Africa has been increasing exponentially. Some see this as a good thing because they have built up Africa's infrastructure and it gives African leaders a way out of depending on the West for grants and loans, which forces them to comply with their preconditions.

Some argue that China contributes to the GDP through an upward swing in prices by importing natural resources to satisfy the demands of its industrialization. However, China's exports which are low cost consumer goods like textiles, while benefiting African consumers, are threatening to displace local production. China poses a challenge to good governance and macroeconomic management in Africa because of the potential implications of commodity booms (World Bank, 2007). According to COFACE (2017), the China-Africa relationship remains unbalanced. Although bilateral trade has leaped for more than ten years, the region experienced a trade deficit with China. Almost 90% of total exports to China concentrated on natural resources while imports were more diversified which includes capital or manufactured goods, equipment and machines. The index established by COFACE indicates that Sub-Saharan Africa had a significantly higher export dependency ratio than other emerging countries, highly reliant on China instead of the European Union and United States. China's engagement in Africa faced strong criticism from African scholars with regard to its controversial business practices and its failure to promote good governance and human rights. Its complex relationship with the policy of non-interference in the affairs of African governments has also been strongly challenged (CFR, 2017).

In addition to finance, almost all of the projects are implemented by Chinese contractors. Not only the management, but also imported labor workers are from China on the borrower's soil. In addition, the major imported materials are also from China. Almost all of the projects are systematically designed to link and facilitate Chinese export and international trade. This means that projects are intended to facilitate China's demand for raw materials and promote China's export to these countries. As a result of this, China's debt accumulated to Africa, leaving challenges of taking over the collateral and sovereignty debt. This does not seem like a symbiotic relationship.

China's focus on natural resources and disregard of good governance is not always well grounded. Their concentration on natural resources has a poor record and their focus on poor governance countries many concerns about their engagement in Africa. Chinese ODI (outward

direct investment) is indifferent about rule of law in the host country but positively correlated with political stability. Chinese investment is more visible in those countries with poor rule of law which the West has stayed away from. The Chinese involvement in African infrastructural development is the other critical issue because there is a question with regard to the Chinese participation in infrastructure whether it should be considered as FDI or not. Those involvements could be taken as FDI if the Chinese partner has equity stake in infrastructure (Chen, Dollar, & Tang, 2015). In general, there are two arguments on the Chinese investment. The political warfare theorists state that the Chinese investment in Africa is devastating and exploitative of the host country resources. However, the South-South cooperative school of thought believes that China's increased aid, trade, and investment in Africa is a means to foster Africa's self-sufficiency and sustainable development. Therefore, the overriding objective of this research work is to examine the effect of Chinese foreign direct investment inflow and bilateral trade on economic growth in Africa with a special attention to Ethiopia using time series econometrics in particular vector error correction method using quarterly data over the period 2001- 2017.

In general, Ethiopia has taken at least USD 12.1 billion from Chinese creditors since 2000. But overall the country is USD 29 billion in the red -- it owes more collectively to the Middle East, the World Bank and others than to China. The same is true for the majority of African countries. This implies that around 17 percent debt portfolio is more concentrated on Chinese loans. China's credit line to Ethiopia has provoked criticism and is considered as China's "predatory loan practices" in Africa "mire nations in debt and undercut their sovereignty, denying them their long-term, self-sustaining growth."

1.2. Methods of Analysis

Based on the TOR, the study used quantitative and qualitative analysis to fully understand the situation of public deficit and debt, examine trends, understand the cases related to policies and its effect with especial consideration to the private sector. Basically, the study employed wide varieties of methods which include literature review, policy document review, descriptive analysis, and time series econometrics.

1.2.1. Instruments of Data Collection

Detailed analysis of the current situation, trends and effects of public deficit and debt requires the use of comprehensive instruments for data collection. In line with the given TOR, the study employs.

1.2.2. Key Informant Interviews (KIIs)

Key informant subject matter professionals from policy study institutions, finance and economic cooperation, plan commission institution etc. are selected and interviewed. We interview professionals from a wide variety of fields in-depth.

1.2.3. Review of Secondary Documents and Literature

Basically, the study undertakes review of available records /data, policies and guidelines under implementation, and relevant research to understand strategic action and examine the prevailing situation.

1.2.4. Identification of Best Performing Countries in African Context

The study has made attempts to substantiate the discussion, added to substantial quantitative and qualitative analysis, with best practices from distinguished countries.

1.3. Findings, Discussion and Analysis

1.3.1. Reviewing Policy documents to examine the state of enabling environment

Sustainable public debt has gained renewed attention as countries implement fiscal consolidation measures. Sound public debt policies and debt management practices require robust legal underpinnings. Complex legal issues however arise in the design of the legal framework, and tradeoffs are required in many instances. This study stress on key features of modern public debt management legal frameworks, drawing from examples in advanced, emerging, and frontier markets. It aims to provide guidance for countries that seek to review and strengthen their public debt management legal frameworks.

The Federal Government of Ethiopia Financial Administration Proclamation No.648/2009 is the primary legislation that defines the mandates for public debt and loans granted by the Government. Article 40 clearly states that "...the Minister is the only entity authorized to borrow money or issue a guarantee or securities on behalf of the GOE...". Further, Article 41 states that the Minister may authorize other officials to sign loan agreements on behalf of the GOE, and there is a clear delegation process to be followed through a power of attorney signed from the Minister to the designated official. The Proclamation (Article 43-44) also specifies the purposes for borrowings as: the efficient management of the consolidated fund, loan repayments, pre-payments if required, consolidation or buybacks of loans, and payment of direct advances. GOE can only issue loan guarantees if it follows the regulation issued by the council of ministers (Article 49). The Proclamation also requires that consolidated accounts of the central treasury be audited along with statements of debt, guaranteed debt and contingent liabilities. It stipulates that Office of the Federal Auditor General (OFAG) examine these, and that the results be reported to the Parliament before the end of the following fiscal year.

The requirement to develop a debt management strategy and the objectives for debt management are given in the Financial Administration Council of Ministers Regulation 190/2010. The GOE has to develop a debt management strategy to meet the appropriate borrowing amounts at appropriate times, while balancing "minimization of cost with cost stability and taking into consideration the level of debt and the ability to re-pay". The OFAG is the supreme audit institution of Ethiopia. Its responsibility is defined under primary legislation and its reference is made in secondary legislation. Financial audits have to be prepared annually and submitted to the Parliament.

The level and financing of the budget deficit is designed in view of promoting the desired macroeconomic goals such as controlling inflation, boosting private investment and growth and maintaining external credit worthiness. The main thrust of fiscal policy in Ethiopia is to strength domestic revenue generation, effective and efficient allocation and utilization of the resources and maintaining fiscal deficit consistent with macroeconomic objectives. As a result, during the years 2008/09-2017/18 on average about 80% of the government budgetary revenue was mobilized from domestic revenue sources. On the other hand, Government expenditure has been an important driver of Ethiopia's economy. The expenditure pattern was mainly focusing on allocating more resource for building economic and social infrastructure to provide basic services. To this end, in the last many years the lion's share of the annual budget was devoted to capital expenditures which are critical in bringing future benefits through building physical assets and infrastructures, as well as promoting human resources development and research and development. The Government over the past years capped the overall budget deficit at 3% of GDP through a general fiscal rule (Annual Public Sector Debt Portfolio Report for the Year 2017/18).

Unless the extent of budget deficit and its financing is managed prudently, it has negative consequences on macroeconomic stability. Therefore, the bottom line in Government budget management is the level and its means of budget deficit financing. As a rule of thumb, although there are no written fiscal rules regarding the limit of the fiscal deficit, the GTP II limits the fiscal deficit of the government not to exceed 3% of GDP. The fiscal deficit, however, practically determined as part of the process of setting macroeconomic targets during the preparation of the MEFF (Macro-Economic and Fiscal Framework) and usually set to be consistent with the monetary objectives.

Regional governments in Ethiopia by law are required to run balanced budgets and cannot run budget deficit. To augment available domestic financing options, the Government opted to finance its fiscal deficit from external sources on concessional terms. In particular, the Government of Ethiopia finances its budget by accessing external loans on concessional terms (Fiscal Policy in Ethiopia and Recent Development, February 2018).

The Federal Democratic Republic of Ethiopia (FDRE) government has formulated debt management strategy was in 2012 covering the period FY2012/13-2016/17. The strategy defines how debt should evolve over the medium term to account for financing the Growth and Transformation Plan (GTP) while maintaining macroeconomic stability. That strategy helped the country to maximize external concessional loans from multilateral and bilateral sources, and uses domestic financing to cover residual financing needs (Ethiopia's Medium-Term Debt Strategy [2016-2020] Ministry of Finance).

As a rule of thumb, non-concessional loans cannot be used to finance the budgetary activities but used to finance projects that are run by State Owned Enterprises. In fiscal year 2016/17, the overall budget deficit including grant turned out to be 3.4 percent of GDP. This was against a deficit target of 3.9 percent of GDP and the gap was financed from both external (48.1 percent) and domestic (51.9 percent) sources through borrowing instruments. The Government borrows to finance projects that help to boost export, build assets, reduce poverty and enhance social and infrastructure development. External loan policy of the government primarily focuses on concessional loans with longer grace and maturity periods and very low interest rates. The overall debt management is guided by a medium-term strategy. In addition, the country's debt management is guided by streamlined loan utilization and administration directive (Fiscal policy in Ethiopia and recent development, February 2018).

Nearly four decades ago, Ethiopia's debt had peaked to unsustainable levels such that the economy did not have the capacity to meet its debt obligations. Fortunately, Ethiopia became among countries to qualify for debt relief under the Heavily Indebted Poor Country (HIPC) Initiatives in 2001 and subsequently under the Enhanced HIPC in 2004. In 2006/07, Ethiopia benefited from another form of debt relief under the Multilateral Relief Initiative (MDRI). All these debt reliefs eased Ethiopia's debt service obligations and the country debt position has since remained sustainable. Later on, due to created fiscal spaces the government has borrowed substantial resources from concessional sources as well as provided consent and guarantees to SOEs to borrow from non-concessional sources to implement priority mega projects. These subsequent borrowing resulted to some extent in increments of the debt volume of the country within short period of time (Ethiopia's Medium-Term Debt Strategy [2016-2020], Ministry of Finance).

Accordingly, by end of June 2018, Ethiopia's total public external and domestic debt stock including publicly guaranteed debt amounted to USD 49,361.60 million (which has an increment of 7.8% compared to USD 45,797.01 million reported at the end June 2017). The total public debt service payments in 2017/18 was USD 2,679.80 million with external debt service standing at USD 1,575.21 million while domestic debt service was at USD 1,104.59 million. As

a percentage of the total public debt service, external and domestic debt service were 58.8 % and 41.2% respectively. To minimize exposure and risks associated with debt accumulation, the government has embraced new innovations in financing infrastructure development off balance sheet without impacting heavily the debt portfolio. Towards this end, the country is working to increase private financing of public investments through the Public Private Partnership (PPP) initiatives (Annual Public Sector Debt Portfolio Report for the Year 2017/18).

As revealed on Debt Sustainability Analysis (DSA), at end-June 2018, total Public and Publicly Guaranteed (PPG) debt amounted to 61.8 percent of GDP (Including external deposits of the National Bank of Ethiopia), an increase of 4 percentage points compared to June 2017, largely due to an increase in the domestic currency value of external debt outstanding. This mainly reflected the devaluation of the birr in October 2017. Domestic debt made up 44 percent of total debt, with domestic debt of the central government accounting for 21.4 percent of this, and the remainder corresponding to State Owned Enterprises (SOEs). The bulk of the domestic debt of the central government is owed to banks, primarily the NBE, largely reflecting advances to finance the budget. The remainder mainly comprises Treasury bills held by commercial banks. Domestic borrowing by the SOEs, whether through loans or bond issuance, was entirely from domestic banks (IMF, 2018).

According to DSA 2018, the accumulation of debt in Ethiopia over the last 5 years has been primarily driven by the investment activity of State-Owned Enterprises (SOEs). Going further, the DSA assumes that the authorities will continue their policy of strictly limiting external borrowing, especially Non-Concessional Borrowing (NCB), and as such debt accumulation will be lower than in the last 5 years for which data is available. The projected rate of debt accumulation is significantly below the median observed for other Low-Income Countries (LICs), but the authorities' disciplined implementation of policies since 2015/16 accords with the projected path. The current account deficit was the main factor behind the worsened external debt dynamics in the most recent 5-year period which was partly offset by favorable contributions from growth. Looking forward, GDP gains and a narrowing current account deficit should underpin improvement in external debt. Higher domestic interest rates will likely weigh on future domestic (and hence overall) debt dynamics (IMF, 2018).

1.3.2. Descriptive Analysis Method to characterize major variables

The study started with an in-depth desk review of pertinent existing theoretical and empirical literatures on public debt and fiscal deficit in Ethiopia. Time series secondary data then also be collected from The United Nations Conference on Trade and Development(UNCTAD), Africa Development Indicators (ADI) , World Development Indicators (WDI) , International Monetary Fund(IMF), World Economic Outlook database, International Financial Statistics , Central Statics Authority (CSA) , National Bank Of Ethiopia (NBE) , Ministry of Finance and Economic Cooperation, Ministry of industry, Ethiopian Custom Authority and Ethiopian Investment Commission, Ethiopian Economics Association, Ethiopian Development Research Institute, Ministry of Trade, National Planning Commission.

1.3.3. Method of Data Analysis and Report Write-up

Data obtained from secondary sources analyzed using the latest version of statistical software (STATA) and Excel Sheet. Time series econometrics analysis and descriptive methods of data analysis techniques applied to systematically analyze the data. Econometric analysis mainly used to investigate structure, magnitude and determinants of public debt and fiscal deficit and its effect on private sector development in Ethiopia. Descriptive analyses used show and analyze, among others, the trend of general government revenue by component, trend general government expenditure by component, trend of public deficit and debt burden. In the descriptive analysis section, graphs, tables, and pie charts used to present the data and correlation, trend analysis, and growth rates will be used to analyze the data.

When compiling and analyzing the collected data, due attention is given to adequately address all the key questions raised in this study. In analyzing and interpreting the collected data, we make sure that conclusions being drawn based on the factual findings, and utmost care is taken to draw realistic conclusions and forward policy recommendations.

1.3.4. Trend of General Government Revenue by Component

The level and financing of the budget deficit is designed in view of promoting the desired macroeconomic goals such as controlling inflation, boosting private investment and growth and maintaining external credit worthiness. The main thrust of fiscal policy in Ethiopia is to strength domestic revenue generation, effective and efficient allocation and utilization of the resources and maintaining fiscal deficit consistent with macroeconomic objectives. As a result, during the years 2008/09-2017/18 on average about 80% of the government budgetary revenue was mobilized from domestic revenue sources. On the other hand, Government expenditure has been an important driver of Ethiopia's economy. The expenditure pattern was mainly focusing on allocating more resource for building economic and social infrastructure to provide basic services. To this end, in the last many years the lion's share of the annual budget was devoted to capital expenditures which are critical in bringing future benefits through building physical assets and infrastructures, as well as promoting human resources development and research and development. The Government over the past years capped the overall budget deficit at 3% of GDP through a general fiscal rule. In fiscal year 2017/18, the overall budget deficit including grant turned out to be 3 % of GDP. This was against a deficit target of 3.4% of GDP.

The overall government budget is financed from domestic and external sources with the latter consisting of borrowing and assistances in the form of grants from bilateral and multilateral development partners. According to NBE (2018/19) total revenue (including grants) increased significantly in absolute values from ETB 85.1 billion in 2011 to ETB 287.6 billion in 2018 which shows an increment of more than threefold. Ethiopia has made encouraging progress in mobilizing more revenues from domestic sources, particularly in tax revenue consisting of direct taxes, indirect taxes and foreign trade taxes.

As shown in table 1 below, on average, tax revenue increased from ETB 31.1 billion in 2006-2011 to Birr 148.5 billion in 2012-2017 indicating over almost fivefold increase in revenue contribution. According to NBE (2018/19) Domestic revenue, tax revenue and non-tax revenue is buoyed by expansion in tax collection from Birr 43.3 billion in 2010 to Birr 235 billion in the 2018 indicating that tax revenue accounts for over 87 percent of total domestic revenue. According to Ministry of Finance and Economic Cooperation (MOFEC, 2016) most of the revenues from direct taxes are generated from payroll tax and taxes on profits of enterprises and individual. Foreign trade taxes entirely collected from imported goods make up the largest share (30 percent) of the total tax revenue next to direct tax amounting to 42 percent in 2018. The indirect taxes contribute 29 percent of the tax revenue in the same year (See Annex 2).

Similarly, the average share of domestic revenue was 78 percent of the total public revenue and grants in the year 2000-2005, which increases to 93.2 percent in the year 2012-2017. In terms of domestic financing, Ethiopia generates the majority of its resources from taxes, which amounted on average to 79.3 per cent of domestic revenue in 2012-2017 compared to 58.1 per cent in 2000-2005. This is attributed to the government's commitment to finance development through mobilizing domestic resources from collecting tax and non-tax revenue sources.

According to Africa Economic Outlook (2018) although domestic revenue mobilization improved substantially in recent decades, tax-to-GDP ratios are still below the 25 percent threshold deemed sufficient to scale up infrastructure spending. As shown in the figure below, the average tax to GDP ratio increased from 10.5 percent in 2006-2011 to 12.9 in the year 2012-2017 which is way below the GTP target of 15 percent, the Sub Saharan Average of over 18 percent (Lesotho's tax-GDP ratio exceeds 50 percent) and above 30 percent for developed economies. Although the economy has been growing at a remarkable rate averaging more than 10 percent, the slow growth in the tax to GDP ratio suggests the growth in tax collection is not commensurate with the economic growth perhaps indicating a huge untaxed. As an agrarian economy that is not fully monetized with the presence of a large, untaxed, non-agrarian informal sector, the contribution of tax sources remains relatively limited (UNDP, 2018).

Among the major revenue sources, indirect tax such as the Value Added Tax (VAT) has become an important and growing source of revenue to the national government. The share of domestic VAT revenue reached 3.7 per cent of GDP in 2016, which was twice the share in 2008 (MOFEC, 2018). On the other hand, the average share of non-tax revenue from the total revenue and grants reaches at 14 percent in the year 2012-2017, which is lower than the 15.9 percent average contribution in the year 2006-2011. This reiterates that domestic revenue collected from non-tax sources, mainly generated from government fees and charges, contribute less to government finance in recent years. According to NBE (2017/18) this is attributed to decline in reimbursement and property sales, decline in government investment income such as residual surplus, capital charge, interest payments and state dividend in the last few years among others. In contrast, average share of grants from the total public revenue decreases from 21.6 percent in the year 2006-2011 to 6.8 percent in the year 2012-2017. According to IMF (2017), the MOFEC issued a directive establishing strict controls on contracting of new loan by state-owned enterprises (SOEs) and oversaw a prudent implementation of the budget in order to cut import-intensive investment projects.

Table 1.1: Trend of Tax Revenue, Non-Tax Revenue and Grants in Ethiopia (In Billion Birr)

Revenue Sources	Year		
	2000-2005	2006-2011	2012-2017
Tax Revenue	8.82	31.1	148.5
Non-Tax Revenue	3.06	7.94	26
Total Revenue	11.88	39.04	174.5
Grants	3.28	10.76	12.72
Total Revenue including Grants	15.17	49.8	187.2
GDP	77.19	295.45	1228
Share of Tax Revenue (%) from Total Revenue including Grants	58.1	62.4	79.3
Share of non-tax revenue (%) from Revenue including Grants	20.2	15.9	14
GDP Share of Tax Revenue (%)	11.4	10.5	12.09

Source: Own Computation from NBE Data (2018/19)

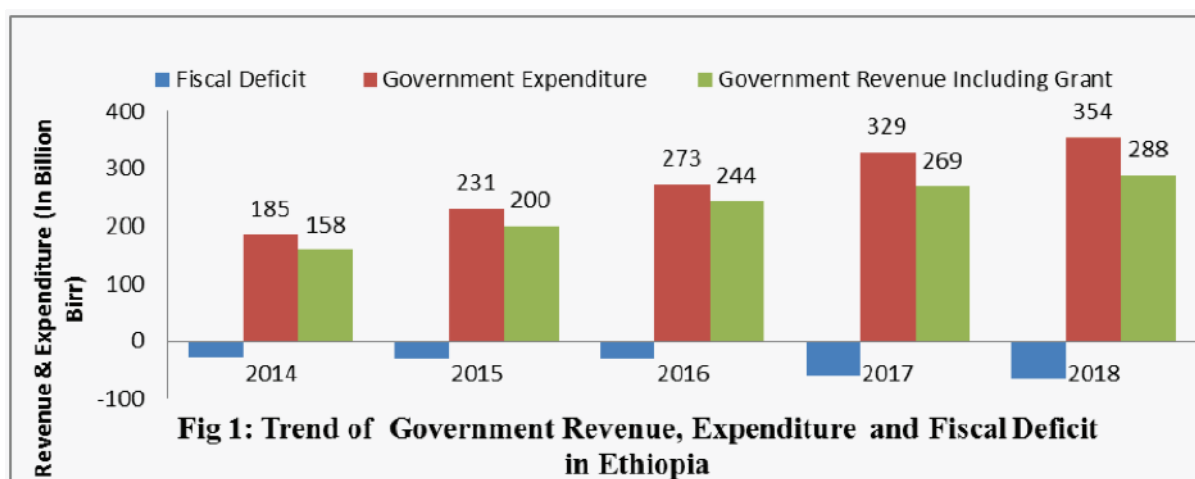
1.3.5. Trends in Government Revenue and Expenditure Performance

The government is spending more than it makes. As shown in figure 2 below, the government expenditure has increased from ETB 185 billion in 2014 to 354 billion in 2018. The government expenditure shows an increment of more than 90 % in the year 2018 as compared to the

expenditure in the year 2014. Similarly, government revenue increases over time in both domestic and external revenue sources. The total revenue (including grants) increased significantly in absolute values from ETB 158 billion in 2014 to ETB 288 billion in 2018 which was 85 percent of the annual budget. The public fiscal deficit is also increased by more than 140 % (from ETB 27 billion to ETB 67 billion) in the same year. During 2018, the overall fiscal operation of the general government resulted in a deficit of Birr 67 billion which was greater than Birr 60.1 billion (including grants) recorded in last year 2017.

The relative increase in government expenditure that has been witnessed in recent years is attributed to rising spending on pro-poor and growth enhancing sectors. According to UNICEF (2017), over 70 percent of the national expenditure is allocated to poverty reduction activities through financing pro-poor sectors namely health, roads, education, water and energy projects as well as agriculture and food security (with approximately half of the agriculture budget allocated to the PSNP) among others. Hence, the ratio of total government revenue to GDP remained flat while the ratio of expenditure to GDP ratio increased in the last decade, leaving Ethiopian government with no option but to rely on deficit financing through domestic and external borrowing.

Figure 1.1: Trend of Government Revenue, Expenditure and Fiscal Deficit in Ethiopia



Source: NBE (2018)

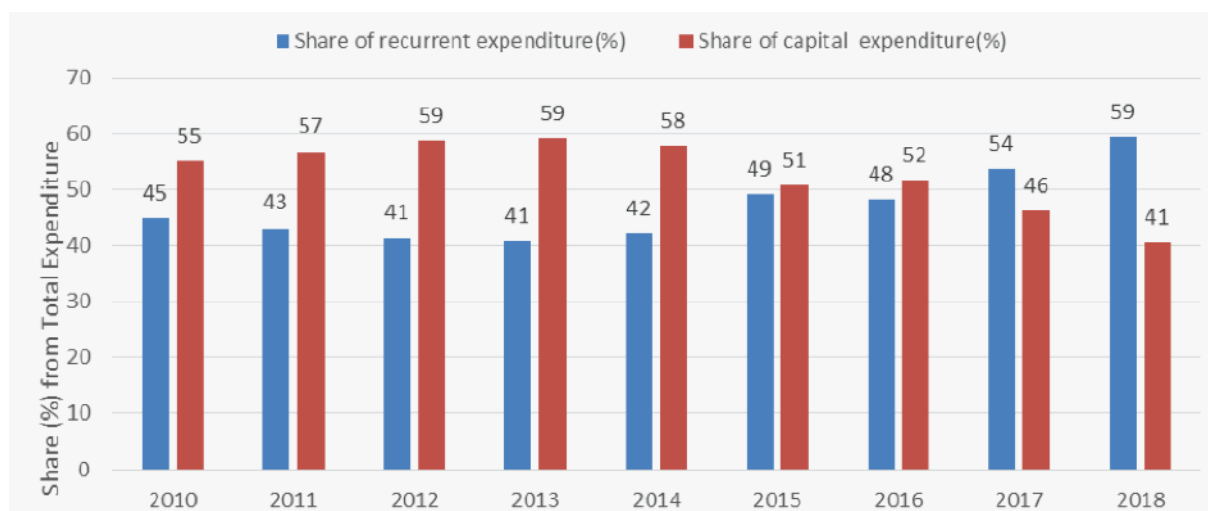
1.3.6. Expenditure by Component: Capital Versus Recurrent

The total government expenditure comprises capital and recurrent components. The recurrent government expenditure consists of wages and salaries, interest payment on loans, subsidies and transfers among others. The capital expenditure contains public expenditure on infrastructure and fixed assets. As shown in the figure 2 below, from the 2010-2018 the average share of capital and recurrent expenditure from total public expenditure reaches at 53 % and 47% respectively. National capital expenditure is much larger than recurrent expenditure until the year 2016. This is mainly attributed to the increase in level of public investment in an effort to address the infrastructure gap mainly in highways, universities, power generation and dissemination, natural resources development and food security, which are implemented throughout the country (GTP). Moreover, regional governments are primarily undertaking recurrent expenditures, leaving more responsibility for federal Government to finance large countrywide capital projects. According to MOFEC (2017) the share of road construction in general government expenditure ranges from 14.5 per cent in 2007 to 16 per cent in 2016. Moreover, two major shifts in the national expenditure patterns have been observed in the last decade. These include: a reallocation of national expenditure from federal to regional governments, and from recurrent to capital spending until 2016.

Capital spending constitutes a large share of general Government spending, accounting for 46.4% in 2017, but this share decreased from 59% in 2013, consistent with the phased implementation of import-intensive public infrastructure investments (African Economic Outlook, 2018).

According to NBE (2018) from 2017 onwards, total general government expenditure shows an increment which arises from the increase in recurrent expenditure stood at Birr 210.5 billion in 2018 and its share in total expenditure became 59.4 percent. The rise in recurrent spending also reflects the increased allocation to the poverty reduction sectors. Despite recent progress, domestic revenue mobilization remains relatively low. The country is therefore heavily dependent on domestic borrowing and foreign sources such as FDI, remittances, official development assistance, and external debt for financing of the budget deficit.

Figure 1.2: Trend of Expenditure Composition



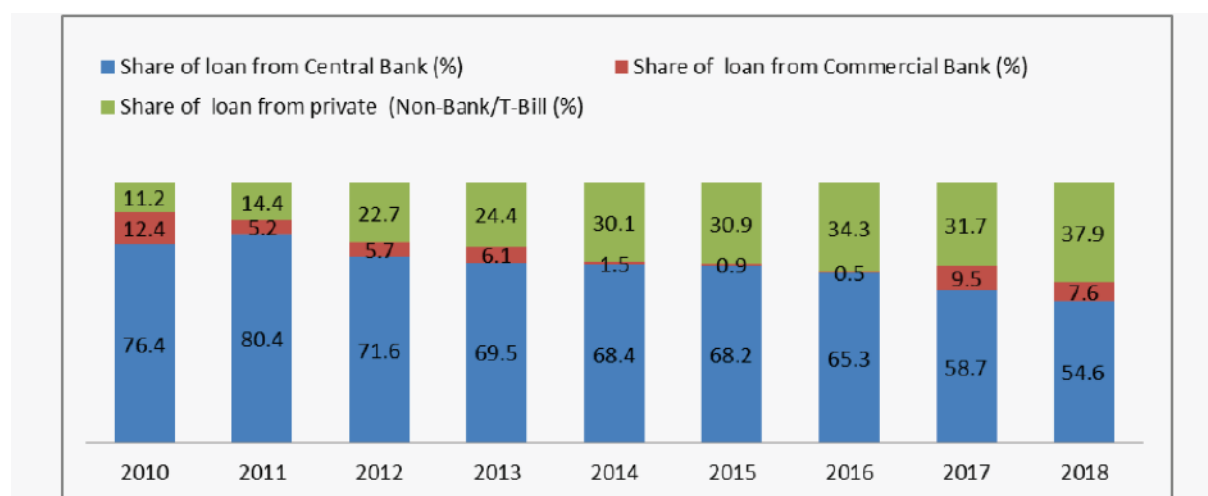
1.3.7. Composition of Domestic Public Borrowing and External Debt

The overall government budget is financed from domestic and external sources with the latter consisting of borrowing and assistances in the form of grants from bilateral and multilateral development partners. The total government domestic debt comprises of instruments such as treasury bills, government bonds for Central Government and loan from Commercial Banks among others. As shown in the figure below, the share of National Bank loan from central government domestic debt was 69.5 % in 2013.

However, during subsequent years its share has continuously declined reaching 53.2 % of the central government domestic debt and 25 % of the total domestic debt in 2018. The share of commercial bank loan to the central government also shows a continuously declining trend throughout the period under consideration.

In contrast, the share of government borrowing from private (Treasury Bills and direct advance) government insurances companies and other non- financial public enterprises shows tremendous increase from 11.2 percent in 2010 to 37.9 percent in 2018. Out of the total government borrowing in 2017, Central bank and Private Treasury bill suppliers held 58.7 % and 31.7 % respectively while borrowing from commercial banks held the remaining 9.5 %. Overall, the share of domestic financing has shown an increasing trend during the GTP I period.

Figure 1.3: Composition of Central Government Borrowing



Source: Own Computation from NBE Data (2018/19)

The total public and publicly guaranteed debt for FY 2017/18 rose to 49.8% (in NP terms) GDP of which 25.5% is external and 24.3% domestic. When we looked at the past five years trends in detail total public debt outstanding (external and domestic), which was USD 26,357.67 million in 2013/14 has significantly increased to USD 49,361.60 million (1.35 trillion ETB) in 2017/18. In the last five years the volume of debt stock increased by 87.3%. The major reason for this increment in the stock of public debt was an increase in disbursement from both external and domestic sources. The average increment of total public sector debt during the observation period was 17.2% per annum the highest increment being recorded in 2014/15 where the Eurobond was issued and the highest disbursement recorded from non-concessional external sources for SOEs to finance the mega infrastructure projects. The exchange rate variation between 2013/14 and 2017/18 also have an impact on the change of stock of total public debt among the periods. The table below sets out the composition of the total debt for the period 2014/15-2017/2018.

Table 1.2: Composition of the Total Debt for the Period 2014/15-2017/2018

	2013/14		2014/15		2015/16		2016/17		2017/18	
	USD	%	USD	%	USD	%	USD	%	USD	%
Total Public Debt	28,357.68	100.00	34,066.88	100.00	39,310.62	100.00	46,797.01	100.00	48,381.80	100.00
External Debt Total	14,034.78	63.25	18,838.23	54.72	21,342.44	54.28	23,421.04	51.14	26,808.80	52.48
Central Government	8,388.30	31.82	8,883.84	29.32	11,680.45	29.45	12,880.32	28.34	14,742.12	29.87
State Owned Enterprises	5,848.48	21.42	8,862.29	26.41	9,781.89	24.83	10,440.72	22.80	11,168.48	22.82
Domestic Debt Total	12,322.91	48.75	15,418.73	46.28	17,888.18	45.71	22,376.87	48.88	23,453.00	47.61
Central Government	5,488.73	20.83	8,871.87	18.68	7,871.06	19.61	10,318.88	22.63	11,037.88	22.28

State Owned Enterprises	6,833.18	26.82	8,747.78	26.88	10,297.13	26.18	12,058.08	28.33	12,416.01	25.16
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Domestic Debt: The total domestic debt comprises of five instruments namely; direct advance, treasury bills, government bonds for central government and corporate bonds, long term and short-term loans for SOEs. Government uses direct advance and Treasury Bills to fill the budget gap. It is important to note that domestic debt market is not well developed and as a result Direct Advance (DA) which is the National Bank of Ethiopia overdraft facility that the government is used as a residual to fill the budget gap. The uses of direct advance become reasonable when government is not able to sell enough Treasury Bill because of low demand, to fill the budget financing gap. Treasury Bills are sold through auctions, and do have four different maturities: 28 days, 91 days, 182 days and 364 days.

The government usually issues Government Bonds when there is a need to convert short-term borrowings of Central Government and bad debts owed by public enterprises into long-term instruments. Most of the Government Bonds are non-interest bearing. SOEs issue corporate bonds mostly to CBE to finance mega projects and borrow also long term and short-term loans contracted from CBE and DBE.

Total domestic debt, comprising of the above three instruments of Central government and bonds and loans of SOE's, has shown an average increase of 27.7% per annum and has rose from its level of ETB 241,246.94 million in 2013/14 to ETB 639,377.99 million in 2017/18. The relative share of the stock of central government bonds, compared to other instruments, has declined up to 2015/16 and shows tremendous increases in 2016/17. This is mainly attributed to the issuance of new government bond to increase the capital of Commercial Bank of Ethiopia and Development Bank of Ethiopia. On the other hand, the relative share of the stocks of Treasury Bills, Direct Advance and SOEs bonds & loans shows an average growth rate of 27 %, 24 %, and 26 % respectively. The total stock of domestic debt increased more than 160% over the observation period.

1.3.8. Evolution of the Ethiopian Debt-to-GDP Ratio

Ethiopia recorded a government debt equivalent to 60 percent of the country's Gross Domestic Product in 2018. Government Debt to GDP in Ethiopia averaged 34.57 percent from 1991 until 2018, reaching an all-time high of 60 percent in 2018 and a record low of 24.70 percent in 1997.

In the year 2016, public debt was 39.7 billion dollars and increased by 5.3 billion since 2015. This amount implies that the GDP share of Debt in 2015 was 54.52 % and increased to 56.06% in the year 2016. As we can see from the table below, the evolution of debt shows rising trend in absolute terms since the year 2010 which was 12.1 billion (40.5% of the GDP) to 39.9 billion in the year 2016 (56.06% of the GDP). Moreover, the per capita debt of the country was 139 dollars in the year 2006 which increases to 383 dollars in the year 2015. In the year 2016, the per capita debt of Ethiopia rises to 439 dollars. In 2016, in terms of share of debt to GDP, Ethiopia is ranked at 109 out of 186 countries and the country took 29th position in terms of debt per capita. This evolution of the external debt comes as a result of the low levels of financial sector development, the dysfunctions of the domestic economy, the low level of competition across sectors, absence of regulation in state borrowing and the need to obtain foreign currency to finance the balance of payments, among others.

Table 1.3: Evolution of Public Debt in Ethiopia

Year	Debt (Billion USD)	Debt (%GDP)	Debt Per capita (\$)
2016	39.7	56.06	436
2015	34.4	54.5	383
2014	25.9	47.8	293
2013	22.1	47.5	254
2012	17.8	42.2	208
2011	14.5	45.3	172
2010	12.1	40.5	146

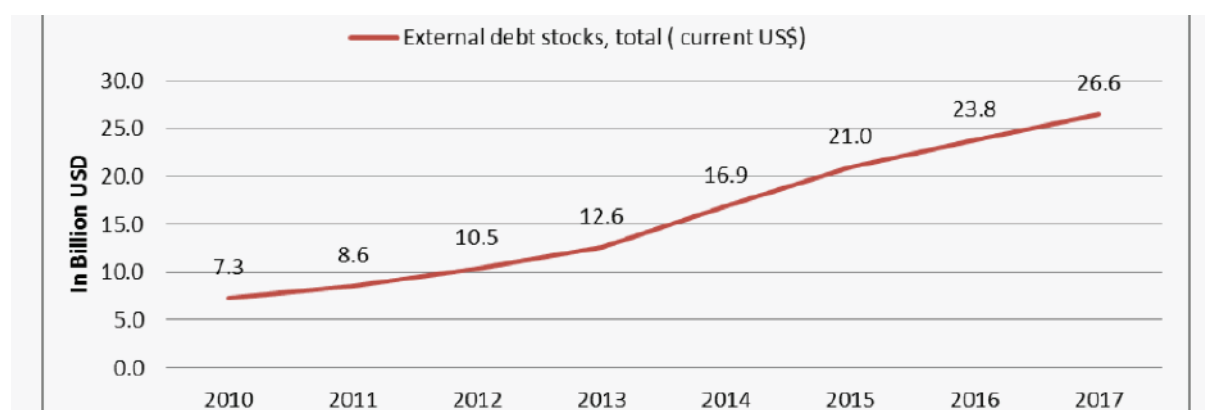
Source: IMF (2018)

1.3.9. Composition and Trend of External Debt

Ethiopia has relied on concessional debt, particularly external loans from multilateral partners and official bilateral creditors, and commercial loans from non-traditional creditors such as China to finance its infrastructure projects. Reliance on external borrowing is not sustainable, especially given Ethiopia's high risk of external debt distress. As shown in the figure 4 below, Ethiopia's external debt stock shows a continuous increment since 2010 and reached USD 26.6 billion in 2017. According to UNDP (2018), the increase in external debt stock in 2017 is partly attributable to larger than planned net resource flows resulting from new external project loans disbursements from IDA, Exim-Bank of China, as well as borrowings by SOE's from commercial and suppliers' creditors during the year indicated.

Between 2013/14 and 2017/18, the relative share of multilateral creditors has slightly declined while the relative share of bilateral and private creditors increased. Currently, out of the total external debt, creditors from China take the top share followed by IDA as the major creditors, with 34% and 30% of the total external debt outstanding owed to those creditors respectively. When we looked at the past five years trends in detail, total public debt outstanding (external and domestic) has significantly increased.

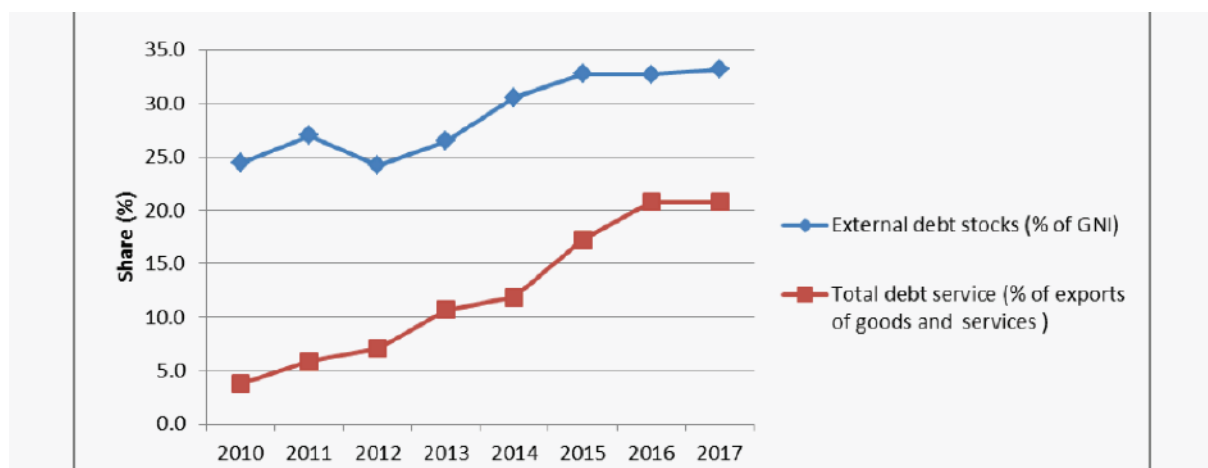
In the last five years the volume of debt stock increased by 87.3%. The major reason for this increment in the stock of public debt was an increase in disbursement from both external and domestic sources (IMF, 2018).

Figure 1.4: Trend of Total External Debt Stocks in Ethiopia

Source: WDI and IMF Database (2019)

As shown in the figure 6 below, the general trend in debt service payment also shows significant increment throughout the observation period. The country’s external debt stock to GNI ratio stood at 33.2 percent in the year 2017. The country’s external debt burden as measured by debt services to export of goods and non-factor services ratio marginally increased to 20.8 percent in 2017 from 17.2 percent in the year 2015. During the year 2017 principal payment was USD 72% while the payment for interest and commission was 28 percent. As a result of the ETB devaluation against USD in October 2017, the external debt service in terms of ETB has risen significantly. Debt service payments are expected to increase in the coming years as grace periods on non-concessional debt acquired in the past expire. In relation to this, the MOFEC has announced that no new projects will be financed with non-concessional debt in 2017 (MOFEC, 2018).

Figure 1.5: Trends in the Share of Debt Stock and Debt Service

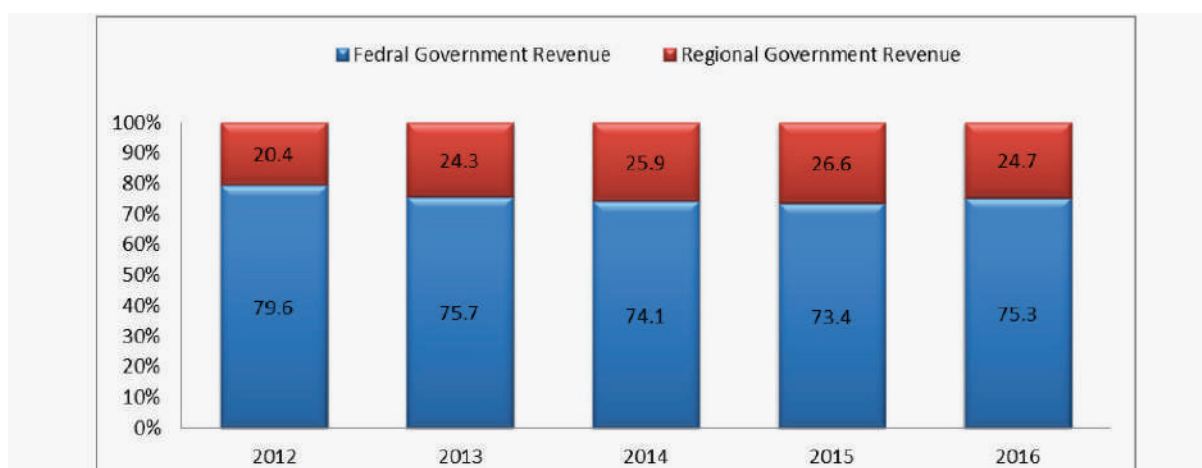


Source: WDI and IMF Database (2019)

1.3.10. Fiscal Federalism and Public Budget Deficit in Ethiopia

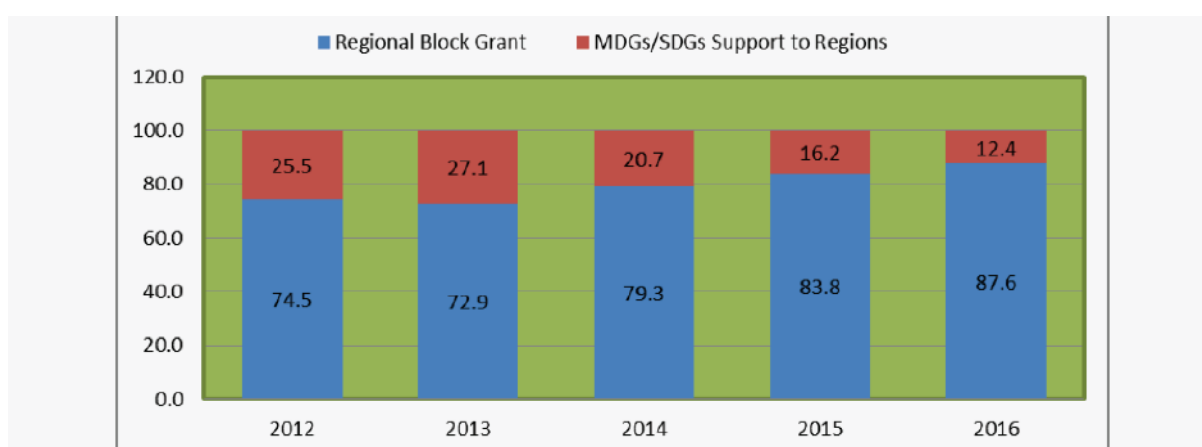
The Constitution stipulates the powers and functions of the Federal Government and that of the States in Article 51 and 52, respectively. One of the outcomes of these assignments of functions to the Federal and State governments is Fiscal federalism where the constitution assigned different responsibilities and functions to the federal and regional governments. The responsibilities and functions regarding the financial expenditures are stated in Article 94 of the constitution. For instance, Article 94 (1) states that “the federal government and the states shall respectively bear all financial expenditures necessary to carry out all responsibilities and functions assigned to them by the law.”The responsibilities and functions of tax collection for the federal government and regional governments are, respectively, specified in Articles 96 and 97 while concurrent tax collections are stated in article 98. Fiscal decentralization and enhancement of local governance are a priority for the GoE. As a result, federal transfers to regional governments have more than doubled over a three-year period.

The regional governments are entitled to collect their own revenue in their respective regions from agricultural income tax, land use fee, payroll tax, business income tax, Turnover tax (TOT). As shown in the figure 6 below, the share of revenue generated by the regional governments from the total domestic revenue (tax and non-tax revenue) is gradually increasing over time from 20.4 percent in 2012 to 26.6 percent in the year 2015. This in turn increases the share of regional governments in national recurrent expenditure higher than the share of the federal government. While the federal Government collects the lion’s share of the national revenue (averaging 76 per cent for the last decade). Regional governments are primarily undertaking recurrent expenditures, leaving more responsibility for federal Government to finance large countrywide capital projects.

Figure 1.6: Federal and Regional Government's Revenue (% of total Domestic Revenue)

Source: Ministry of Finance and Economic Cooperation (2017/18)

In 2016, the total federal budget has been allocated towards finance road construction and federal recurrent expenditures. ETB 96.8 billion is allocated for block grants (or subsidies) and supporting the achievement towards the Sustainable Development Goals (SDGs) in regions. Out of which, ETB 84.8 billion (87.6 percent) is allocated to regional block grants which is an increase from ETB 43.7 billion birr in 2012 that shows an increment of 94 percent and indicating the government's commitment to decentralization and devolving fiscal decision making to lower tiers of government. As shown in the figure below, the declining trend in the regional transfers earmarked for supporting the SDGs in the regions is believed to be compensated by the steady and substantial rise in block grants being transferred to regional governments.

Figure 1.7: Trend of Federal Government Support to Regions (%)

1.3.11. External Debt Disbursement by Major Creditors

Out of the total disbursement during the fiscal year of 2017/18, USD 1,434.33 million (41%) was from multilaterals sources while USD 702.03 million (20%) was from bilateral creditors with the balance 39% coming from commercial banks and suppliers. During 2017/18 the largest disbursement was obtained from IDA and creditors from China making up 33 % and 17 % of total external debt disbursement respectively.

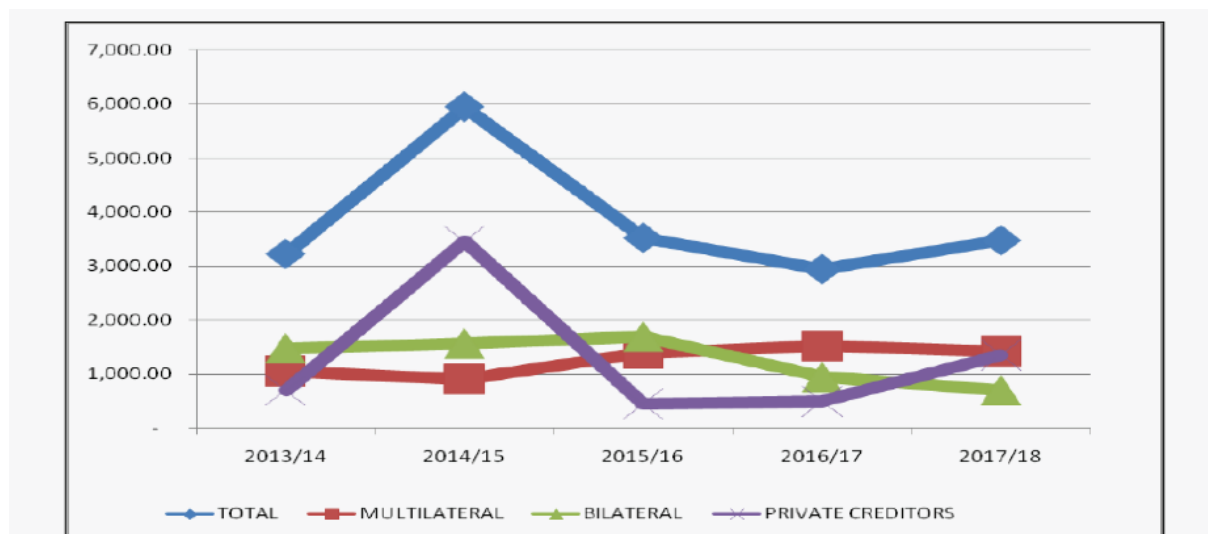


Figure 1.8: External Debt Disbursement by Major Creditors

1.3.12. Disbursement by Economic Sector

As shown below, in the last five-year period the largest proportion of the disbursed resource was allocated to highway and railway transport infrastructure (30.9%) followed by electricity gas and steam (17.8%), air transport and telecommunication, disbursement to Ethio-telecom and EAL (16.8%) sector, the major being sugar sector (12.41%), agriculture 8.7% and basic services (5.1%). This shows that the external resource inflow allocation mainly for the development of infrastructure so as to enhancing expansion and ensuring quality of the infrastructural capital of the country as stipulated in both GTP I and II.

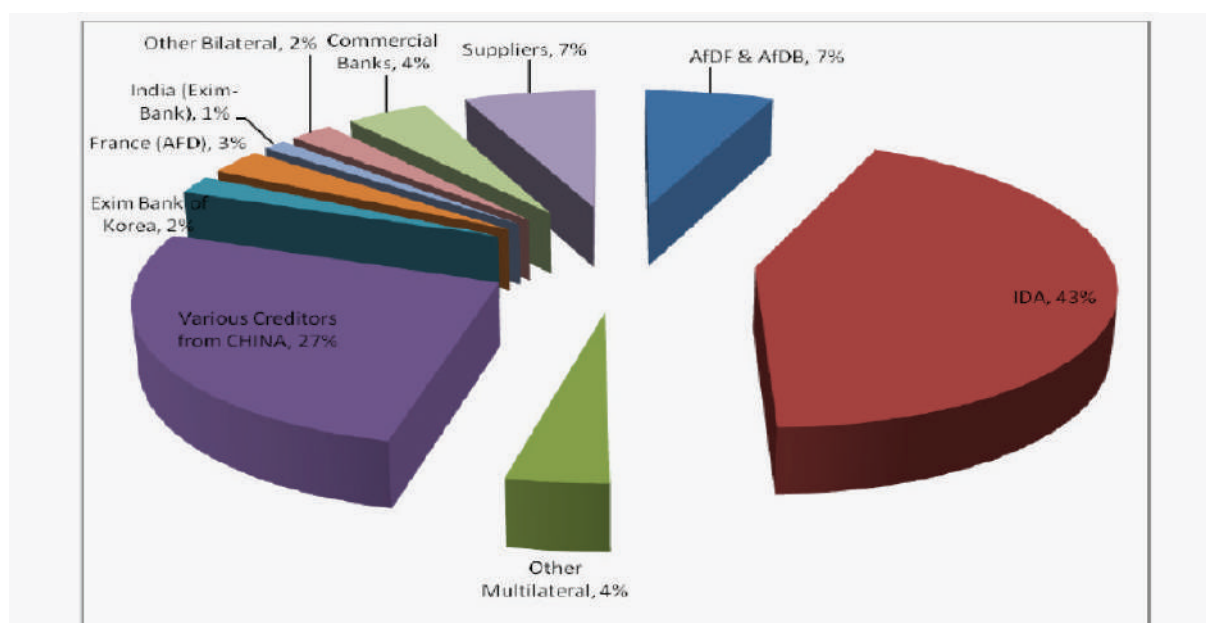
Table 1.4: Disbursement by Economic Sector

Economic Sector	2013/14		2014/15		2015/16		2016/17		2017/18	
	USD	%	USD	%	USD	%	USD	%	USD	%
Total	3,226.34	100	5,945.26	100	3,523.73	100	2,946.40	100	3,510.95	100
Agriculture	292.19	9.06	109.60	1.6	502.42	14.26	519.76	17.64	237.80	6.77
Financial Sector	6.95	0.22	0	0	30.0	0.85	-	-	-	-
Transport & Communication	806.19	24.99	1,428.69	49.31	138.45	3.93	272.48	9.25	581.43	16.56
Highway & Railway Transport-Infrastructure	980.04	30.38	1,784.83	5.54	1,597.77	45.34	823.51	27.95	731.72	20.84
Electricity, Gas & Steam	457.57	14.18	951.37	17.25	509.73	14.47	504.47	17.12	993.74	28.30
Industry & Tourism	159.26	4.94	1,142.41	17.93	387.53	11.00	422.99	14.36	255.82	7.29
Education & Capacity Building	58.13	1.80	15.13	0.24	27.47	0.78	106.93	3.63	134.44	3.83
Health	6.87	0.21	26.72	0.42	5.40	0.15	6.55	0.22	74.58	2.12
Public and Social Admin	91.83	2.85	170.28	2.67	90.65	2.57	104.39	3.54	120.42	3.43
Water Work & Supply	82.78	2.57	80.96	1.51	121.96	3.46	94.09	3.19	125.35	3.57
PBS	284.54	8.82	225.46	3.54	112.36	3.19	91.25	3.10	255.63	7.28

1.3.13. External Debt and Undisbursed Balances

As at the end of June 2018, the undisbursed balance from external loan commitments was USD 9,939.29 million of which IDA and AfDB have very large undisbursed balances, amounting to USD 4,275.88 million (43 %) and USD 663.51 million (7%), respectively. Undisbursed amount from different Chinese Banks including Exim-Bank China, CDB, ICBC and Government of China is the second highest and was about USD 2,651.26 million (27.37%). The accumulation of undisbursed balance for creditors such as AfDB, Exim-Bank of China, Exim-Bank of India, Exim-Bank of Korea and AFD needs strict follow up because the delay of projects financed by these creditors may entail extra commitment fee payments.

Figure 1 9: External Debt and Undisbursed Balances



1.3.14. Balance of Payment: Trade Balance and Capital Account

During 2017/18, total merchandise export earnings reached USD 2.8 billion, showing 2.3% decrease compared to last year same period owing to fall in earnings from export of goods. The net service export for 2017/18 stood at USD 309.7 million in deficit compared to USD 546.9 million deficits a year ago. This narrow deficit was mainly because of the development in net travel from deficit to surplus, the decline in deficit of other services deficit, together with the increase in surplus of net transport services. Net private transfers increased by 11.1% amounting to USD 6.1 billion as a result of 16.1 percent increase in transfers to private individuals' despite 9.9% decline in net transfers to NGOs. Foreign exchange earnings from individual private transfers covered 41.4% of the trade deficit recorded during 2017/18 FY compared to 34.3% during last year. Meanwhile, relative to last year same period, net official transfers decreased by 21% from USD 1.4 billion to USD 1.1 billion. The 2017/18 current account deficit (including official transfers) amounted to USD 5.5 billion, lower than USD 6.5 billion same period a year earlier mainly owing to increase in net private transfers, improvement in deficit of net services and merchandise trade deficits despite decline in net official transfers. The net capital inflow in 2017/18 was USD 6.2 billion, 8.8% lower than the USD 6.8 billion recorded a year ago. Foreign direct investment, relative to last year, decreased by 10.7% reaching USD 3.7 billion from USD 4.2 billion while inflows of private long-term capital decreased by 50.1%. On the other hand, net official long-term capital and net other public long-term capital rose by 14.1% and 20.2% respectively. As a result, the overall balance of payments deficit during the 2017/18 stood at USD 201.6 million compared to the USD 658.6 million surpluses recorded last year (in million USD).

Table 1.5: Balance of Payment

NO.	Particulars	2015/16	2016/17	2017/18	Percentage	Change
		A	B	C	B/A	C/B
1	Exports	2,867.7	2,907.5	2,839.8	1.4	-2.3
	Coffee	722.7	883.2	839.0	22.2	-5.0
	Others	2,145.0	2,024.3	2,000.8	-5.6	-1.2
2	Imports	16,725.2	15,802.6	15,253.4	-5.5	-3.5
	Fuel	1,399.0	1,823.6	2,317.3	36.2	27.1
	Cereals	1,032.7	554.1	771.7	-46.3	39.3
	Aircraft	162.9	150.3	282.3	-7.7	87.8
	Imports excl. fuel, Cereals, aircraft	14,190.6	13,274.5	11,882.1	-6.5	-10.5
	Trade Balance (1-2)	-13,857.5	-12,895.1	-12,413.5	-6.9	-3.7
4	Services, net	-621.5	-557.6	-140.2	-10.3	-74.9
	Non- factor services, net	-245.3	-61.3	237.1	-75.0	-486.5
	Exports of non- factor services	3,196.4	3,331.1	4,219.5	4.2	26.7
	Imports of non- factor services	3,441.8	3,392.5	3,982.5	-1.4	17.4
	Income, net	-376.1	-496.3	-377.3	31.9	-24.0
	O/W others official int. payment	377.2	465.9	417.5	23.5	-10.4
	Dividend, net	-12.1	-48.9	-0.1	303.7	-99.9
5	Private transfers, net	6,428.6	5,485.3	6,479.0	-14.7	10.7
	O/W: Private Individuals	4,420.3	4,427.5	5,121.4	0.2	15.7
6	Current account balance excluding off. Transfers (3+4+5)	-8050.41	-7,967.5	-6,470.0	-1.0	-18.7
7	Official Transfers, net	1,391.1	1,428.3	1,226.3	2.7	-14.1
8	Current account balance including office transfers (6+7)	-6,659.3	-6,539.1	-5,252.6	-1.8	-19.7
9	Capital account	6,577.7	6,895.1	6,397.4	4.8	-7.2
	Off. Long-term Cap, net	1,631.4	1,418.0	1,631.6	-13.1	15.1
	Disbursements	1,733.8	1,534.5	1,794.7	-11.5	17.0
	Amortization	102.4	116.6	163.1	13.8	39.9
	Another Pub. Long-term Cap	1,116.8	673.5	937.0	-39.7	39.1
	Private sector, long term	450.8	502.8	250.7	11.5	-50.1
	Foreign Direct Investment (net)	3,268.69	4,170.80	3,723.44	27.60	-10.7
	Short term capital	110.0	130.0	-145.2	18.2	-211.7
10	Errors and omissions	-749.3	302.7	-1,346.4	-	-
11	Overall balance (8+9+10)	-830.9	658.6	-201.6	-	-
12	Financing	830.9	-658.6	201.6	-	-
13	Reserve [Increase (-) Decreased (+)]	890.9	-658.6	201.6	-	-
14	Central Bank (NPA)	975.6	-555.7	-17.3	-	-
	Asset	-152.6	204.7	349.8	-	-
	Liabilities	1,128.2	-760.4	-367.1	-	-
15	Commercial banks (NPA)	-144.7	-103.0	218.9	-	-

NO.	Particulars	2015/16	2016/17	2017/18	Percentage	Change
		A	B	C	B/A	C/B
16	Debt Relief	-	-	-	-	-
	Principal	-	-	-	-	-
	Interest	-	-	-	-	-

1.3.15. Illegal Outflow

The concept of illicit financial flows (IFFs) has become popular in the international development community. It is often used as an umbrella term to bring together previously disconnected issues (World Bank 2017). Although the term emerged in the 1990s and was initially associated with the notion of capital flight, it has evolved into a concept that captures the cross-border movement of capital associated with illegal activities or, as defined by Global Financial Integrity (GFI): funds crossing borders, which are illegally earned, transferred, and/or utilized (Global Financial Integrity 2015). Illicit financial flows (IFFs) have become a major concern globally, especially in recent years. Ethiopia is not an exception in this regard. The existing literature on IFFs suggests that these flows generally stem from money laundering, bribery by international companies, tax evasion and trade mis-pricing/mis-invoicing.

According to GFI's estimations, between 2005 and 2014, an estimated average of US\$1,259 million to US\$3,153 million left Ethiopia as IFFs every year. IFFs in Ethiopia have led to an average loss in GDP growth of 2.2% per year. Data from Global Financial Integrity shows that between 55 and 80% of the illicit financial outflows leaving Ethiopia originate through trade mis-invoicing. Ethiopia's response to curb IFFs has been largely based on a legal approach, which has proven difficult to implement in practice.

This figure accounts for up to 29% of the country's total international trade or 97% of the total aid inflows. There are a variety of reasons for capital flight from Ethiopia, including political reasons, decline in economic stability or stricter capital regulation. However, the most prominent causes in Ethiopia are related to the informal sector, crime, trade mis-invoicing and tax evasion.

1.4. Time Series Econometric Analysis to identify the driving forces

High public debt and large fiscal deficit is common feature among countries in Sub Saharan Africa. As the states have limited capacity to generate revenue, they are forced to resort to borrowing to meet their fiscal deficit. Higher fiscal deficit causes the higher incidence of indebtedness. A growing debt ratio implies that public expenditure is excessively devoted to unproductive spending primarily because of inefficient fiscal management of the state governments (Cukierman and Meltzer, 1989).

The existing literature on public debt determinant shows that the factors that can affect public debt are macroeconomic, political, institutional and structural variables. Economic factors such as economic growth, inflation, debt service payment, budget deficit, public spending, credibility of monetary policy and degree of openness can influence the trajectory of public debt (Imbeau and Pétry, 2004). Similarly, according to Sinha et al. (2011) and Swamy (2015) economic growth, inflation, financial sector development and the level of FDI are main indicators that impact the size of sovereign debt.

The level of political instability, corruption and quality of the bureaucracy has also a great impact on the public debt level (Lavigne, 2011). According to Cooray et al. (2016), higher level of corruption leads to the accumulation of larger public debt. The growth of public debt can

also be stimulated by structural factors such as level unemployment and proportion of aging population which puts strong upward pressure on public expenditure which in turn boosts public debt. According to Veiga and Veiga (2014) higher unemployment rates generate higher debt.

1.4.1. Model Specification and Definition of Variables

Following the works of Belhuith and Omrane (2017) and Matitti (2013) the model for determinants of public debt is extended as:

$$PDB = f(RGDP, INFL, INFR, GEXP, OPEN, INFRA, ADR, PS)$$

PDB = Public Debt (Total of Domestic and external Debt) expressed as % of GDP)

RGDP: Real GDP growth (annual %) Annual percentage growth rate of GDP

INFL: Inflation is measured by consumer price index (%) as measure of macroeconomic

Imbalance

GEXP= Government Expenditure as a share of GDP (%) is measure of macroeconomic consumption

OPEN = Trade Openness measured by (X+M) as share of GDP (%) is measure of macroeconomic openness

INFRA: infrastructure development in this study is measured by the fixed telephone subscriptions per 100 people (Nguyen, 2015)

ADR = Age Dependency Ratio

PS= Political Instability or Corruption Index

1.4.2. Tests in Time Series Econometrics

i. Stationarity Test

All time-series data must be stationary, meaning constant mean and variance over time, in the regression model. Otherwise, the regression result becomes spurious. This paper uses Dickey-Fuller test for unit root and all variables are non-stationary at level form (before making the data at first difference form). All of them are stationary at first difference form (Annex 5).

ii. Selection and Determination of Lags Order Criteria

Before selecting the lag length, two situations should be identified. First, the too short lag length in the VAR may not capture the dynamic behavior of the variables (Chen and Patel 1988). Thus, the optimal lag length would be selected by the smallest lag shown under the criteria. Second, DeJong et al. (1992) points out that too long lag length will distort the data and lead to a decrease in power of explaining the dynamic behavior of the variable. One of the most common practices in the system of equations is to select the optimal lagged term using some criteria such as Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SBIC), Bayesian Information Criterion (BIC), and Hannan-Quinn Information Criterion (HQIC). Therefore, they indicate a lag length of 3 to be considered in the model for having well defined co-integration vector to the interest of satisfying post estimation tests (Annex 5).

iii. Johansen Tests for Co-Integration

In order to check whether there is co-integration or long-run relationship among variables, it is common to apply the Johansen tests based on the co-integration rank that shows the number of co-integrating vectors (Johansen 1988). The co-integration analysis also provides a framework

for estimation, inference, and interpretation when each variable is not stationary individually while has a stationary linear relationship together. If there is a stationary linear combination of non-stationary variables, the variables combined are said to be co-integrated. The best way of testing co-integration is by using the system Maximum Likelihood (ML) estimator of Johansen test.

As the rule of thumb, as the log-likelihood of the unconstrained model with the co-integrating equations is significantly different from the log-likelihood of the constrained model that excluded the co-integrating equations, we reject the null hypothesis of no co-integration. Besides, the above result shows that the trace statistic value (2.9821) is less than the critical value (3.76) as moving from the rank zero in ascending order. This leads to accept 7 co-integration equations. However, taking one vector is appropriate given the size of sample and post estimation tests, claiming the Vector Error Correction Model (VECM) in order to evaluate both long-run and short-run relationships (Annex 5).

1.4.3. Long run Dynamics

The Vector Error Correction Model (VECM) is a special case of the VAR for variables that are stationary in their first differences after considering any co-integrating relationships. The focus of this paper is the long-run response of public debt due to changes in the driving forces over the period of 1981-2018.

According to the cointegrating equation presented below, the long run relationship indicates that high real GDP growth, openness of the economy to the rest of the world and, infrastructural development put a negative influence and reduces the level of debt. However, inflation rate, political instability, corruption index, government expenditure, and age dependency ratio may aggravate debt position of the country. Note that sign of coefficient is interpreted in reverse direction in the VECM time series model.

Table 1.6: Long Run Dynamics Equation

Cointegrating equations						
Equation	Parms	chi2	P>chi2			
__cel	7	1995.959	0.0000			
Identification: beta is exactly identified						
Johansen normalization restriction imposed						
beta	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
__cel						
lnpbd	1	.	.	.	.	.
rgdpp	.6595842	.086368	7.64	0.000	.490306	.8288625
lnopen	17.36166	1.127071	15.40	0.000	15.15264	19.57068
infl	-.3564984	.0260328	-13.69	0.000	-.4075217	-.3054751
lninfra	5.76587	.814188	7.08	0.000	4.170091	7.361649
ps	-5.115149	.2456559	-20.82	0.000	-5.596625	-4.633672
lngexp	-38.07191	2.751876	-13.83	0.000	-43.46549	-32.67833
lngadr	-438.4027	17.71544	-24.75	0.000	-473.1243	-403.681
__cons	823.4093	.	.	.	.	.

Theoretically, if a country has more income, it may not require external funding and reduce the chances of borrowing. On the other hand, a higher income is an indicator of credit worthiness and may get more loan, resulting higher borrowing and debt.

In this model, the coefficient of RGDP growth variable is negative and significant which shows that becoming the fastest growing economy reduce debt of the Ethiopian economy.

Trade Openness (*Open*) has a statistically significant negative association with debt, in line with our theoretical proposition of more open countries suffer less from balance sheets effects associated with external borrowing and open countries are more successful in attracting foreign investors into the domestic market which is the biggest factor behind reducing debt dependence of the economy (Calvo et al., 2003). Moreover, export-oriented trade policy of the country enhances the productivity of domestic firms as it facilitates learning through exporting and reduces the debt dependence of the country.

Government expenditure (*gexp*) has a positive and significant effect on public debt, a rise in public expenditures relative to revenues collected is likely to increase public debt. The aggressive investment of the Ethiopian government on mega projects and road infrastructure significantly influences the borrowing decisions of the government, which in turn affects the government debt level. As the government undertakes fixed capital formation activity for enabling speedier growth of economy, the extent of growth of gross fixed capital formation affects the level of government debt in Ethiopia.

The coefficient of political instability and corruption index (*ps*) shows positive and significant effect on public debt. This reiterates that the political instability observed in the last few years and the rampant corruption in the country highly increases the government expenditure and hence accumulation of external and domestic public debt. Roubini and Sachs (1989) also argue that political fragmentation is a potential cause of the presence of persistent deficits.

The infrastructural development (*Infra*) measured by the fixed telephone subscriptions per 100 people negatively influences the level of public debt in Ethiopia. In addition to its significant influence, the coefficient which shows the positive effect of age dependency ratio on public debt is correct stating that the rising number of aging populations in Ethiopia contributes to the growing debt burden through government subsidies and transfers.

1.4.4. Short Run Dynamics

Having a result on the long-run equilibrium dynamic relationships among variables, the short-run dynamic relationship should be the subsequent point of presentation. Given that there is a stable long-run relationship among the relevant variables, it is possible to estimate an error correction model that captures both the short-and long-run behavior. The changes in the relevant variables represent short-run coefficients, while the coefficient on the CointEq1 (error correction term) term represents the speed of adjustment towards the long-run equilibrium point.

The short-run estimates indicate that openness of the economy is consistent with the long run result and is statistically significant variable and negatively influences debt. As the theory predicts, the error correction term is negative and statistically significant. However, sign of political instability and corruption puts negative influence on debt in the short run, greasing the wheel, but in the long run it sands the wheel of growth.

The magnitude of ECM term should be interpreted in appropriate sense. There are two distinct thoughts. The rigid proponents believe that it should fall within a range of zero to negative one while the other says nothing wrong if it is less than negative one (Narayan Kumar, 2006). It is well known that the ECM coefficient theoretically is expected to be between -1 and 0. If there is positive ECM, the process is not converging in the long run attributed to model specification problems, data issues including structural break and the presence of autocorrelation. On the other hand, the value of ECM that falls between -1 and -2 indicates the existence of dampened fluctuation about the equilibrium instead of monotonically converging to the equilibrium path

directly. In short, the correction process fluctuates around the long-run value in a dampening manner. However, once this process is complete, convergence to the equilibrium path is rapid (Narayan Kumar et.al. 2006 and Norman et.al, 2005).

In our result, the speed of adjustment is statistically significant and it has a negative coefficient, meaning that there is monotonic convergence towards the long run equilibrium with a speed of 2.5 percent per annum when there is shock within the system of economy, which is very weak adjustment.

Table 1.7: Short Run Dynamics Equation

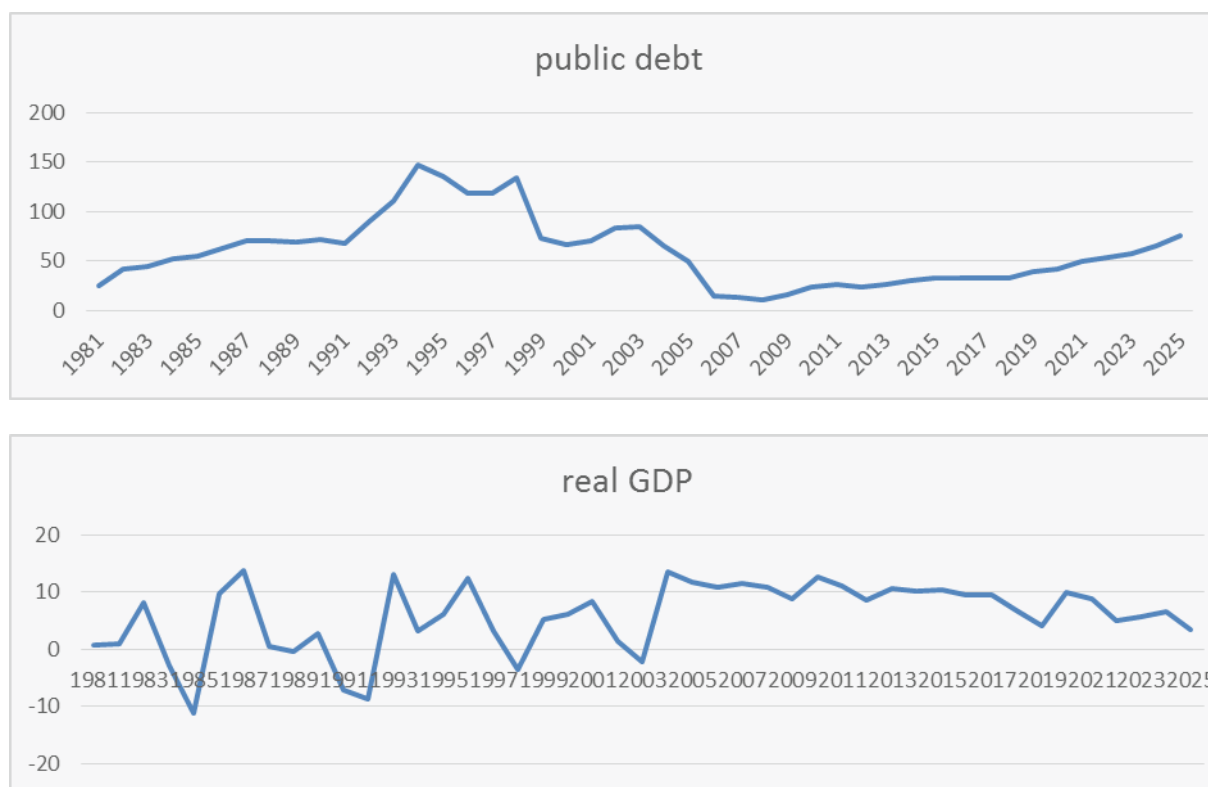
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
D_lnpbd						
_cel						
L1.	-.0253326	.0124908	-2.03	0.043	-.0498142	-.000851
lnpbd						
LD.	.0979919	.3108241	0.32	0.753	-.5112122	.7071959
L2D.	.5039783	.3289413	1.53	0.125	-.1407348	1.148691
rgdpp						
LD.	.0099814	.0108658	0.92	0.358	-.0113153	.031278
L2D.	.0151932	.0111464	1.36	0.173	-.0066533	.0370398
lnopen						
LD.	-.4411674	.4986778	-0.88	0.376	-1.418558	.5362232
L2D.	-1.189666	.4637792	-2.57	0.010	-2.098657	-.2806755
infl						
LD.	-.0050767	.007588	-0.67	0.503	-.019949	.0097955
L2D.	.0015421	.0061212	0.25	0.801	-.0104552	.0135394
lninfra						
LD.	-1.701671	1.140799	-1.49	0.136	-3.937597	.5342544
L2D.	.220432	1.097566	0.20	0.841	-1.930757	2.371621
ps						
LD.	-.1887429	.1141016	-1.65	0.098	-.412378	.0348922
L2D.	-.2090132	.1041531	-2.01	0.045	-.4131496	-.0048769
lngexp						
LD.	-.810928	.5579476	-1.45	0.146	-1.904485	.2826291
L2D.	.1185293	.3294021	0.36	0.719	-.527087	.7641455
lngadr						
LD.	-1.13803	12.33879	-0.09	0.927	-25.32161	23.04556
L2D.	-3.815285	12.07948	-0.32	0.752	-27.49062	19.86006
_cons	.0700503	.070037	1.00	0.317	-.0672197	.2073203

1.5. Key Indicator Forecast by 2025

1.5.1. Forecast Using Time Series Econometrics: Public Debt

It is expected that public Debt (Total of Domestic and External Debt) expressed as % of GDP will be increasing till 2025.

Figure 1.10: Forecast of Public Debt and Real GDP Using Time Series Econometrics



Our projection of the public debt, vis-à-vis the International Monetary Fund (IMF), is presented below. In both forecasts, the public debt of the country will keep steadily increasing but in a slightly different size. According to IMF, the debt constitutes nearly three fourth of the GDP by 2020 where as in our estimation it is slightly more than half.

Table 1.8: Comparison of Forecast of Public Debt using Time series Econometrics and IMF

Year	Debt per GDP by our projection	Debt per GDP by IMF projection
2019	40.1	53.6
2020	42.5	59.8
2021	50.5	66.4
2022	54.0	73.9
2023	58.0	
2024	66.0	
2025	75.5	

On top of this, the study uses CGE modelling to examine the effects of public resource allocation on KPI as a solution to increase productivity and lower external debt. Noting that public resource allocation can be one of the proposed solutions to narrow down the resource gap over time and enhance the ability of paying the loan extended from foreigners. To look into the details, this study applies dynamic CGE modelling to examine the effects of shifting public resources from unproductive administration sector to productive and efficient sectors of agriculture, manufacturing and infrastructure.

Table 1.9: Impacts of Change in Spending Composition on GDP and Per Capita Income by 2025

Indicators	Initial Values	Base-Run Scenario	Shifting public spending towards productive Sectors		
			Agriculture	Infrastructure	Industry
Annual Growth Rate					
GDP	7.00	7.09	7.36	7.99	7.63
Agriculture	6.41	4.09	5.14	4.01	4.15
Industry	6.00	6.44	6.71	6.98	8.65
Manufacturing	5.40	4.83	5.24	4.52	8.91
Service	7.82	8.78	8.88	9.97	9.00
Sectoral Contribution to GDP growth rate					
Agriculture	3.00	1.17	1.66	1.06	1.15
Industry	0.82	0.94	0.95	0.94	1.61
Manufacturing	0.26	0.25	0.26	0.19	0.75
Service	3.17	4.94	4.74	5.98	4.89
Per Capita Income, in 2006 USD	294.51	687.87	752.70	718.80	730.96

The study finds that the net effects of such changes in spending composition positively influence the economy wide growth rate and household welfare, but have different implications for the structural change process. It is only the spending option of shifting public resources from administration to manufacturing industry that generates a positive impact on structural change process in Ethiopia. The table below further shows how the change in spending composition affects the sectors and the disaggregated units which form the structure of the economy by 2025.

Table 1.10: The Impacts of Change in Spending Composition on Structure of GDP by 2025

Indicators	Initial Value	Base-Run Scenario	Shifting public spending towards productive Sectors		
			Agriculture	Infrastructure	Industry
1) Agriculture	48.12	27.89	31.72	25.53	26.09
Cereal Crops	33.7	18.16	20.19	16.78	17.18
O/W- Non-Exportable	13.7	9.00	9.83	8.47	8.52
O/W- Exportable agriculture	6.20	4.00	4.49	3.59	3.96
2) Industry	11.48	14.61	14.11	13.33	18.85
Manufacturing	4.70	5.11	4.99	4.09	8.56

Other Industry	6.78	9.49	9.12	9.24	10.28
3) Service	40.40	57.48	54.16	61.13	55.05
Private Service	31.17	54.75	51.57	58.59	52.47
Public Service	9.23	2.73	2.58	2.53	2.58

The study also finds that spending on infrastructure and agriculture is better in fostering economic growth rate and improving household welfare respectively. The study therefore recommends that the government undertakes a series of economic policy revision in spending composition and favors spending on manufacturing in order to achieve both sustained economic growth and rapid economic transformation that helps the country to lower external debt in the long run.

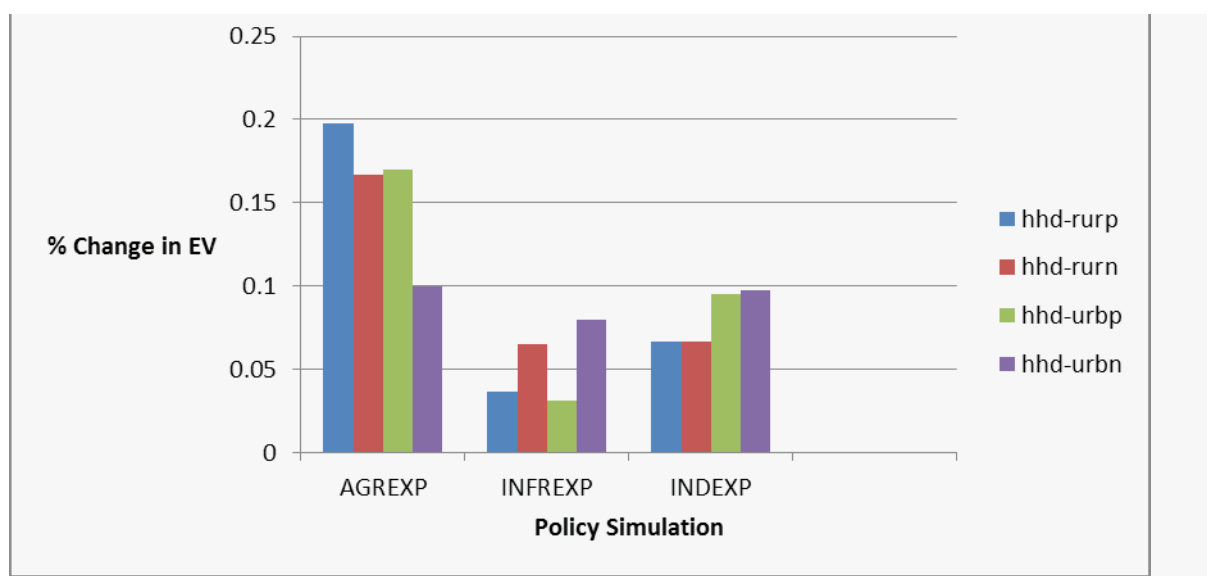


Figure 1.11: The Percentage of EV in response to the Change in Spending Composition by 2025

Source: Simulation Results Based on Dynamic CGE model

1.6. Countries' Experience and Lessons drawn

Public debt management is the process of establishing and executing a strategy for managing the government's debt in order to raise the required amount of funding at the lowest possible cost over the medium to long run consistent with a prudent degree of risk. It should also meet any other public debt management goals the government may have set, such as developing and maintaining an efficient market for government securities. Many maintain low levels of public debt thanks to large supplies of natural resources, while others have pursued liberal market reforms which have made fiscal discipline a central policy.

i. Korea Experience

Fiscal policy in Korea is perhaps most notable for the role it did not play in accumulation of external debt. Government savings has been positive in every year since 1962. The budget deficit (which includes public investment as an outlay) has been kept under control, ranging from 1 percent to 4 percent of output. A tax reform and switch to value added taxation in the 1970s did succeed in raising revenues from 15 percent to 18 percent of GNP. Large deficits in 1975 and 1980-81 are attributable primarily to increased expenditures in the Grain Management Fund. Social expenditures, such as education and housing, have been low historically but rising

over time. Since 1980, they have amounted to 30 percent of total government expenditures. Indicators of fiscal stance show that fiscal policy has been countercyclical used by the government in attempts to “fine-tune” economic performance (Press, 1989).

Korea has suffered a number of external debt crises on its way to becoming the 12th largest economy with a per capita income close to \$ 15,000 in 2004 by pursuing an export led development strategy. Korea managed to resolve all of its crises without any IMF rescue financing with the exception of 1997-98. According to Park (2005), over the past four decades, Korea has suffered a number of small and large financial crises in the process of pursuing an outward-looking development strategy that relies on export promotion. The first crisis in 1979-80 was a traditional current account crisis precipitated by an excessive investment in the middle of the 1970s in an economy where capital account transactions were tightly controlled and the nominal exchange rate was pegged to the US dollar. To the extent that the crisis originated in the current account, its resolution called for a stabilization program that included devaluation of the won. Korean policymakers defied such an orthodox prescription; instead they attempted to spend out of the crisis with the belief that the challenge was a transitory one that did not require real adjustment. The viability of such a growing-out policy depended on the availability of external borrowing required to finance a large deficit on the current account that the policy would entail. The second crisis that erupted in 1997-98 was a capital account crisis in a setting that was different from the previous cases. Neither Korean policymakers nor the IMF realized that a crisis triggered by a current account imbalance would cause such massive capital outflows, provoking a liquidity and credit crisis at the same time. In managing the capital account crisis, the traditional IMF stabilization program did not work. Nothing short of an infusion of fresh capital into the economy will help stop the bleeding of the economy. Perhaps this is the most important lesson to be drawn from Korea’s management of the 1997-98 crisis. Only after the bank run symptoms caused by investors’ panic and herding subside should a stabilization program be put into effect. Tight monetary and fiscal policy with devaluation administered immediately after the 1997-98 crisis broke out failed to allay the fears of foreign investors that the crisis would intensify. Instead the stabilization first before pumping liquidity into the economy exacerbated financial instability and economic downturn (Park 2005).

Between 1991 and 1996, the Korean economy showed a strong economic performance. Real GDP grew at an annual average growth rate of 7 percent. Macroeconomic fundamentals appeared to be sound, as the overall government budget was balanced, inflation was stable and low, and public debt-to-GDP ratio was low and steady. Against this background, the main source of vulnerability was rooted in the uneven pace of capital account liberalization and banking sector weaknesses. Furthermore, the large conglomerates (the Chaebol) that dominated Korea’s economy for decades were extremely leveraged, mostly through borrowing from local banks, which in turn relied on short-term external debt. In early 1997, a shock to the country’s terms of trade (reflecting in part a drop-in semiconductor prices) led to a widening of the current account deficit, which was financed by short-term debt. Several Chaebol went bankrupt in the early months of 1997, culminating in the failure of the largest Chaebol, the Hanbo Group. Korean banks faced increasing difficulties to roll over their short-term credit lines with international banks, and in response, the Bank of Korea (BOK) provided advanced foreign exchange to their overseas branches. As banking sector problems deepened and regional contagion from Thailand was felt throughout the region, market confidence began to crumble and foreign banks stopped rolling over Korea’s external debt. In response, in an attempt to provide stability, the BOK provided a guarantee for foreign currency-denominated bank debt. Crisis management gave some results only after ensuring the political commitment to reforms. This included a more aggressive timetable for the restructuring of the financial system, supported by accelerated disbursement of funds and by a coordinated private sector roll over of short-term debt. Shortly after, the banks agreed to exchange their short-term claims for sovereign debt of between one- and three-years maturity. After successful debt restructuring, which was supplemented by decisive financial and

corporate reform programs, Korea managed to issue US\$ 4 billion in international bonds. This re-opened Korea's access to international capital markets in April 1998, shortly after the crisis. As a result, growth quickly resumed with the first signs of recovery observed by the end of 1998, followed by a rapid rebound in 1999 (10.9 percent). Korea's crisis turned out to be severe, but short-lived (World Bank March 2005).

ii. Nigeria Experience

For over thirty-seven years, between 1980 and 2016, the nature of public expenditure operations of the Nigerian government had resulted in deficits in 35 years and surpluses in two years (1995 and 1996) (Samuel Ubi, 2018).

Nigeria's debt dates back to the pre-independence era. The quantum of the debt was small until 1978. Before 1978, the debts incurred were mainly long-term loans from multilateral and official sources such as the World Bank, and the country's major trading partners. The debts were not much of a burden on the economy because the loans were obtained on soft terms. Moreover, the country had abundant revenue receipts from oil, especially during the oil boom of 1973- 1976. Historically, Nigeria's first external loan of US\$13.1 million was from the Paris Club of Creditor Nations and was taken from the Italian government in 1964 for the building of the Niger Dam. From that time till the end of the decade, Nigeria's borrowing from foreign lenders was generally insignificant. However, between 1971 and 1981, Nigeria witnessed the era of big borrowing. Loans were acquired by various tiers of government, as Nigeria embarked on major development and reconstruction projects in aftermath of the civil war. The borrowing continued as the Federal Government embarked on guaranteeing many unviable loans taken by private banks, state governments and parastatals (Central Bank of Nigeria, 2013).

Nigeria's debt stock between 1970 and 1977 was quite negligible, especially the external debt which stood at less than US\$600 million. In the early 1970s, Nigeria experienced oil boom, which avails the economy so much resources for the financing of government planned activities. However, between 1980 and 1982 oil prices slumped, resulting in the decline in oil revenues from US\$25 billion in 1980 to US\$12 billion and US\$6 billion in 1982 and 1986, respectively. During the 1980s, Nigeria witnessed wasteful consumption, white elephant projects, uneconomic projects, etc. For instance, 63 projects were undertaken for which US\$2.6 billion was borrowed while only one project was viable (Baba, 2012).

The period 1986 to 1992 was characterized with debt rescheduling and strategy for debt reduction. The Nigerian government made several trips to Paris Club in 1986, 1989 and 1991 to reschedule US\$7.0 billion, US\$6.0 billion and US\$3.0 billion debts, respectively. Furthermore, the Nigerian government also made a trip to the London Club to exchange US\$5.6 billion commercial bank debt for US\$2.1 billion of Par Bonds at a discount of about 60 per cent. By 1992, the debt profile of Nigeria ballooned due to new borrowing from Paris Club, high interest charges, penalties and arrears due for payment. Meanwhile, Nigeria's economic policies could not meet IMF's benchmarks as requirement for debt reduction.

Between 1993 and 1998, Nigeria was faced with a serious debt overhang as payment to Paris Club dropped remarkably below scheduled amount after substantial payment in 1992, although there was no new credit but arrears accumulated, while new disbursements came from the multi-lateral creditors. Consequently, the total debt service burden (of external and domestic debt) of Nigeria by 2004 exceeded the Federal Capital Budget. For instance, US\$1.0 billion paid to the Paris Club in 2004, represented 70 per cent of total expenditure of education budget. At end-December 2005, Nigeria's total debt stock stood at over US\$32.0 billion with US\$30.8 billion owed to the Paris Club. Nigeria embarked on a relentless campaign for debt relief at the return to civilian rule in 1999. Before 2005, Nigeria's public debt was about US\$46.2 billion. External debt stood at \$35.9 billion while the stock of the domestic debt amounted to \$10.3 billion. Following the debt write off, external debt fell to \$3.5 billion, while domestic debt rose

to \$13.8 billion in 2005, giving a total public debt of \$17.3 billion and a debt-to-GDP ratio of 11.8%. Nigeria's public debt stood at \$58,643.18 million as at September 2013 (DMO, 2014). From 2005, Nigeria government deficits are majorly funded through domestic borrowing in the bond market. The external debt was higher than the domestic debt from 1999 to 2004, while domestic debt increased from 2005 to 2013.

In Nigeria, the changing domestic debt profile from the 1960s to date could be linked to major factors such as high budget deficits; low output growth; large expenditure growth; high inflation rate; and narrow revenue base witnessed since the 1980s. Output growth declined as it recorded annual average values of 5.9% in 1980-1984, 4% in 1990-1994 and 2.8% in 1998-1999, respectively. Public expenditure as a percentage of GDP increased from 13% in the 1980-1989 to 29.7% in the 1990-1994 periods. This increased public expenditures to GDP ratio resulted from fiscal policy expansion embarked upon during the oil boom era of the 1970s. However, as the oil boom declined in the 1980s, priorities of government expenditure did not change. As at September 2014, the total domestic debt outstanding was N9,358.67 billion, this was N2,239.67 billion or 31.46 per cent higher than its level of N7,119.00 billion as at end-December, 2013. New domestic debt borrowing in 2015 is estimated at N570.00 billion, decreasing by 12.81 per cent from N653.72 billion recorded in fiscal 2014 (Central Bank of Nigeria, 2013).

iii. Malaysia Experience

Between 1990 and 1996, Malaysia's public debt-to-GDP ratio declined rapidly from about 90 percent of GDP to about 50 percent of GDP. This trend was reversed with the Asian crisis in 1997, when the public debt-to-GDP ratio started to increase, reaching 70 percent of GDP in 2001. Since 2002, Malaysia's debt to GDP ratio has slightly declined. An interesting feature of Malaysia's public debt is a high domestic share throughout the period. This reflects the explicit policy choice to rely predominately on domestic, non-inflationary financing as opposed to external borrowing. Nevertheless, the share of external public debt in total public debt has increased somewhat since 1997 (Between 1990 and 1996, the period of rapid public debt reduction, external public debt reached on average about 32 percent of total public debt. Since 1997, its relative share averaged about 40 percent). As an emerging market economy, Malaysia is clearly a success story. Malaysia is a spectacular growth performer, having sustained an annual average growth rate of 6.6 percent during 1955-2000. The Malaysian government has implemented a series of medium- to long-term development plans during the last three decades. These national development plans effectively shifted the economy from agriculture and mining to a manufacturing- and export-oriented modern economy. Agricultural diversification and natural resource exploitation also played an important role in Malaysia's export-oriented development strategy. Malaysia has grown at an annual average rate of 8 percent throughout the 1970s, the strong growth performance was also assisted by a significant increase in export earnings on the back of a commodity price boom. Once commodity prices dropped sharply in the early 1980s, Malaysia's economic performance deteriorated. The fall in commodity prices brought a negative shock to Malaysia's terms of trade, had a negative impact on growth, and domestic savings fell. With a shortfall in fiscal revenues, Malaysia's public investment strategy was increasingly financed through foreign borrowing. As a result, by the mid-1980s, slowing growth was accompanied by increased budget deficits and an unsustainable level of debt. Given the threat to political and economic stability in the mid-1980s, the government introduced a number of reforms, shifting the emphasis from state intervention to a greater market orientation, with a private investment-led growth strategy at the center. As a result, growth accelerated, the outstanding external debt was reduced, and a flexible exchange rate helped bolster manufactured exports. To this end, the reforms involved a gradual process of privatization and restructuring of state-owned companies, and a firm commitment to an open trade regime. Structural adjustments, including the expansion of the export base and the liberalization of the financial system, further helped to transform the country into a middle-income emerging market (World Bank, March 2005).

But, between 2009 and 2018, Malaysia's external debt-to- GDP ratio has risen by more than 16 percentage points of GDP, to about 70 percent of GDP (2009: 54¼ percent of GDP). About one-half of this increase in the debt ratio was due to the rise in portfolio debt liabilities between 2009 and 2013, particularly nonresident investment in Malaysia's local currency debt securities. While portfolio debt liabilities as a share of GDP have declined since 2014, increases in other debt liabilities (interbank borrowings and intercompany loans) contributed to an increase in the overall debt ratio by about 7.2 percentage points of GDP (As a share of GDP, interbank borrowings increased from 12.6 to 16.2 percent, and intercompany loans increased from 5.9 to 9.5 percent since 2014). As of 2018, Malaysia's external debt, valued in U.S. dollars, stood at 65.4 percent of GDP, down from 70.3 percent of GDP in 2018Q1. This is primarily driven by the reduction of nonresident holding of local currency-denominated government debt (portfolio debt liabilities: local-currency) since May 2018, which was partly offset by the increased interbank borrowings (other investment: debt liabilities) for liquidity management purposes and intercompany loans. These changes lead to two compositional effects: (i) foreign currency-denominated debt increased both in nominal value and as a share of total external debt; and (ii) the share of short-term debt reached 48 percent of total external debt in 2018Q2, approaching its peak level in 2014, and dropped slightly to 46 percent in 2018. The reduction in nonresident holding of ringgit-denominated government debt was compensated by an increase in domestic investor holdings. In this regard, the Malaysian authorities adopted prudent fiscal management approach that aims to build healthy fiscal buffer and to ensure debt remain at sustainable level. The authorities are also committed to instill efficient and good governance in the fiscal policy management. Towards this end, several measures have been initiated to strengthen transparency and governance aspects of the fiscal management, as well as efforts to achieve greater expenditure optimization and revenue enhancement (IMF, 2018).

iv. Britain Experience

In England, the "Glorious Revolution" of 1688 was followed by the "Financial Revolution" during which Parliament assumed effective control over the national debt. The culmination of that revolution was the creation in 1749, of the "Consolidated Fund" and the issue of undated bonds known as "consols". However, the creditworthiness of the British government in the 18th and 19th centuries enabled it to float huge amounts of irredeemable debt at interest rates as low as 2½ per cent, giving it a significant advantage over its rivals. Between 1743 and 1815, Britain's national debt increased from £245 million to £745 million. A debt reduction act reduced the ratio of national debt to national income to less than 50 per cent by 1900, but, after two further wars and the prevailing Great Depression, it rose again to over 100 per cent. It was over 150 per cent during the first world war and remained at above that percentage for most of the years between then and the second world war, during which it peaked at 250 percent. After the war, it was reduced steadily to about 50 per cent by 1975, and remained at between 45 and 55 per cent between 1975 and 1990 and between 35 and 55 percent through the 1990s (CBN, 2013).

v. Botswana

The southern African nation of Botswana is a modern success story. Between 1966 and 1999 its economic growth rate averaged 9%, the highest in the world, and it defied the global downturn between 2007 and 2009 and maintaining a very low level of public debt.

As explained by Michael Lewin, another part of the fiscal saving was channeled to domestic assets, combating the effect of the loss of competitiveness by raising productivity. When this investment is focused on public goods (for example, infrastructure, health, and human capital), it will contribute to growth without crowding out private sector investment and development. Public sector saving was positive in every year between 1975 and 1996, fluctuating between 10 and 40 percent of GDP. Public sector investment was fairly constant at about 10 percent of GDP. However, if one counts expenditure on health and human capital as investment, government investment has consistently remained about 20 percent of GDP. The capital budget focused on

basic infrastructure with about 30 percent devoted to water, electricity, roads, communication, and transportation. Twenty percent of the capital budget, on average, went to education and around 30 percent of recurrent expenditures was devoted to education and health. While quantifying the effectiveness of public expenditure on growth and development is notoriously difficult, particularly in resource-based economies where soft budget constraints may lead to overinvestment, the emphasis on infrastructure, health, and education seems to have served Botswana well. As noted above, the number of paved roads increased from around 20 kilometers in 1970 to 2,300 in 1990; 90 percent of the population had access to safe water (compared with 29 percent in 1970); and the number of telephone connections rose from around 5,000 in 1970 to 136,000 in 2001. Similarly, in educational achievement Botswana leads Africa. For example, adult literacy, male and female, is around 80 percent compared with 69 percent and 50 percent, respectively, for the rest of sub-Saharan Africa. As a result of its prudent fiscal policy, Botswana has enjoyed relative macroeconomic stability and avoided the boom-slump cycles that characterize many mineral-based economies. Monetary policy was also restrained for most of the post-independence period while inflation was moderate, averaging about 10 percent (Maipose n.d.). The periodic slowdowns in the diamond industry have thus by and large not been passed on to the rest of the economy. By withholding some of the benefits from the economy during the booms, the government has, to some extent, been able to insulate it from the busts.

Two things Botswana did not do are also significant. Unlike many African countries, it did not adopt a policy of import substitution, and it did not expand the extent of state-owned productive entities, which employ only about 5 percent of the workforce in Botswana.

Being part of the South African Customs Union (which required cooperation with the then odious regime in South Africa) meant maintaining a fairly low tariff regime and provided a steady stream of government revenue. Avoiding an activist import-substituting policy and maintaining limited government involvement in production seems to have paid off for Botswana by allowing it to avoid many of the inefficiencies and structural deficits that so often arise from such policies. Trade policy is also an area where good governance and good policies reinforce one another. A government rich with mineral revenues is an inviting target for rent seekers and restricting the avenues for rent seeking and corruption thus helps preserve the efficiency and integrity of the government. Even if the theoretical merits of import substitution or the existence of state-owned enterprises seem persuasive, in practice both often result in inefficiency and drain fiscal resources. Good fiscal policies by themselves may not be sufficient for success. Many mineral-based economies with high rates of investment have not enjoyed the positive results that Botswana has. The quality of investment is evidently as important as the quantity. Moreover, in the hands of the venal and corrupt, government savings funds can easily turn into slush funds for the favored elites. There may be a lesson in this from Botswana: good governance will aid the effectiveness of good policy, and good policy encourages better government. Policy formulators should therefore not ignore the political economy consequences of economic policy. Botswana's combination of policy and governance evidently helped it avoid the worst effects of the resource curse.

vi. Kenya Experience

The experiences of Kenya has shown that the country is weighed down by swelling public debt and faces the possibility of a debt crisis as Kenya's current public debt stands at approximately USD 49 billion or 56.4% of the country's gross domestic product. This implies that Kenya owes more than half the value of its economic output. However, as per the IMF recommendation, the ratios of public debt to GDP should not be higher than 40% for developing countries.

To be fair, this level of debt is comparable to that of other developing economies. For example, South Africa's ratio of public debt to GDP was 53.1% in 2017 (2008: 27.8%). Nigeria's was 21.3% in 2017 (2008: 7.3%). Brazil, India and China all have ratios over 40%. However, the economies of these countries are several times larger than Kenya's.

Unsustainable debt levels can be harmful. They can “crowd out” development and social programs because huge portions of government revenue are taken away from essential services and used instead to service debt. In the worst-case scenario, Kenya might be forced to cede control of its strategic national assets to foreign creditors. This has happened in some countries such as Sri Lanka which had to hand over a strategic port to China. The concern is not just about the amount of debt relative to national income, but where the debt comes from. The National Treasury reports that more than half of Kenya’s total public debt came from outside the country.

External debt is not necessarily harmful for an economy. Studies show that external debt inflows (if synchronized with business cycles) can stabilize the economy and boost economic growth. However, interest and principal repayments on external debt are made in foreign currency. This depletes a country’s foreign exchange reserves and may devalue the domestic currency.

In the short term, a weak domestic currency makes a country’s exports more competitive. That’s good. But a weak currency can lead to high inflation rates in the long term because it costs the country more to import what it needs for production and consumption. This inflationary effect is bad for a country like Kenya, which imports more goods and services than it exports. The inflationary pressure is fueled by low domestic production. Kenya’s domestic production base has shrunk in recent years and manufacturing has dipped from 12.8% of the GDP in 2007 to a paltry 8.4% in 2017 owing to bad economic policies.

Kenya’s increasing appetite for international privately held debt is worrying. Debt is said to be privately held if the lenders are non-governmental institutions and individuals. The country has recently issued two debt instruments (bonds), first in 2014, and then in 2018. The bonds were made available on the international debt market. In each case, Kenya raised (borrowed) approximately USD\$2 billion.

According to the Treasury, the money was to be applied towards the government’s development initiatives and liability management. This means that proceeds from debt were not earmarked for specific capital projects and that some of it were to be spent on servicing existing debts. Common sense should tell us that this is financially unsound.

Borrowed funds should be put to productive use. Investing them in improving public infrastructure would lower the cost of doing business and make a country an attractive investment destination. This in turn would bolster economic output, and therefore its ability to service the debt and, in the long run, lessen the need for additional debt. The overall effect would be to improve the country’s credit rating, which in turn would make it a safer bet should it seek more debt in future.

But if a country uses the money it has borrowed to repay another debt, no new wealth is created, and it might struggle to repay debt in future. This is likely to cause its credit rating to fall. Lenders and investors would then demand a higher interest rate to compensate for the risk that they will lose their money. This makes it costlier to repay the new debt.

Kenya’s experience with its two international Eurobond loans, the latest one issued in two equal tranches – one repayable after 10 years, and the other after 30 years – showed that the country is expected to pay more for the second issuance compared to the first. This is because the risk of lenders losing their money was higher for the second issuance.

Aside from the individual risk characteristics of particular countries, research shows that countries on the African continent borrowing on the international markets routinely pay an “Africa premium” estimated at about 2.9 percentage points on their sovereign debt. Thus, by resorting to the international debt market, Kenyans are paying dearly.

Similar to Eurobonds, bilateral debt agreements are also believed to cost Kenya a lot more than their explicit interest charge. Take the case of China, for example. China is Kenya’s largest creditor,

holding about 72% of the country's bilateral debt as of March 2017. Studies show that Kenya's Chinese debt poses a threat because the loan agreements are not transparent, projects are not well prioritized, accounting procedures are weak and it's not clear what projects are costing.

On top of this, most Chinese loans are conditional on Kenya's acceptance of Chinese contractors. This limits the loans' developmental impact through potential technology transfers which could improve the country's productive capabilities and in turn its future ability to comfortably absorb the debt burden.

To reduce its burgeoning public debt burden, Kenya must improve its production capabilities in the long term. This can be achieved in several ways. Firstly, it must increase its investment in human capital to promote entrepreneurial activity. Thus, the current focus on vocational and technical training must be sustained. Secondly, there must be shift from exporting raw materials to value addition and manufacturing. And lastly, attention should be directed to developing local enterprise especially those that produce import substitutes. In the agricultural sector, sugar and rice are two examples. In the short term, measures must be put in place to reduce government spending and to enhance revenue collection.

vii. Tanzania Experience

Tanzania has undergone impressive political and economic developments and improvements in social welfare in recent years. However, the country continues to face considerable development challenges, not least in essential areas such as economic distribution, population growth, corruption and a stronger division between party and state. At the same time, new opportunities are arising which have the potential to become decisive for the necessary changes and reforms.

Tanzania recorded a government debt equivalent to 37.40 percent of the country's Gross Domestic Product in 2017. Government Debt to GDP in Tanzania averaged 34.92 percent from 2001 until 2017, reaching an all-time high of 50.20 percent in 2001 and a record low of 21.50 percent in 2008. Generally, Government debt as a percent of GDP is used by investors to measure a country ability to make future payments on its debt, thus affecting the country borrowing costs and government bond yields.

In line with the effect of public debt on private investment in Tanzania, results suggest a significant evidence of nonlinear long run and short run relationship between external debt and private investment. However, Granger causality test suggests that this relationship is rather a co-movement than causal. At 5% level of significance, there is no significant evidence of long run and short run relationship between domestic debt and debt service on one hand, and private investment on the other hand. However, the combined effect of domestic and external debt on private investment is statistically significant both in long run and short run. The study recommends the government to adopt strict policies on project implementations to ensure positive returns of borrowed funds and closely monitoring of public debt, particularly external debt on which private investment is more responsive than domestic debt and debt service, despite its sustainability at present.

viii. Uganda Experience

Uganda's public debt is projected to reach \$18 billion or more than 50 per cent of the country's GDP by the end of financial year 2022/23, according to economists, with critics questioning the returns on investment in large infrastructure projects and spikes in domestic government borrowing.

The total debt portfolio of Uganda by end of June 2017 amounted to some \$9.4 billion or 37 per cent of GDP, and increased further to \$10.74 billion by the close of June 2018, equivalent to 41.5 per cent of GDP. External debt was estimated at \$7.29 billion while domestic debt accounted

for \$3.45 billion, according to data compiled by Ministry of Finance, Planning and Economic Development. Total public debt rose to \$11.7 billion in December 2018, equivalent to 41.8 per cent of GDP. It grew further to \$12.2 billion by end of June this year, standing at 42 per cent of GDP.

The sharp growth in public debt is mainly attributed to heavy borrowing to fund large infrastructure projects in the transport and energy sectors, occasional surges in military spending and humanitarian needs. But experts ask, where are the returns on investment in big infrastructure projects to justify the surging national debt? These returns would help determine a country’s ability to repay loans obtained from foreign lenders, potential impact on economic growth and lead to increased revenue collection, employment and local savings.

Return on investment is not pegged to a specific project but to the entire economy. Failure to stimulate strong economic growth could translate into an inability to repay non-concessional loans acquired for financing large infrastructure projects.

ix. Rwanda Experience

Rwanda’s economy is estimated to grow by 8.6% by the end of the fiscal year FY18/19 which is 1.4% above the government’s initial projected target of 7.2%. Industry and services are the main contributors to this GDP growth. Rwanda’s external present value (PV) of debt-to GDP stood at 32.9% as of end 2018, an increase of 5.2% from 27.7% PV of Debt to GDP as of end 2017.

The main reason for this increase in the additional external debt (3.9% of GDP), which was meant to scale up public investment projects that support trade and tourism. The majority of Rwanda’s debt is external (83.3%) and predominantly composed of concessional loans (projected to be at 61.6% of the total portfolio at June 2019) mostly provided by multilateral institutions.

Domestic debt is mainly composed of government securities especially Treasury bills together with Treasury bonds (more than 75 percent of total public domestic debt at end FY2018/19). The country’s debt strategy is to maximize concessional borrowing while restricting commercial loans to the financing of infrastructure and self - financing projects.

Outlays under net lending in the fiscal year 2019/20 have increased by 28% from the previous year’s budget allocation. The increase in the allocated amount is mainly for two significant spending areas: i. funds for the recapitalization which is going to be done over a three-year period and ii. funds to Rwanda to support its expansion strategy has been recapitalized to promote accelerated private sector growth.

1.7. Responses of Key Informants and Focal Group Discussion

As noted in the inception report, the research team also addressed some issues related with debt by using arranging some questions to key informants and focal group discussion. This helps to grasp the perception of academicians and experts regarding the main driving forces of debt and its consequences over the private sector performance as presented in the table below:

Table 1.11: Summary of Responses from KII

No.	Driving Forces	Implication to the private sector development
1	Limited productive use of resources in particular low level of productivity in agricultural sector, leads to fail loan repayment.	Earning capacity of private sector is limited and poor transformation.

No.	Driving Forces	Implication to the private sector development
2	Low levels of capital formation in physical and human segments like in education, Health, leads to inefficient resource management.	Low level of entrepreneurship and innovation capacity in private wing.
3	Transport infrastructure to meet the need of ever-growing population, implying that debt mostly associated with infrastructure may not generate earning in short run.	High transaction cost which pushes up the cost of production and reduce profit margin.
4	Rapid growth of population, creating dependence on foreign assistance.	Cheaper labor to firms, but most of them are unskilled labor.
5	Systematic and bureaucratic corruptions done by public government officials elected and trusted by the people making their government default on their existing foreign loans.	Creating systemic risk over the private sector and discourage them not move fast in the investment. Example, 84% of firms who got license in last 25 years are not able to start investment activities.
6	Persistent inflationary pressures following the dwindling level of foreign currency reserve, leads to Aggravation of BOP deficit.	Stuck private investors not even to access foreign currency to run their business.
7	Low export earnings which limited the paying capacity of the government.	Shortage of foreign currency, discouraging private sector.
8	Decline in the flow of concessional assistance and consequent greater reliance on costly commercial borrowing.	Private investors developed dependency syndrome and being crowded out.
9	Deterioration in the terms of trade for primary producing countries.	Private firms would not be able to competent in the international market.
10	Moral Hazard. If debt always gets written off, it may encourage countries firms to take on more debts and then hope they get written off. If debt write off is too generous, banks may be unwilling to lend to these countries in the future leaving them short of finance.	Private investors behave with moral hazard and being opportunists, not hard worker.

1.8. The Way Forward

1.8.1. Policies to Enhancing Private Sector Engagement

The main objective of this study is to examine the principal determinant of public debt in Ethiopia using descriptive and time series econometric analysis. It shows the implication of extensive external debt on the performance of private sector. Descriptive analysis is used to analyze the trend of alternative government revenue sources, government expenditure and its components and fiscal deficit position of the government and pattern of regional government revenue and support from the federal government, among others. Moreover, the evolution of debt as share of GDP, total debt service and debt stock is assessed in detail in the analysis.

The overall government budget is financed from domestic and external sources with the latter consisting of borrowing and assistances in the form of grants from development partners. The result shows that Ethiopia has made encouraging progress in mobilizing more revenues from domestic sources, particularly in tax revenue consisting of direct taxes, indirect taxes and foreign trade taxes. Although domestic revenue mobilization improved substantially in recent decades, tax-to-GDP ratios are still below the GTP target and Sub-Saharan average.

The Ethiopian government revenue and expenditure indicates an increasing trend but the increase in expenditure by far exceeds the increase in revenue which results in growing budget deficit. The relative increase in government expenditure that has been observed in recent years is attributed to rising spending on pro-poor and growth enhancing sectors.

On top of this, regional governments are primarily undertaking recurrent expenditures, which further put additional strain on the federal government to finance large scale national capital projects.

The result also revealed that Ethiopia's external debt stock; debt to GDP ratio; total debt service shows a continuous increment.

Time series Econometrics Analysis is also used to analyze the determinants of external and domestic public debt in Ethiopia for the period 1980 to 2017 period. The result of the analysis demonstrated that increase in degree of openness and tax revenue reduce public debt whereas government expenditure, budget deficit, political instability or corruption and age dependency ratio are the main factors that contributed to the increase in the public debt in Ethiopia.

The study also finds out that, through reviewing materials such as World Bank documents, the Ethiopia's main challenges are sustaining its positive economic growth and accelerating poverty reduction, which both require significant progress in job creation as well as improved governance. The specific challenges are related to:

- Limited competitiveness: which constrains the development of manufacturing, the creation of jobs and the increase of exports.
- An underdeveloped private sector: which would limit the country's trade competitiveness and resilience to shocks. The government aims to expand the role of the private sector through foreign investment and industrial parks to make Ethiopia's growth momentum more sustainable.
- Political disruption, associated with social unrest, could negatively impact growth through lower foreign direct investment, tourism and exports.

The government is allocating a high share of its budget to pro-poor programs and investments. Large scale donor support will continue to provide a vital contribution in the near-term to finance the cost of pro-poor programs.

1.8.2. Recommended General Policy Strategies

Ethiopia's macroeconomic context is characterized by low tax to GDP ratio, high current account deficit, high level of external debt and low domestic resource mobilization for debt financing necessitates the following alternative policy measures:

- The long run relationship indicates that high real GDP growth, openness of the economy to the rest of the world and, infrastructural development enable government to reduce the level of debt.
- However, inflation rate, political instability/corruption index, government expenditure, and age dependency ratio may aggravate debt position of the country. Therefore, the government should manage macroeconomic and political stability with good governance.
- The government should also pursue a policy strategy to manage extensive public spending and allocate towards productive activities.
- Boosting the share of tax and non-tax revenue through fostering tax payer education and sensitization, encouraging voluntary tax compliance and strengthening enforcement efforts among others. However, optimal tax rate should be identified not to discourage the private sector development.
- Reliance on external borrowing is not sustainable, especially given Ethiopia's high risk of external debt distress. Consequently, ensuring sustainability of infrastructure financing requires innovative solutions, such as use of Public-Private Partnerships (PPPs), securitization of infrastructure assets, and implementation of cost reflective tariffs.
- Domestic resource mobilization Ethiopia has been challenged by a number of factors such as illicit financial outflows, slow structural transformation in the economy, substantial tax incentives like tax holidays and other exemptions. Therefore, the government should work on policy reforms to control illicit financing, improving tax administration and revision of presumptive tax schemes to broaden the tax base

- The huge infrastructural investment financed largely by external borrowing needs careful monitoring to ensure that revenue streams generated in local currencies are strong enough to meet the debt obligations when they fall due.
- Reduce extensive and inefficient government expenditure, narrow down fiscal deficit, political instability to lower external debt. Otherwise it adversely affects the private sector.
- Public resource allocation from unproductive sector to productive activities (infrastructure, manufacturing and agriculture sector in order scale up the capacity of the economy).
- Enhance the development project management in particular funded by foreign assistance and supposed to pay the loan from their expected earning
- Because productivity improvement is essential for sustainable growth, structural reforms and transformation should be implemented to increase the competitiveness of the private sector and to enhance the efficiency of the public sector. Given the limited resources, prioritizing public investment is crucial for the efficiency of spending and the sustainability of budget deficit. For an efficient allocation of savings, credit needs to be reallocated from the public sector to the productive private sector.
- Following the debt relief, the countries have consistently spent more expenditure on poverty reducing activities, compared with the pre-debt relief period. Similarly, the government of Ethiopia takes this relief to eliminate poverty.
- To mitigating debt risk at national level, the government has to establish legal and institutional framework for regional fiscal discipline and debt management. Likewise, need to organize capacity building and strong fiscal control mechanism for regional governments.
- Strengthening of debt management essential, such as for instance through the Debt Management Facility (DMF), promoting the mobilization of domestic resources and improving the quality of public spending.
- There must be a strong legal framework and details directives that show how to enhance the productivity of foreign loans, and reduce corruption associated with foreign loans.

References

Africa Economic Outlook (2018) "Report on Macroeconomic Performance and Prospects", Africa Development Bank, Abidjan, Côte d'Ivoire.

Baltagi, B. H. (2005) *Econometric Analysis of Panel Data* (third ed.) John Wiley & Sons.

Belguith and Omrane (2017) "Macroeconomic determinants of public debt growth: A case study for Tunisia" *Theoretical and Applied Economics*, Volume XXIV (2017), No. 4(613), Winter, pp. 161-168.

Central Bank of Nigeria (Cbn) *Understanding Monetary Policy Series 2013*, No 36

Clark, P.C. (2013) "The Effects of Multicollinearity in Multilevel Models", Unpublished

Cooray, A. Dzhumashev, R. and Schneider, F. (2016) "How Does Corruption Affect Public Debt? An Empirical Analysis", *World Development*.

Cukierman, A. and Meltzer, A. (1989) "A Political Theory of Government Debt and Deficits in a Neo-Ricardian Framework", *American Economic Review*, 79 (4), pp. 713-732.

Developing Country Debt and the World Economy, Jeffrey D. Sachs, editor, University of Chicago Press, 1989 Doctoral Dissertation, *Wright State University Empirical Economics Letters*, 14(4), 341-351.

FDRE Ministry of Finance *Annual Public Sector Debt Portfolio Report for the Year 2017/18 No.19*

FDRE Ministry of Finance, *Fiscal Policy in Ethiopia and Recent Development*; Addis Ababa, February 2018, No. 3/2018

Fiscal Deficit and Nigeria's Economic Development Article in International Journal of Commerce and Management · Peter Samuel Ubi 2018, University of Calabar.

Gujarati (2004) "Basic Econometrics" 4th edition United States Military Academy, West Point.

Imbeau, L.M. and Pe'try, F (2004) "Politics, Institutions, and Fiscal Policy: Deficits and Surpluses in Federated States. Lanham, MD: Lexington Books.

IMF Country Report No. 19/71, Malaysia, 2019 Article Iv Consultation—Press Release; Staff Report; And Statement by The Executive Director for Malaysia.

IMF (2019) "Staff Report for the 2018 Article IV Consultation—Debt Sustainability Analysis on Ethiopia" Washington, D.C.

International Monetary Fund, 2018 Article IV Consultation—Press Release; Staff Report; And Statement by The Executive Director for The Federal Democratic Republic of Ethiopia; IMF Country Report No. 18/354

Korea's Experience with External Debt Management 1979-80 and 1997-98, Yung Chul Park*, Graduate School of International Studies, Seoul National University 2005.

Lavigne, R. (2011) "The political and institutional determinants of fiscal adjustment: Entering and exiting fiscal distress" *European Journal of Political Economy*, Vol. 27, Issue 1, March 2011, pp. 17-35.

MOFEC (2018) "Annual Public Sector Debt Portfolio Report for the Year 2017/18", debt management directorate ministry of finance federal democratic republic of Ethiopia

NBE (2017/18) "Annual Report on the Ethiopian Economy", National Bank of Ethiopia.

NBE (2018/19) "Annual Report on the Ethiopian Economy", National Bank of Ethiopia.

Nguyen, V. B. (2015). Effects of Public Debt on inflation in developing economies of Asia: An empirical evidence based on panel differenced GMM Regression and PMG Estimation.

The World Bank March 2005. The Public Debt and Its Determinants in Market Access Countries, Results from 15 Country Case Studies.

Sinha, P, Arora, V, and Bansal, V (2011) "Determinants of Public Debt for middle income and high-income group countries using Panel Data regression" *Munich Personal Repec Archive (MPRA Paper, No. 32079)*.

Swamy, V. (2015) "Government Debt and its Macroeconomic Determinants. An Empirical Investigation", *Munich Personal Respective Archive (MPRA Paper, No. 64106)*.

UNICEF (2017) "A Synopsis Analysis of 2006-2016 National Trends and the 2017/2018 Federal Budget Proclamation"

Veerbek (2000) "A Guide to Modern Econometrics", 2nd edition, Erasmus University Rotterdam

Wooldridge, J.M., (2003), *Econometric Analysis of Cross Section and Panel Data* (second ed.) MIT Press.

Annexes

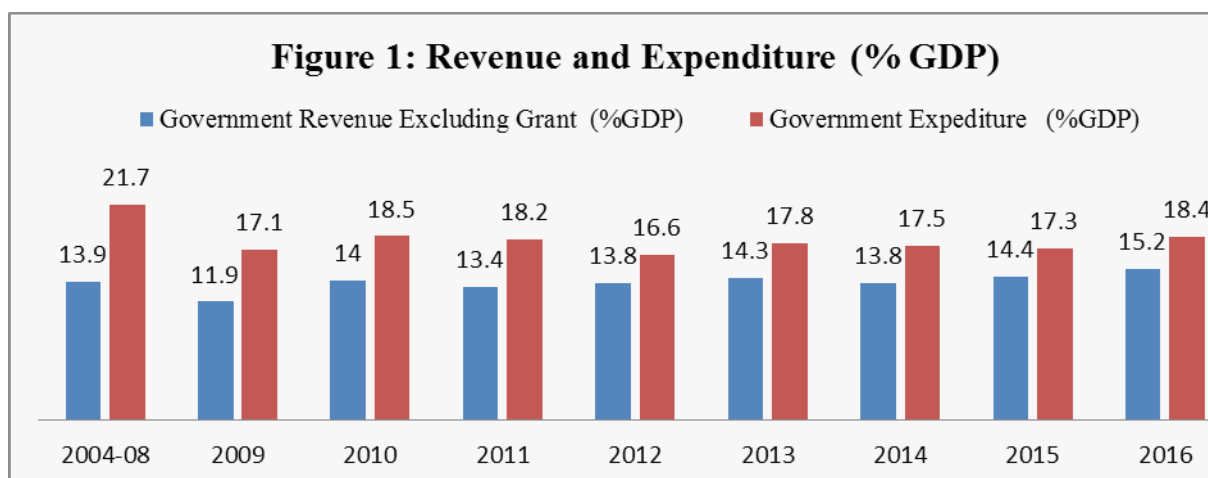
Annex 1: Policy Goals and Strategies

No.	Policy Goals	Policy Strategies
1.	Domestic Resource Mobilization	<ul style="list-style-type: none"> Widening tax base not to concentrate limited economic activities. Setting an optimal tax rate of direct and indirect that do not discourage private sector Enhancing the institutional capacity of tax collection and narrowing down the discrepancy between actual and potential level of tax revenue. Enhancing the financial development program including inclusion of finance services providers in order to scale up the mobilization tax. The speed of adjustment is statistically significant and it has a negative coefficient, meaning that there is monotonic convergence towards the long run equilibrium with a speed of 2.5 percent per annum when there is shock within the system of economy, which is very weak adjustment. So, there must be a strong finance sector development. Expanding outreaching capacity of banking industry services to all corners of the country. Increasing the foreign assistance negotiation and diplomatic capacity of country to support for domestic resource mobilization. Making tax per GDP ratio consistent that helps smoothing tax fluctuations.
2.	Reallocating public spending to productive activities to the mutual benefit	<ul style="list-style-type: none"> The net effects of reallocating public resources from unproductive activities to productivities and making changes in spending composition positively influence the economy wide Performance It is only the spending option of shifting public resources from administration to manufacturing industry that generates a positive impact on structural change process in Ethiopia. The study also finds that spending on infrastructure and agriculture is better in fostering economic growth rate and improving household welfare respectively. Accordingly, the government should redirect the private investors via incentive and credit policy to the benefit of national development program under the same umbrella. Reallocation is one of the strategies to lower public debt so that it should be reoriented with private sector activities as they are the engine of growth. Because productivity improvement is essential for sustainable growth, structural reforms and transformation should be implemented to increase the competitiveness of the private sector and to enhance the efficiency of the public sector. Given the limited resources, prioritizing public investment is crucial for the efficiency of spending and the sustainability of budget deficit. For an efficient allocation of savings, credit needs to be reallocated from the public sector to the productive private sector. Following the debt relief, the countries have consistently spent more expenditure on poverty reducing activities, compared with the pre-debt relief period. Similarly, the government of Ethiopia takes this relief to eliminate poverty.
3.	Managing driving forces to lower debt accumulation	<ul style="list-style-type: none"> Securing a sustainable increase in real GDP growth, openness of the economy to the rest of the world and infrastructural development should be considered to lower public debt. There must be macroeconomic and political stability to create a fertile ground. In this regard, inflation rate, political instability corruption index, government expenditure, and age dependency ratio can aggravate debt accumulation problem in Ethiopia so that the government should restore public confidence by regaining economic and political stability.

No.	Policy Goals	Policy Strategies
4.	Prudent Debt Portfolio Management	<ul style="list-style-type: none"> • Making decisions about investment mix and policy, matching investments to objectives, asset allocation for government and institutions, and balancing risk against performance. • There must be a strong portfolio management is all about determining the level of strengths, weaknesses, opportunities and threats in the choice of debt vs. equity, domestic vs. international, growth vs. safety, and many other trade-offs encountered in the attempt to maximize return at a given risk. • There must be a diversified approach on the concentration of foreign loan and debt by lending countries so that reduce heavily dependent on foreign loan in general and China in particular. • A government's debt portfolio is usually the largest financial portfolio. It often contains complex and risky financial structures, and can generate substantial risk to the government's balance sheet and to the country's financial stability. • The volatile and changing outlook for debt markets, creditors, and donors highlights the importance of developing and maintaining a diverse range of financing sources. In particular, the external nature of the shock highlights the importance of a resilient source of domestic savings to absorb shortfalls in external financing. Further, the higher volatility of interest rates, exchange rates, and debt flows exert additional pressure on debt managers to properly assess and to the extent possible mitigate the risks.
5.	Development Project Management	<ul style="list-style-type: none"> • Failed to pay back loan also attributed to the existence of poor project management where loan was considered to be paid from the return of development project so that there must be a strong project management • There must be skilled project managers and experts in the application of processes, methods, skills, knowledge and experience to achieve specific project objectives according to the project acceptance criteria within agreed parameters. This leads to reduce debt accumulation. • There must be a special focused office on foreign funded projects and provide professional support to be more effective and efficient.
6.	Enhancing Regulatory Framework	<ul style="list-style-type: none"> • There must well framed and transparent regulatory framework ranging from the scathing the agreement and implementation process. • Poorly structured debt in terms of maturity, currency, or interest rate composition and large and unfunded contingent liabilities have been important factors in inducing or propagating economic crises • Risky debt structures are often the consequence of inappropriate economic policies--fiscal, monetary and exchange rate--but the feedback effects undoubtedly go in both directions. However, there are limits to what sound debt management policies can deliver. Sound debt management policies are no panacea or substitute for sound fiscal and monetary management. If macroeconomic policy settings are poor, sound sovereign debt management may not by itself prevent any crisis. Sound debt management policies reduce susceptibility to contagion and financial risk by playing a catalytic role for broader financial market development and financial deepening. • There must be Guidelines that cover both domestic and external public debt and encompass a broad range of financial claims on the government. They seek to identify areas in which there is broad agreement on what generally constitutes sound practices in public debt management. • These Guidelines are mainly intended to assist policymakers by disseminating sound practices adopted in debt management strategy and operations. • Strengthening of debt management essential, such as for instance through the Debt Management Facility (DMF), promoting the mobilization of domestic resources and improving the quality of public spending.

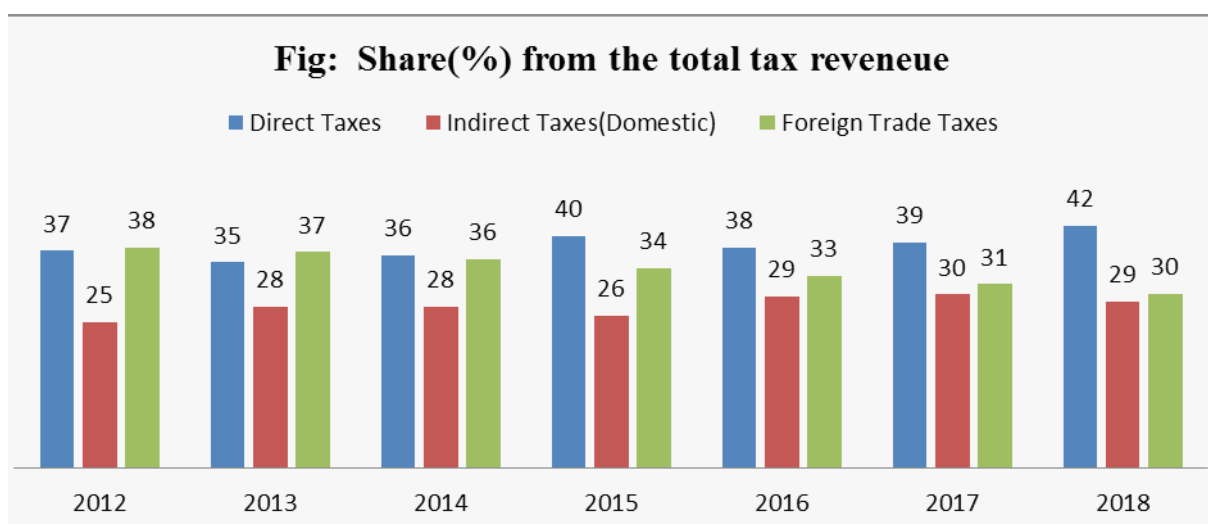
No.	Policy Goals	Policy Strategies
7.	Institutional Capacity Development	<ul style="list-style-type: none"> In debt management, human resources are suffering from relatively inadequate staff levels and lacking in skills, especially in the public service (as distinct from the more endowed central banks). Low remuneration, high brain drains and attrition rates, are among the leading contributory factors to this trend. There are legal and institutional bottlenecks to effective debt management. The legislation for debt management has become outdated. Institutionally, countries in the region are yet to embrace best practice in terms of the professional segregation of duties into front, middle and back offices. Debt management functions themselves are still both fragmented and weakly coordinated among various institutions, or are embedded in central banks or ministries of finance departments with lots of overlapping responsibilities. Capacity Building considered more sustainable compared to Technical Assistance. Improving debt management capacity in LICs, particularly where debt relief had created significant borrowing space. Public debt management work program that was particularly focused on strengthening frameworks and capacity. This comprised three main elements: (i) develop a toolkit that help to formulate an effective Debt Management Strategy (ii) undertake debt management performance assessments; and (iii) continue the provision of debt management and domestic market development technical assistance and advisory services. There must be skilled manpower that run (1) governance and strategy development; (2) coordination with macroeconomic policies; (3) borrowing and related financing activities; (4) cash flow forecasting and cash balance management; (5) operational risk management; and (6) debt records and reporting. In order to mitigate debt risk at national level, the government has to establish legal and institutional frameworks for regional fiscal discipline and debt management. Likewise, there is a need to organize capacity building and strong fiscal control mechanisms for regional governments.
8.	Role of Private Sector and Privatization	<ul style="list-style-type: none"> The private sector is a critical component in addressing the development challenges discussed above through its contributions in many areas, including growth, jobs, poverty reduction, service delivery, food security, climate change mitigation, environmental sustainability, and contributions to taxes. In particular, the private wing should focus on export-oriented activities, wise allocation of resources, no diversion of funds, and must be aligned with the national development program in order to reduce external debt by creating collaborative competition in the business. The private sector and private sector employees are the providers of most of the taxes that support government operations. This leads to a natural synergy between the public and private sectors. The implementation of new public-private partnership models has initiated a second phase of private participation in infrastructure programs. These models incorporate the advantages of the fully state-owned and fully privatized models while managing their shortcomings. The benefits of these programs include productivity gains, improved quality of service, and increased coverage. These benefits can be enhanced with better project design and implementation and an appropriate institutional capacity and legal and regulatory framework.
9.	Debt service to Export and Export intensity	<ul style="list-style-type: none"> Ethiopia would benefit greatly from increased export growth and diversification, the latter including quality and destination of exports to enable the country to increase the borrowing capacity and paying capacity. To achieve these objectives, Ethiopia must improve the business environment faced by firms and the design and implementation of their export incentives and export promotion strategies. To accomplish these goals, the policy makers need to understand the factors affecting export performance of firms, and the lessons to be learnt from the experience of countries worldwide in implementing a number of export incentives and export promotion strategies.

Annex 2: GDP share of Revenue and Expenditure in Ethiopia

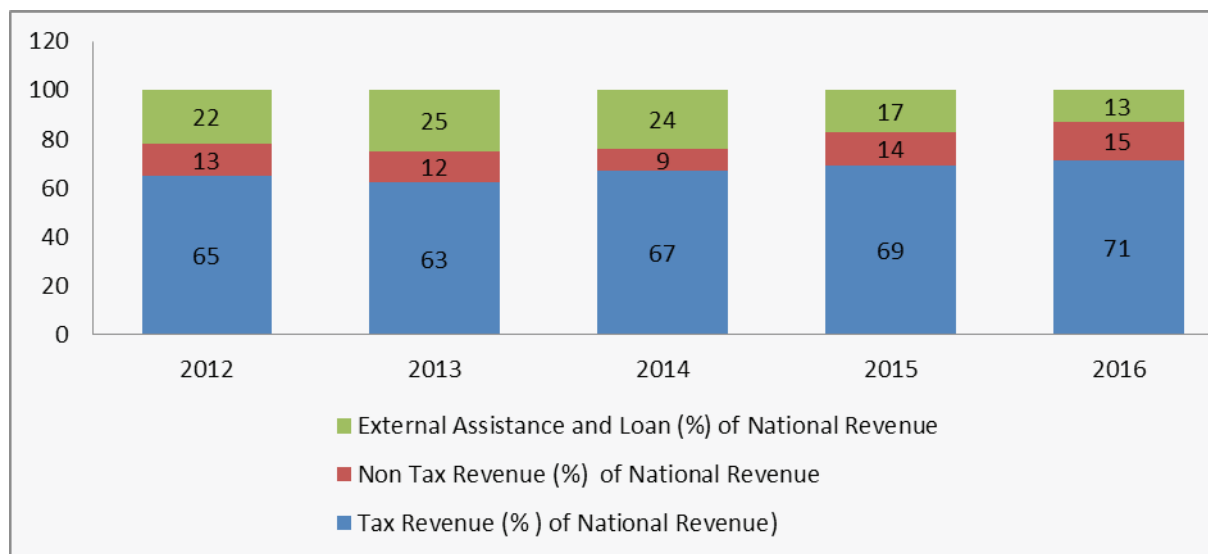


Source: African Economic Outlook (2018)

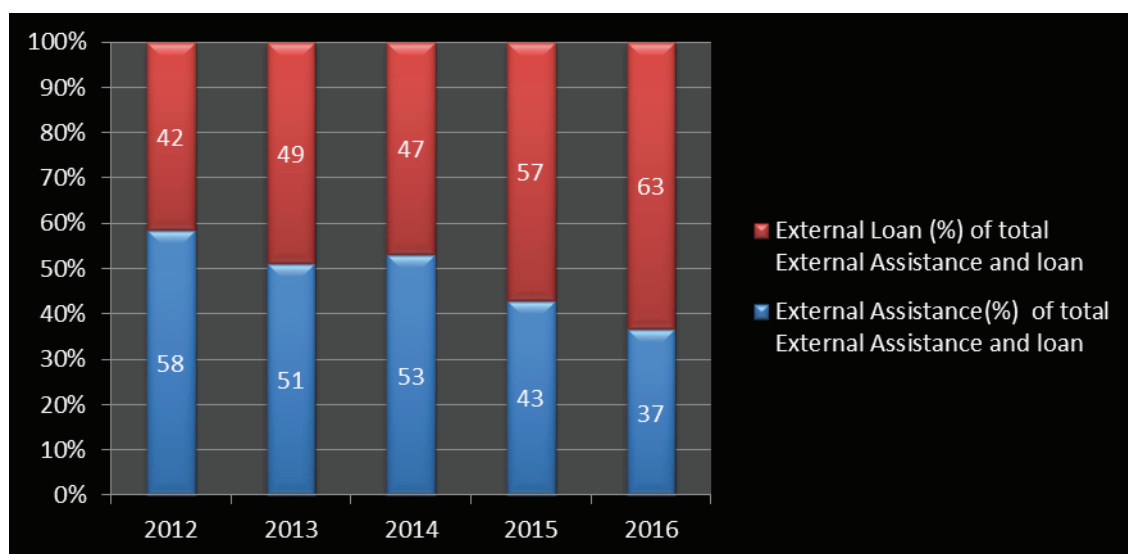
Annex 3: Share of tax revenue by component



Annex 4: Annual share of External loan and assistance, tax and non-tax revenue



Annex 4: Share of loan and assistances from the annual total



Annex 5: Unit Root Tests

```

.          dfuller lnkbd
Dickey-Fuller test for unit root          Number of obs   =          37

          _____ Interpolated Dickey-Fuller _____
          Test          1% Critical    5% Critical    10% Critical
          Statistic    Value          Value          Value
-----
Z(t)          -1.415          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.5752

.          dfuller lnrgdpp
Dickey-Fuller test for unit root          Number of obs   =          25

          _____ Interpolated Dickey-Fuller _____
          Test          1% Critical    5% Critical    10% Critical
          Statistic    Value          Value          Value
-----
Z(t)          -3.176          -3.750          -3.000          -2.630
-----
MacKinnon approximate p-value for Z(t) = 0.0214

.          dfuller lnopen
Dickey-Fuller test for unit root          Number of obs   =          37

          _____ Interpolated Dickey-Fuller _____
          Test          1% Critical    5% Critical    10% Critical
          Statistic    Value          Value          Value
-----
Z(t)          -1.201          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.6730

.          dfuller infl
Dickey-Fuller test for unit root          Number of obs   =          37

          _____ Interpolated Dickey-Fuller _____
          Test          1% Critical    5% Critical    10% Critical
          Statistic    Value          Value          Value
-----
Z(t)          -4.680          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.0001

```

```

.          dfuller lninfra
Dickey-Fuller test for unit root          Number of obs   =          37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -0.413          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.9079

.          dfuller lngexp
Dickey-Fuller test for unit root          Number of obs   =          37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -2.306          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.1699

.          dfuller lnrev
Dickey-Fuller test for unit root          Number of obs   =          37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -2.243          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.1911

.          dfuller unp
Dickey-Fuller test for unit root          Number of obs   =          37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -1.686          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.4382

.          dfuller ps
Dickey-Fuller test for unit root          Number of obs   =          37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -1.623          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.4711

.          dfuller lngadr
Dickey-Fuller test for unit root          Number of obs   =          37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -1.094          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.7174
    
```



```
.          dfuller Dps
Dickey-Fuller test for unit root          Number of obs   =          36

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -5.863          -3.675          -2.969          -2.617
```

MacKinnon approximate p-value for Z(t) = 0.0000

```
.          dfuller Dlngexp
Dickey-Fuller test for unit root          Number of obs   =          36

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -6.498          -3.675          -2.969          -2.617
```

MacKinnon approximate p-value for Z(t) = 0.0000

```
.          dfuller Dlngadr
Dickey-Fuller test for unit root          Number of obs   =          36

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
                          Value          Value          Value
-----
Z(t)          -3.148          -3.675          -2.969          -2.617
```

MacKinnon approximate p-value for Z(t) = 0.0232

```
. varsoc lnkbd rgdpp lnopen infl lninfra ps lngexp lngadr
```

Selection-order criteria

Sample: 5 - 38 Number of obs = 34

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-222.084				.000104	13.5344	13.6569	13.8935
1	18.954	482.08	64	0.000	3.5e-09	3.12035	4.22266	6.35264
2	114.161	190.41	64	0.000	1.1e-09	1.28464	3.36677	7.39008
3	329.072	429.82*	64	0.000	1.8e-12	-7.59245*	-4.5305*	1.38614*
4	.	.	64	.	-1.e-120*	.	.	.

Endogenous: lnkbd rgdpp lnopen infl lninfra ps lngexp lngadr

Exogenous: _cons

Johansen tests for cointegration

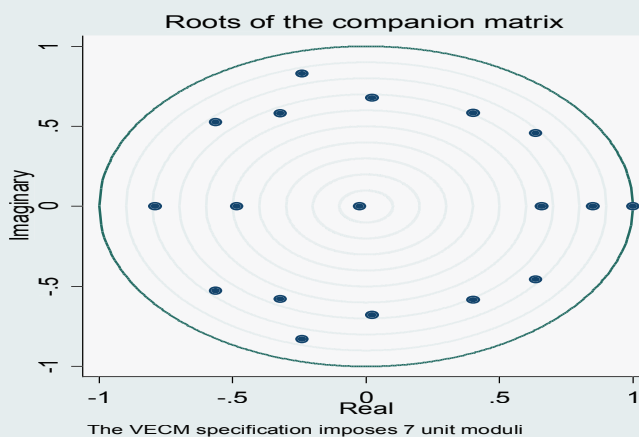
Trend: constant Number of obs = 35
 Sample: 4 - 38 Lags = 3

maximum rank	parms	LL	eigenvalue	trace statistic	5% critical value
0	136	41.398596	.	462.7302	156.00
1	151	123.87694	0.99102	297.7735	124.24
2	164	176.77594	0.95134	191.9755	94.15
3	175	210.41339	0.85371	124.7006	68.52
4	184	231.72248	0.70408	82.0825	47.21
5	191	251.26551	0.67266	42.9964	29.68
6	196	262.78688	0.48230	19.9537	15.41
7	199	271.27264	0.38424	2.9821*	3.76
8	200	272.76371	0.08168		

Eigenvalue stability condition

Eigenvalue	Modulus
1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
-.2382484 + .8295429i	.863078
-.2382484 - .8295429i	.863078
.8502024	.850202
-.7913178	.791318
.6371529 + .4575519i	.784422
.6371529 - .4575519i	.784422
-.5627062 + .5256316i	.770017
-.5627062 - .5256316i	.770017
.4007447 + .5835351i	.707891
.4007447 - .5835351i	.707891
.0207352 + .6773948i	.677712
.0207352 - .6773948i	.677712
-.3210698 + .5806797i	.663532
-.3210698 - .5806797i	.663532
.6575913	.657591
-.4852283	.485228
-.02321619	.023216

The VECM specification imposes 7 unit moduli.



The VECM specification imposes 7 unit moduli

Lagrange-multiplier test

lag	chi2	df	Prob > chi2
1	68.1071	64	0.33937
2	80.3516	64	0.08141

H0: no autocorrelation at lag order

```

. dfuller rev
Dickey-Fuller test for unit root                Number of obs   =        37
          Test Statistic          ----- Interpolated Dickey-Fuller -----
          1% Critical          5% Critical          10% Critical
          Value              Value              Value
-----
Z(t)          -2.230          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.1957

. dfuller drev
variable drev not found
r(111);

. g drev=D.rev
(1 missing value generated)

. dfuller drev
Dickey-Fuller test for unit root                Number of obs   =        36
          Test Statistic          ----- Interpolated Dickey-Fuller -----
          1% Critical          5% Critical          10% Critical
          Value              Value              Value
-----
Z(t)          -6.379          -3.675          -2.969          -2.617
-----
MacKinnon approximate p-value for Z(t) = 0.0000

. dfuller bdf
Dickey-Fuller test for unit root                Number of obs   =        37
          Test Statistic          ----- Interpolated Dickey-Fuller -----
          1% Critical          5% Critical          10% Critical
          Value              Value              Value
-----
Z(t)          -2.977          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.0371

. dfuller dbdf
Dickey-Fuller test for unit root                Number of obs   =        36
          Test Statistic          ----- Interpolated Dickey-Fuller -----
          1% Critical          5% Critical          10% Critical
          Value              Value              Value
-----
Z(t)          -7.536          -3.675          -2.969          -2.617
-----
MacKinnon approximate p-value for Z(t) = 0.0000

. dfuller unp
Dickey-Fuller test for unit root                Number of obs   =        37
          Test Statistic          ----- Interpolated Dickey-Fuller -----
          1% Critical          5% Critical          10% Critical
          Value              Value              Value
-----
Z(t)          -1.686          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.4382

. dfuller dunp
Dickey-Fuller test for unit root                Number of obs   =        36
          Test Statistic          ----- Interpolated Dickey-Fuller -----
          1% Critical          5% Critical          10% Critical
          Value              Value              Value
-----
Z(t)          -5.588          -3.675          -2.969          -2.617
-----
MacKinnon approximate p-value for Z(t) = 0.0000
    
```



```
. dfuller ps
Dickey-Fuller test for unit root           Number of obs   =       37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
          Value          Value          Value          Value
-----
Z(t)          -1.623          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.4711

. dfuller dps
Dickey-Fuller test for unit root           Number of obs   =       36

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
          Value          Value          Value          Value
-----
Z(t)          -5.863          -3.675          -2.969          -2.617
-----
MacKinnon approximate p-value for Z(t) = 0.0000

. dfuller adr
Dickey-Fuller test for unit root           Number of obs   =       37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
          Value          Value          Value          Value
-----
Z(t)          -1.079          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.7236

. dfuller dadr
Dickey-Fuller test for unit root           Number of obs   =       36

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
          Value          Value          Value          Value
-----
Z(t)          -3.106          -3.675          -2.969          -2.617
-----
MacKinnon approximate p-value for Z(t) = 0.0261

. dfuller laf
Dickey-Fuller test for unit root           Number of obs   =       37

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
          Value          Value          Value          Value
-----
Z(t)          -4.184          -3.668          -2.966          -2.616
-----
MacKinnon approximate p-value for Z(t) = 0.0007

. dfuller dlaf
Dickey-Fuller test for unit root           Number of obs   =       36

          Test          Interpolated Dickey-Fuller
          Statistic      1% Critical      5% Critical      10% Critical
          Value          Value          Value          Value
-----
Z(t)          -7.923          -3.675          -2.969          -2.617
-----
MacKinnon approximate p-value for Z(t) = 0.0000
```

m1_inpbd	m1_inpbd_SE	m1_inpbd_LB	m1_inpbd_UB	m1_rgdpp	m1_rgdpp_SE	m1_rgdpp_LB	m1_rgdpp_UB	m1_inopen	m1_inopen_SE	m1_inopen_LB	m1_inopen_UB
3.6903085	0.28780151	3.1262279	4.2543891	4.0754884	4.863968	-5.4577137	13.608691	3.3375548	0.10710586	3.1276311	3.5474784
3.7444718	0.44289977	2.8764042	4.6125394	9.9392379	6.7008497	-3.1941862	23.072662	3.3861896	0.17336467	3.0464011	3.7259781
3.9209986	0.59188527	2.7609248	5.0810724	8.7389334	7.5407628	-6.0406902	23.518557	3.3546363	0.2263998	2.9109008	3.7983718
3.9832101	0.69601114	2.6190534	5.3473669	4.959486	7.9162318	-10.556043	20.475015	3.3328225	0.24721777	2.8482846	3.8173604
4.0563796	0.80835229	2.4720382	5.6407209	5.933011	8.5508194	-11.165997	22.352599	3.3043132	0.28561744	2.7445133	3.8641131
4.1889603	0.91168973	2.4020813	5.9758393	6.4728442	8.8779983	-10.927713	23.873401	3.3130837	0.31756183	2.690674	3.9354935
4.3268196	1.026055	2.3157887	6.3378505	3.524103	9.141009	-14.391945	21.440151	3.2856803	0.35347339	2.5928851	3.9784754
m1_inf	m1_inf_SE	m1_inf_LB	m1_inf_UB	m1_ininfra	m1_ininfra_SE	m1_ininfra_LB	m1_ininfra_UB	m1_ps	m1_ps_SE	m1_ps_LB	m1_ps_UB
6.5975428	12.577771	-18.054435	31.249521	2.354775	0.05744818	2.2421787	2.4673714	-2.5566644	1.058446	-4.6311804	-0.48214835
3.8941801	14.036635	-23.61712	31.40548	2.3240393	0.11005335	2.1083388	2.5397399	-2.9773856	1.718394	-6.3453759	0.39060477
1.8085374	14.524195	-26.658361	30.275436	2.3130721	0.17384776	1.9723368	2.6538075	-2.6256775	2.4495425	-7.4266926	2.1753375
5.8995376	16.162162	-25.777717	37.576792	2.2926295	0.23044655	1.8409625	2.7442964	-2.2091449	3.0368761	-8.1613126	3.7430229
1.511258	17.910956	-33.593572	36.616088	2.2806164	0.29013317	1.7119659	2.849267	-2.3878202	3.5630489	-9.3712677	4.5956273
1.5627877	18.725252	-35.138031	38.263606	2.2820893	0.35327745	1.5896782	2.9745004	-1.5127998	4.0433685	-9.4376563	6.4120568
2.3583748	20.529992	-37.87967	42.596419	2.2675005	0.41700426	1.4501872	3.0848138	-0.7748497	4.4614836	-9.519197	7.9694975
m1_ingexp	m1_ingexp_SE	m1_ingexp_LB	m1_ingexp_UB	m1_ingadr	m1_ingadr_SE	m1_ingadr_LB	m1_ingadr_UB	m1_ps	m1_ps_SE	m1_ps_LB	m1_ps_UB
2.8429953	0.1220487	2.6037842	3.0822064	1.8339829	0.00605118	1.8221228	1.845843	-2.5566644	1.058446	-4.6311804	-0.48214835
2.8163079	0.20524905	2.4140271	3.2185886	1.8362348	0.01137767	1.813935	1.8585346	-2.9773856	1.718394	-6.3453759	0.39060477
2.8067706	0.28595212	2.2463147	3.3672264	1.8382578	0.01549727	1.8078837	1.8686319	-2.6256775	2.4495425	-7.4266926	2.1753375
2.8461689	0.33639659	2.1868437	3.5054941	1.8400102	0.01897429	1.8028212	1.8771991	-2.2091449	3.0368761	-8.1613126	3.7430229
2.8121669	0.3812245	2.0649807	3.5993532	1.84103	0.02159554	1.7987035	1.8833565	-2.3878202	3.5630489	-9.3712677	4.5956273
2.8260935	0.42593108	1.991284	3.6609031	1.8412852	0.02351304	1.7952005	1.88737	-1.5127998	4.0433685	-9.4376563	6.4120568
2.7531916	0.46938781	1.8332084	3.6731748	1.8406962	0.02496948	1.7917569	1.8896355	-0.7748497	4.4614836	-9.519197	7.9694975

Forecast value over the period 2019 – 2025

Annex 6: Trends in Public Debt as % of GDP for the Period 1981-2025

year	Public Debt (Total of Domestic and external Debt) expressed as % of GDP
1981	25.17
1982	42.6
1983	44.95
1984	52.28
1985	55.17
1986	62.59
1987	70.39
1988	71.16
1989	68.93
1990	71.4
1991	68.21
1992	89.71
1993	111.25
1994	147.18
1995	135.78
1996	118.67
1997	118.82
1998	133.65
1999	72.86
2000	67.42
2001	70.24
2002	84.04
2003	85.09
2004	65.24
2005	49.94
2006	14.57
2007	13.14
2008	10.51
2009	16.55
2010	24.43
2011	26.99
2012	24.21
2013	26.47
2014	30.55
2015	32.74
2016	32.7
2017	33.18
2018	32.87
2019	40.1
2020	42.5
2021	50.5
2022	54
2023	58
2024	66
2025	75.5

Chapter Two: Increasing Trade



Executive Summary

Background

Different countries have different factor endowments, and the international mobility of these factors is severely limited. Some countries are rich in capital resources, others are rich in labor resources, and still others are rich in natural resources showing that earth's resources are not equally distributed across its surface. As a result, every country must trade with other to acquire what it lacks. Trade made in this manner leads to more efficient production of goods and services and allows for technological transfer. It also creates access to goods and services that would otherwise be not achievable with a country's own resources thereby promoting competition.

For Ethiopia, with a large domestic market of over 100 million people, trade is a very critical instrument for sustained economic growth and structural transformation through its linkages with all sectors of the economy.

Against the above background, the objective of the study was to review the trade performance of Ethiopia and identify constraints and problems as well as opportunities with a view to recommending appropriate policies to enhance domestic and international trade.

A. Trade Performance of Ethiopia

Ethiopia's trade policy is described under Trade and Industry Chapter in both GTPI and GTPII. In GTP II, increasing the export share of merchandise trade and manufacturing industry has been emphasized. A look in to Ethiopia's trade initiatives in the past, however, shows not impressive outcomes. This is evidenced by trade performance of the country.

- Despite Ethiopia's attempts at achieving both higher levels of exports and increased export diversification, the country suffers from low levels of exports as well as significant concentration in a relatively limited number of products (coffee, vegetables, oil seeds and floriculture).
- Nearly a third of Ethiopia's exports go to Asia (over 40% when China is included), about a quarter to the EU and almost 20 percent to the Middle East. Infact, the composition of Ethiopia's trading partners is shifting towards developing countries particularly Africa. The two countries in East Africa, Somali and Djibouti accounted for 15.45% of Ethiopian total exports.
- A look in to the current account balance reveals that Ethiopia faced a widening trade balance as well as Balance of Payment problems. This is notable in the analysis of both imports and exports.
 - During the period 2010/11-2017/18 import and export of goods and services of Ethiopia has shown an increasing trend with the exception of the years 2016/17 and 2017/18 where imports of goods and services showed a slight decline(see table below). In the period, exports and imports of goods and services have grown by 4.3% and 10.46% respectively.
 - In 2017/18, export of goods and services was USD 7.0 billion, a 13.16% increase compared to same period of the previous year. On the other hand, import of goods was USD 19.2 billion, showing a slight increase of 0.21 % compared to same period of the previous year.
 - During the period 2010/11-2017/18, export and import of goods have shown an increase of 5.3% and 8.7 % respectively. As a result, Trade deficit averaged USD 10.5 billion. Over the period, trade balance of the country increasingly widened. In the just ended 2017/18 trade deficit registered was USD 12.4 billion.

- Moreover, the average export in goods as percentage of GDP from 2009/10 to 2018/19 was 5.5 and the average import as percent of GDP for the same period was 23.3. Compared to regional economies, such as, Tanzania, Uganda, Rwanda and Kenya, Ethiopia export performance as percentage of GDP were the lowest.

B. Ethiopia's Global Integration

For countries like Ethiopia, the over-arching aim of trade integration to the global economy is important to exploit the opportunities beneficial to transform the economy from a largely a peasant agricultural economy to a modern economy. However, Ethiopia has only gradually been integrating in to the global economy, as witnessed from the low share of the external trade sector in GDP.

In 2017, Ethiopia's import purchases amounted to US 14.7 billion, more by 34.1% since 2013 but down by 10.5% from 2016 to 2017. Ethiopian imports represent a very small amount from the total global imports around 0.1%, which totaled USD 16,054 trillion one year earlier in 2016. From a continental perspective, two-thirds (66.9%) of Ethiopia's total imports by value in 2017 were purchased from Asian countries. European trade partners supplied 17% of import purchases by Ethiopia while 8.7% worth of goods originated from North America. 5.4% came from African exporters and 1.3% sent from Latin America (excluding Mexico) and the Caribbean. On the other hand, Ethiopia's Africa's export share from its total export averaged 20.21% whereas its import share was nearly 4.22% during the period 2012-2017. A very good prospect is that Ethiopia's trading with African countries is increasing in recent years,

In contrast, Ethiopia lost around 16.2% of its taxable revenue due to illicit trade transactions in the country. According to the Federal Customs Authority's report (2010 E.C), the most contraband items imported to the country include electronics, garments of various kinds, perfumes, cosmetics, drugs and armaments. During the period 2012-2014, cloths, electronics and tobacco accounted for 54%, 165 and 8% respectively of the total value of contraband imports.

C. Challenges and Problems

Ethiopia's export trade faces a number of challenges' such as lack of a comprehensive trade policy, low production, productivity and low value addition, limited quality and standards of export goods, lack of export diversification, trade logistics, transport cost and customs, inconvenient business environment, supply side constraints, inadequate access to foreign currency, stringent international market requirements/ non-tariff trade barriers, and lack of research and development and technological infrastructure in the trade sector.

The domestic trade which encompasses both formal as well as informal trade also has many challenges. Problems of the formal trade relate to past policies that marginalize the private sector, absence of free and competitive market, state dominance and anticompetitive practices. On the other hand, problems with the informal trade are related to legality, revenue loss, appropriate premises, attention and strategic support.

In general, the major causes for weak trade performance in the country include absence of a comprehensive trade policy, lack of robust institutions, poor trade logistics, unsupportive macroeconomic policy mix, and underdeveloped private sector. Accordingly, this study recommends the following policy proposals to improve its international and domestic trade performance and hence enable the country drive its development.

D. Recommended Policy Proposals

i. Trade Policy

ii. A comprehensive policy to improve the international trade is necessary. In this connection developing a trade policy by involving all concerned actors is necessary.

iii. Export Diversification

- Introducing new produces compatible for the international market by of value additions to existing traditional agricultural exports and diversify export items (in terms of product as well as geographic locations).

iv. Trade Logistics

- There is a critical need to fix the huge logistics infrastructure gap in Ethiopia. This is critical to integrate the country in to the regional and global economies , improve trade performance and promote sustainable development. In this regard, it is important to improving the inbound and outbound logistics, which are factors contributing to towards rising import –export costs.by way of increasing public –private investments in logistic infrastructure.

v. Institutions and Capacity Building

vi. Export –Import Promotion Agency

- Currently, the country has no a dedicated institution for trade facilitation and export promotion. Thus, establish trade facilitation and export promotion agency to lead, coordinate and harmonize trading to promote the dwindling export sector is crucial.

vii. Standard and Quality Infrastructure

- Low product quality emanating from lack of enterprises capacity to comply with quality requirements is limiting product competitiveness. This resulted in the country's products falling to compete with products of other countries. Thus creating capacities to comply with quality requirements (technology, know-how, and manpower) and institute standard and quality assurance systems at each level of production is important. In this connection strengthening institutions both private and government are necessary.

viii. Capacity Building

- Building the capacity of key institutions like Ministry of Trade and Industry , Ministry of Revenue and Customs Commission in terms of human resource and of the necessary technologies to improve their efficiency in service delivery (time, cost and quality).
- Strengthen and support institutions supporting the private sector including chamber of commerce
- Establish data center for evaluating and monitoring purpose of the trade performance in domestic and international market.

ix. An organized preparations for effective implementation of AfCFTA and other regional trade agreements, WTO etc.

x. Development of the domestic trade sub-sector using a multi-faceted approach for domestic trade serve as a spring board for effective participation in international trade. hence the required measure includes:

- A comprehensive pro-business competition policy and law to eliminate unfair trade practices, bolstering the capacity of inspection and other law enforcement agencies.
- Providing the necessary support to local operators to substitute foreign products by local production
- Identification and exploitation of policy synergies and complementarities;
- Ensuring that goods and services in the domestic market meet the required standards
- Reducing artificial shortages of products and services
- Nurturing the private sector with a view to making it competitive in production and trade;
- Ensuring that all national policies and practices on taxation and licensing are supportive of competitiveness of Ethiopia products.
- Establishing standards for guiding the operation of the informal trade
- Establishing an efficient and effective border trade policies

- Creating an appropriate business environment for the formalization of the informal trade like creating an appropriate marketing corridors and centers, and
- Setting up strict follow up and controlling measures to prevent substandard goods from reaching consumers.

xi. Other Complementary Policy Proposals

- Establishing data center for evaluating and monitoring purposes of the trade performance for domestic and international market. And develop and implement through a public-private partnership, a market information system at the national level and at all districts in the country.
- Court of commerce for Trade Sector that provides extensive assistance/solution on the full scope of trade-related issues in the domestic and international market.
- A public-private partnership approach, to ensure the availability of tradefacilitating infrastructure (such as modern market centers, convenient storage facilities, refrigerated trucks, laboratories, e.t.c.)
- reorientation of training institutions to provide business and entrepreneurial skills relevant to private sector development, competitiveness, and trade policy.
- Encourage the acquisition and usage of modern technology through implementation of measures aimed at promoting technology transfer;
- Pursue macroeconomic policies and practices that are consistent with the country's objective of increasing exports and competitiveness; and
- Increased initiatives for the development of Small and Medium Enterprises (SMEs).

2.1. Introduction

Different countries have different factor endowments, and the international mobility of these factors is severely limited. Some countries are rich in capital resources; others are rich in labor resources, while some are blessed with natural resources. As a result, every country must trade with others to acquire what it lacks.

Trade leads to a more efficient production of goods and services and allows for technological transfer. It also creates access to goods and services that would otherwise be unattainable. Trade also enhances competition among the domestic industries and helps expand the market size. According to AAA (2015)¹, international trade is an engine for inclusive economic growth and poverty reduction and contributes to the promotion of sustainable development.

2.1.1. The Economic Contribution of Trade

Trade plays a significant role in countries' growth and development through its linkages with agriculture, manufacturing and service industries and creating markets through which goods and services get to consumers. It also plays a critical role in poverty reduction through employment creation in informal, retail, and wholesale trade.

Countries are now giving more importance to trade relations, than ever due to its advantages to consumers, producers and the economy as a whole. These specific benefits are highlighted here below.

- **Choice:** Trade provides choice. If one wants to buy a product today, there is plenty of choice. One can choose from the products of many different firms or brands of different countries.
- **Quality:** Trade not only provides a choice to a product but also helps get the best quality of the item people want.

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1 Inter-Agency Task Force on Financing for Development, (2016). Addis Ababa Action Agenda: Monitoring Commitments and Actions: Inaugural Report 2016, UN.

- **Price:** Through trade, countries can get a product from a source produced more cheaply. This not only benefits consumers but also helps keep inflation down.
- **Not produced at home:** When countries face difficulties getting a product at home, trade becomes an important solution to relief from a natural disadvantage.
- **Wider Markets:** There is a limit to how much a country can sell in a home market. For example, Ethiopia has 100 million people to sell to, so there are more benefits gained from trading globally. For the country, global trade which is limitless, helps expand sales of companies or firms thereby increasing their wealth. This contributes also to more employment and consumption, two positive factors for economic growth.
- **Foreign Exchange Earnings:** Exporting is one major source of improving foreign currency reserves. When countries sell abroad, a flow of foreign currency and wealth occurs which is economically beneficial.

In general, trade contributes to economic growth and improvements in the living standards of citizens.

2.1.2. Trade to the Ethiopian Economy

Ethiopia has a large domestic market of over 110 million people, making it the second most populous country in Africa after Nigeria. Having this population size, over the last decade, has made Ethiopia one of the fastest growing economies in the world, with an average annual growth rates ranging from 7% to 12%. More specifically, the Ethiopian economy registered an average growth of 8.6% during the first three years (2015/16 – 2017/18) of Ethiopia's second five years' Growth & Transformation Plan (GTP) period, despite a slowdown to 7.7% in 2017/18. The industry contributed 3.1% points to the growth recorded, while services and agriculture accounted for 3.3 and 1.3 percentage points respectively. According to the World Bank, Ethiopia's Real Gross Domestic Product (GDP) is expected to grow by 8.5% in 2019.

For countries like Ethiopia, the over-arching aim of global trade is to transform the economy from a largely peasant agricultural economy to a modern one. At present, Ethiopia's leading export goods include coffee, dried vegetables, gold, meat, leather and leather products. More than 40 percent of its exports go to the United States, Saudi Arabia, Germany Switzerland, and China; Ethiopia's major export partners. Ethiopia's major imports are petroleum, motor vehicles, medical machinery and equipment, palm oil, and chemical fertilizers. It also buys most of the consumer goods such as cellphones, computers, radios, televisions, pharmaceuticals, and textiles that have a significant local demand. Although Ethiopia buys these goods from its major import trading partners, China, United States, India, Kuwait and Japan, nearly a third of Ethiopia's overall imports come from China.

Cognizant of the above, AACCSA has conducted this study in a bid to develop policy prescriptions for Ethiopia to increase its trade by way of assessing the current trade performance and identifying all possible challenges and opportunities. The study also identifies key constraints to the country's domestic and international trading systems by looking at both the supply and demand factors.

2.2. Objectives, Scope and Methodology

Considering the above background, the objective of the study is to review the trade performance of Ethiopia and identify constraints and problems. The study will also propose appropriate policies to enhance domestic and international trade. More specific objectives of the study are as follows:

- To review factors behind the weak trade performance of Ethiopia and identify critical constraints and challenges in both domestic and international trade.

- To find appropriate ways to strengthen Ethiopia's participation in international trade as well as to promote and develop domestic trade.
- To formulate alternative policy recommendations that help improve and modernize the trade sector.
- To set possible KPIs appropriate to monitor policy instruments.

2.2.1. Scope of the Study

The scope of the study covers the following:

- Undertake a review of theoretical and empirical literature,
- Review the trade performance of Ethiopia with emphasis on export and domestic trade; and
- Review the trade sector in comparison with countries of similar economic status (Kenya, Tanzania, Uganda and Rwanda)

2.2.2. Data and Methodology

Data and information were collected through rigorous desk reviews on theoretical and empirical trade performance of the country. We also collected previous AACCSA research works and other documents related to the topic. Among others, these included documents such as the growth and transformation plan of Ethiopia with emphasis on the strategy of trade sector, the regulatory and institutional framework and the empirical evidences on the subject matter.

The study also used secondary data collected from different sources such as the National Bank of Ethiopia, Ethiopian Revenue and Custom Authority, World Bank and the Ethiopian Economic Association CD-ROM Data base.

The study incorporated both descriptive as well as econometric approaches. The descriptive method deploys graphs, tables and figures to reflect the severity of the problems and to show the implications. The econometric approach is used to see the factors determining the export performance.

2.3. Literature review

2.3.1. Theoretical Literature

The idea of international trade bringing economic growth and increasing the welfare of a nation started during the 17th century by a group of merchants, government officials and philosophers who advocated an economic philosophy known as mercantilism. According to mercantilists, for a nation to become rich and powerful, it must export more than it imports.

Adam Smith, who wrote, *Wealth of Nations*, attacked the main mercantilists' views and proposed the classical theory of international trade based on the concept of absolute advantage model. According to him, stock of human, man-made and natural resources rather than stock of precious metals, was the true measure of a nation's wealth. Smith further argued that the wealth of a nation can be expanded if the government would abandon mercantilist controls. In addition, he showed that trade can make a nation better off without making another worse off (Mannur, 1996).

Absolute advantage, however, explains only a very small part of the world trade today i.e. trade between developed and developing countries. Most of the world's trade, especially trade among developed countries, could not be explained by absolute advantage (Salvatore, 1990).

The model of comparative advantage was later articulated by economist David Ricardo to replace the principle of absolute advantage. According to this model, a country will specialize in the production and export of the commodity in which it has a comparative advantage i.e. the commodity that it can produce at the lowest relative cost.

As an attempt to modify the classical theory of trade, the factor endowment theory of Eli Hecksher and Bertil Ohlin (H-O) of external trade evolved. According to this theory, different products require productive factors in different relative proportions and countries have different endowments of factors of production. Some countries have large amounts of capital (capital abundant) while others have little capital and much labor (labor abundant). This theory argues that each country has a comparative advantage because commodity uses the country's abundant factor. Therefore, capital abundant countries should specialize in the production and export of capital-intensive goods while labor abundant countries should specialize in the production and export of labor-intensive commodities.

This theory, which played a predominant role in the early literature of trade theory, encouraged third world countries to focus on their labor and land intensive primary product exports. It was argued that by exchanging these primary products for manufactured goods of the developed countries, third world nations would realize enormous benefits obtained from trade with the richer nations.

Although the factor endowment theory contributed a lot to the modern theory of international trade, the validity of the theory is based on a set of assumptions that are unlikely to hold. Specifically, the six basic assumptions of the neo-classical trade model are critical in explaining trade between the developed and the developing countries².

In recent years, economists have challenged the static neo-classical model and developed new models that explain trade between developed and developing countries. Unlike the traditional model, which is assumed to apply to all nations, the so called North South trade models focus specifically on trade relation between rich and poor countries (Ocampo, 1980).

The notion of trade as an "engine of growth" is given much emphasis by many economists. Proponents of the traditional theory of trade still contend that trade can contribute substantially to the development of primary-exporting countries. It is argued that the growth of many developed countries like the United States, Canada, Australia, and New Zealand, which were once developing nations, is mainly attributed to international trade. However other economists strongly believe that the accrual of the gains from international trade is biased in favor of the advanced industrial countries and that foreign trade has inhibited industrial development in poor nations. Thus, these economists view international trade as being completely irrelevant for developing nations and their development process.

The controversy on the notion of trade as an engine of growth, led developing countries to pursue different trade strategies for development. The two trade policies adopted by many developing countries are import substitution and export promotion (Todaro, 1994).

2.4. Historical overview of Ethiopia's Trade Policy

Trade policy is becoming an increasingly important means for countries to foster economic growth and development. According to Sally, R. (2005), poor countries should consider complex international trade rules as well as both producers and consumers which influence trade policies. The goal in this section is to review Ethiopia's trade regime and the trade policy reforms that have been implemented since 1974.

2.4.1. The Socialist Regime (1974-91)

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² For the critics of the basic assumptions in explaining trade between the developed and the developing countries see Todaro (1994) p. 454

This period was characterized by economic restructuring based on a massive regulation and nationalization of almost all private firms. The country in this period, was one of the most heavily regulated and closed economies in the world. In that same period, the birr remained at the rate of 2.07, affecting exports in the international market.

As a result, the private sector was non-existent. In short, Ethiopia was pursuing a protective trade regime during this period.

2.4.2. The EPRDF Period (1991 onwards)

i. Overall Policy Context

A variety of market-based reforms were introduced to reverse the past policies since the 1990s. The incumbent government adopted an overall development strategy known as Agricultural Development-Led Development Industrialization (ADLI) strategy. ADLI was implemented to stimulate farm output and rural incomes, thereby generating broad-based growth and reducing poverty. The strategy focused on increasing the production and productivity of smallholder agriculture through complementary intervention like promotion of improved agricultural technologies, provision of credit services, development of infrastructure, and improvement of primary education and health care services.

The focus on broad-based growth and poverty reduction has been underscored in the series of poverty reduction programs introduced since early 2000s (MoFED, 2005). The first of such series, called Sustainable Development for Poverty Reduction Program (SDPRP), was implemented between 2000/1 and 2003/4. The second phase, from 2005-2010, was known as the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) and it focused on agriculture and sustainable development.

ii. The Structural Adjustment Period

Since the change of government in 1991, the Ethiopian economy has moved away from central planning towards a market-based economy strongly encouraged by the IMF and WB. In 1992, the government implemented a series of extensive economic reforms (Gebreyesus, 2013). The key elements of the reform pertaining to trade included:

- Import liberalization through the rationalization of the tariff structure;
- Easing quantitative restrictions and licensing on imports;
- Devaluing of the Birr from 2.07 to 5 Birr per dollar
- Removing subsidies and export tax rebate
- Introducing new investment code, etc.

The immediate objectives of these reforms were to stabilize, restructure, and rehabilitate a very weak economy inherited from the socialist government. There were also major trade reforms focusing on tariff and non-tariff barriers. Accordingly, the number of tariff bands was reduced from 25 in pre-reform period to six in 2003. Besides, the average tariff rate was substantially reduced from about 41.96%, prior to 1993, to 17.5 % in 2018.

On the other hand, there were developments in relaxing the previous foreign exchange allocations by lifting /improving preferential treatments in specific sectors and for products to be inclusive.

Unfortunately, trade reform outcomes have not been impressive; a look into the current account balance reveals that Ethiopia faces a widening trade balance as well as Balance of Payment problems. During the 2010/11-2015/16 period, the trade deficit averaged nearly 18 percent of GDP.

iii. Growth and Transformation Plan (GTP)³

Ethiopia has pursued a 'developmental state' model since the early 2000s, largely inspired by the development experience of East Asian countries, including China's recent remarkable growth. Ethiopia envisions becoming a middle-income country by 2025 after implementing three successive five-year development plans. The three consecutive five year's development plans are as follows:

- A Plan for Accelerated and Sustained Development to End Poverty (PASDEP) and
- The first Growth and Transformation Plan (GTPI) which will run from 2005/6 to 2009/10.
- The second Growth and Transformation Plan (GTPII) which will run from 2010/11 to 2019/20⁴.

In the Growth and Transformation Plans, trade policy emerged as a key instrument to be used in tandem with other development policies like investment to increase efficiency of economic activities and competitiveness in international markets. As a result, there are programs instead of a unified trade policy for the country. This point is made clearly by looking at the two specific five plans, GTPI and GTPII, introduced by the government of Ethiopia.

The First Growth and Transformation Plan (2010/11-2014/15)

This first plan placed special emphasis on agriculture and rural development, industry, infrastructure, social and human development, as well as democratization and good governance. It ran from 2010 to 2015.

Second Growth and Transformation Plan (2014/15-2019/20)

The second Growth and Transformation Plan (GTPII), which is now in action, is designed to enable the economy to grow at an average of 11 percent and impact the structural transformation of the economy.

GTP II articulates four development objectives: (I) annual average real GDP growth rate of 11 percent within a stable macroeconomic environment; (II) enhanced competitiveness of the domestic productive sectors in agricultural and manufacturing to promote structural transformation; (III) public mobilization and ownership of development outcomes; and (IV) a stable democratic developmental state. The plan further specifies what constitutes a stable macroeconomic environment; that includes:

- Single-digit inflation
- A stable exchange rate
- A budget deficit less than 3 percent of GDP
- Gross domestic savings of 29.6 percent of GDP
- Domestic investment of 41.3 percent of GDP
- FDI as 11 percent of GDP

Ethiopia's efforts at structural transformation hinge, as noted in GTP II, on enhanced competitiveness (defined in GTP II as increased productivity) in the agricultural and manufacturing sectors. Importantly, the plan articulates a greater role for the private sector as an engine of growth, particularly in light manufacturing.

GTP II stresses the creation of favorable conditions for domestic as well as foreign investors, who are viewed as a conduit for technology transfer and export generation. Industrial zones have been a key strategy for attracting foreign investors and, in turn, generating exports. Industrial

³ Ethiopia's Economic Development Strategy

⁴ FDRE, Growth and Transformation Plan II (2015/16-2019/20)

zones feature a number of incentives including preferential trade deals, tax holidays, and duty-free imports of machinery, equipment and construction materials.⁵The sectors anticipated to be export drivers include textiles and garments, leather and leather products, livestock products (including meat, dairy and honey), food and beverage, sugar, pharmaceuticals, metals and engineering products, electric and electronic products, chemicals and construction materials.

2.4.3. Lessons from Policy Analysis

The implication of this policy analysis section is that Ethiopia's trade policy does not exist as one unified document; rather it is integrated with other policies, strategies and programmes. Thus, Ethiopia's trade policy is mentioned under the Trade and Industry chapters in both GTPI and GTPII. In GTP II, increasing the export share of merchandise trade and manufacturing industry has been emphasized.

The Ethiopian economy registered an average growth of 8.6% during the first three years (2015/16 – 2017/18) of the second five years' Growth & Transformation Plan period, despite a slowdown to 7.7% in 2017/18. Industry contributed 3.1% points to the growth recorded, while services and agriculture accounted for 3.3 and 1.3 percentage points respectively. Moreover, Ethiopia successfully maintained single-digit inflation until late 2017/2018 although inflation stood at about 12 percent in October 2018, driven principally by food inflation.⁶ Despite Ethiopia's attempts at achieving both higher levels of exports and increased export diversification, the country still suffers from low levels of exports as well as a significant concentration in a relatively limited number of products (coffee, vegetables, oil seeds and floriculture).

2.5. Analysis, Results and Discussion

2.5.1. Ethiopia's Trade Performance

2.5.1.1. Trade in Goods and Services

Between 2010/11-2017/18, the import and export of Ethiopia's goods and services has shown an increasing trend except for the years 2016/17 and 2017/18 where imports of goods and services showed a slight decline(see table below Within that timeframe, exports and imports of goods and services have grown by 4.3% and 10.46% respectively.

Particulars	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Average
Export of goods (USD mn)	2747	3153	3116	3300	3019	2868	2908	2840	2993.875
Export of Services (USD mns)	2586	2811	2853	3174	3028	3196	3331	4220	3149.875
Total (USD mns)	5333	5964	5969	6474	6047	6064	6239	7060	6143.75
Growth (%)	-	11.83	0.08	8.46	(6.60)	0.28	2.89	13.16	4.30
Import of Goods (USD mn)	(8253)	(11018)	(11461)	(13712)	(16458)	(16725)	(15803)	(15253)	(13585.4)
Import of Services (USD mns)	(1828)	(2639)	(2281)	(2461)	(3107)	(3442)	(3393)	(3983)	(2891.75)

5 <https://agoa.info/news/article/15014-the-attraction-of-textile-manufacturing-in-ethiopia.html>

6 <https://agoa.info/news/article/15014-the-attraction-of-textile-manufacturing-in-ethiopia.html>

Total (USD mns)	(10081)	(13657)	(13742)	(16173)	(19565)	(20167)	(19196)	(19236)	(16477.1)
Growth (%)		35.47	0.62	17.69	20.97	3.08	(4.81)	0.21	10.46
Trade balance (USD mns)	(5506)	(7865)	(8345)	(10412)	(13439)	(13857)	(12895)	(12413)	(10591.5)
Net Services (USD mns)	758	172	572	713	(79)	(246)	(62)	237	258.125
Growth of Goods Exports (%)	37.1	14.8	-1.2	5.9	-8.5	-5.0	1.4	-2.3	5.275
Growth of Goods Imports (%)	-0.2	33.5	4.0	19.6	20.0	1.6	-5.5	-3.5	8.6875

Source: NBE, MOFEC, and Cepheus Capital Research

In 2017/18, the export of goods and services was USD 7.0 billion, a 13.16% increase compared to the same period, the previous year. On the other hand, the import of goods was USD 19.2 billion, showing a slight increase of 0.21 % compared to same period the previous year.

2.5.2. Export and Import of Goods

During the 2010/11-2017/18 period, export and import of goods showed an increase of 5.3% and 8.7 % respectively. As a result, the Trade deficit averaged USD 10.5 billion. Within that period, the trade balance of the country widened. By the end of 2017/18, the trade deficit registered was USD 12.4 billion.

2.5.3. Ethiopia's Trade to GDP Ratio

The average export of goods, as a percentage of GDP from 2009/10 to 2018/19, was 5.5 and the average import as a percent of GDP for the same period was 23.3. Compared to regional economies such as, Tanzania, Uganda, Rwanda and Kenya, Ethiopia's export performance as a percentage of GDP was the lowest. If exports are about 15 percent or less of GDP, the economy is considered relatively closed.

In 2018/19, Ethiopia's imports declined relative to the size of the economy. Imports were just 16 percent of the GDP last year, down from around 30 percent a decade ago.

Table 2.2: Ethiopia: Trade Ratio to GDP (2009-2018)

Year	Export % of GDP	Import % of GDP
2009/10	7.1	29.5
2010/11	9.0	27.1
2011/12	7.5	26.2
2012/13	6.6	24.1
2013/14	5.9	24.7
2014/15	4.7	25.5
2015/16	3.9	22.6
2016/17	3.6	19.4
2017/18	3.4	18.2
2018/19	2.8	15.7

Source: NBE Report, 2018/19

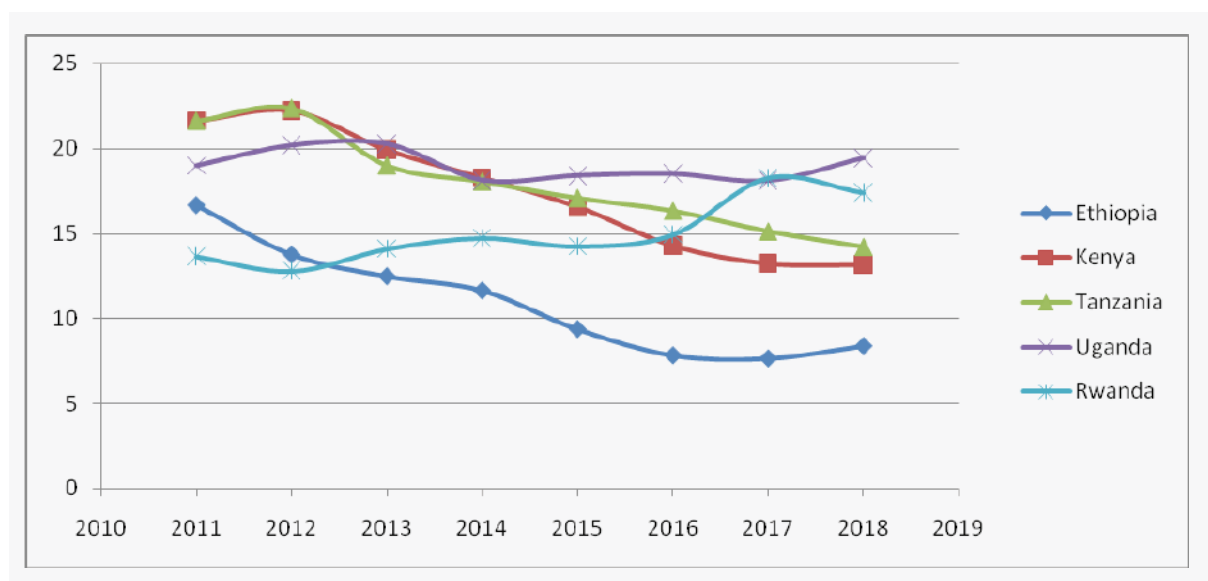
As shown in table above, Ethiopia’s export in goods and services is the lowest from 2013 to 2017 compared to the five neighboring countries, the revenue showed a drop from 12.5 percent in 2013 to 7.7 percent in 2017.

Table 3: Export revenue as percentage of Gross Domestic Product (GDP) compared to comparator Countries

Table 2.3 : Selected Countries Exports of Goods and Services as percent of GDP					
Country	Year				
	2013	2014	2015	2016	2017
Ethiopia	12.48	11.64	9.36	7.95	7.74
Kenya	19.93	18.3	16.59	13.97	13.93
Tanzania	17.65	19.41	21.62	19.59	
Uganda	20.3	18.17	18.44	18.58	18.51
Rwanda	14.09	14.72	14.24	14.93	18.24

Source: The Global Economy

Figure 1.1: Total export (% GDP) trend in some selected country, 2010-2018



Sources: World Bank data base

As we see from **figure 1**, the export performance of Ethiopia was below Kenya, Tanzania, Uganda and Rwanda between 2010 and 2018 (see figure). If Ethiopia’s performance continues this downward spiral, its competitiveness in trade will be under question when AcFTA and other bilateral agreements (such as COMESA) come into action.

i. Top Ten Export Products of Ethiopia

Ethiopia’s export is mainly dependent on a few primary commodities that have worsened the vulnerability of receipt instability from merchandise export. According to the NBE (2017/18), the export receipt from the few commodities, namely coffee, oilseeds, and Pulses accounts for 59% of total exports. That means any effect on these commodities’ prices could adversely affect the entire external trade balance of the country.

Table 2.4: Values of Major Export Items (In millions of USD)

Major Export Commodity	2015/16		2016/17		2017/18	
	value	% share	value	% share	value	% share
Coffee	722.7	25.2	883.2	30.4	839	29.5
Oilseeds	477.2	16.6	351	12.1	423.5	14.9
Leather and Leather products	115.3	4	114	3.9	132.4	4.7
Pulses	232.4	8.1	279.9	9.6	269.5	9.5
Meat & Meat Products	96.4	3.4	98.7	3.4	101.7	3.6
Fruits & Vegetables	53.7	1.9	56.1	1.9	61.4	2.2
Live Animals	147.8	5.2	67.6	2.3	61.1	2.2
Chat	262.5	9.2	273	9.4	263.2	9.3
Gold	290.7	10.1	208.8	7.2	100.2	3.5
Flower	225.3	7.9	218.5	7.5	228.6	8
Electricity	31.5	1.1	73.4	2.5	84.3	3
Others	212.3	7.4	283.2	9.7	275	9.7
total export	2867.7	100	2907.5	100	2839.8	100

Source: NBE report, 2017/18

In 2018/19, Ethiopia's most valuable exports were coffee, oilseeds, chat, pulses and flowers. These exported items accounted for more than half of the total exported items in value. These traditional products continue to dominate; coffee, oilseeds and chat amount to \$763 million, \$388 million and \$304 million, making up 28.6 percent, 14.6 percent and 11.4 percent of the total exports respectively. The other significant exports, by commodity, were pulses (\$265.5 million), flowers (\$257 million), textile and garments (\$153 million), leather and leather products (\$119 million). These made up 10 percent, 9.6 percent, 5.7 percent, and 4.5 percent of total exports respectively. The table below shows Ethiopia's top ten export items for the year 2018/19, which comprised 91 % of the export.

Table 2.5: Top Ten Export Items, 2018/2019

Product Label	Exported Value in 2018 (USD mn)	Share in Value, %
Coffee	763	28.6
Oilseeds	388.1	14.6
Chat	303.6	11.4
Pulses	265.5	10.0
Flower (roses)	256.6	9.6
Textile and garments	152.9	5.7
Leather and leather products	119.4	4.5
Meat and meat products	88.2	3.3
Fruit and vegetable	58.5	2.2

Product Label	Exported Value in 2018 (USD mn)	Share in Value, %
Electricity	55.4	1.7

Source: MOTI

ii. Top Ten Import Products of Ethiopia

In 2018/19, Ethiopia's most valuable imported products were petroleum, machinery and aircraft, metal and metal manufacturing. These imported items accounted for about 40 percent of the total imported items share in value.

Table 2.6: Top ten import items by value

Product Label	Imported Value in 2018/19 (USD mn)	Share in Value, %
Petroleum products	2,493	16.5
Machinery and aircraft	2,121	14.0
Metal and metal manufacturing	1,455	9.6
Electrical materials	998	6.6
Road and motor vehicles	789	5.2
Fertilizer	628	4.2
Food and live animals	523	3.5
Rubber products	275	1.8
Textile	240	1.6
Clothing	234	1.6

Source: MOTI

2.6. Trade Destination

As illustrated in the table below, nearly a third of Ethiopia's exports go to Asia (over 40% when China is included), about a quarter to the EU and almost 20 percent to the Middle East. In recent years, the composition of Ethiopia's trading partners is shifting towards developing countries, particularly in Africa. Somali and Djibouti accounted for 15.45% of Ethiopian total exports in East Africa.

Table 2.7 Major Export by Destination

COUNTRY	VOLUME(in TON)	VALUE(in 000 USD)	% SHARE
United States	57,977.58	283,222.66	10.62
Somalia	221,926.01	257,866.86	9.67
Netherlands	51,642.59	213,027.21	7.99
Saudi Arabia	67,498.16	183,179.87	6.87
China	73,202.26	156,778.39	5.88

COUNTRY	VOLUME(in TON)	VALUE(in 000 USD)	% SHARE
United Arab Emirates	74,576.44	137,542.79	5.16
Djibouti	214,461.42	132,244.07	4.96
Germany	44,293.09	126,477.31	4.74
Japan	48,707.91	122,122.45	4.58
Israel	62,129.81	106,381.63	3.99
India	160,879.20	89,593.70	3.36
Sudan	60,309.93	68,280.19	2.56
Vietnam	56,951.99	66,972.25	2.51
Belgium	20,221.63	61,465.49	2.31
Italy	16,652.55	57,077.13	2.14
Yemen	45,047.10	55,461.16	2.08
Korea, Republic of	13,203.80	46,936.40	1.76
Turkey	49,019.47	45,809.49	1.72
United Kingdom	13,538.59	43,286.39	1.62

Sources, Ministry of trade and Industry, 2018/19

2.7. Ethiopia's Top Trading Partners

Export

In the year 2018/19, the United States of America, Somalia, the Netherlands, Saudi Arabia, China, United Arab Emirates and Djibouti were Ethiopia's main export destinations. The United States is the biggest buyer of Ethiopia's exports (\$283mn), followed by Somalia (\$258mn), the Netherlands (\$213mn), and Saudi Arabia (\$183mn). The U.S. now absorbs around 10.6 percent of Ethiopia's exports, the highest share in over a decade. Exports of manufactured goods to the U.S. now exceed exports of coffee to the U.S. due to an increase in shipments of textiles, garments, and leather products (shoes/bags) from Ethiopia's industrial parks. The table below shows ten of Ethiopia's top trading partners in terms of shipments by dollar value for the year 2018/19.

Table 2.8: Top Ten Export Trading Partners

Country	Ethiopia Exports in Value in 2018/19 (USD mn)	% Share
United States of America	283.2	10.6
Somalia	257.9	9.7
Netherlands	213.0	8.0
Saudi Arabia	183.3	6.9
China	156.8	5.9
United Arab Emirates	137.5	5.2
Djibouti	132.2	5.0
Germany	126.5	4.7

Country	Ethiopia Exports in Value in 2018/19 (USD mn)	% Share
Japan	122.1	4.6
Israel	106.4	4.0

Source: MOTI

Import

China, Kuwait, the United States of America, India, Turkey and the United Arab Emirates are among the major origins for Ethiopia's import items. Statistically, China continues to be the leading origin for Ethiopia's imports, as has been the case since it replaced Italy 17 years ago. Around a quarter of Ethiopia's total imports, valued at \$3.9bn, are sourced from China. After China, the leading sources of imports are Kuwait (\$1.7bn), the US (\$1.4bn), India (\$1.2bn), Turkey (\$607mn) and the UAE (\$ 550mn).

Table 2.9: Top Ten Import Trading Partners

Country	Ethiopia Imports in Value in 2018/19 (USD mn)	% Share
China	3,919.9	25.9
Kuwait	1,659.5	11.0
United States of America	1,369.7	9.1
India	1,229.5	8.1
Turkey	607.2	4.0
United Arab Emirates	550.2	3.6
Japan	374.9	2.5
Belgium	342.5	20.3
Italy	342.5	2.3
United Kingdom	326.4	2.2

Source: MOTI

2.8. Trade Logistics Service

Logistics systems support the movement of materials and products. Components of the logistic system are closely linked with logistics services, infrastructure/resources, and information systems. In addition, the logistics performance is strongly associated with the reliability of supply chains and the predictability of service delivery for import and export.

The performance of logistics service is normally measured based on cost, time and service reliability.

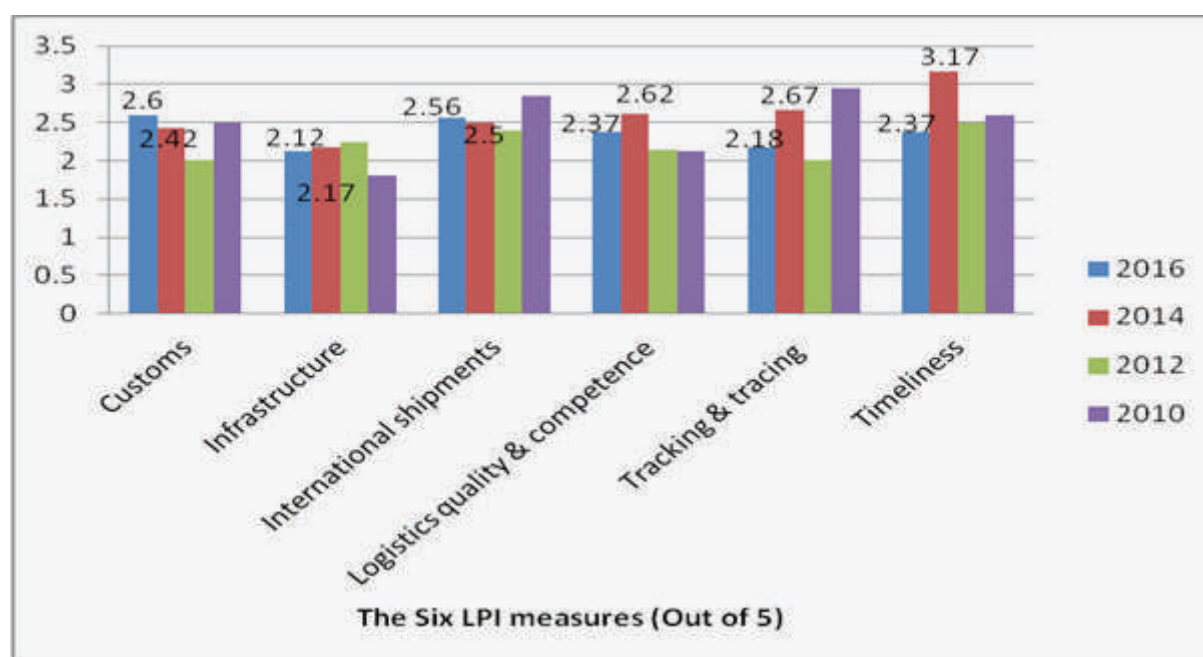
The logistic Performance Index (LPI) of 2018 ranks countries on six dimensions of trade, these are

- **Customs:** efficiency of customs and border management clearance
- **Infrastructure:** quality of trade and transport infrastructure

- **Ease of arranging shipments:** ease of arranging competitively priced shipments
- **Quality of logistics services:** competence and quality of logistics services -trucking, forwarding, and customs brokerage
- **Tracking and tracing:** ability to track and trace consignments
- **Timeliness:** frequency with which shipments reach consignees within scheduled or expected delivery times

Logistics' inefficiencies harm the competitiveness of private firms through its effect on cost and time. The costs relate not only to the direct costs of transporting products; goods in transit incur indirect costs such as inventory holding costs (Hausman, 2012). Ethiopia lacks a streamlined and modernized logistics system that can effectively address the country's movement of goods and services. Ethiopia was ranked 126th in 2016 (LPI score is 2.38) out of 160 countries on overall performance with fluctuation between 2010 and 2016. Besides, Ethiopia's LPI score on the six measures shows that the country is lagging behind average low-income countries. Specific indicators for customs and international shipments have shown slight improvements in 2016. Tracking and tracing, logistics quality & competence show deterioration compared to previous LPI reports. This indicates higher logistics costs, longer transit time and poor service reliability. Furthermore, logistics cost 20 to 25 % of the GDP for Ethiopia while it is below 10% for developed countries.

Figure 1. 2: Ethiopia's LPI score on the six measures



Source: World Bank Report.

Ethiopia LPI score and rankings, compared to five selected countries, were the lowest in 2012, 2014 and 2016. The low performance of the Ethiopia's logistics performance is attributed to issues related to trade finance and trade system, inadequate logistics services capability and poor co-ordination, inadequate infrastructure and poor facilities management. This is further illustrated in table below.

Table 2.10: Ethiopia's LPI score and ranking compared to comparator countries

Selected Countries LPI Score and Rankings Comparison					
Country	LPI	Year			
		2012	2014	2016	2018
Ethiopia	Score	2.24	2.59	2.38	
	Rank	141	104	126	
Kenya	Score	2.43	2.81	3.33	2.81
	Rank	122	74	42	68
Egypt	Score	2.98	2.97	3.18	2.82
	Rank	57	62	49	67
Tanzania	Score	2.65	2.33	2.99	
	Rank	88	138	61	
Uganda	Score			3.04	2.58
	Rank			58	102
Rwanda	Score	2.27	2.76	2.99	2.97
	Rank	139	80	62	57

Source: The World Bank

2.9. Informal Cross Border Trade

Lesser and Moise –Leeman (2009) argue that the share of informal cross border trade among neighboring African counties is larger than the share of the formal economy. According to the Federal Customs Authority's report (2010 E.C), Ethiopia lost around 16.2% of its taxable revenue due to illicit trade transactions in the country. Contraband items imported to the country include electronics, garments, perfumes, cosmetics, drugs and armaments. During the 2012-2014 period, cloths, electronics and tobacco accounted for 54%, 165% and 8% respectively of the total value of contraband imports.

The major cross border trade areas of Ethiopia are comprised of the Ethio-Djibouti route through Galafi, the Ethio-Somali through route through Togwuchale-Alaybad-Debele-Weyni-Tefeiber, the Ethio-Kenya route through Moyale and the Ethio-Sudan route through Metema. Most of the imported contraband items originate from countries like Sudan, Eritrea, Kenya and Djibouti.

According to the report by ERCA (2011-E.C), drugs worth up to about 13 million Birr were imported to the country. Informal Cross Border Trade brings in drugs, narcotics and tobacco; all of which are threats to many especially the productive youth.

Table 2.11: Estimated Amount of Contraband Imports and Export in Birr during 2005-2009 E.C

Year (E.C)	Imported Contrabands (in ETB)	%age Share	Export of Contrabands (in ETB)	%age Share	Total Volume of Contraband (in ETB)
2005	420,353	91.22	40,476	8.78	460,829
2006	415,623	0.09	27,722,298	6.25	443,344,773

Year (E.C)	Imported Contrabands (in ETB)	%age Share	Export of Contrabands (in ETB)	%age Share	Total Volume of Contraband (in ETB)
2007	424,959,645	92.79	33,000,239	7.21	457,959,884
2008	763,458,637	84.32	141,961,202	15.68	905,419,839
2009	1,189,254,258	85.44	202,724,215	14.56	1,391,978,473
Total	2,378,508,517	85.44	405,448,429	14.56	2,783,956,946

Sources, ERCA, 2011 E.C

As shown in the above table, the total imported contraband to the country was 2.4 billion ETB between 2004 and 2009. On the other hand, the total contraband export in the same period was 405 million ETB.

2.10. Domestic Trade Situation and Challenges

2.10.1. Market and Competition

The market liberalization process initiated in 1991 has removed most of the institutional barriers to trade such as: the enforcement of the quota system, price control, preferential treatment given to state enterprises and co-operatives, limitations imposed on capital ceilings for the wholesale and retail trade, restrictions on the number of merchants in particular market.

However, regulatory measures and sectional interests pose strong barriers to competition in the Ethiopian domestic market. This can be explained by the following indicators.

i. Size and Structure of the Market

The size of the market in Ethiopia, open to meaningful competition, is very small with only 46 percent of the total value of production. The factors for this low goods and services transactions is said to be mainly attributed to the subsistence agriculture which retains two-third of the produce for home consumption. Other reasons could be an underdeveloped private sector and a dominance of the state in most notable sectors.

In short, small-scale subsistence production systems, the state's dominance in most sectors and an underdeveloped private sector all contribute negatively to the volume of goods and services transacted through the competitive market.

The country also has a few operators dominating the market; they can be characterized as an oligopoly type market structure. This is vividly notable in export and import activities and the distribution of even the basic consumables like oil, sugar, fuel etc.

ii. Public Sector Dominance

The Public sector still holds significant monopoly and dominance in both industry and manufacturing. So not only do they have power over the energy, telecom, postal service, water supply, railway and airways sectors they also control banks and insurances. According to previous studies by AACCSA, the government controls over 50 percent of the total value of production of medium and large-scale enterprises and 70% percent of the value modern economic activities.

iii. Unfair Competition from Party Affiliated Enterprises

Several relatively large enterprises operating in sectors like manufacturing, transport, finance, trade, etc., have been established under a single management. These enterprises, which were affiliated with the ruling party, have been picked by the private sector to control the supply of certain goods and services in the market.

iv. Information Asymmetry

The government is the single largest purchaser of goods and services in Ethiopia. Though this can be instrumental to foster competition in the domestic market, a lack of transparency and information to all market operators has been a pertinent governance related problem in many offices. As a result, granting contracts, i.e., bids for public projects, and procedures procurement by tendering, are far from being competitive. A lack of transparency and information asymmetry has resulted in abnormally low tender prices in bidding for projects.

v. Inadequate Market Support Institutions

In the last decade, Ethiopia has made great strides towards improving market fundamentals. Building roads, modernizing telecommunications, and market institutions (including commodity exchanges and warehouse receipts systems) have helped advance Ethiopia's market efficiency as well as decreased transaction costs. However, due to problems with institutions like ECX, promoting market development has not been successful. As a result, the volume of transactions exchanged and price benefits to the market actors have not shown improvement.

A lack of basic institutions to promote the local market from various perspectives also impacted domestic trade in the country.

2.10.2. Anticompetitive Trade Practices

According to a study on the Federal Democratic Republic of Ethiopia's Trade Practice and Consumers Protection Authority, 2014, anti-competitive practices have been highly prevalent in Ethiopia. Agreements and concerted practices were also another significantly prevalent anticompetitive practice.

Unfair selling prices/price fixing, hoarding of consumers' goods, collusion bidding/bid rigging, a refusal to deal, diverting goods from being sold in regular channels of trade and resale price maintenance were rated as the highly prevalent practices. The dissemination of false or equivocal information to consumers discredit another's business and it was also found to be the most common practices across the study regions.

The study findings indicated that unfair and misleading acts abundantly existed in all target regions to a significant extent with slight difference across regions where Addis Ababa and Oromiya regions are being the highest and Beneshangul Gumuz and Somali Regions being the least.

The most frequent explanations of the causes of anti-competitive practices in Ethiopia are imbalances of supply and demand, the absence and/or weak enforcement of the law, the traditional nature of the business system and a high market concentration by few firms.

The anticompetitive practices impact both consumers and the economy. The major impact on consumers include, decreasing consumers' confidence; increasing living costs and compelling consumers to buy poor quality goods and services by limiting their choices.

Anticompetitive practices also have a negative impact on the economy by decreasing government revenue, lowering product, productivity, economic growth and causing capital flight and instability of the economy.

2.10.3. Other Related Problems

Other problems and challenges in relation to promoting the domestic trade of the country also include the unpredictability of Tax Assessment and Collection, weak enforcement of contract and laws, a shortage of hard currency, and the existence of long market chains in the market system.

According to the three years' report (2016-2018) made by the Addis Ababa Bureau of Trade, the key challenges notable in domestic trade are: a huge gap in the supply and demand of consumable items (flour, oil, sugar, etc.), the lack of product standards, transport challenges for transporting consumable items from port to central areas in an interrupted manner, and the sales of expired food items and medicine by unethical businesses. Besides, traders' businesses are inefficient due to bureaucratic bottlenecks in trade licensing and registration, due to the inadequate supply of raw materials, working places, poor market infrastructure facilities, a lack of skilled manpower, weak market linkages and financial constraints. In addition, stakeholders are not pulling their punches in facilitating trade activities.

2.11. Informal Domestic Trade

The Ethiopian urban economy is largely characterized by the informal sector. According to the Central Statistical Agency of Ethiopia (CSA), the total number of the national urban labor force of the country employed by the informal sector was close to 60% (CSA, 2003). Other estimates show that the share of the informal sector in GDP is 40%, highlighting its importance in the country. These entities have no license, they are unregistered, and they mainly engage in market-oriented production.

Ethiopia's informal trade can be characterized as heterogeneous and dynamic in nature. It is easy to observe informal trade functions in major Ethiopian cities as they provide low cost goods and services, especially food, drinks, and clothing to workers both in the formal and informal sectors. Other trading activities are various retailing and repair activities (cell phone maintenance) as well as food and drink retailing activities. Coincidentally, informal trade faces the same challenges as formal trade.

2.12. Determinants of Export Using Econometric Analysis

2.12.1. Model Specification

This study focuses on the determinants of Ethiopia's export performance incorporating both the supply and demand related variables. Hence, the study looks at Ethiopia's export performance as a function of trade openness, exchange rate, real gross domestic product, infrastructure, domestic credit to private sector (% of GDP) and foreign direct investment. The model used in this paper is the adopted Samuel (2012) imperfect substitution model which is expressed as follows:

$$EX = f(top, rer, fdi, rgdp, ifr, dcp) \dots \dots \dots (4.1)$$

Therefore, to determine Ethiopia's export performance, a log-linear form export determination model is employed incorporating both the supply and demand related variables.

2.12.2. Empirical Model

The log-linear form single equation export determination model of equation (4.1) employed to capture the determinants of export in Ethiopia is given by:

$$\ln EX_t = \beta_0 + \beta_1 \ln TOPt + \beta_2 \ln RERt + \beta_3 \ln RDGPt + \beta_4 \ln FDI_t + \beta_5 \ln IFRt + \beta_6 \ln DCP + \varepsilon_t \quad (4.2)$$

Where;

EX_t = export performance in thousands of Birr

TOP_t = Trade openness (sum of exports and imports divided by GDP)

RGDP_t = Value of real gross domestic product in millionsof Birr

ER_t = exchange rate

DCP_t=Domestic credit to private sector (% of GDP)

IFR_t = infrastructure (proxy by the road construction in kilometer)

FDI_t = foreign direct investment in millions of Birr

LF_t = Labor force participation rate, total (% of total population ages 15+) (modeled ILO estimate)

GNSt = Gross national savings (% of GDP)

β's are unknown parameters to be estimated

t = time in years (1988/89-2018/19)

ε = random terms

2.12.3. Definition of Exports Determinants Variables

Exchange Rate: It is recognized that depreciation of the birr's exchange rate has positive contributions for increased exports while real appreciation of the exchange rate is generally associated with a halt in exports. Thus, the importance of maintaining a realistic exchange rate is being propagated as a policy remedy to ensure the competitiveness of exports in the world market (Prasad, 1992). The index of trade weighted exchange rate is included in the present study to empirically test the relationship between this variable and the level of exports. The expected sign of this variable is positive.

Domestic credit to private sector: This refers to financial resources provided to the private sector through loans, purchases of non-equity securities, trade credits and other accounts receivable that establish a claim for repayment. For some countries these claims include credit to public enterprises (Kholdy, S., &Sohrabian, A., 2008). Once again, the expected signs are positive.

Trade openness: Opening economic policies to trade with the rest of the world is necessary for massive export diversification and strong economic growth. Simply put, no country can achieve economic success without liberalizing and globalizing its trade. Trade liberalization has generally taken place in LDCs as part of the structural adjustment program. Therefore, for Ethiopia to be competent among its neighbors and globally, the country needs to be open accordingly.

Trade openness (trade liberalization) clearly implies the reduction of tariff and non-tariff barriers to establish a noticeable open market. According to Belayneh and Wondaferahu's (2012) empirical researches, focusing on the impact of trade liberalization (openness), export earnings have a positive effect on the export performance of the country.

Some scholars strongly acknowledge that the more open an economy is to the external world, the higher their foreign exchange earnings will be from exports. Essentially, a country needs to integrate into the world market by diversifying its trading partners.

A country's integration into the external market is thus measured by openness to trade, which is a proxy by the sum of exports and imports of goods and services to GDP ratio. Thus, an increase in the ratio of exports and import of goods to GDP (or) implies better integration of Ethiopia to the external market.

Infrastructure: Infrastructure is one of the major factors which can affect the trade performance of most developing countries. Of the factors that boost production as well as export and import, supply/demand of commodities and infrastructural facilities come at the vanguard. Therefore, infrastructure is a key element of countries' ability to produce and move goods and services. Weak infrastructure (lack of roads, internet and telecommunication etc.) is a major impediment to trade, competitiveness and sustainable development in most African countries, particularly land-locked (Ethiopia) and small island countries. (Samuel, 2012)

Real Gross Domestic Product (RGDP): Higher GDP values in the exporting country imply increased capacities for export. It is expected to have a positive impact on exports. For instance, Kumar (1998).in his study on the determinants of export growth in developing countries, confirmed that GDP has a significant positive impact on export volumes. He also underlined that a higher level of production is the main cause of export expansion. So, a higher GDP implies a higher production, hence a larger volume of exports. Therefore, we expect a positive relationship between the dependent variable and the GDP.

Foreign Direct Investment (FDI): In empirical literature, the role of FDI in exports promotion is controversial. Some studies (Pfaffermayr, 1996) say it has a positive effect on exports. The main reason underlying this is the export oriented countries. Since governments provide facilities for export promotion, such facilities also attract foreign investors in order to promote exports. Governments can adopt FDI-led export growth strategies with twin objectives of capturing the benefits of both FDI inflow and exports growth. On the other hand, other studies find FDI's impact on imports as insignificant (Hoekman and Djankov, 1997). Such studies point out that the role of FDI in export promotion and in developing countries, depends crucially on the motive for investment. If the motive behind FDI is to capture domestic market or tariff-jumping type investment, it may not contribute to export growth. However, if the motive is to take advantage of the country's comparative advantage, then FDI may contribute to export growth.

2.12.4. Estimation Techniques

Many macroeconomic time series are not stationary at levels and are most adequately represented by first differences. A non-stationarity time series data has often been regarded as a problem in empirical analysis. Working with non-stationary variables leads to spurious regression results, from which further inference is meaningless. Thus, it is better to distinguish between stationary and non-stationary variables. According to Harris (1995:15), a data series is stationary if its error term has zero mean, constant variance, and the covariance between any two-time periods depends only on the distance or lag between the two periods and not on the actual time at which it is computed.

Hence, the first step in time series econometric analysis is to carry out a unit root test on the variables of interest. The test examines whether the data series is stationary or not. To conduct the test, the conventional Dickey-Fuller (DF) and Augmented Dickey – Fuller (ADF) tests have been used with and without a trend. Since the actual data generating process is not known. The test of determining the orders of integration of the variables was first conducted using a constant only before using both a constant and a trend. The ADF test is based on the regressions run in the following forms.

$$\Delta y_t = \alpha_t + \beta y_{t-1} + \mu_t \dots \dots \dots (4.3)$$

$$\Delta y_t = \alpha_t + \alpha_{2t} + \beta y_{t-1} + \mu_t \dots \dots \dots (4.4)$$

Where, t is the time or trend variable. Equation (4.3) adds a drift, and equation (4.4) introduces both a drift and a time trend. In each case, if the null hypothesis is $\beta = 0$, there is a unit root. The null hypothesis (H0) is thus a series containing a unit-root (non-stationary) against the alternative hypothesis (H1) stationary (deterministic trend). Even though the individual time series are not stationary, a linear combination of these variables could be stationary (i.e. they may be co-integrated). If these variables are co-integrated, they have a stable relationship and cannot move “too far” away from each other. There are two common methods for testing co-integration and estimating the relationship among co-integrated variables. These are the Engle and Granger (1987) two-step procedure and the Johansen’s (1988) maximum likelihood methods.

The Johansen procedure takes care of the above shortcomings by assuming that there are multiple co-integrating vectors. Thus, testing for co-integration using the multivariate VAR approach developed by Johansen (1988) is necessary because failure to capture the existence of more than one co-integrating vector yields misleading, long-run coefficients. In such a case, the estimated parameters of the long run coefficient would only be a linear combination of the parameters of the two or more co-integrating long-run relationships (Harris, 1995). Therefore, an unrestricted VAR can be formulated to estimate the long run relationship among jointly endogenous variables.

The cointegration regression so far considers only the long-run property of the model, and does not deal with the short-run dynamics explicitly. Clearly, a good time series model should describe both short-run dynamics and the long-run equilibrium simultaneously.

2.12.4.1. Result of Unit Roots Tests

In time series analysis, most encountered series are in fact non-stationary. Contrary to the stationary process which fluctuates around their mean, the reversion to a fixed value rarely occurs for non-stationary process. If a non-stationary time series regresses on one or more non-stationary time series, the results are prone to spurious regression problems. This is a situation where results obtained suggest there are statistically significant relationships between the variables in the regression model when in fact all that is obtained is evidence of contemporary correlations rather than meaningful causal relations (J. Gudeta, 2010).

All the variables used in the estimation process are tested using Augmented Dickey Fuller test statistic and the results are presented in table 9 below.

Table 2.12: Results of unit root tests for order of integration of the variables ADF test at First Difference

Variable	ADF test statistics	P-vales
Lnex	4.7008	0.0007**
Exr	-2.874915	0.0602
Lnfdi	-9.968739	0.0000**
Lndcp	-4.354715	0.0018
Lnifr	-3.594775	0.0120

Variable	ADF test statistics	P-values
lnrgdp	-4.736874	0.0007**
Intop	-4.605617	0.0009**

Note: ** denotes rejection of the hypothesis of unit root in the first difference of variable at 1%. Significance level for DF and ADF statistic

The Augmented Dickey-Fuller (ADF) test is employed to test the stationary of the variables in the model. As summarized in the Table above, all the variables' export(lnex), exchange rate(lnexr), foreign direct investment(lnfdi), domestic credit to private sector (Indcp), infrastructure (lnifr), real growth domestic product(lnrgdp), and trade openness(Intop) are non-stationary at first levels since the critical value is greater than the computed values. Therefore, if the variables are non-stationary at first levels, no more spurious regression problems will occur.

2.12.4.2. Johansen's Cointegration Test

After a unit root test, it is very important to refer to Johansen's cointegration test to check the long and short run between variables.

The maximum value was greater than critical value at zero co-integrating vector ($r=0$) for both the trace test and the Maximum-Eigen value test. This indicated the existence of one co-integrating relationship. Thus, the table below shows that the null hypothesis of no co-integration is rejected at the conventional level (0.05) and the study concludes that there exist a relationship among the proposed variables in the long run. Trace test and Eigen value test indicate that there is one co-integrating vector. All the variables are co-integrated in order of one having the long run relationship

Table 2.13: Johansen's Cointegration Test

Ho:	Eigen values	Maximum Eigenvalues			Trace Statistics		
		(λ max)	Critical Value (5%)	Prob.	(λ trace)	Critical Value (5%)	Prob.
		Johansen's Test statistics			Johansen's Test statistics		
H=0	0.895648	67.79945	46.23142	0.0001	204.2528	125.6154	0.0000**
H \leq 1	0.815600	50.71937	40.07757	0.0022	136.4533	95.75366	0.0000**
H \leq 2	0.659756	32.34281	33.87687	0.0753	85.73395	69.81889	0.0016**
H \leq 3	0.575691	25.71878	27.58434	0.0850	53.39115	47.85613	0.0138*
H \leq 4	0.527664	22.50197	21.13162	0.0319	27.67237	29.79707	0.0862
H \leq 5	0.145677	4.723368	14.26460	0.7763	5.170397	15.49471	0.7905

Note: **denotes rejection of the null hypothesis at 1 % of significance level, and * at 5%

2.13. Estimation of the long run and error correction models

The estimation of the long-run model reveals that a positive export lag one, exchange rate, trade oppress lag 1 and 2 and domestic credit for private sector means a positive export performance. Exports lag two, exchange rate, foreign direct investment lag one and two, infrastructure both lags, real GDP lag one and domestic credits for private lag two have negative relationship between export performances of Ethiopia.

The coefficient for trade openness is also positive. One percent trade liberalization (openness) increases Ethiopia's export performance by 2.12 percent per year. This result is consistent with the theoretical expectations of trade liberalization for exports.

Trade openness has a statistically significant impact on export performance. And the result is also consistent with empirical evidences like Ahmed (2000) and Anagaw, B. K., & Demissie, W. M. (2013) which asserts the importance of trade liberalization programs on improved export earnings.

The appreciation of domestic currency has obvious, negative impacts on exports since it decreases the competitiveness of the country's export in the world market. On the other hand, appreciation will also make imports cheap. Following the cheapness of imports, domestic exporters may get incentive to import high quantities of commodity, machineries, instruments, chemicals and others that will increase the productivity and volume of exportable goods. The other one is because when a foreign price level of products increases, domestic exporters will get incentive to increase the volume of their exports which will in turn lead to the increments of total export of the country. But exchange rate is statistically insignificant in determining export performance using VECM. This may be because of a poor market system in the financial sector, especially in managing the foreign currency.

The domestic credit's sign of the coefficient for the private sector became negative at lag two. The unexpected negative relationship registered from the result of the estimated model might be due to different reasons. For instance, if we increase the amount of credit to the borrower, those are exporters and importers. These credits unlikely initiate those importers rather than the export sector.

Table 2.14. Results for VECM Estimates Results

Export				
Variables	Coefficient	Std. Error	t-Statistic	Prob.
Export lag 1	0.025446	0.257118	0.098968	0.9225
Export lag 2	-0.965494	0.414055	-2.331803	0.0341*
Real exchange rate lag 1	0.074105	0.050508	1.467200	0.1630
Real exchange rate lag 2	-0.007513	0.083415	-0.090067	0.9294
FDI lag 1	-0.041036	0.026572	-1.544338	0.1433
FDI lag 2	-0.032567	0.024915	-1.307127	0.2109
Infrastructure lag 1	-0.882367	0.744685	-1.184887	0.2545

Export				
Variables	Coefficient	Std. Error	t-Statistic	Prob.
Infrastructure 2	-0.918582	0.651225	-1.410544	0.1788
Real GDP lag 1	-0.092689	0.546730	-0.169533	0.8676
Real GDP lag 2	2.209250	0.628466	3.515308	0.0031**
Trade openness lag 1	0.349173	0.353248	0.988465	0.3386
Trade openness lag 2	2.121190	0.550699	3.851813	0.0016**
Domestic credit for private lag 1	0.053943	0.327496	0.164715	0.8714
Domestic credit for private lag 2	-0.435615	0.218886	-1.990141	0.0651*
Constant	12.45719	6.125325	2.033719	0.0601
R-squared = 0.994790		S.E. of regression = 0.164973		
Sum squared resid. = 0.408241		Log likelihood = 21.88826		
F-statistic = 204.5671		Prob(F-statistic) = 0.000000		
Eview result				

2.14. Major Issues and Challenges of the Trade Sector

2.14.1. International Trade

i. Lack of a Comprehensive Trade Policy

Ethiopia has still not come up with explicit domestic and international trade policies although different policies are embedded in the sectoral planning documents. The most comprehensive trade policy document is the one enshrined in the 2015 Growth and Transformation Plan II (GTP II), labeled as "Trade Strategic Directions Rules and Regulations".

ii. Low production, productivity and low value addition

Due to limited raw material inputs supply and problems along the value chain, the production and productivity of Ethiopia's major export items are not enough. Productivity limitation is aggravated by a lack of skilled labor and technology. Due to contraband and other factors, some products are exported without value addition such as live cattle.

iii. Limited quality and standards of export goods

At times, some of Ethiopia's export items to the international market are below quality and standard requirement. In international high standard markets with sophisticated consumers such as the European Union and Japan, it has been very challenging for Ethiopian exporters to penetrate these markets in the absence of premium and branded products. Hence, the government and export-oriented companies should work together to achieve high-end results at premium market, for premium price through enhanced quality and standards of export goods, by addressing the supply chain problems, *aphlatoxine*, and the necessary laboratory test for export items.

iv. Lack of export diversification

The majority of Ethiopia's export items are primary products; these are highly volatile due to price fluctuations. When the international price for Ethiopia's export goods goes down, it is a disincentive for exporters who assume that the cost of domestic production and processing of the products is still the same or increasing. Therefore, exporting companies frequently fail to deliver the products in accordance with the agreement made with partners. Failure to deliver the required quality and quantity of product on time, deteriorates the relationships with foreign importers and creates mistrust. This unfortunately has a negative impact on market linkages among companies.

v. Trade Logistics, Transport Cost and Customs

Ethiopia ranks 126th in logistic performance, out of 160, with a Logistics Performance Index (LPI) score of 2.38 (World Bank LPI report, 2016). Tracking and tracing, logistics quality and competence, and timelines show deterioration compared to previous LPI reports. This indicates higher logistics cost, longer transit time and low service reliability. Thus, high transport costs, a shortage of containers, limited terminal services and trade logistics problems hamper the country's export industrialist competitiveness.

On the other hand, importers sometimes face unfair customs tariffs such as businesses in the manufacturing sector increasing taxes on materials from abroad and on exporting products. A limited import data management and inefficient custom clearance (customs procedures, documentary requirements, inspections as well as general security issues) hamper the timely movement of goods along Ethio-Djibouti trade corridor.

vi. The Business Environment

The business environment in Ethiopia is not conducive to exploit the international market. That is due to obstructive factors like public sector inefficiencies, difficulties getting Letters of Credit (LC) for foreign currency and corruption among others.

vii. Supply Side Constraints

Supply side constraints impact on domestic production cost, and exporting companies are becoming less price competitive. As in:

- Constraints related to roads, telecom, water, electricity.
- Shortage of import dependent inputs and limited linkages with domestic input market;
- Cost of labor vs labor productivity, cost of labor turnover and working culture;

Integrated supports and trade facilitation for exporting companies should be strengthened by benchmarking other countries best practices.

viii. Inadequate Access to Foreign currency

In Ethiopia, business enterprises need foreign currency to run and develop their businesses. However, due to the deterioration of the terms of trade, there is a shortage of foreign currency or a struggle to get a Letter of Credit (LC) to import raw material and intermediary goods. Getting LC is time-consuming and approvals of foreign currency requests take a long time, on average three months - although it depends on the reason of the forex request. The problems related to forex emanated due to a higher forex demand than there was supply. In the long term, to alleviate the shortage of foreign currency, the diversification of export products and moving to higher value-added products is vital. Controlling contraband will also improve the supply of foreign currency.

ix. Stringent International Market Requirements/ Non-Tariff trade barriers

The EU's market standard and quality requirements for import products were too stringent and overly burden some for Ethiopia's exporters to comply with. Companies exporting under the EBA are required to demonstrate good practices like not infringing on the rights of workers or local communities.

x. Research and Development, Technological Infrastructure

A lack of access to the appropriate technology and a limited research and development scheme are all synonymous among Ethiopian business companies. For example, the major problem confronting the shoe manufacturing industry in Ethiopia is a lack of strategic management of firms. Without the required technology, shoe factories cannot match the standard required by the developed markets.

2.14.2. Domestic Trade (Formal and Informal)

Both formal and domestic trades in Ethiopia face various challenges. As described in previous sections, formal trade's past policies marginalized the private sector, overlooked a free and competitive market and encouraged anticompetitive practices by allowing state dominance. On the other hand, problems with the informal trade are related to legality, revenue loss, appropriate premises, attention and strategic support.

2.15. Conclusions and Policy Recommendations**2.15.1. Conclusions**

The logistics services in Ethiopia are still at the early stage of development therefore, Ethiopia's logistic sector cannot deliver effective, efficient and reliable services for the business communities. Thus, the poor logistics in Ethiopia is one of the aspects that hinder trade performance (i.e. for domestic and international market).

To ameliorate Ethiopia's presence in the global market, the government will have to do the following:

- Strengthen cross border policy dialogue to build an understanding of local cross border dynamics; Enhance border infrastructure facilities to make cross-border trading more transparent. Based on the literature review, Ethiopia's domestic and international trade has faced numerous challenges. Thus, the sector needs a paradigm shift to get the expected benefits for the national economy.

Ethiopia's trade performance was the vital question of this study therefore we thoroughly reviewed all challenges of trade performance in the country. The research team tried to investigate the trade activities using the demand, supply and other factors that can affect the trade performance. For this study, all the available documents, literatures and secondary data used were from the year 1987 up until 2019.

The Error Correction Model (ECM) was estimated after Johansen's cointegration test showed the relationship between the dependent and explanatory variables. Accordingly, the regression result shows that export lags, exchange rate, infrastructure, and domestic credit for the private sector were insignificant. That means the variables have no impact on the export performance of Ethiopia. On the other hand, variables such as real gross domestic product and trade openness over a period were found to affect the dependent variable significantly and positively as already anticipated. The coefficient of domestic credit for private sector was negative despite its significance.

The result also revealed that exchange rate affects Ethiopia's export negatively, but the insignificant coefficient indicates that depreciating the real exchange has little to do with enhancing export in Ethiopia

2.15.2. Policy Recommendations

Based on the findings of this study and reviewed documents, the study forwards the following policy proposals:

2.15.2.1. International Trade

- **Modernization and Commercialization of the Agriculture Sector** through the private sector at large scale farmers and smallholders to accelerate exportable agriculture products.
- **Export diversification** by increasing the number of export product. Export diversification reflects the degree to which a country's exports are spread across many products.
- **New Market Destination:** Ethiopian commodity export destinations are concentrated in a few countries. Therefore, having new market destinations in every corner of the world is necessary.
- **Increase Productivity and Value addition** by improving productivity and diversifying processes and products to secure higher export prices. Moreover, there is a need to focus on niche and higher value market export goods. The strategy of targeting niche and higher value markets, like organic products, and non-GMO products, should be the government, producers and exporters' main focus.
- **Preparations for the Implementation of Regional Trade Agreements:** Early days of the recent continental trade agreement, the AfCFTA (African Continental Free Trade Area), highlight the need to make the appropriate investments to boost trading and business in Africa. This can be done through addressing issues of standard certification and rules of origin; policy harmonization; improving non-tariff barriers such as stagnant transaction; facilitating immigration procedures; decreasing license export procedure costs Ethiopia needs to cooperatively tackle these problems through a more collaborative effort with other African countries. To this effect, the design and implementation of a well-researched capacity building program is necessary for stakeholders.
- **Digitization of Trade:** Formulate and implement measures and strategies aimed at enhancing the usage of electronic commerce to take advantage of trade opportunities arising from various trade agreements (e.g. WTO, COMESA, AfCFTA, and others)
- **Export Incentive Policy:** Ethiopia has long recognized the role of export on economic development; the country introduced different policy measures and incentives to encourage exports, like credit, for private sectors. Despite this, the export performance remained disappointing particularly in the manufacturing sector. The study by Gebreyesus and Kebede (2016) reported a very large anti-export bias, as high as 200-300% in some sub-sectors of the manufacturing sector. This emanated from tariff and nontariff trade barriers and made the domestic market very attractive in contrast to exporting. Another alternative to boost Ethiopia's trade performance is to provide export incentive.
- **A comprehensive and consolidated trade policy document.** The policy document shall be explicit, predictable, dynamic and effectively implemented. Trade strategies and policies should consider the structure and characteristics of each sector. Among other, the policy shall
 - Ensure adequate private sector participation in foreign trade activities by gradually abolishing state monopoly over foreign trade;
 - Regulate foreign trade by issuing appropriate foreign exchange and import-export trade regulations;
 - Explore ways and means of encouraging exports by providing fiscal incentives and promoting the use of trade information;
 - Lower import tariffs gradually and replace quantitative restrictions with tariffs;
 - Encourage investment in export-oriented undertakings and projects;
 - Restructuring and divestiture for parastatals and support institutions.
- A dedicated Export Facilitation Institutions

- Currently, the country has no dedicated institution for trade facilitation and export promotion. Therefore, establishing trade facilitation and an export promotion agency will help coordinate and harmonize trading as well as promote the dwindling export sector.
- Improving the logistics service performance.
 - Reduction in transactions costs and development of infrastructure
 - Public sector reform- reduce red tape bureaucracy
 - Privatization of infrastructure- PPP
 - Appropriate user charges- cost-reflective tariff levels to promote efficient use of infrastructure services
 - Government expenditure on infrastructure: invest a given percentage of GDP in new infrastructure
 - Regional network: cost reduction by using regional networks to develop infrastructure
- Diversification, quality improvement & technological upgrading
 - Products or activities requiring more skills or value-added
 - Higher quality & technology-based
 - Awareness on quality
 - Provision of tax or financial incentives to SMEs clusters
 - Tax or financial incentives for SMEs to adopt new technology
 - Attract FDI to build competitiveness through technological upgrading
- Standard and Quality Infrastructure
 - Structured training and awareness on quality, food safety, pest control; pre & post harvesting, warehouse management and good agricultural practice and good manufacturing practices (GAP, GMP).
 - Enhance capacity of national quality system and improve accreditation system to create credibility on export goods.
 - Establish a product traceability management system while maintaining the identity of agricultural products through the supply chain. Also, registering the production, distribution, and use of agricultural inputs that may pose risks to human, animal or plant health.
- **Trade liberalization (Openness):** It was further analyzed that trade liberalization seeks to reform a country's international commercial policy in order to improve economic welfare, by achieving a better allocation of resources. The results of the estimated model show undoubtedly that between 1987/88 and 2018/19, trade liberalization has had a positive and significant impact on the Ethiopia's export performance. This means that implemented policies should attract exports from Ethiopia; it also means using the country's resource endowments in terms of developing new technologies and improving national capabilities. When countries are more open, they are better able to exploit market opportunities through product diversification and differentiation. Hence why Ethiopia should be looking to open its markets and join the global trade.
- **Illicit Trade Cross Border Trade:** Establishing an efficient and effective border trade policy is also important. This will create an appropriate business environment for the formalization of the informal trade, and it will improve business friendly tax policies by lowering import and export taxes.

2.15.3. Domestic Trade

The development of the domestic trade sub-sector shall be pursued using a multi-faceted approach. This approach shall include:

- Strengthening of domestic trade policies and laws;
- Identifying and exploiting policy synergies and complementarities;
- Ensuring that goods and services in the domestic market meet the required standards

- Substantially reducing artificial shortages of products and services in one part of the country when they are available in another;
- Using domestic trade as a springboard for effective participation in international trade;
- Nurturing the private sector with a view to making it competitive in production and trade; and
- Ensuring that all national policies and practices on taxation and licensing support the competitiveness of Ethiopia products.

Other specific interventions required are described here below.

- **Comprehensive pro-business competition policy and law:** Anticompetitive practices are still a serious problem that harms both the consumers and the country's economy. A comprehensive pro-business competition policy and or law needs to be developed to ensure its proper implementation and enhance coordination/collaboration among the concerned stakeholders at federal and regional level government bodies.
- **Counterfeit Products:** The government must set up strict follow up and controlling measures – this protects their revenue by preventing substandard goods reaching the consumers.
- Developing and implementing, through a public-private partnership, a market information system at the national level and at all districts in the country.
- **Import substitution industrialization Policy:** This is a trade and economic policy which advocates replacing foreign imports with domestic products. The idea is a country should attempt to reduce its foreign dependency through the local production of industrialized products.
- **Develop Institutional support and Market Infrastructure:** Increase the capacity of trade support institutions to provide efficient and effective mobilization of goods and support services to SMEs particularly in the country by way of
 - Creating a conducive environment and offer different support like arranging working premises, training and Education, and easing procedures to engage in the formal sector.
 - organizing an appropriate marketing corridors and centers for smooth operation and provide the proper guidance towards formal operation.

2.15.4. Other Complementary Proposals

- Establish data centers for evaluating and monitoring purposes of the domestic and international trade performance.
- Develop and implement, through a public-private partnership, a market information system at the national level and at all districts in the country.
- Establish a **court of commerce** for the **Trade Sector** that provides extensive assistance/solution on the full scope of **trade**-related issues in the domestic and international market.
- A public-private partnership approach to ensure the availability of tradefacilitating infrastructure (such as modern market centers, convenient storage facilities, refrigerated trucks, laboratories, e.t.c.)
- Work with training institutions, in both the public and private sectors, to provide business and entrepreneurial skills as well as other skills relevant to the private sector's development, competitiveness, and trade policy.
- Encourage the acquisition and usage of modern technology through the implementation of measures aimed at promoting technology transfer;
- Pursue macroeconomic policies and practices that are consistent with the country's objective of increasing exports and enhancing competitiveness;
- Promote the development of Small and Medium Enterprises (SMEs), and
- Introduce standards for guiding the operation of the informal trade,

Reference

Anagaw, B. K., & Demissie, W. M. (2013). Determinants of Export Performance in Ethiopia: VAR Model Analysis. *Natl. Mon. Refereed J. Res. Commer. Manag*, 2, 5-94.

Assefa, B. (2019), "Trade Policy In Ethiopia, 1991-2016 in Fabtu Cheru, Christopher

Cramer and Arkebe Oqubay (2019), *The Oxford Handbook of the Ethiopian Economy*, Oxford University Press, PP. 230-248.

Lesser, C. and Moisé-Leeman, E., (2009), "Informal Cross-Border Trade and TradeFacilitation Reform in Sub- Saharan Africa", *OECD Trade Policy Working Papers*, No. 86, OECD Publishing

FDRE, National Planning Commission (2016), *Growth and Transformation Plan II (2015/16-2019/20)*, Policy matrix, Addis Ababa.

Fullerton Jr, H. N. (1999). Labor force participation: 75 years of change, 1950-98 and 1998-2025. *Monthly Lab. Rev.*, 122, 3.

Gebreyesus, M., Beshah, B. and Abebe, G. (2016). Foreign Direct Investment in Ethiopia: Challenges Opportunities and Policy Options for Effective Use to Stimulate Industrialization, Ethiopian Research Development Institute (EDRI) Research Report, Addis Ababa.

Gebreyesus, M. (2013), "Industrial Policy and Development in Ethiopia: Evolution and Present Experimentation", WIDER Working paper No. 2013/125.

Gebreyesus, M., G. Abebe and T. Birhanu (2017), "Foreign Direct Investment in Ethiopia: Challenges, Opportunities and Policy Options". Memo, Ethiopian Development Research Institute, Addis Ababa.

Harris, R. I. (1995). Using cointegration analysis in econometric modelling.

Hoekman, B. and S. Djankov (1997) Determinants of Export Structure of Countries in Central and Eastern Europe. *The World Bank Economic Review* 11:3, 471-487.

Kholdy, S., & Sohrabian, A. (2008). Foreign direct investment, financial markets, and political corruption. *Journal of Economic Studies*, 35(6), 486-500.

Kumar, N. (1998) Multinational Enterprises, Regional Economic Integration, and ExportPlatform Production in the Host Countries: An Empirical Analysis for the US and Japanese Corporations. *elwirtschaftliches Archiv* 134, 450-83.

Mannur, H.G. (1996), *International Economics (Second Edition)*, Vikas Publishing House Pvt. Ltd. Delhi.

Martin, K., Rajapatirama, S., & Athokorala, P. C. (2002). Vietnam: Deepening Reforms for Rapid Export Growth. Paper presented at the International Conference on Vietnam's Readiness for WTO Accession, (Vietnam: May 2003). Available at http://siteresources.worldbank.org/INTRANETTRADE/Resources/WBI-Training/vietexports_martin.pdf (cited: Martin, Rajapatirama and Athokorala (Vietnam: Deepening Reforms for Rapid Export Growth 2003).

National Bank of Ethiopia (2017). Annual report

Pfaffermayr, M. (1996) Foreign outward Direct Investment and Exports in Austrian Manufacturing: Substitutes or Complements? *Weltwirtschaftliches Archive* 132(2): 501-522.

Salvatore, D. (1990), International Economics (third edition), Macmillan publishing company, New York. Ocampo, J.A. (1986), "New Developments in Trade Theory and LDCs", *Journal of Development Economies*, 22: 129-70.

Samuel (2012), Determinants of agricultural export in Ethiopia.

Shiferaw, A. (2017), " Productive Capacity and Growth in Ethiopia", CDP Background Paper, No. 34, PP.9-12, Department of Economic and Social Affairs, College of William and Mary, Virginia

Songwe, V., and Winkler, D. (2012), "Exports and Export Diversification in Sub-Saharan Africa: A Strategy for Post-Crisis Growth Africa Growth", *Initiative Working Paper 3*, December. Brookings Institution, Washington DC.

Todaro, M.P. (1994), *Economic Development*, Fifth Edition, Longman Publishing, New York.

World Bank (2014), "Ethiopia 3rd Economic Update: Strengthening Export Performance through Improved Competitiveness," World Bank, Addis Ababa.

WTO International Trade Statistics, 2013.

Sally, R. (2000), Developing Country Trade Policy Reform and the WTO, *CATO Journal*, Vol. 19, no. 3.

Johansen, S., (1988), "Statistical Analysis of Co-integration Vector", *Journal of Dynamics and Control*, Vol.12, pp.231-254

Engle, R. and Granger C. (1987), "Co-integration and Error Correction: representation, Estimation, and Testing", *Econometrica*. Vol.55 (92), pp.251-276

EEA. (2010), Statistical data Base CD –ROM

ANNEX

Null Hypothesis: D(LNTOP) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=7)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.605617	0.0009
Test critical values:	1% level	-3.670170	
	5% level	-2.963972	
	10% level	-2.621007	
*MacKinnon (1996) one-sided p-values.			

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LNTOP,2)

Method: Least Squares

Date: 11/24/19 Time: 21:37

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNTOP(-1))	-0.879024	0.190859	-4.605617	0.0001
C	0.066173	0.044415	1.489881	0.1474
R-squared	0.431030	Mean dependent var		-0.004845
Adjusted R-squared	0.410709	S.D. dependent var		0.297191
S.E. of regression	0.228139	Akaike info criterion		-0.053378
Sum squared resid	1.457334	Schwarz criterion		0.040035
Log likelihood	2.800677	Hannan-Quinn criter.		-0.023495
F-statistic	21.21171	Durbin-Watson stat		1.983552
Prob(F-statistic)	0.000081			

Null Hypothesis: D(LNRGDP) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=7)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.736874	0.0007
Test critical values:		
1% level	-3.670170	
5% level	-2.963972	
10% level	-2.621007	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LNRGDP,2)

Method: Least Squares

Date: 11/24/19 Time: 21:36

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNRGDP(-1))	-0.899426	0.189878	-4.736874	0.0001
C	0.085475	0.029683	2.879577	0.0075
R-squared	0.444863	Mean dependent var		0.007104
Adjusted R-squared	0.425036	S.D. dependent var		0.178017
S.E. of regression	0.134984	Akaike info criterion		-1.102978
Sum squared resid	0.510180	Schwarz criterion		-1.009565
Log likelihood	18.54467	Hannan-Quinn criter.		-1.073094
F-statistic	22.43798	Durbin-Watson stat		1.989307
Prob(F-statistic)	0.000057			

Null Hypothesis: D(LNIFR) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=7)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.594775	0.0120
Test critical values:		
1% level	-3.670170	
5% level	-2.963972	
10% level	-2.621007	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LNIFR,2)

Method: Least Squares

Date: 11/24/19 Time: 21:35

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNIFR(-1))	-0.615810	0.171307	-3.594775	0.0012
C	0.045849	0.017260	2.656354	0.0129
R-squared	0.315778	Mean dependent var		0.002860
Adjusted R-squared	0.291342	S.D. dependent var		0.080978
S.E. of regression	0.068169	Akaike info criterion		-2.469315
Sum squared resid	0.130116	Schwarz criterion		-2.375901
Log likelihood	39.03972	Hannan-Quinn criter.		-2.439431
F-statistic	12.92241	Durbin-Watson stat		2.064317
Prob(F-statistic)	0.001231			

Null Hypothesis: D(LNDCP) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=7)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.354715	0.0018
Test critical values:		
1% level	-3.670170	
5% level	-2.963972	
10% level	-2.621007	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LNDCP,2)

Method: Least Squares

Date: 11/24/19 Time: 21:33

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDCP(-1))	-0.809635	0.185922	-4.354715	0.0002
C	-0.003083	0.032817	-0.093944	0.9258
R-squared	0.403793	Mean dependent var		-0.002212
Adjusted R-squared	0.382500	S.D. dependent var		0.228734

S.E. of regression	0.179742	Akaike info criterion	-0.530252
Sum squared resid	0.904597	Schwarz criterion	-0.436839
Log likelihood	9.953787	Hannan-Quinn criter.	-0.500369
F-statistic	18.96354	Durbin-Watson stat	2.013640
Prob(F-statistic)	0.000161		

Null Hypothesis: D(LNFDI) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.968739	0.0000
Test critical values:	1% level	-3.670170	
	5% level	-2.963972	
	10% level	-2.621007	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LNFDI,2)

Method: Least Squares

Date: 11/24/19 Time: 21:31

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNFDI(-1))	-1.495136	0.149982	-9.968739	0.0000
C	0.280500	0.381796	0.734686	0.4686
R-squared	0.780178	Mean dependent var		-0.175434
Adjusted R-squared	0.772327	S.D. dependent var		4.351088
S.E. of regression	2.076125	Akaike info criterion		4.363224
Sum squared resid	120.6883	Schwarz criterion		4.456637
Log likelihood	-63.44836	Hannan-Quinn criter.		4.393108
F-statistic	99.37576	Durbin-Watson stat		2.166437
Prob(F-statistic)	0.000000			

Null Hypothesis: D(EXR) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.874915	0.0602
Test critical values:	1% level	-3.670170	
	5% level	-2.963972	
	10% level	-2.621007	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(EXR,2)

Method: Least Squares

Date: 11/24/19 Time: 21:29

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXR(-1))	-0.464720	0.161647	-2.874915	0.0076
C	0.437238	0.206874	2.113545	0.0436
R-squared	0.227909	Mean dependent var		0.064870
Adjusted R-squared	0.200334	S.D. dependent var		0.988020
S.E. of regression	0.883527	Akaike info criterion		2.654552
Sum squared resid	21.85738	Schwarz criterion		2.747965
Log likelihood	-37.81828	Hannan-Quinn criter.		2.684435
F-statistic	8.265137	Durbin-Watson stat		1.895797
Prob(F-statistic)	0.007636			

Null Hypothesis: D(LNEX) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.700857	0.0007
Test critical values:	1% level	-3.670170	
	5% level	-2.963972	
	10% level	-2.621007	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LNEX,2)

Method: Least Squares

Date: 11/24/19 Time: 21:27

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNEX(-1))	-0.885345	0.188337	-4.700857	0.0001
C	0.129323	0.065804	1.965268	0.0594
R-squared	0.441096	Mean dependent var		-0.004752
Adjusted R-squared	0.421135	S.D. dependent var		0.426916
S.E. of regression	0.324812	Akaike info criterion		0.653197
Sum squared resid	2.954071	Schwarz criterion		0.746610
Log likelihood	-7.797958	Hannan-Quinn criter.		0.683081
F-statistic	22.09806	Durbin-Watson stat		1.972944
Prob(F-statistic)	0.000063			

Date: 11/24/19 Time: 17:05

Sample (adjusted): 3 32

Included observations: 30 after adjustments

Trend assumption: Linear deterministic trend

Series: LNIFR EXR LNDLCP LNEX LNFDI LNRGDP LNTOP

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.895648	204.2528	125.6154	0.0000
At most 1 *	0.815600	136.4533	95.75366	0.0000
At most 2 *	0.659756	85.73395	69.81889	0.0016
At most 3 *	0.575691	53.39115	47.85613	0.0138
At most 4	0.527664	27.67237	29.79707	0.0862
At most 5	0.145677	5.170397	15.49471	0.7905
At most 6	0.014791	0.447029	3.841466	0.5037

Trace test indicates 4 cointegratingeqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.895648	67.79945	46.23142	0.0001
At most 1 *	0.815600	50.71937	40.07757	0.0022
At most 2	0.659756	32.34281	33.87687	0.0753
At most 3	0.575691	25.71878	27.58434	0.0850
At most 4 *	0.527664	22.50197	21.13162	0.0319
At most 5	0.145677	4.723368	14.26460	0.7763
At most 6	0.014791	0.447029	3.841466	0.5037

Max-eigenvalue test indicates 2 cointegratingeqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Chapter Three: EASIER TO DO BUSINESS



Executive Summary

Introduction: Private sector contributes to economic growth of a nation through job creation, innovation activities and tax revenues. In Ethiopia the share of private sector is paramount (about 85% in 2008/09) where the informal sector takes the lion's share. This is an indication that Ethiopia needs to frame its socio-economic development policies and strategies towards private sector and entrepreneurship.

Businesses in Ethiopia are confronted with number of challenges emanating from unfavorable policy and inefficient legal framework on the one hand and implementation of policies and laws on the other hand which resulted in ease of doing business difficult in Ethiopia. The purpose of this study was, therefore, to identify the most binding constraints that Ethiopian enterprises face and to forward a concrete policy option to enable the enterprises contribute for economic dynamism.

Methodology: This study mainly used secondary sources of data. Additionally, some KIIs were used. Both quantitative and qualitative methods of data analysis were employed to analyze the collected data. From quantitative method, descriptive and econometric analysis were applied. Document and content analysis were employed to analyze the qualitative data. In order to analyze ease of doing business and business environments in Ethiopia, the World Bank Doing Business Standard Indicators were used.

Findings

Doing business in Ethiopia is not such an easy relative to comparator countries. The country's doing business rank has deteriorated over time, declined from 116th in DB2009 to 159th according to DB2020 though the country reformed some indicators. Other countries like Kenya, Rwanda and Tanzania have shown significant improvement in doing business.

Starting a business is harder in Ethiopia than in its comparator countries except Uganda. High cost and bureaucratic procedures put Ethiopia at the bottom of starting a business rank relative to the comparator economies. The country's rank in starting a business has declined though the indicator is the most reformed relative to the rest (four reforms have been made since DB2010). Regrettably, starting a business rank has significantly declined. As per DB2010 Ethiopia was the second-best country (rank: 93rd) next to Rwanda (rank: 11th) where starting a business was easier, compared to the three comparator countries. The rank is reversed (for Ethiopia) according to DB2020. Ethiopia is the second from the last (rank: 168th) where starting a business is very difficult while Rwanda is the top performer. Inefficient and excessively burdensome business regulations have created stringent red tapes that hinder doing business in Ethiopia. Business environments are not attractive enough for business community to start business easily. Obtaining business registration certificate and licensing of new business and renewal of incumbent business is time taking due to the inefficient business regulations.

Registering property requires 15 procedures (DB2005) which reduced to 7 in DB2020. As per DB2020, it takes 52 days to register property in Ethiopia while the best performer, Rwanda, can do it within 7 days. Quality of land administration of Ethiopia is the lowest relative to the four comparator economies. These situations put Ethiopia the bottom and deteriorating rank

in registering property. Out of the four economies, Ethiopia is second country (142nd) where registering property is difficult next to Tanzania (146th) while Rwanda is the top performer (3rd) as per the DB2020.

In Ethiopia property rights are weak and inefficient due to regulations and directives as well as pertinent administrative structures that change frequently. This create confusion and lack of predictability on the business community. It also degrades their confidence to reinvest due to the unpredictability and long processing delays.

Weak property rights indicate weak enforcement of contracts and registering property. This is implied in costly and time consuming for firms for resolving commercial disputes which creates delays and exposes firms for high transaction costs. Enforcing contracts in Ethiopia takes 530 days, trial and judgement 290 days and enforcement of judgements takes 210 days. Weak property registering in Ethiopia is reflected in long procedures, high cost, long time and low quality of land administration. This reduces the likelihood of firms to use asset/land as collateral in order to access finance. Moreover, weak contract enforcement and registering property degrades firm's value which exacerbates firm's finance constraint. Therefore, weak and ineffective property rights are obstacles to do business in Ethiopia.

Getting credit is not easy in Ethiopia. Compared to Kenya, Rwanda, Tanzania and Uganda, Ethiopia has the lowest credit bureau coverage, credit registry coverage, and the weakest legal rights. Depth of credit information index is 0 in DB2020. The country's getting credit rank declined from 123rd in DB2009 to 176th in DB2020 while all the four comparator countries significantly improved it (Rwanda from 145th to 4th, Tanzania from 84th 67th, Uganda from 109th to 80th while Kenya improved from 5th to 4th during the time under consideration). Due to shortage of finance, business enterprises are unable to run their business enterprises at full scale, to develop new services and products, and boost their competitiveness. Insufficient loan size, very short period of loan repayment, huge collateral requirements, lack of transparency on loan conditions, increasing loan interest rate, extended time and duration of loan approval, lack of diversified sources of finance, and absence of joint liability group are the bottlenecks of the borrowers.

Paying taxes most difficult in Ethiopia relative to the four comparator economies. Number of payments per year in Ethiopia increased from 19 in DB2009 to 29 in DB2020. It is too bureaucratic which leads to high cost of tax compliance. Business firms also perceive that tax rates are high and tax administration is inefficient.

Enforcing contracts is relatively better in Ethiopia next to Rwanda when compared to its comparator economies though the rank of Ethiopia is deteriorating globally. It deteriorated from 57th in DB2010 to 67th as per DB2020. Even though cost of enforcing contract is the lowest and fewer procures are required to do the same in Ethiopia, the longest time (530 days) required to enforce contracts and the lowest quality of judicial procedures affect performance of enforcing contracts.

Resolving insolvency is toughest, getting worse over time, in Ethiopia relative its comparator economies. More specifically, its rank declined from the rank of 77th in DB2010, of course 2nd best performer next to Uganda (53rd), to 149th in DB2020 compared to the comparator countries. Lowest quality of insolvency framework and long time required to solve insolvency contributes to this lowest performance.

Human Capital and Research

Ethiopia lags behind its comparator economies with respect to human capital and research. The Global Innovation (2019) report ranked Ethiopia 124th in human capital and research. Adults literacy rate in Ethiopia is the lowest, even below the Sub-Saharan average, compared to the comparator economies. This contributes to the low entrepreneurial rate, growth and productivity.

Infrastructure availability and quality plays a paramount role in helping private sector to flourish. Believing this, the GoE Ethiopia has been investing infrastructure development. Regrettably, the country's rank in infrastructure development remains low. The Global Competitiveness report (2018) ranked Ethiopia 123rd economy of the world in infrastructure availability and quality while the Global Innovation Index (2019) put it at the rank of 99th. Shortage and unreliable electric supply, water, telecommunications and roads are critical challenges to firms. Specially, getting new connection (electricity) takes long time. Moreover, logistic performance of Ethiopia is poor, and it is challenging to trade across borders.

Economic freedom is the crucial element for an economy in general and private sector in particular, to grow and prosper. However, economic freedom in developing countries like Ethiopia is the most repressed hindering entrepreneurs from starting-up a new business easily or operating their businesses efficiently. Business freedom, financial freedom, and investment freedom are the most repressed in Ethiopia which highly impede doing business.

Entrepreneurship policies and institutional framework are not efficient and conducive to encourage entrepreneurial activities. Specifically, regulatory efficiency (the most oppressed business freedom) and rule of law (the most oppressed property rights, judicial procedures and government integrity) indicate that there are lacking policies and institutional frameworks in Ethiopia. Ethiopia has one of the lowest entrepreneurial activity rates in sub-Saharan African countries.

Conclusion and Policy Proposal

The lack of prudent policies and institutional frameworks as well as repressed economic freedom like business freedom, institutional freedom and investment freedom have made doing business in Ethiopia an uphill battle. Ethiopia lags behind the comparator countries Kenya, Rwanda, Tanzania and Uganda.

Bureaucratic inefficiency and stringent regulatory environments are obstacles to doing business in Ethiopia. They create regulatory rent seeking behavior that facilitates favorable ground to illegal practices like corrupting and bribe. Credit market regulations of Ethiopia are very strict and limit entrepreneurs' access to financial services and products. The regulations also exacerbate shortage of foreign exchange through imposing Forex surrender requirements, Forex allocation management, permissible Forex amount upon entry, etc. single credit borrower limit and maximum amount of transfer through e-banking are also indicators of strict credit market regulations.

Strict labour market hiring and firing of redundant worker is also challenges employers in Ethiopia. Underdeveloped labour market together with the stringent labour regulations negatively affect the labour market outcomes.

The business regulations of Ethiopia are found to highly repress business freedom of entrepreneurs. It leads to high administrative requirements and bureaucracy cost. Cost of tax compliance and extra payments like bribe are also the result of the regulations. The inefficient business regulations, business licensing and renewal are time taking and costly. This creates additional transaction costs, delays and uncertainty to business community which in turn make starting a business difficult.

Trade related regulations also restrict freedom to trade internationally. Trade tariff was found to be higher for Ethiopia. Furthermore, non-tariff trade barriers, and compliance costs of importing and exporting are another challenge introduced by the stringent regulations challenging firms in Ethiopia. The exchange rate regime that the country has been following is the main cause of prevalence of black-market exchange rates. Free movement of capital has also been restricted. These factors are obstacles to doing business, particularly trading across borders.

Due to repressed rule of law property rights, judicial effectiveness, and government integrity are very weak in Ethiopia. With weak legal system it is difficult to enforce contracts, register property, ensure property rights and protect minority investors. The investment freedom index of Ethiopia shows that freedom of business community to invest is restricted. Restrictions arise normally from burdensome bureaucracy, restrictions on land ownership, expropriation of investments without fair compensation, foreign exchange controls, capital control, security problems, a lack of basic investment infrastructure.

Infrastructure in Ethiopia is underdeveloped and of low quality. The country lags behind in availability and quality of infrastructure. Access and use of ICT is low in Ethiopia compared to its comparators. There is substantial gap between Ethiopia and the comparator countries in logistic performance. Access to land/working premises and electricity are also critical issues challenging business community in Ethiopia.

Business skill gap, labour skills, productivity and innovation are highly related to doing business. Ethiopian firms have business skill gaps which negatively affect their day-to-day activities in doing business. Preparing business plan and bookkeeping problematic due the skill gap. Labour skill is challenging industrial firms in Ethiopia.

General recommendation: Ethiopia needs to undertake critical and substantial reforms on its economy so that conducive business environment will be created. Economic freedom of the country needs to be improved. More specifically, reform is required to improve rule of law (property rights, judicial effectiveness and government integrity), regulatory efficiency (business freedom, labour freedom and monetary freedom), and market openness (trade freedom, investment freedom and financial freedom).

3.1. Introduction

3.1.1. Background

A growing stock of private sector is the heartbeat of a dynamic economy via job creation, innovative activities, and tax revenues. Furthermore, it can be a strong advocate for policy reform and a force for good governance, establishing a virtuous circle in which an improving business environment brings private sector growth, which in turn strengthens governance reforms. The importance of the private sector has also been evident in Ethiopia. By way of example, the share of the private sector in Ethiopia in the year 2008/09 was 84.8 percent though the major part lies within the informal sector (Kolli, 2010)⁷. This indicates that developing countries like Ethiopia need to frame their socio-economic development policies and strategies towards private sector and entrepreneurship in order to reduce poverty. Empirical literature show that business-friendly regulations and poverty headcount are positively correlated. According to Djankov, Georgieva, and Ramalho (2018) business-friendly regulations are strong instrument that can reduce poverty through business creation, both as a source of new jobs and as manifestation of thriving entrepreneurship.

Easier to do business deals with rules that allow voluntary exchanges between economic actors, set out strong property rights, facilitate the resolution of commercial disputes, and provide contractual partners with protections against arbitrariness and abuse. Such rules are much more effective in promoting growth and development when they are efficient, transparent, and accessible to those for whom they are intended. Easier to do business is about having efficient rules that create an environment where new entrants with initiative and innovative ideas can get started in business and where productive firms can invest, expand, and create new jobs. It uncovers red tapes and roadblocks for small and medium business. Efficient and fair government regulations ensure equal opportunity for all which increases business confidence, innovation and growth that is inclusive. This in turn creates thriving business communities.

The business climate in Ethiopia is inferior to the corresponding situation in sub-Saharan Africa in relation to voice and accountability, political stability, government effectiveness and regulatory quality (Gote, 2004; Kaufmann, Kraay, & Mastruzzi, 2003). According to the World Bank's Country Policy and Institutional Assessment - Africa Region (CPIA), Ethiopia is classified as "Moderately Unsatisfactory" in 2003. This rating is due to a very low rate for "Structural Policies" which is categorized as "Unsatisfactory for an extended period". The World Bank's 2019 CPIA report shows that the country has shown very meagre improvements in quality of policies and institutional frameworks compared to that of the 2003. The country's overall CPIA was 3 in 2003 and 3.5 in 2018. This is low compared to Rwanda (4), Kenya (3.7) and Uganda (3.7). Surprisingly, quality of some policies and institutional frameworks has been worsened over time though there are insufficient overall average improvements.

Ethiopian business environment does not encourage women to be engaged in business activities. Women are significantly less likely to own a business, and when they do, face significant operating constraints. According to Gebre-eyesus et al. (2018) women entrepreneurs constitute only 18.92% out of the sample entrepreneurs.

Business regulations in Ethiopia are not conducive for doing business. The regulations are excessively bureaucratic which is characterized by lengthy, non-valued adding procedures which increase transaction costs to business firms. This situation encourages firms to join informal sector which hurts not only firms but also the country at large. More specifically, unconducive and excessively rigid business regulations in Ethiopia is reflected in commercial registration,

7 Kolli, R., (2010). A Study on the Determination of the Share of the Private Sector in Ethiopian Gross Domestic Product.

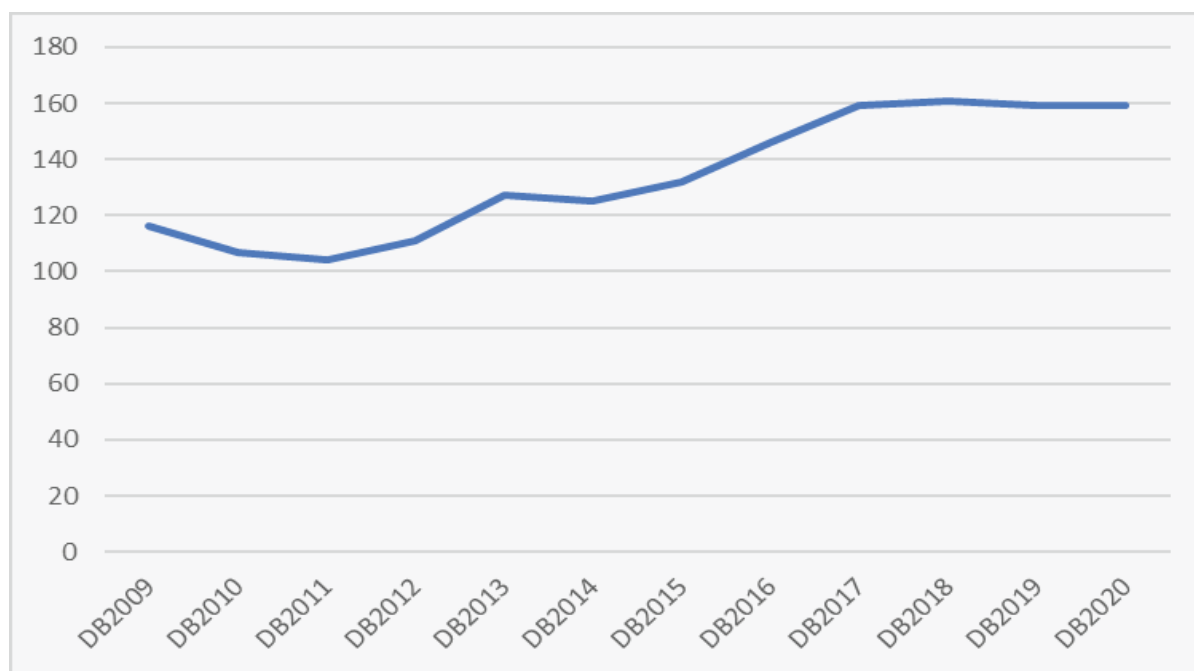
licensing and renewal of new businesses as well as incumbent firms. In the Ethiopian investment registration system, an investor passes through the pre-implementation, implementation and operation phases. This bureaucratic inefficiency of business regulation has made getting commercial registration, license and renewal long and time taking which in turn results in unnecessary delays.

In Ethiopia, the investment registration system lack clear and complete information about investment processes, institutions and the order in which these processes must be undertaken. The process of obtaining the business license involves showing the place of work, employees' profile and is open for malpractices. However, there is a serious constraint in access to working premises for Ethiopian businesses. For instance, Gebre-eyesus et al. (2018) reported that about 28% of entrepreneurs complained about lack of working premises. Business license has been described as formality and some even present profiles of employees that are not working with them. If bureaucracy is put in place, it is important to observe that it is implemented correctly. Otherwise, it will create room for corruption and lack of respect for the institutions of the country. The investment climate in Ethiopia does not foster productivity growth for new comers and tends to favor well-established and large firms (World Bank, 2015).

Businesses in Ethiopia are confronted with number of challenges emanating from policy and legal framework on the one hand and implementation of policies and laws on the other hand. Furthermore, infrastructure and utilities make doing business in Ethiopia uneven. These are reflected on the status of the country on ease of doing business.

According to the World Bank DoingBusiness (2020) yearly report Ethiopia has been ranked in the bottom position. Ethiopia ranked 159 out of 190 countries. As indicated in the following graph, Ethiopia's rank⁸ in the ease of doing business indicators has worsen overtime. This has implications to the development of the nation. According to the World Bank group doing business report, poor countries are found to experience cumbersome regulations (World Bank Group, 2019).

Figure 3.1: Ease of Doing Business in Ethiopia Overtime



Source: Own compilation

8 The higher the rank means the worse the performance of the country is

Entrepreneurial headwinds are usually associated with inefficiency, low entrepreneurial rate and under capacity.

The rate of entrepreneurship growth relative to comparator countries was found to be smaller. Not more than 15% of Ethiopian adults were engaged in **early-stage entrepreneurship** – which is the percentage of people either in the process of setting up a business or involved in running a new one. A further 10% were running **established businesses**. The regional averages with respect to early-stage entrepreneurship and established businesses are 28% and 15% respectively (Herrington and Kelly, 2012)⁹.

By the same token, Youth TEA rate in Ethiopia (15%) is relatively lower than the average for Sub-Saharan Africa (29%); ranked second from bottom (topped only South Africa that has a TEA of 7%). The youth's established business rate is also slightly lower than the Sub-Saharan average; which is 7% and 8% respectively.

Compared to Sub-Saharan Africa and the World Average, capacity utilization was lower. Capacity utilization in Ethiopia is at 63.3% while it is 69.9% in SSA and 72.2% in the world. Similarly, real annual sales growth is below the regional as well as the world average. It is 0.2% in Ethiopia while 2.2% for SSA and 1.6% for the World Average (World Bank Group, 2015). The same report highlighted that the percent of firms buying fixed assets such as machinery, equipment, land or buildings is smaller. It was 37.2% for Ethiopia, 40.9% for SSA and 42.2% for the World average respectively.

In view of the above, identifying the obstructions to do business in Ethiopia and putting relevant policy options is imperative for a thriving and impactful business.

3.1.2. Purpose of the Study

The purpose of this work is to identify the most binding constraints that Ethiopian enterprises face to devise an optimal policy option to enable the enterprises contribute for economic dynamism. Identifying binding constraints to growth is a key step before designing policies (Lin and Monga, 2013). Scanning the current legal, institutional, policy and implementation and challenges will be undertaken. The study reviewed, and distilled synthesis of researches and studies made on easier to do business in Ethiopia. With decent understanding of the magnitude of and figures of each key performance indicators for this strategic area of action, we will undertake trend analysis of data with the aim to set targets for each identified KPIs including impact analysis, and benchmarking of regional best practices such as Kenya, Tanzania, Uganda, and Rwanda.

3.1.3. Objective of the Study

The objective of this study is to undertake an investigative research on easier to do business to forward concrete policy proposals, by synthesizing issues and challenges and scanning the current legal, institutional, policy, and implementation issues and challenges as far as business entry, operation and exist is concerned.

3.1.4. The Scope of the Work

The scope of the study specifically covered the following:

- Undertake review of the preliminary AACCSA 2025 policy plan, specifically revisit KPIs and policy proposals of the theme for improvements;

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 9 Herrington, M., & Kelly, D. (2012). African entrepreneurship: Sub-Saharan African regional report. *Global Entrepreneurship Monitor*, 1-74.

- Carefully review and distilled synthesis of researches and studies made easier on business and exit, administrative burden, tax administration, contract enforcement, sustainability utility provision, and private sector development among other;
- Assess current legal, institutional, policy and implementation issues and challenges on the subject matter;
- Understand the magnitude and figures and undertake trend analysis of data with the aim to set targets for identified KPIs
- Undertake analysis of impact; let us say what would be the impact if a given parameter change by a certain amount;
- Benchmark regional countries best practices, these are Kenya, Tanzania, Uganda and Rwanda; and
- Provide brief and direct messages to policy makers and forward sound policy proposals to be part as a volume in main document of the policy plan

3.2. Methodology

This section entails the sources of data, data collection techniques, and the method of analysis.

3.2.1. Sources of Data

The study has undertaken an in-depth desk review of pertinent studies, reports, proclamations or related documents on easier to do business to understand the assignment, issues and challenges surrounding business entry, operation and exit. It undertook desk review of published and unpublished documents that are available in government offices, non-government organizations, academic institutions and AACCSA to identify existing issues and constraints and forward sound policy proposals. Benchmarking of best practices of East African countries was done. Documenting the existing policies and institutional framework can help shed light on the challenges existing and potential entrepreneurs face. The review made use of the indicators from the Global Innovation Index, Human Development Report, Economic Freedom Index, UNCTAD entrepreneurship framework conditions, World Bank Group Doing Business, the Enterprise Survey, GEM reports and Global Competitiveness Index reports. Based on these reports the following indicators are considered to assess the ease of doing business in Ethiopia from a comparative perspective. The secondary sources were also supplemented with primary sources.

Table 3.1: Indicators Used in the Analysis

Indicator and measures	Proposed Source
Intellectual Property Protection	WEF
Skills and Training	WEF, WBGES
Crime and Informality	WBGES
Finance	
Proportion of loans requiring collateral	WBGES
Value of collateral needed for a loan (% of loan amount)	WBGES
Percent of firms whose recent loan application was rejected	WBGES
Percent of firms using banks to finance investments	WBGES
Proportion of investments financed internally	WBGES

Proportion of investments financed by banks	WBGES
Percent of firms using banks to finance working capital	WBGES
Percent of firms using supplier/customer credit to finance working capital	WBGES
Proportion of working capital financed by banks	WBGES
Percent of firms identifying access to finance as a major constraint	WBGES
Infrastructure	
Firms experiencing electrical outages	WBGES
Number of electrical outages in a typical month	WBGES
Average duration of a typical outage (hours)	WBGES
Average losses due to electrical outages (% of annual sales)	WBGES
Percent of firms owning or sharing a generator	WBGES
Average proportion of electricity from a generator (%)	WBGES
Days to obtain electrical connection (upon application)	WBGES
Percent of firms identifying electricity as a major constraint	WBGES
Percent of firms experiencing water insufficiencies	WBGES
Number of water insufficiencies in a typical month	WBGES
Percent of firms identifying transportation as a major constraint	WBGES
Quality of Land Administration	WEF
Innovation and Technology	
Firms using technology licensed from foreign companies	WBGES
Firms having their own Web site	WBGES
Firms using e-mail to interact with clients/suppliers	WBGES
Firms that introduced a new product/service	WBGES
Firms whose new product/service is also new to the main market	WBGES
Firms that introduced a process innovation	WBGES
Spending on R&D	WBGES
ICT Adoption	WBGES
Starting Business	
Procedures, time, cost and paid-in minimum capital to start a limited liability company for men and women	WBGDB
Dealing with construction permits	
Procedures, time and cost to complete all formalities to build a warehouse and the quality control and safety mechanisms in the construction permitting system	WBGDB
Getting Electricity	
Procedures, time and cost to get connected to the electrical grid, the reliability of the electricity supply and the transparency of tariffs	WBGDB

Registering Property	
Procedures, time and cost to transfer a property and the quality of the land administration system for men and women	WBGDB
Getting Credit	
Movable collateral laws and credit information systems	WBGDB
Domestic credit to private sector (% of GDP)	
Protecting Minority Investors	
Minority shareholders' rights in related-party transactions and in corporate governance	WBGDB
Paying Taxes	
Payments, time and total tax and contribution rate for a firm to comply with all tax regulations as well as postfiling processes	WBGDB
Trading across Borders	
Time and cost to export the product of comparative advantage and import auto parts	WBGDB
Enforcing Contracts	
Time and cost to resolve a commercial dispute and the quality of judicial processes for men and women	WBGDB
Resolving Insolvency	
Time, cost, outcome and recovery rate for a commercial insolvency and the strength of the legal framework for insolvency	WBGDB
Labour Market Regulations	
Flexibility in employment regulation and aspects of job quality	WBGDB
Trade	
Days to clear direct exports through customs	WBGES
Percent of firms exporting directly or indirectly (at least 10% of sales)	WBGES
Percent of firms exporting directly (at least 10% of sales)	WBGES
Proportion of total sales that are exported directly	WBGES
Days to clear imports from customs*	WBGES
Percent of firms using material inputs and/or supplies of foreign origin	WBGES
Proportion of total inputs that are of foreign origin	WBGES
Percent of firms identifying customs and trade regulations as a major constraint	WBGES
Corruption	
Bribery incidence	WBGES
Percent of firms expected to give gifts to public officials 'to get things done'	WBGES
Percent of firms identifying corruption as a major constraint	WBGES
Performance	
Capacity utilization (%)	WBGES

Real annual sales growth (%)	WBGES
Annual employment growth (%)	WBGES
Annual labor productivity growth (%)	WBGES
Percent of firms buying fixed assets	WBGES

3.2.2. Data Analysis

The consulting team employed both quantitative and qualitative methods of data analysis. Integrating different techniques help towards a better discussion, confirming, and explaining the findings of the study and results in better findings for sound policy options.

3.2.2.1. Quantitative Data Analysis

i. Descriptive Analysis

This method is employed to assess the status of business environment in Ethiopia relative to comparator countries. This is of importance to benchmark these countries to undertake reforms in areas where they perform better. For this tables, and graphs were employed. As mentioned above, it made use of the indicators or variables that are developed using UNCTAD entrepreneurship framework condition, the World Bank Group Doing Business and Enterprise Survey Annual Reports, and World Economic Forum Global Competitiveness reports.

ii. Econometric Analysis: Business Environment and Firm Performance

This part of the assignment tries to identify the different variables characterizing the business environment and assess their impact on business performance in order to identify the most critical factor affecting business performance to infer some policy options.

The variables that are used to surrogate business environment can be categorized as socio cultural, institutional and technological environment. To make sense of this, Estay (2004)¹⁰ attested that "The path taken in the creation of the business depends specially on the personal characteristics of the businessman and those of the environment in which he is working".

Employment growth and sales growth were used as surrogates for firm performance. Extant literature also concedes with these indicators (Bowen et al. 2007)¹¹.

The latest World Bank Group Enterprise Survey data was the principal source of data for this very analysis. The data was collected in Ethiopia between June 2015 and February 2016 as part of Enterprise Survey Project, an initiative of the World Bank 848 establishments.

To examine the effect of business environment on firm performance, multiple linear regression was employed.

The regression model can be formulated as:

$Y_i = \beta_0 + \sum \beta_i Sci Y_i = \beta_0 + \sum \beta_i Sci + \sum \gamma_i I_i + \sum \theta_i T_i$ where by *Sci* indicates socio cultural factors, *Ii* denotes institutional factors and *Ti* indicates technological environment.

10 Estay, C. (2004), "Setting up Businesses in France and the USA: A Cross Cultural Analysis", European Management Journal, 22, 4, p. 452-463.

11 Bowen, Harry P. De Clercq, Dirk 2008. "Institutional context and the allocation of entrepreneurial effort" Journal of International Business Studies, 29, 747-767

From the very objective that entrepreneurs are innovators, it is also quite important to analyze the determinants of entrepreneurs' innovation in Ethiopia. This will tend to identify the critical challenges for enterprises' innovation, forward relevant inferences so as to make use of the new things that entrepreneurs bring to the market.

To realize the principal objectives of the study, quantitative techniques will be applied using binary probit regression. Binary probit regression is employed to estimate product, process, marketing, and organizational innovations given that the variables are binary dummies. The binary probit regression model can be specified as in the Equation below:

$$Pr(i = 1/X = xi) = \Phi(\beta_0 + \beta_1 FCS_i + \beta_2 HCV_i + \beta_3 FIA_i + \beta_4 ICS_i + \varepsilon_i)$$

where, Pr(i) is the propensity for the firm to innovate, $\Phi(\cdot)$ is the standard normal cumulative distribution function (cdf), FCS_i is a vector of individual characteristics, HCV_i is a vector of human capital variables, FIA_i is a vector of innovative activity, ICS_i is a vector of industry characteristics, and ε_i is an error term.

Tobit regression model was used to estimate the determinants of innovation using a broad measure of innovation or innovation score—the sum of dummies of product, marketing, process, and organization innovations—divided by the number of variables used. Thus, the model is specified as:

$$Innov_i = \beta_0 + \beta_1 FCS_{i*} + \beta_2 HCV_{i*} + \beta_3 FIA_{i*} + \beta_4 ICS_{i*} + \varepsilon_{i*}$$

Where $Innov_i = 0$ if $Innov_i \leq 0$ and $Innov_i = Innov_i^*$ if $Innov_i^* > 0$

iii. Vector Error Correction Model: Determinants of Private Investment

This part of the study tends to address the effect mainly of time series variables on the level of private investment in Ethiopia. Previous works identified access to bank credit, public investment, lending interest rate, real GDP, Inflation, national reserve, external debt servicing, foreign direct investment as some of the main determinants of private investment in a country. Private gross fixed capital formation will surrogate private investment (rate of entrepreneurship). And we considered these variables for this part of the analysis.

$$\ln PI_t = \beta_0 + \beta_1 \ln RGDP_t + \beta_2 \ln PUI_t + \beta_3 \ln IR_t + \beta_4 \ln EDS_t + \beta_5 \ln NR_t + \beta_6 \ln FDI_t + \beta_7 \ln BCR_t + \beta_8 \ln INF_t + u_t$$

Where the coefficients $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$ and β_0 are the parameters of the respective variables and β_0 denotes the constant term, t denotes time and u is the error term.

Description of the variables

Factors	Variables
Private investment - $\ln PI / \ln PI$	Private gross fixed capital formation at Constant prices.
Lending interest rate - $\ln IR / \ln IR$	Average rate of lending on bank loans.
Bank credit / Access to credit - $\ln BCR / \ln BCR$	Annual flow of credit to private sector credit
Output - $\ln RGDP / \ln RGDP$	Gross domestic product (factor cost) at Constant price/real /
Inflation rate - $\ln INF / \ln INF$	Annual inflation measured by GDP deflator
Foreign direct investment - $\ln FDI / \ln FDI$	Annual inflow of foreign investment in USD
Public investment - $\ln PUI / \ln PUI$	Sum of public fixed capital formation and General government fixed capital formation
National reserve - $\ln NR / \ln NR$	net gold and foreign currency reserve in constant price in birr transformed into natural logarithm
External debt service - $\ln EDS / \ln EDS$	the sum of public, publicly guaranteed, and private nonguaranteed long/short-term debt

3.3. Characterizing Doing Business in Ethiopia: Comparative Perspective

3.3.1. Introduction

Every economy needs a healthy private sector to flourish. When local businesses prosper, they create jobs and generate income that can be spent and invested domestically. Any rational government that cares about the economic well-being and advancement of its constituency pays special attention to laws and regulations affecting business operators. Effective business regulation affords enterprises the opportunity to grow, innovate and, when applicable, move from the informal to the formal sector of an economy (World Bank/DB, 2019). Contrary to this, cumbersome business regulations deteriorate firms' productivity. Moreover, stringent regulations encourage informality and corruption.

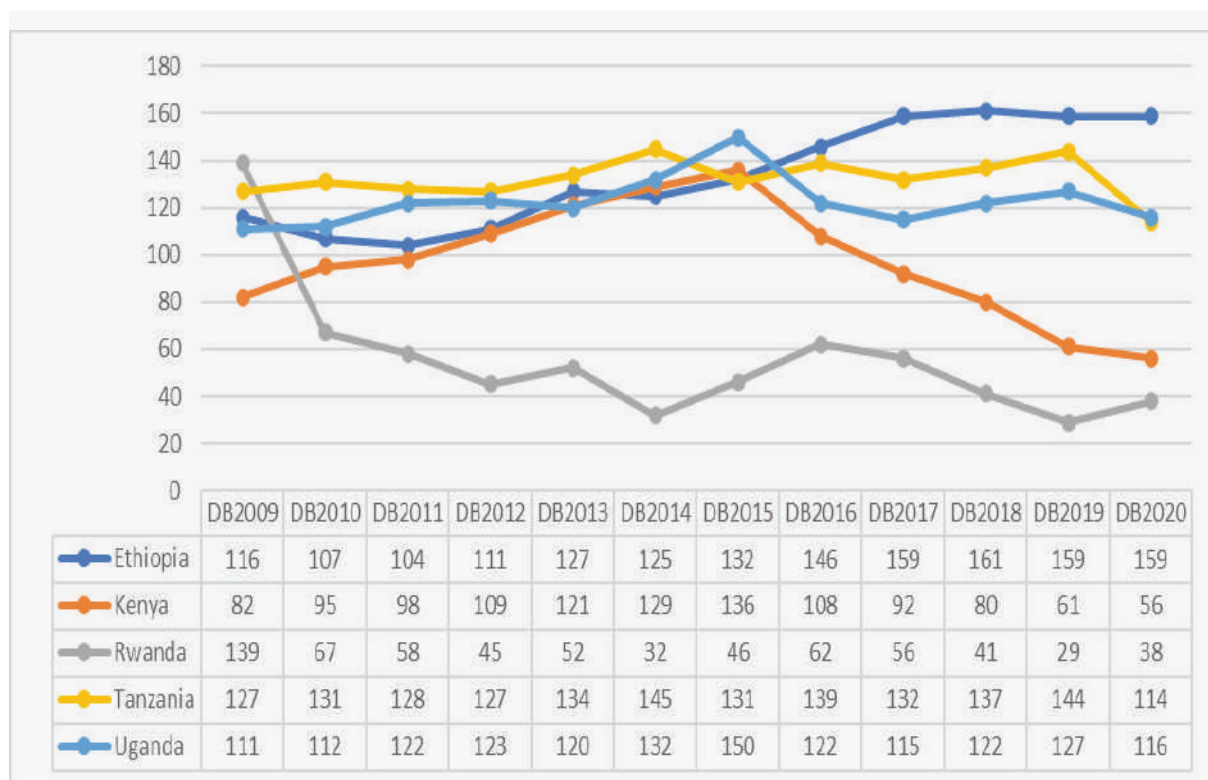
This section presents a desk review on doing business in Ethiopia by focusing on business regulatory environment and bureaucratic bottlenecks. The unleashing of the entrepreneurial potential a nation has requires an environment that enables the entrepreneur to create, operate, manage, and if necessary, close a business within a context where compliance with the rule of law governing disclosure, licensing and registration procedures, and the protection of physical and intellectual property is guaranteed. The regulatory environment should encourage people to set up their own business, to try new business ideas and to take on calculated risks, keeping administrative burdens to the minimum required to support public policy and sustainable development objectives (UNCTAD, 2013).

In order to analyze ease of doing business and business environments in Ethiopia World Bank's Doing Business standard indicators were used. These indicators measure regulations affecting 11 areas of the life of a business: starting a business, dealing with construction permits, getting

electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. Moreover, the Global Innovation Index indicators are used in order to analyze human capital and infrastructure facilities that are crucial to doing business.

Doing business in Ethiopia has been deteriorating over time (Figure 1). It's doing business rank was 116th according to 2009 Doing Business report which was worsened to 159th in 2020. Figure 2 shows that doing business is tougher in Ethiopia than the comparator countries like Kenya, Rwanda, Tanzania and Uganda specially starting from 2015. In the next sub-sections, more detailed analysis is presented by breaking down the general indicator into its sub-indicators.

Figure3.2: Doing Business Rank in Ethiopia- A Comparison



Source: Compiled from World Bank Doing Business Reports

3.3.2. Opening a Business

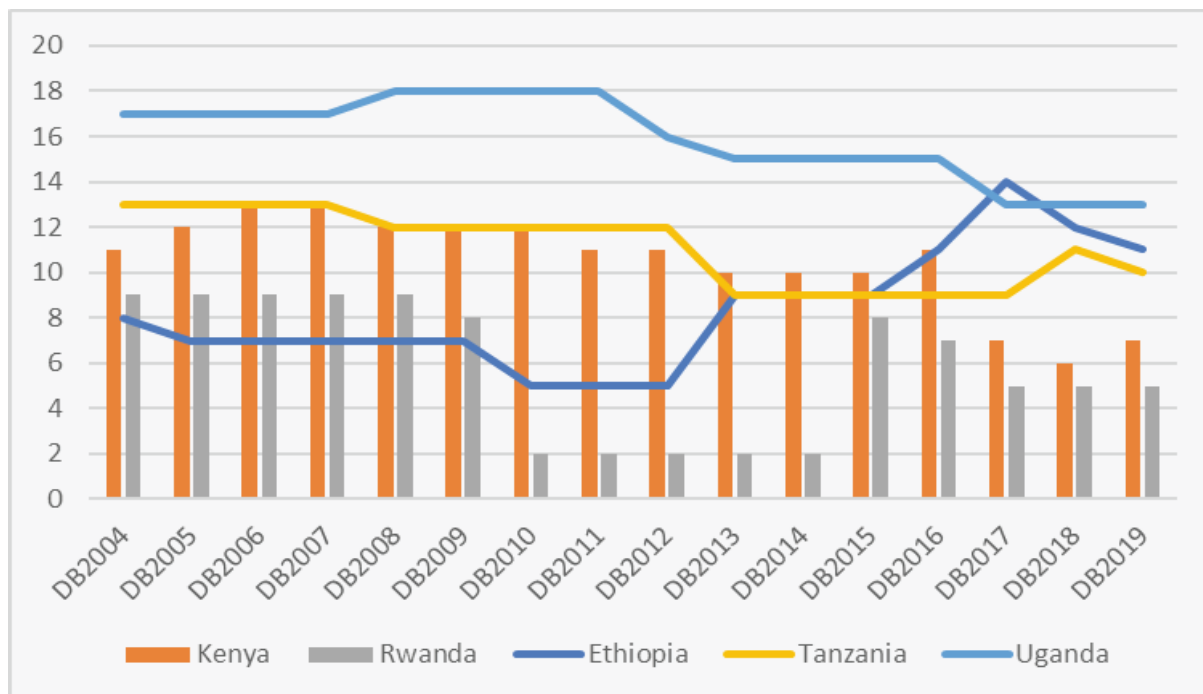
3.3.2.1. Starting a Business

Starting a business indicator records all procedures officially required for an entrepreneur to operate an industrial or commercial business legally. They include obtaining necessary permits and licenses—and completing the required inscriptions, verifications, and notifications—to start operation. Doing business calculates the cost and time of fulfilling each procedure under normal circumstances, as well as the minimum capital requirements to operate.

In Ethiopia starting-up a new business required fewer official procedures compared to the four comparator countries till 2009. The country was reforming number of officially required procedures between 2004 and 2009. As a result, number of officially required procedures to start-up a new business decreased by 37.5%. However, establishing a new business has been becoming more bureaucratic procedurally (increased by 120%) since 2012 while other peer counties have undertaken different reforms. Nowadays, starting a new business requires more

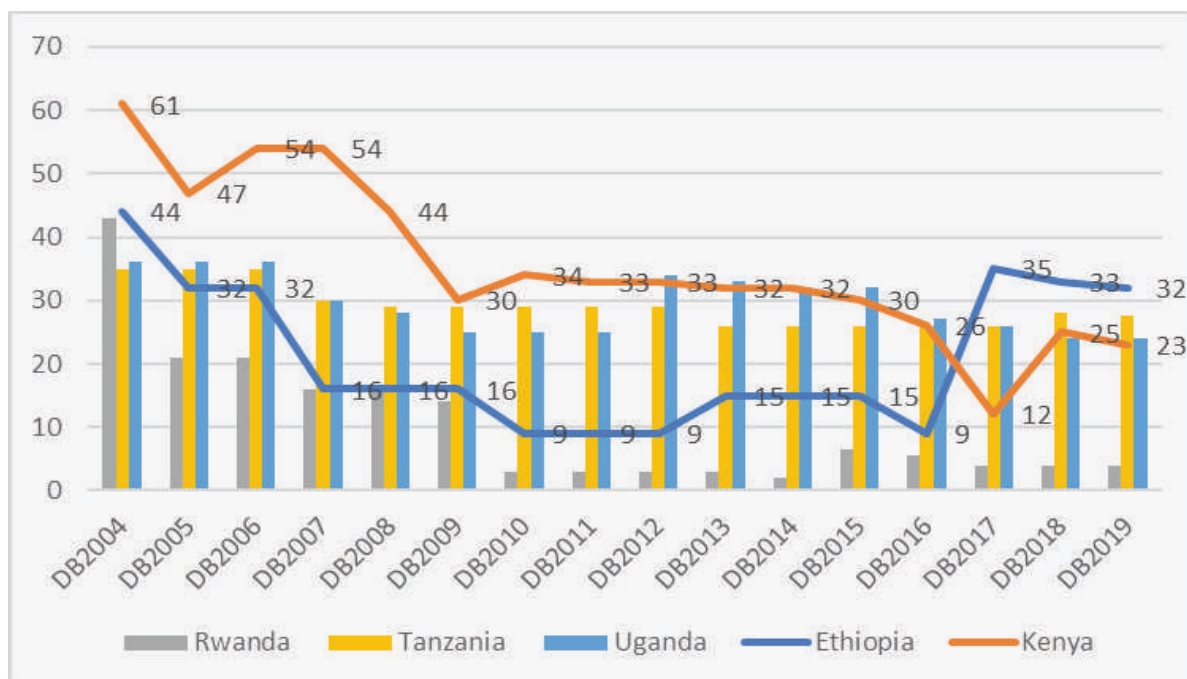
official procedures than Kenya, Rwanda and Tanzania. More bureaucratic procedures mean more delays and more opportunities for bureaucrats to extract bribes which in turn exposes entrepreneurs to higher cost of starting a business.

Figure3.3: Starting a Business- Procedures



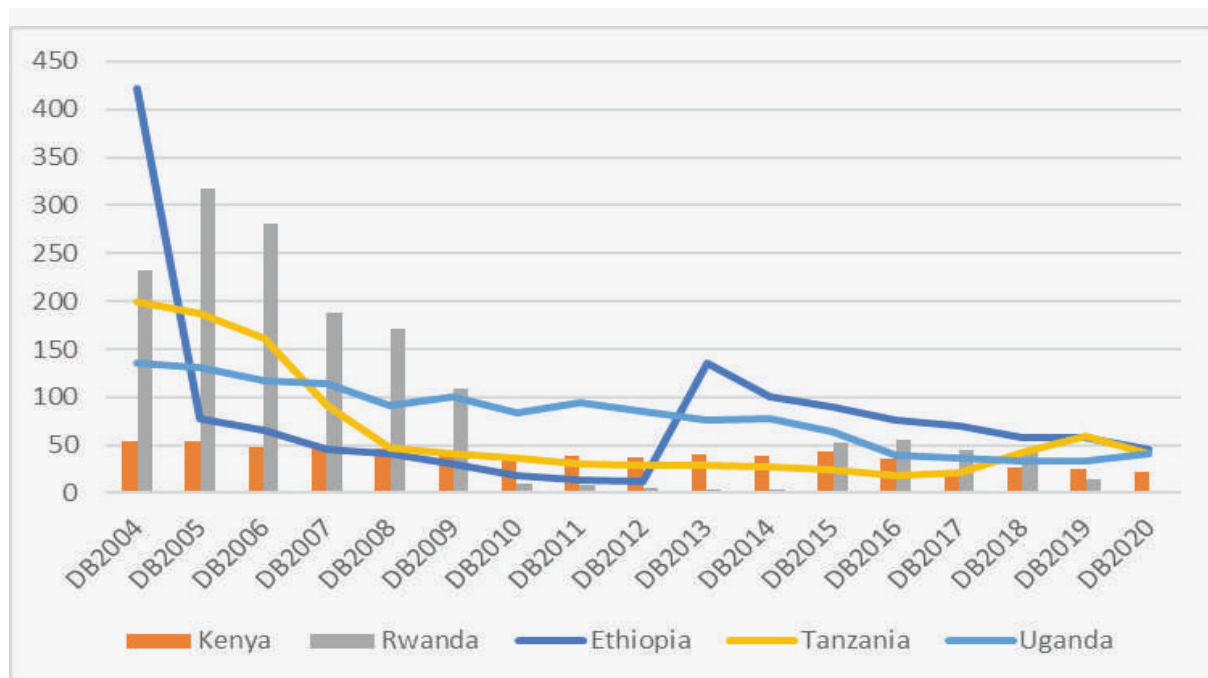
Ethiopian entrepreneurs waste about 21 days, on average, to start-up a new business. It was less time taking compared to comparator counties except Rwanda till 2015. The time required to start-up a business in Ethiopia has been increasing since 2016 and starting business is tougher in Ethiopia compared to the comparator countries (Figure 4).

Figure3.4: Starting a Business: Time



The time and cost to set up a business go hand in hand. The higher the time required to start-up a business the higher the cost of doing the same. Even though the cost of starting a business has been decreasing over time, it is more costly for Ethiopia entrepreneurs to start-up a business compared to Kenya, Rwanda, Tanzania and Uganda.

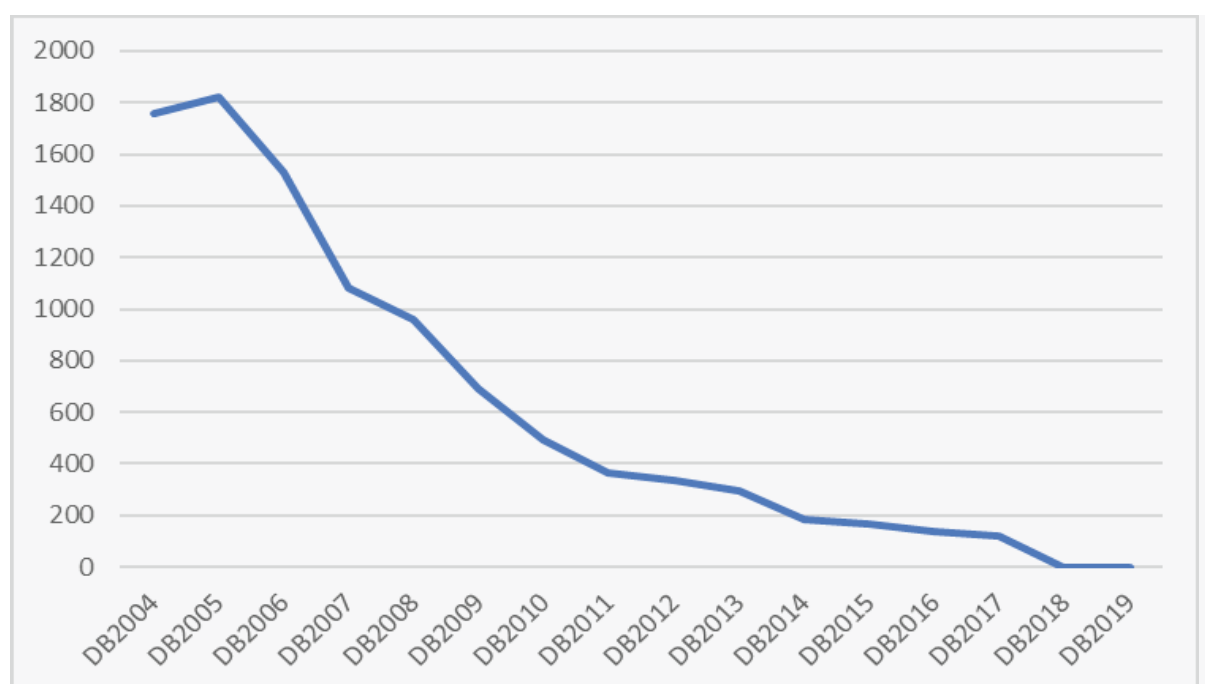
Figure 3.5: Starting a Business-Cost



The paid-in minimum capital requirement which reflects the amount that the entrepreneur needs to deposit in a bank or with a third party (for example, a notary) before registration or up to three months after incorporation is another starting a business indicator that affects starting-up a new business. The minimum capital requirement required to start a business lowers entrepreneurship rate. The minimum capital requirement may be a more serious barrier because even skillful entrepreneurs may not be able to overcome this without access to assets. Such requirements also fail to serve their intended purpose of protecting consumers and creditors from hastily established and potentially insolvent firms. The paid-in minimum capital requirement was significantly high in Ethiopia while totally absent in other countries like Kenya and Uganda. However, **Ethiopia made starting a business easier by eliminating the paid-in minimum capital requirement** which reduced the minimum capital requirement to zero in 2018.

Unfortunately, the country still lags behind its comparator countries in the area of starting-up a new business. This is attributed to the underdeveloped labor market that hinders employment growth, trapping much of the labor force in the informal economy. The 2019 Index of Economic Freedom report categorized labour market in Ethiopia under mostly unfree with the score of 58.0. Moreover, the 2019 Global Competitiveness report puts Ethiopia at the rank of 124th out of 141 countries indicating that the country’s labour market performance is low.

Figure 3.6: Staring a Business-Minimum Capital Requirement



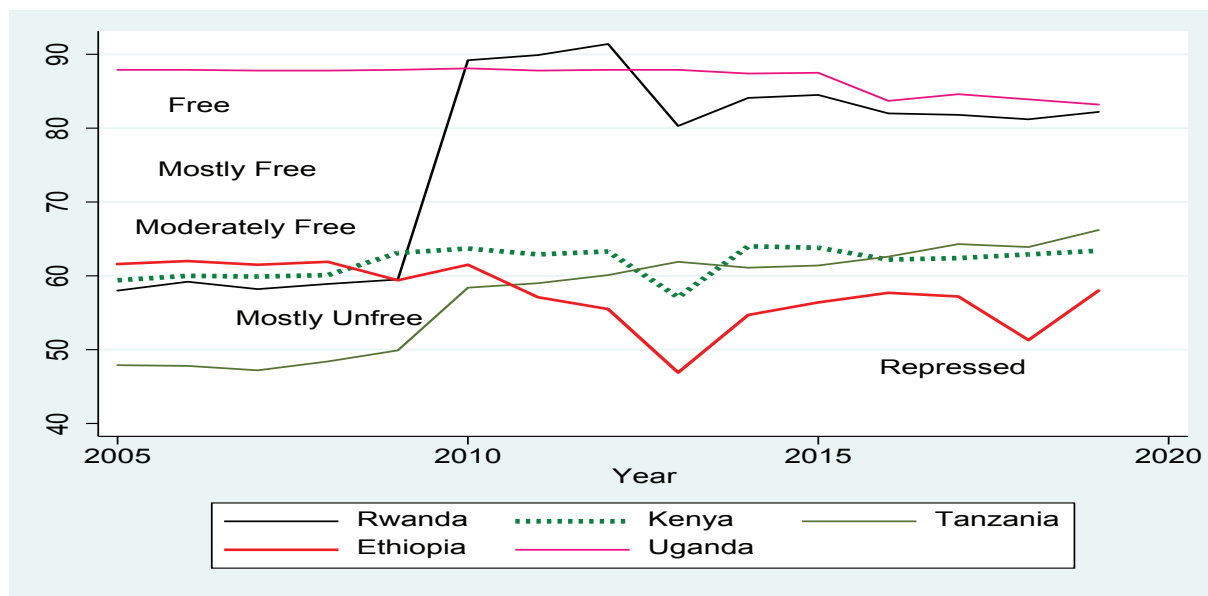
During the data collection process from the key informants, we realized the need for flexibility in the requirements that can go with the dynamicity of the economy and the working condition. Some informants, for instance, said virtual office and agile working are becoming the norm. In this regard, the requirements to get business license needs revision. Some of the requirements are not so relevant for some types of works. AACCSA internal papers also confirms this. Some of the would-be enterprise operators are spending time and cost for procedures that have nothing to do with their business. The association indicated that *“physical business address requirement for commercial registration to all types of business engagement is unnecessary and burden, as it takes much more effort to get it from lower administrative level. For example, physical business address for consultancy services should not be compulsory as the business by its nature can be perform in a virtual office”*.

3.3.2.2. Employing Workers

The nature and type of employment regulation in a country matters for firms to freely and efficiently conduct their business. Flexible labor regulation increases job creation and productivity growth. In an economy where employment regulations are too stringent, it is very tough for firms to hire new employees and fire redundant workers to enhance productivity. Such cumbersome employment regulations exacerbate unemployment where the problem is more pronounced among youth and female workers. This in turn encourages youths to join informal business activities.

Economic Freedom Index indicates that labour market in Ethiopia is mostly unfree with the least scores, especially 2011 onwards, which is an indicator of onerous employment regulations. Other comparator countries are in better instances with this regard. Ugandan labour market is the most free with substantial score difference. Rwanda has undertaken a dramatic labour market regulation reform and reformed it from mostly unfree to free. To make sense of this, informal employment in Ethiopia was found to be 36%.

Figure 3.7: Labour Market Freedom in Ethiopia and Comparator Countries



Source: Economic Freedom Index (2019)

Rigidity of Employment Index, the average of three sub-indices (difficulty of hiring index, a rigidity of hours index and difficulty of firing index), on a 0 (best)-to-100 (worst) scale also confirms that employment regulations in Ethiopia are rigid. In 2006 rigidity of employment indices for Ethiopia, Kenya, Rwanda, Tanzania and Uganda were 34, 28, 49, 7 and 67 respectively. According to the indices Ethiopia was ranked the 3rd, next to Tanzania and Rwanda, country where hiring and firing workers is difficult. Rigidity of Employment Index for Ethiopia sharply increased to 84 in 2009 which indicates that degree of rigidity increased.

In Ethiopia forms of employment, fixed-term and temporary contracts (rules for non-standard workers), are highly restricted and permitted only under stiff preconditions. Firms in Ethiopia, therefore, are obliged to offer workers indeterminate contracts with the statutory job security attendant costs these contracts afford. Restrictions on these forms of contracts usually pertain to the types of work (e.g., occupations), the number of renewals, and the maximum duration allowed.

It is difficult and costly for Ethiopian firms to terminate indeterminate employees for business-related causes of termination due to the fact that the country’s labour market is not flexible to do so. Rigid labour market affects labour market performance (lower job creation, lower employment, longer unemployment duration, benefits only certain groups (prime-age males and skilled) while reducing opportunity for others). Rigid employment environment degrades firms’ economic freedom which in turn impedes entrepreneurship and innovation propensity. This is due to the fact that enterprise formation is connected to market risk and is shaped by labour market regulations. Stringent labour market regulations increase firms’ transaction costs which inhibit firms from launching innovative start-ups, resulting in a suboptimal quantity of entrepreneurs and spillovergenerating innovations.

3.3.3. Getting Location

3.3.3.1. Registering Property

Registering property deals with procedures necessary for a limited liability company (the buyer) to purchase a property from another business (the seller) and to transfer the property title to the buyer’s name so that the buyer can use the property for expanding its business, use the

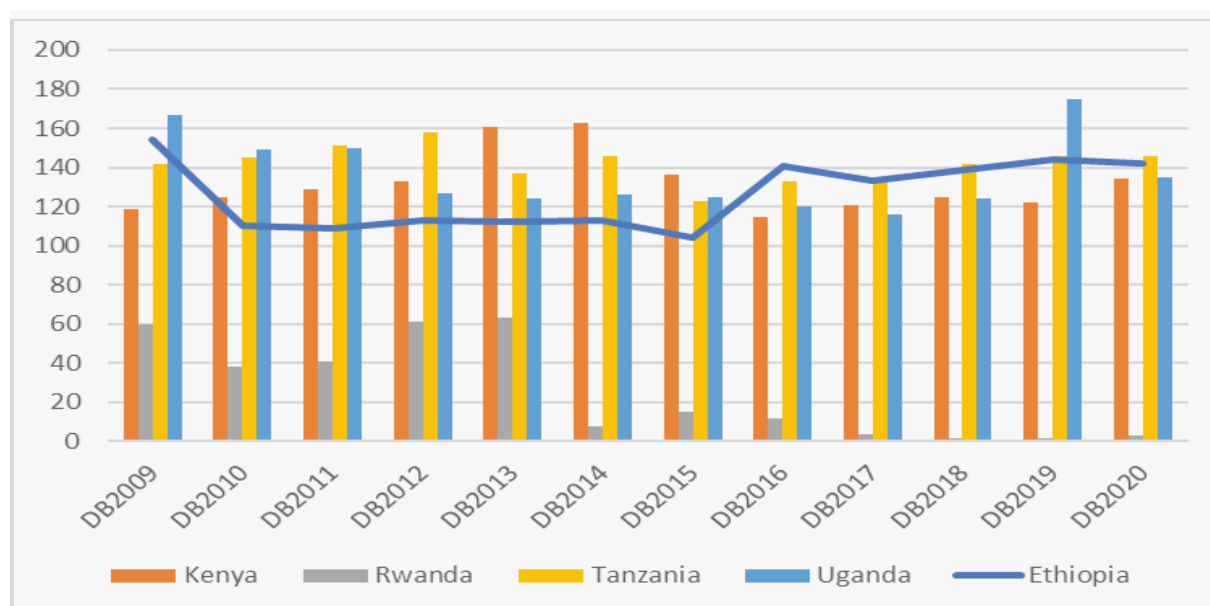
property as collateral in taking new loans or, if necessary, sell the property to another business. It also measures the time and cost to complete each of these procedures. The quality of the land administration system in each economy is another dimension of registering property. According to Berkowitz, Lin, and Ma (2015), registering property measures to what extent a property law enactment that gave creditors more rights over the assets underlying their secured loans to private firms and gave private firms more protections against the potential expropriation of their assets. It in turn reinforces development of strong property rights.

Besley (1995) argued that strong and well-defined property rights make easier for land to be used as collateral. This boosts the banks confidence to provide credit at a lower interest rate. Berkowitz et al. (2015) added that a property law enactment gives creditors more rights over the assets underlying their secured loans to private firms. In addition, it gives private firms more protections against the potential expropriation of their assets. According to Berkowitz et al. (2015) efficient property law enactment leads to a significant increase in firm value which increases the likelihood of firms to access external finance.

Ethiopia had better performance, compared to the comparator economies, in registering property. Particularly, it was placed at better ranks relative to Kenya, Tanzania and Uganda between 2010 and 2015. During the specified period, the rank increased from 110th in 2010 to 104th in 2015. However, the rank has deteriorated since then (144th in 2019). However, the rank improved to 142nd due to the reform the country has made in registering property. More specifically, Ethiopia improved quality of its land administration system by publishing the official list of documents required for property registration as well as statistics on the number of transactions for the previous calendar year and the service standard for delivering a legally binding document.

In terms of sub-indices of registering property, it takes 52 days (the shortest), 7 procedures (fewer than Kenya, Uganda and Tanzania), but much costlier than all the four comparator economies to register property in Ethiopia. Quality of land administration is of its lowest quality compared the comparator counties. These factors together put the country at a lower rank in registering property.

Figure 3.8: Registering Property (Comparison of Ranking)



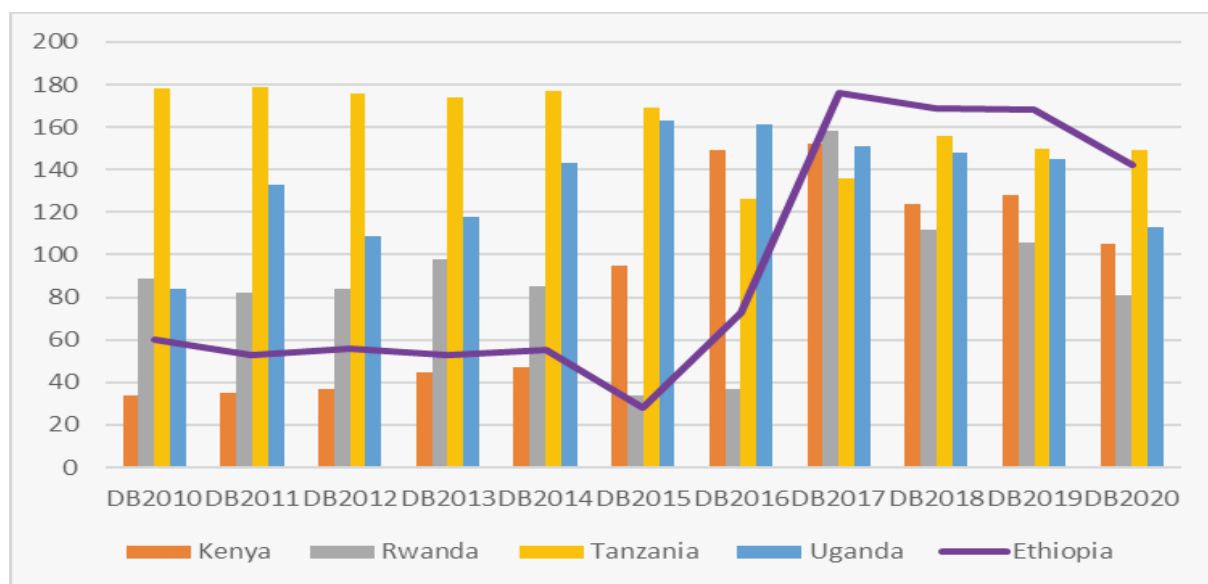
3.3.3.2. Dealing with Construction Permits

Construction sector plays a crucial role in Ethiopian economy in terms of employment generation and capital formation. According to UNDP (2018) industry sector contributed 4.4% to the economic growth of Ethiopia during 2016/17 and the contribution mainly came from the construction sub-sector (it contributed 3.5 percent to the overall GDP growth)¹². Construction is the leading industry accounting for about 56% of the country’s industrial landscape¹³. In view of this, the construction sector requires conducive business environment to make doing business in the sector easier. A workable legal framework is required in case parties to an agreement fail to undertake obligations.

Ethiopia has showed a good progress in dealing with construction permits relative to its comparators except Kenya between 2010 and 2014. Its rank improved from 60th in 2010 to 28th (the best rank compared to Kenya, Rwanda, Uganda and Tanzania) in 2015. However, the country’s performance has been substantially deteriorating since 2015 and recorded the worst rank (178th) in 2017 with some improvements since then. According to the 2020 Doing Business report, Ethiopia was ranked 148th which is better than Tanzania (ranked 149th)(see Figure 9 below). In doing Business 2020 permitting procedures in Ethiopia and Rwanda is 15 while it is higher for Kenya (16), Tanzania (24) and Uganda (18).

Key informants claimed that the problem they fundamentally face apart from the administrative cost they incurred for the license was lack of technical people to professionally evaluate the proposals they submitted. This prolongs the process of getting the permit. Furthermore, there is widespread corruption in getting construction license, per the key informants from the construction sector. As such, ensuring staff development programs and, preparing clear and objective criteria about the requirements need to be a norm for the license giving organization.

Figure3.9: Dealing with Construction Permits (Rank)



12 World Bank. (2018). *Ethiopia Economic Update: The Inescapable Manufacturing-Service Nexus: Exploring the potential of distribution services*. Washington DC.

13 Alemayehu, Y. (2018). Addis business. *Addis Business*, p. 3.

3.3.3.3. Getting Electricity

The lack of secure and reliable electricity is a constraint to doing business in developing countries. In Ethiopia, access to electricity is lower than the SSA average, specifically since 2011 though there is an improvement over time (Figure 10). Access to electricity in the country during 2017 is 44.3% which has increased to 44.8% in 2018.

On top of low coverage and quality of electricity in Ethiopia government bureaucracy makes getting electricity rougher for enterprises. According to the 2015 World Bank Enterprise survey, electricity is the second major obstacle to do business in Ethiopia next to access to finance. Getting electricity in Ethiopia requires more than 194 days (World Bank Enterprise Survey, 2015) while for Kenya, Rwanda, Tanzania and Uganda respectively were 78.9, 31.4, 52.6 and 18.1 days. Cost, measured as percent of income per capita, of getting electric connection in Ethiopia has been shown improvement. In 2012 cost of getting electric connection in Ethiopia is 3386 which is reduced to 891.8 in 2019. It was less costly in Ethiopia than Uganda and Rwanda.

Power outages also characterize the electricity system in Ethiopia. As a result, large portion of the electricity comes from generator. Per the World Bank Enterprise Survey report (2015) average power obtained from generator was reported to be 48.9% while it was 18.7% for all the comparators Kenya, Rwanda, Tanzania, and Uganda. This would have implications for efficiency and effectiveness of the business. By way of example, enterprise in Ethiopia claimed they would lose 6.9% of their annual sales due to the electrical outage. Firms cost was found to increase by 15% from 2011 to 2015 (Abdisa, 2018).

Key informants also reported that getting the right power supply is like a day dream. Per the informants, it is customary to get single-phase power supply while the request is three-phase power supply, which totally can't satisfy the needs of the enterprise operators. This is more problematic for SMEs working in the shades. They stated that government gave them shades with no electricity. Even if they got electric connection, that was not what they requested. As a result, they face difficulty to produce at their full capacity. The problem of power has implication also the benefit from lease financing services. Machine leasing would be allowed if the working premises like the right power supply exists in the shades. In view of this, the issue of power a critical one that requires relevant stakeholders to exert effort to improve the supply as well as easing the procedures, and more so the time required to get the connection. Furthermore, liberalization of the sector to different power suppliers can help to satisfy the growing demand.

3.3.4. Accessing Finance

3.3.4.1. Getting Credit

Getting credit deals with the legal rights of borrowers and lenders with respect to secured transactions through two indicators. The first indicator measures whether certain features that facilitate lending exist within the applicable collateral and bankruptcy laws. The second measures the coverage, scope and accessibility of credit information available through credit reporting service providers such as credit bureaus or credit registries.

According to Soledad, Peria, and Singh (2014) credit information sharing reforms, specifically, credit bureau reforms, significantly improve firms' financing. It increases access to finance, decreases interest rate, lengthens maturity and increases share of capital financed by banks. Doblas-Madrid and Minetti (2013) also found that lenders' information exchange has a beneficial effect on the repayment behavior of firms, reducing the incidence of delinquencies and defaults.

In Ethiopia, bankruptcy laws are weak and credit registry coverage, and credit bureau coverage low. Moreover, legal rights are the weakest, on average, in Ethiopia (about three times weaker compared to Kenya and two times weaker compared to Tanzania and Uganda). It means that protection of lenders and borrowers through collateral laws is weak which is the result of low

quality of regulatory environment.¹⁴ Moreover, this resulted in getting credit in Ethiopia very difficult. The country is ranked 176th out of 190 countries according to the World Bank Doing Business (2020) report.

Figure 3.10: Getting Credit (Rank)

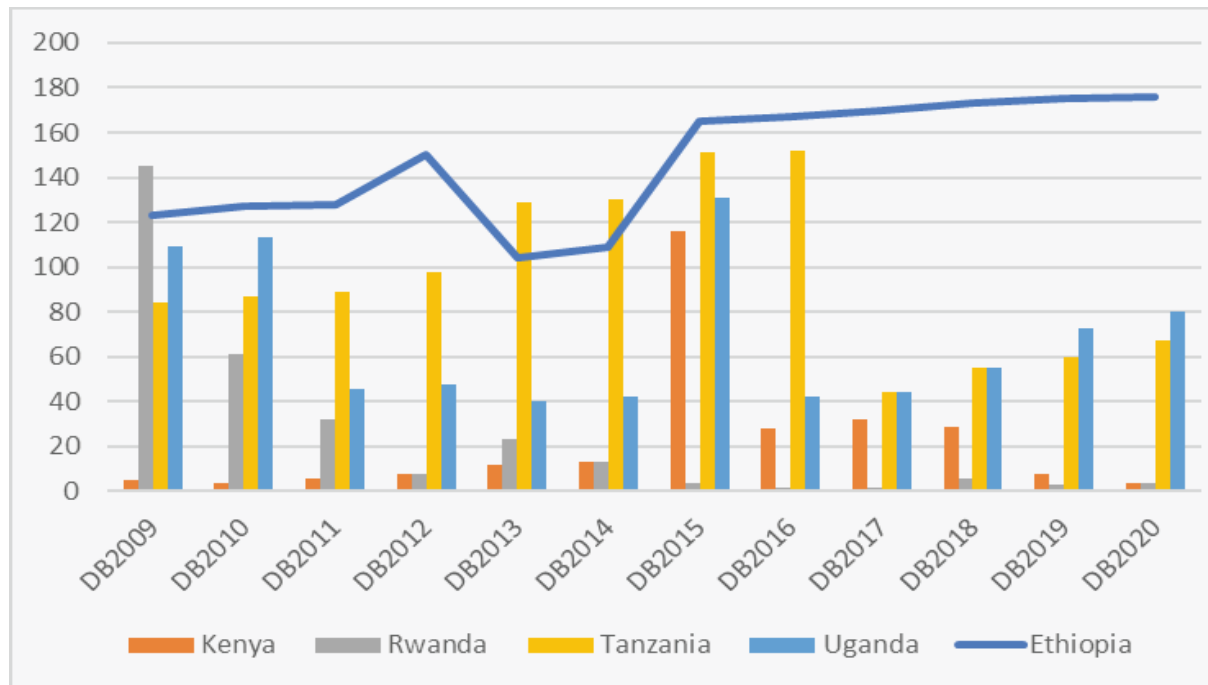
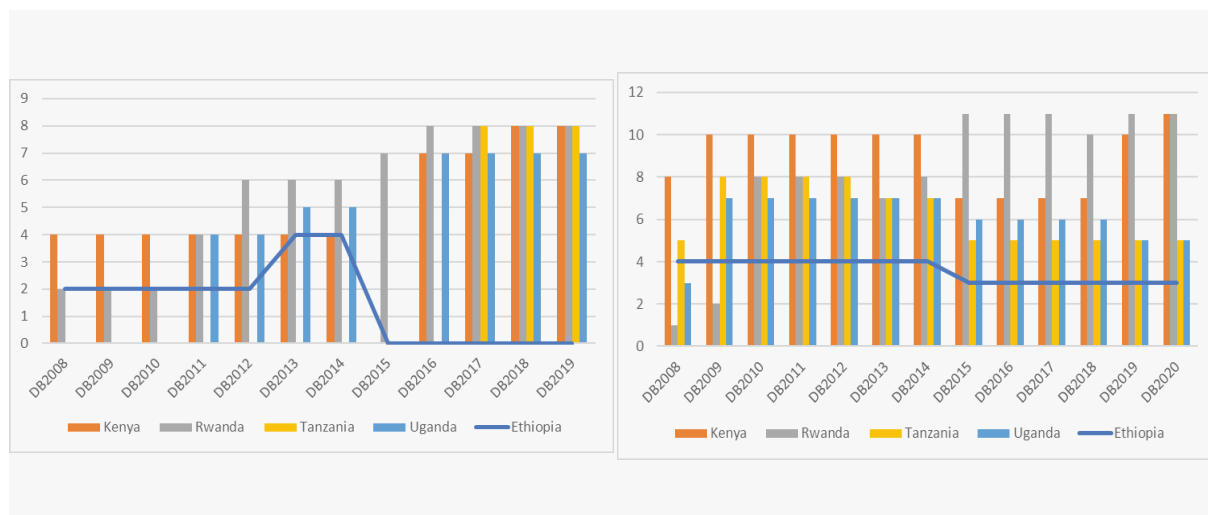


Figure 3.11: Strength of Legal Rights Index and Depth of Credit Information Index



3.3.4.2. Protecting Minority Investors

Protecting minority investors’ indicator measures the strength of minority shareholder protections against misuse of corporate assets by directors for their personal gain as well as shareholder rights, governance safeguards and corporate transparency requirements that reduce the risk of abuse.

In corporate governance, self-dealing is a specific kind of potentially asset-diverting behavior on the part of insiders which exposes the business to related-party transaction(Enriques,

14 According to Global Innovation Index (2019) report Ethiopia is ranked the 124th out of 129 economies in the area of regulatory quality.

2000). High ownership concentration and informal business relations can create the perfect environment for related-party transactions. This situation enables large shareholders and managers to profit at the expense of minority shareholders in different forms. Various forms of such self-dealing include executive perquisites, excessive compensation, transfer pricing, appropriation of corporate opportunities, self-serving financial transactions such as directed equity issuance or personal loans to insiders, and outright theft of corporate assets (Djankov, Porta, Lopez-de-Silanes, & Shleifer, 2008). Empirical studies indicated that the cost of self-dealing is low in countries offering weak legal protection to minority shareholders which creates favorable environment for dominant shareholders to extract resources that otherwise would have been shared with minority investors (Djankov, Porta, Lopez-de-Silanes, and Shleifer, 2008; Mclean, Zhang, and Zhao, 2012) (Dahya et al., 2008).

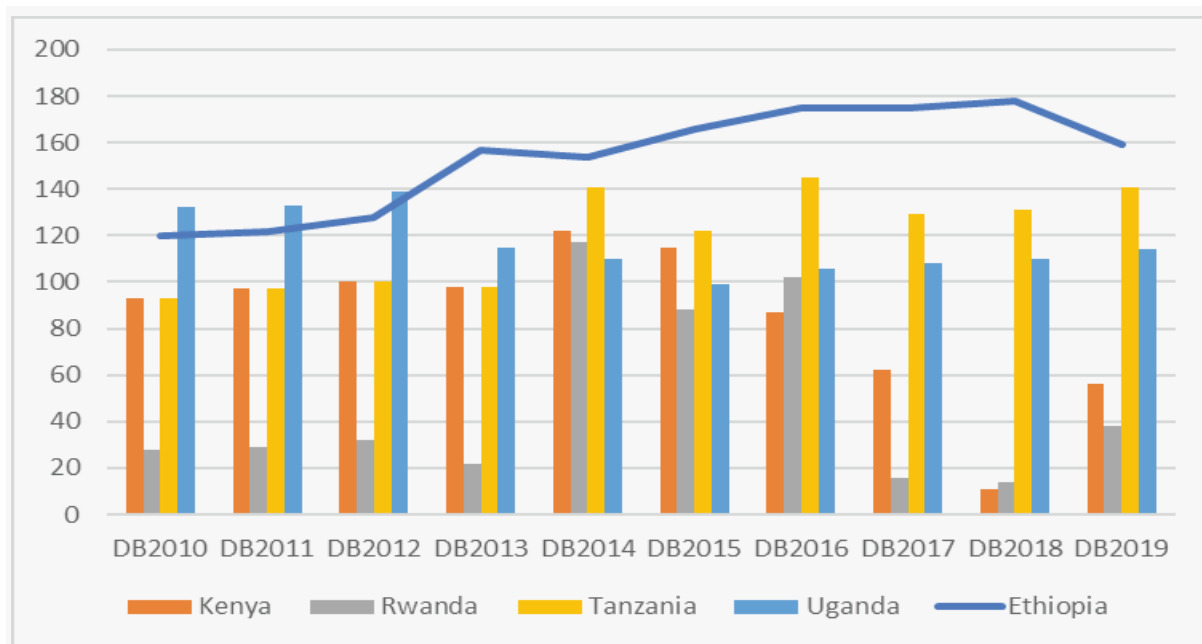
Investor protections matter for the ability of companies to raise the capital needed to grow, innovate, diversify and compete. Without investor protections, equity markets fail to develop, and banks become the only source of finance. Economies that have dynamic capital markets tend to protect investors effectively. In these economies' investors receive financial information they can trust, they participate in major decisions of the company, and directors are accountable for their managerial decisions. If the laws do not provide such protections, investors may be reluctant to invest, unless they become controlling shareholders.²

Minority investor protections can have important implications for firm valuation. Research on 539 large firms in 27 economies shows that firm valuation is higher in economies with good investor protections than in those with poor protections.³ It in turn led to greater growth in revenue and profitability.

When assessed in this regard, regulations of protecting minority investors in Ethiopia is the weakest. For instance, DB2020 data reveals that the country registered the least score in protecting minority investors (10 out of 100) as compared to other scores of doing business indicators (71.7 out of 100 for starting business, for instance). The Commercial Code of Ethiopia has basic rules on the governance of corporate companies. However, these rules are not adequate to safeguard minority shareholders from undue exploitation (Gebremeskel, 2010; Shamana, 2019).

The country's protecting minority investors rank has deteriorated over time. Ethiopia stood 119th in 2010. The rank was declined to 178th in 2019 while other comparator countries undertook substantial reforms except Tanzania.

Figure 3.12: Protecting Minority Investors (Rank)



All these legal and regulatory loopholes of the share company law provisions will have potential impacts on investors’ investment decisions. This in turn not only creates loss of investors’ confidence in the Ethiopian capital markets but also results in market inefficiency, raises the cost of capitals and inefficient use of scarce resources in the country. The Ethiopian Commercial Code has several shortcomings in protecting minority investors.

Furthermore, the company law does not provide specific procedures for minority shareholders to exercise their rights or to seek for remedies when directors commit certain wrongs. Most importantly, as a rule, Ethiopian company law follows simple majority rule as a rule in the general meeting and it makes the position of minority shareholders weak when faced with that of majority shareholders. Following the simple majority, as a rule, to pass a binding resolution is a significant challenge to minority shareholders not to apply the resolutions. Thus, such things often trigger minority shareholders to be oppressed by both the majority shareholders and management of a company.

1. The Commercial Code is unable to protect minority shareholders from management; under the Com. Code of Ethiopia, minority shareholders cannot stop the harmful acts of management (who are often controlled by the majority shareholders) with the convention of the shareholders’ meetings.
2. The weakness of the Commercial Code to protect minority shareholders from the majority shareholders: The Commercial Code of Ethiopia grants broader powers to the general meeting of the shareholders’ to be the final decision-making organ of a company. The majority rule is the governing rule. The powers of shareholders to supervise the management are controlled by the majority shareholders. Unlike the majority shareholders who express their wishes with their controlling and voting, minority shareholders do not have the necessary procedures that would assure their voices are heard and taken into account especially when the minority shareholders have different opinions from the majority shareholders.
3. Absence of cumulative voting: cumulative voting which is associated with board election is the best mechanism to protect minority shareholders right (OECD, 2015). Cumulative voting relates to voting during board elections in which the votes of the contending groups will be multiplied by the number of board seats and calculated for the contenders’ nominees in

accordance to the proportion of each group's summed up votes. However, cumulative voting is not adopted in Ethiopian company law. It does not show proportional representation of minority shareholders or cumulative voting system of representation. Generally, even though it protects class of shareholders, the representation is not cumulative voting. If it was cumulative voting, no matter how much the shareholders invest in the company, by pulling together their vote, they may get representative on the board. Due to these grounds, majority shareholders actually retain the power to appoint the directors. Cumulative voting system helps minority shareholders in the same class to get a representative on the board.

4. Difficulties to challenge vote: There are no apparent provisions that grant minority shareholders to challenge the vote in the company law of Ethiopia. This means the law allows the majority shareholders to vote on matters that have an adverse impact on the interests of minority shareholder as long as it benefits them.
5. The impossibility to bring derivative action (Assegu, 2017; Taye, 2015): derivative action, a right to right to initiate suits against directors or third parties on behalf of the company, is the crucial mechanism for the protection minority shareholders. However, the Commercial Code of Ethiopia fails to protect minority investors through derivative actions. Company law loses the primary protection mechanism of minority shareholder and minority shareholders would be in an extremely disadvantageous position.
6. Difficulties to exit from the company:

Thus, the commercial law needs to be revised so as to entertain the rights of minority shareholders.

3.3.5. Dealing with Day-to-Day Operations

3.3.5.1. Paying Taxes

Doing Business records the taxes and mandatory contributions that a medium size company must pay in a given year as well as measures of the administrative burden of paying taxes and contributions and complying with post filing procedures. Taxation will reduce the amount of entrepreneurial activities by discouraging entry. Therefore, conducive paying taxes policies should be there so that the time, total tax and contribution rate and number of payments necessary for a local medium-size company to pay all taxes are efficient for a local medium-size company to comply with post filing processes.

According to the World Bank Doing Business Report (2020), Ethiopia ranked 132nd out of 190 countries. The time taken to prepare, file and pay taxes and contributions in Ethiopia is by far longer than, specially starting from 2014, the comparator countries which shows that is more bureaucratic. Ethiopian businesses perceive high tax burden or high tax (World Bank, 2016; Yesegat & Fjeldstad, 2016) complicated tax compliance procedures, harassment by government officials, and frequent inspections as some of the disadvantages of registering for taxes. Empirical literature shows that high tax burden discourages business to operate in formal sector and switch business for informal in response to increase in tax rate (Waseem, 2018) The time require to finalize pay taxes needs serious revision. The relevant authorities should think of automating the system so that tax payers can be able to report online.

Figure 3.13: Paying Taxes Rank, Time, Payments and Total Tax Rate



3.3.5.2. Trading Across Borders

The trade-led growth hypothesis (Grossman & Helpman, 1990; Romer, 1990; Young, 1991) states that trade promotes economic growth. In order for trade to stimulate economic growth it needs to be free. For instance, new endogenous growth models explain that trade openness promotes economic growth through the international diffusion of advanced technologies (Coe & Helpman, 1995; Grossman & Helpman, 1991; Romer, 1994; Sakyi, Villaverde, & Maza, 2015). However, Ethiopia lags behind in making its international trade free. The 2019 Global Competitiveness report ranked Ethiopia the 124th in trade openness and this the lowest rank compared to its comparator countries. This is attributed to high prevalence of non-trade barriers, trade barriers and border clearance inefficiency.

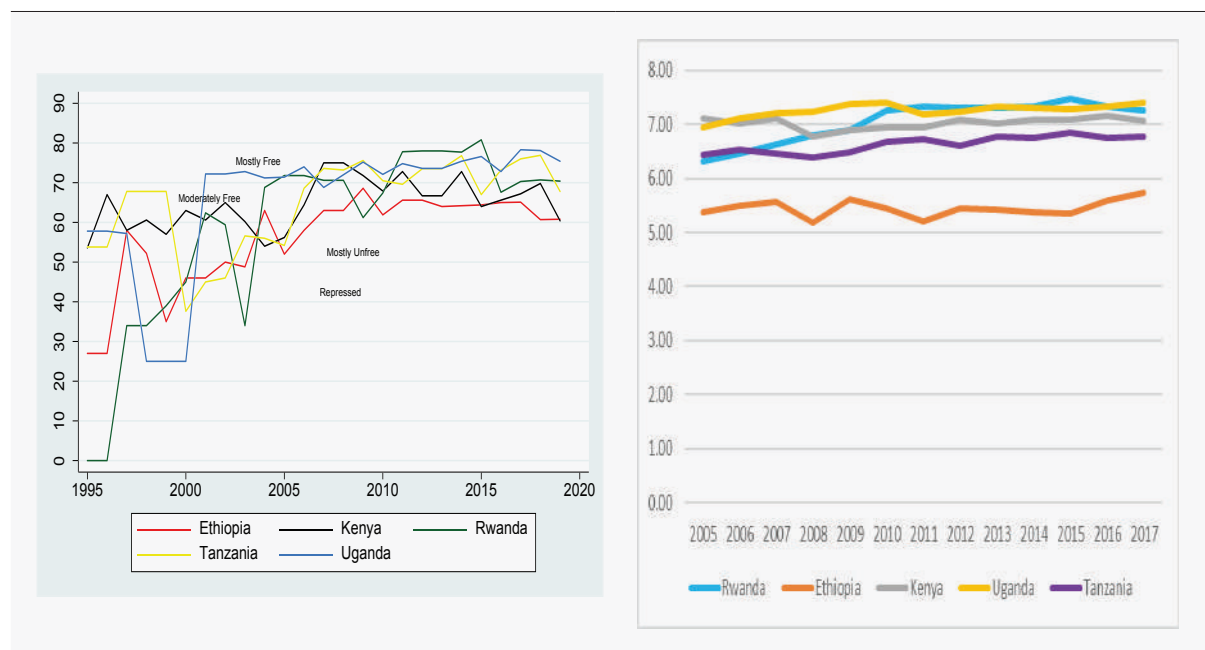
Table 3.2: Trading Across Boarder Ethiopia and Comparator Countries

Indicators	Countries/Rank				
	Ethiopia	Kenya	Rwanda	Tanzania	Uganda
Trade openness	124 th	103 rd	94 th	106 th	97 th
Prevalence of non-trade barriers	130 th	104 th	52 nd	113 th	78 th
Complexity of tariffs	35 th	113 th	122 nd	121 st	116 th
Trade barriers	131 st	58 th	51 st	54 th	53 rd
Border clearance efficiency	77 th	66 th	63 rd	53 rd	75 th

Source: The Global Competitiveness Report (2019)

Results of the Index of Economic Freedom by Heritage Foundation also conforms the above results. According to the Foundation, Ethiopia registered the least scores in trade freedom compared to its comparators.

Figure 3.14: Trade Freedom for Ethiopia and Comparators



Source: Index of Economic Freedom, the Heritage Foundation

3.3.6. Operating in a Secure Business Environment

3.3.6.1. Enforcing Contracts

Doing Business measures the time and cost for resolving a commercial dispute through a local first-instance court and the quality of judicial processes index, evaluating whether each economy has adopted a series of good practices that promote quality and efficiency in the court system.

Ethiopia is ranked 57th in contract enforcement in DB 2010 but the rank declined to 84th in DB 2016 then gets improved starting from DB 2017. According to DBR (2019), Ethiopia was ranked 60th which made it better than the four comparator countries. The improvement is attributed to reform that the country undertook in the area of enforcing contract. Ethiopia made enforcing contracts easier by **establishing specialized benches to resolve commercial cases**.

Though its overall rank is good compared to the comparators, time required to resolve commercial dispute through the courts in Ethiopia is the longest. Between DB 2010 and DB 2019, the average time needed to resolve commercial dispute for Ethiopia is 557 days, on average, while it is less than 500 days for the comparator countries. On the contrary, contract is enforced at the lower (15.2) cost compared to the comparator countries (except Tanzania where the cost is 14.3).

Judicial processes index is another core component of enforcing contract in doing business. It comprises of four dimensions of quality of judicial processes: court structure and proceedings, case management, court automation, and alternative dispute resolution. Judicial processes in Ethiopia is of low quality and inefficient and lags behind that of the comparators though it has been improving. The quality of judicial processes index for Ethiopia increased from 5 in DB 2016 to 7 in DB 2019 (Appendix 1). This weakens enforcement of contracts in Ethiopia. Weak enforcement of contracts is believed to affect investment negatively through influencing the **uncertainty** surrounding an investment therefore influence investors' decisions by **increasing the investment's costs and reducing its expected returns**. Moreover, Aboal and Noya (2014)

documented that weak enforcement of contract encourages firms to choose less-efficient technologies, prevent them from building relation-specific assets when those relations are dependent on contracts. This way, **weak enforcement of contracts makes access to external financing for firms very problematic** because contract enforcement regime affects how loans are structured and priced to which banks are very sensitive. For instance, Bae and Goyal (2009) found that weak and inefficient enforcement of contracts reduce loan amounts, increase loan spreads and shorten loan maturities. The case of Ethiopia is not unique in this case. It is empirically well documented that the amount of loan that goes to enterprises is insufficient and the maturity period is too short (see Adore, 2016; Amene, 2018; Menkir, 2016; Osebo, 2017).

3.3.6.2. Resolving Insolvency

It deals with the time, cost and outcome of insolvency proceedings involving domestic entities as well as the strength of the legal framework applicable to judicial liquidation and reorganization proceedings.

Solving insolvency identifies weaknesses in existing bankruptcy law and the main procedural and administrative bottlenecks in the bankruptcy process. The indicators include the time and cost associated with going bankrupt, as well as the recovery rate which measures the amount of money claimants recover from an insolvent firm. When the recovery rate is higher, banks may be expected to be more willing to lend, hence this may have a positive impact on entrepreneurship development. Also, when insolvency is efficiently organized, more entrepreneurs having to close their business may be encouraged to start a second time (Stel, Storey, & Thurik, 2007).

Assessment of existing literature indicates, resolving insolvency regime is not efficient in Ethiopia and the country lags being its comparators. According to DBR (2019), Ethiopia was ranked 148th which was the lowest rank relative to its comparators (Tanzania: 117th, Kenya: 57th, Rwanda: 58th and Uganda: 112th) in solving insolvency. Time to go through insolvency is longer, on average, in Ethiopia (about 3 years) than in the comparator countries except Kenya (about 4.5 years). García-Posada and Mora-Sanguinetti (2014) argued that that lengthy bankruptcy procedures **decrease firm size and raise funding costs and congestion in bankruptcy courts substantially reduces firm-level investment and productivity**. However, Ethiopia is the country where cost of bankruptcy proceedings is the lowest compared to Kenya, Rwanda, Uganda and Tanzania. Specifically, its costs 1.5 times less than Kenya, more than 2 times less than Rwanda, 1.5 times less than Tanzania and 2 times less than Uganda. According to DBR (2019), Ethiopia has better position (relative to its comparators except Uganda) in recovery rate. Claimants recover about 31 cents on the dollar from an insolvent firm while it 28.9 for Kenya, 12.2 for Rwanda, 21.3 for Tanzania and 38.8 for Uganda.

Strength of insolvency framework index for Ethiopia in 2015 was 8.5 while it deteriorated to 5 in 2019. The country's index is lower than the comparator countries. This shows that strength of insolvency framework regime in Ethiopia is **less efficient at rehabilitating viable firms and liquidating non-viable ones**. To be precise, management of debtors' assets (the ability of the firm to continue operations and obtain new financing) is inefficient which imposes credit constraint on the private sector.

Figure 3.15: Resolving Insolvency Time, Cost, Recovery and Strength



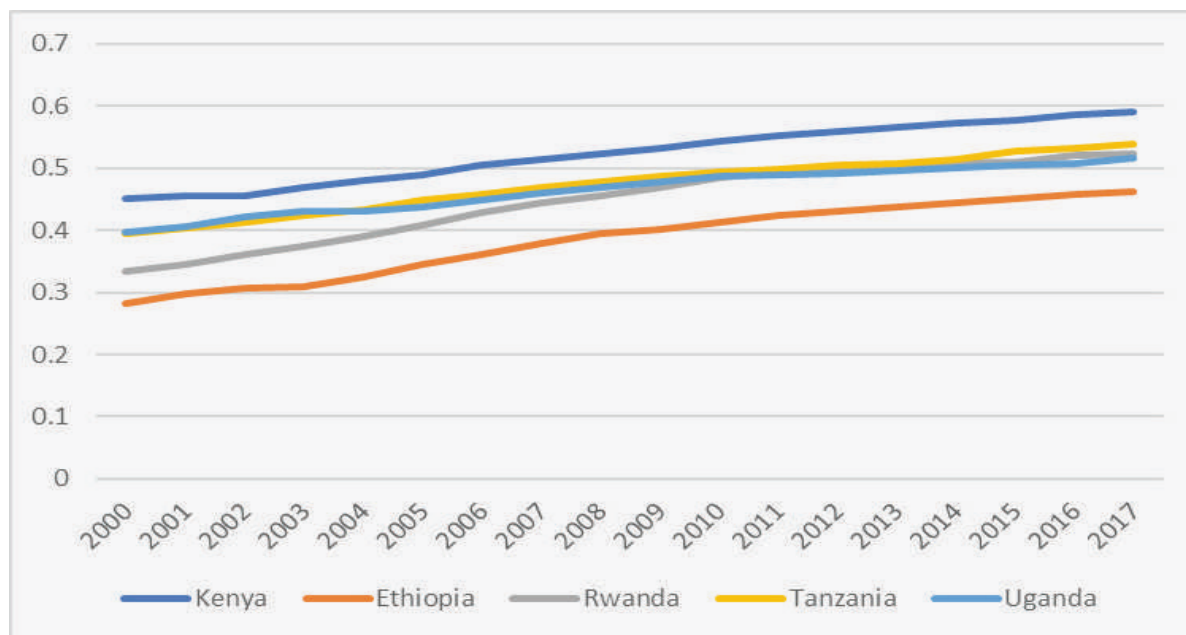
From the above premises, it is possible to say that closing businesses formally is quite difficult. Though not the only factor, the challenges of resolving insolvency contributes for closing businesses informally. There is a need for strengthening the law in this regard.

3.3.7. Human Capital and Research

The effective development of disciplined and hardworking labor force has an important role to play in ensuring efficient industrial development sector. Herrington and Kelley (2012) stated that primary education is among the basic requirements which certainly provide the underlying fundamental conditions required for a well-functioning business environment.

Research and innovation also play a crucial role in addressing productivity, quality, competitiveness and entrepreneurial constraints of the productive sectors. Cognizant to this, the GoE has exerted concerted effort in order to improve the quality of education and consolidate the expansion of the education service coverage. But despite the paramount effort Ethiopia put into improving human capital development and entrepreneurial activity, it remains behind the four comparators. It has the least adult literacy rate compared to the comparator countries (Figure 17). For instance, adult literacy rate for Ethiopia during 2017 is 46.3% while it is above 50% for Kenya, Rwanda, Tanzania and Uganda. Moreover, the Global competitiveness report shows that human capital development is low in Ethiopia. According to the report, Ethiopia is ranked 108th and 137th out of 141 countries in terms of quality of health and skill, respectively. Therefore, strengthening human capital development efforts need to be the focus of relevant authorities in Ethiopia.

Figure 3.16: Adult Literacy Rate-a comparison



Source: Human Development Report, various years

The Global Innovation Index report confirms the low development of human capital in Ethiopia as indicated in the following table. In 2016 Ethiopia was ranked 118th with score of 14.4 in the area of human capital and research which is deteriorated to 124th in 2019. The only component of human capital and research in which the country achieved relatively better was R&D with the rank of 82nd, 83rd and 86th in 2016, 2017 and 2019, respectively. In fact, though Ethiopia is better in the R&D criteria, it is deteriorating overtime. It is a need to make R&D a culture both at private and government organizations. The trend so far was not an indication of success. The gross expenditure on research and development expenditure of the two giant economies in Africa, South Africa and Egypt is roughly 3 times and 6 times higher than that of Ethiopia's in 2013. While the 2010 gross expenditure on research and development expenditure spending of Kenya and the 2013 R&D expenditure of Ethiopia was at the same level.

Most importantly, the fund that private organizations allocate for R&D is quite meager (Science and Technology Report, 2014). It is indicated in the report that the majority (77%) of the organizations that did not have R&D activities are from business sector. The share of gross expenditure that has been utilized by business sector accounts only 1% of the total gross expenditure on research and development. The majority (3/4th) goes to the higher education institutions. This implies university business collaboration is imperial to the development of enterprises. Hence, there is a need for a policy framework how the parties handle it.

Table 3.3: Human Capital and Research Ranking

Human Capita and Research	Year					
	2016		2017		2019	
	Score	Rank	Score	Rank	Score	Rank
Overall	14.4	118	14.8	115	10.6	124
Sub-components						

Human Capita and Research	Year					
	2016		2017		2019	
	Score	Rank	Score	Rank	Score	Rank
Education	25.7	120	14.8	115	22.7	121
Tertiary education	14.1	110	26.4	116	5.8	119
Research & development (R&D)	3.4	82	3.5	83	3.8	86

Source: Global Innovation Index, various years

3.3.8. Infrastructure

In addition to a business-friendly legal and regulatory environment, entrepreneurs consider availability and quality of infrastructure. It is well known that the development of infrastructures such as road and road transport, railway and railway transport, telecommunication, electric power and water supply service are among the major important tractors that accelerate the development of industry and private investors.

Cognizant to this, the GoE has given due attention to development of infrastructure. One of the key features of the GTP I was the special focus given to infrastructure development including large scale energy, transport and telecommunication infrastructure development programs. Unfortunately, infrastructure in Ethiopia is yet of low quality and coverage. Ethiopia is ranked 123rd(WEF, 2018) in the overall infrastructure development. As indicated above, power interruption along with the regulatory obstacles to get electric connection havocs production as well as securing other support services to enterprises. For instance, Enterprises provided with shades mentioned lack of sufficient power a big disruption to their production. Lease financing companies also restrain from giving machines if the electric connection is not good.

Consistent with the secondary data, our discussion and observation with enterprise operators working in government shades indicated the lack/insufficiency of power and water supply. Some shades have single-phase power supply that is not sufficient to operate big-machines. In fact, the shades themselves are of small and poor quality. The operators claimed due to the size of the shades and the lack of power, there are cases they were denied accessing lease finance services. This implies the need for a coordination effort among the different stakeholders that engage in enterprise development activities.

The Global Innovation Index [of different years] also confirms that Ethiopia is lagging behind in infrastructure development as indicated in the following Table.

Entrepreneurs and enterprises also stated interruptions in water supply provision a critical challenge to their normal functioning. The world Bank Enterprise Survey (2015) report on average number of **water insufficiencies** in a typical month experienced by firms in the manufacturing sector put Ethiopia at the top. While the number of insufficiencies in Ethiopia is 2.7 days per month, it is only 2 and 1.1 days in Sub-Saharan Africa and low-income countries respectively. The number of firms experiencing water insufficiencies in Ethiopia was 38.3% against 24% and 14.8% for Sub-Saharan Africa and the world average respectively.

Table 3.4: Infrastructure in Ethiopia (Score and Rank)

	2016		2017		2019	
	Score	Rank	Score	Rank	Score	Rank
Infrastructure	27.4	108	32.8	107	35.5	99
Information & communication technologies (ICTs)	23.5	109	21.1	104	38.5	107
ICT access	19.0	122	8.2	124	22.5	124
ICT use	3.8	116	52.9	118	109	122
Government's online service	45.7	71	44.6	89	63.2	87
E-participation	25.5	104	49.2	89	57.3	95
General Infrastructure	40.1	116	44.6	39	48.9	21
Electricity output, GWh/mn pop	92.7	116	99.2	116	109.6	118
Logistics performance	2.6	98	14.5	116	NA	NA
Gross capital formation, % GDP	39.5	6	39.7	6	39.6	7

Source: Global Innovation Index, various years

Information and communication technologies rank for Ethiopia was also not satisfactory. It lags behind in ICT access, and ICT use. Privatization of the telecommunication service may help to improve access to information and communication technologies and ease of doing business.

Assessment of logistic performance will also help to assess the ease of trading across borders. As indicated in the table above, the performance score is quite low. Ethiopia's logistic performance is poor compared to its comparator countries. In 2018, the LPI ranking for Ethiopia was 131 while that of Kenya, Rwanda, Tanzania and Uganda were 68, 38, 67 and 102 respectively. The aggregate LPI (2012-2018) ranking also shows that Ethiopia falls behind. This poor logistic performance negatively affects quality of services which in turn reduces firms' competitiveness in the international market. Under poor logistic performance it is difficult for firms to be engaged in trading across borders due to the inefficiency of customs and boarder management clearance, low quality of trade- and transport-related infrastructure, and inability to track and trace consignments. Poor logistic performance in general makes doing business difficult in Ethiopia.

That means the efficiency with customs clearance process, quality of trade and transport related-infrastructure and in the ease of arranging competitively priced shipments are of low quality. There is a need to strengthen the logistic performance index by automating the customs clearance process and enhancing transport-related infrastructures.

3.3.9. Economic Freedom

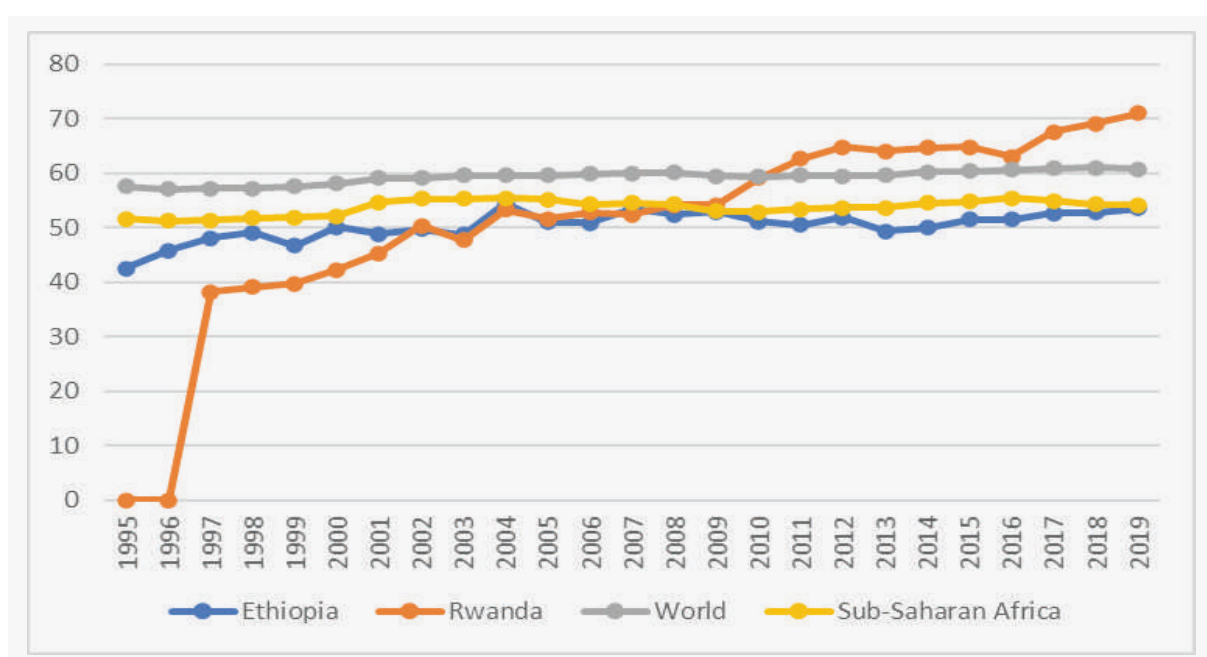
The Index of Economic Freedom measures the factors related to the rule of law, limited government, regulatory efficiency, and open markets. It has significant relevance to catalyze entrepreneurship and promote economic growth (Justesen, 2008). Higher degree of economic freedom enables nations to capitalize on the ability of individuals to innovate and prosper when unfettered by heavy-handed government regulation and taxation (see Angulo-guerrero, Pérez-moreno, and Abad-guerrero, 2017; Sorin-george, 2017). It also triggers entrepreneurial activity through reducing transaction costs (Bennett & Nikolaev, 2019; Kuckertz, Berger, & Mpeqa, 2016).

The index of economic freedom has 12 aspects grouped into four broad categories such as

- Rule of law (property rights, judicial effectiveness, and government integrity);
- Government size (tax burden, government spending, and fiscal health);
- Regulatory efficiency (business freedom, labor freedom, and monetary freedom); and
- Market openness (trade freedom, investment freedom, and financial freedom).

Ethiopia's economic freedom score is 53.6, making its economy the 137th in the 2019 Index. Its overall score has increased by 0.8 point, with significant increases in scores for business freedom and labor freedom outpacing a decline in monetary freedom. Ethiopia is ranked 26th among 47 countries in the Sub-Saharan Africa region, and its overall score is below the regional and world averages.

Figure 3.17: Economic Freedom-a Comparison



Source: The Heritage Foundation

3.3.10. Financial Freedom

Financial market of Ethiopia is severely repressed sub-indicator of Economic Freedom Index. Restricted financial market the availability of diversified savings, credit, payment, and investment services to individuals and businesses. It restricts financial opportunities and impedes entrepreneurship which in turn degrades business competition. The stringent financial market of Ethiopia emanates from its bureaucratic and inefficient regulations. More specifically, credit market regulations highly impose stringent restriction on banking businesses, access to finance and related issues.

The stringent credit market regulations of Ethiopia have affected doing business in several ways:

- Interest rate controls/negative interest rate
- Ownership of Banks:
 - Banking in Ethiopia is governed by an overarching banking law. The law requires firms to fulfill mandatory requirements which are too difficult to do so to establish bank (the licensing of

new banks; share registry and shareholders; Director and senior management qualifications; banks' financial obligations and limitations; financial record-keeping and audits; disclosure and inspection; and other miscellaneous areas.

- The sector faces tight regulations in relation to deposits (minimum interest rates), lending (mandatory purchase of NBE Bills equal to 27% of gross lending), and foreign exchange (a strict waiting list system to allocate foreign funds based on NBE Directives of priority items). Regulations also govern bank activity in areas such as electronic banking, agent banking, external borrowing, and banks' equity investments.
- **Limited investment by banks:** No bank shall commit more than 20% of its net worth in real estate acquisition and development other than for own business premises without prior approval of the National Bank of Ethiopia; The aggregate sum of all investments at any one time (excluding investment in government securities) may not exceed 50% of the bank's net worth, without prior approval by the National Bank of Ethiopia; No bank shall engage in insurance business but may hold up to 20% in an insurance company and up to a total of 10% of the banks equity capital in such business.
- **Foreign Exchange:** allocation and management, foreign exchange surrender requirements, restricted foreign loans and supplier's credits.
- **Credit:** the aggregate loan or extension of credit by a bank to any one borrower, shall at no time exceed 25% of the total capital of the bank
- **E-banking:** the law sets rules on maximum transfer amounts and other operational requirements.
- **Deteriorating and limited private sector credit.** Beyond the comparatively limited credit made available to the private sector, the specific forms and features of lending offered have not matched the needs and demands of most private sector businesses.
- Tighter monetary policy the country adopted has made exchange rate rigid hinders competitiveness, exacerbates foreign exchange shortages and depletes reserve accumulation (IMF, 2018).

3.3.11. WTO Accession and Business Environment

WTO accession has a significant impact on Acceding Governments' regulatory environments, and thus also their business environments for two main reasons. First, the constellations of WTO obligations to which governments accede apply not only at members' customs borders but extend into their domestic regulatory and institutional regimes. Second, Acceding Governments use WTO accessions processes as platforms from which to launch domestic structural reforms that touch upon a vast array of economic issues. Thus, that WTO accession will have effects on an Acceding Government's business environment is plain (WTO, 2017).

Ethiopia is in WTO accession process. The process creates good opportunity for the country to reform and improve its domestic business environments. This mandatory reform which is undertaken to fulfill requirements of the WTO substantially changes business domestic business environments. The reform makes doing business easier for domestic firms of the acceding country.

WTO accession helps to ensure that enterprises can market their products internationally under competition conditions that are equitable and predictable without the disruptions caused by the sudden imposition of restrictions. The implementation of accession commitments measures can create both opportunities for the business community.

3.3.12. Entrepreneurship Policies and Institutional Framework

The Government Policy entrepreneurial framework condition relates to the extent to which government policies influence new and growing firm. This includes the tax regime, labor market regulation, social security legislation as well as regulations and schemes that specifically aim at the small business sector. Therefore, creating an enabling environment for entrepreneurial concerns, with an efficient government bureaucracy and a reduction in red tape in order to support entrepreneurs. According to GEM 2012 global report entrepreneurial framework

conditions in Ethiopia was valued the most positive from the perspective of general policy framework. The country has exerted a high level of commitment and intervention to support entrepreneurship and small business. However, entrepreneurial performance in Ethiopia has been low compared to other countries in Sub-Sahara Africa.

According to Herrington and Kelley (2012) the levels of intentional entrepreneurs in Ethiopia is 24% which is much lower than that of SSA average (53%). Ethiopia has one of the lowest entrepreneurial activity rates in sub-Saharan African countries as indicated in the following table. The nascent entrepreneurship and established business ownership rates are 6% and 10% respectively which is much less than the SSA average as well as the comparator countries like Uganda. In contrast, improvement-driven opportunity (% of TEA) is better in Ethiopia (69%) as compared to the SSA (47%). Several factors are responsible for these low achievements. For instance, Herrington and Kelley (2012) documented that access to finance, corruption and inefficient government bureaucracy are the most problematic factors to doing business in Ethiopia.

Table 3.5: Activity Levels in the Entrepreneurial pipeline and Entrepreneurial Motivations

Country	Nascent entrepreneurship rate	New business ownership	Early-stage entrepreneurial activity (TEA)	Established business ownership rate	Discontinuation of businesses	Necessity-driven (% of TEA)	Improvement-driven Opportunity(% of TEA)
Ethiopia	6	9	15	10	3	20	69
Uganda	10	28	36	31	26	46	42
SSA	15	15	28	23	16	33	47

Source: GEM (2012)

Despite low enterprise creation and intentions, survival rates of active entrepreneurial endeavours are higher in Ethiopia with only 3% discontinuing their business compared to 16% average in sub-Sahara Africa. Officials in the ministry of trade and industry explained the real reason for the official figures to be low by the fact that due to lack of knowledge, enterprises do not formally exit the market. Enterprises operators on their side indicated that the procedures to formally exit are quite time taking and tiring. They even said closing business is more difficult than starting business. Getting clearance, especially for those who lacks business literacy, is not such an easy one.

Extant literature related the policy and strategy specific reasons for the low performance of entrepreneurial act in Ethiopia as follows:

- The lack of entrepreneurship strategy remains to be a key gap due to coordination problem among the various agencies involved in the development of MSEs and entrepreneurship. There exists gap in terms of clearly allocating roles for the different stakeholder agencies, which leads to duplication of efforts and ineffective targeting of interventions.
- Lack of alignment in the focus of government agencies on the one hand and non-government actors on the other hand are another coordination challenge.

- Support is designed by sector rather than whether enterprises are dynamic (growth-oriented) or not. Specific sectors were identified based on the first and second GTPs, but do not pay attention to whether the enterprises are dynamic or survivalist. This can create dilution and ineffectiveness of effort.
- There is lack of focal agency/ministry for coordination of MSE and entrepreneurship support as FeSMMIDA and FJCFSA do not have a consistent ministry to report to. Previously FeSMMIDA was under MoWUD while currently moved to MoI.
- FeSMMIDA and FUJCFSA have limited power in monitoring the implementation of support task expected from each institution. Since most support various ministries monitoring becomes difficult for FeSMMIDA and FUJCFSA. In a related note, despite the split of FeMSEDA into FeSMMIDA and FJCFSA, there is no MSE development strategy that reflects the current change as the 2011 MSE development strategy is still in operation.
- There is also lack of effective monitoring, evaluation and learning process on MSE and entrepreneurial activity. There is no proper stock of what works and what does not work and modality to improve interventions.
- TVET interventions are theoretical and generic training. Moreover, it is not demand driven but not practice and less effective in responding to demand.

3.4. Econometric Analysis

Extant literature indicated firms in Ethiopia do not perform well. It is below that of the Sub-Saharan countries average (Table 22). More specifically, capacity utilization of Ethiopian firms is 63.3% while that of the SSA is 70.4% real annual sales growth also lags behind the SSA average. It grows only at 0.2% while the SSA is 2.5%. Percent of firms buying fixed assets 37.2% which is 3.7% lower compared to SSA. The only performance indicator in which Ethiopia excels is employment growth which is 9%. The worst scenario is observed in annual labour productivity with growth rate of -8.7%. The low labour productivity is credited to underdeveloped labour market and low skill which in turn is a result of low education and formal training. Only 14.8% of enterprises has formal training programs formal training to their permanent, full-time employees. The formal training covered only 37.01% of permanent full-time production employees. Sixty-three percent of permanent full-time workers are high school complete and average years of education for typical production workers is 10. These altogether resulted in inadequately educated labour force which is perceived as major obstacles to doing business in Ethiopia by about 32% of enterprises.

Table 3.6: Firms Performance in Ethiopia

Indicators	Ethiopia	All Countries	Sub-Saharan Africa
Capacity utilization (%)	63.3	72.0	70.4
Real annual sales growth (%)	0.2	1.8	2.5
Annual employment growth (%)	9.0	4.9	6.7
Annual labor productivity growth (%)	-8.7	-2.5	-3.1
Percent of firms buying fixed assets	37.2	42.1	40.9

Source: WBES (2015)

In what follows an econometric approach is employed to examine factors determining firms' performance in Ethiopia. Two performance indicators, log transformed annual sales and annual sales growth, are used as dependent variables. The independent variables are: capacity utilization (capacity_ult), product innovation (pdtinnov), method of production innovation (mtdpdtinnov),

organizational; organizationalstructure innovation (orgstrinnov), whether top manager is female (topmagfem), whether the firm has own website (website), research and development (R&D), whether the firm use technology licensed from a foreign-owned company (techno), percent of permanent full-time employees with formal training (training), log transformed age of the firm (lnage) and its square (lnagesqr), experience of top management (top_exp), percent of permanent full-time employees who completed high school education (highschool), whether the firm has access to line of credit (lineofcredit) and whether the firm competes against informal firms (infcompet).

Results in the following Table show that the coefficient of organizational structure innovation is statistically significant at 1% level of significance with a positive sign implying that it improves firm performance. Organizational structure innovation improves organization learning which in turn enhances performance.

Firms having their own website perform better than those without it. Social networking sites like website provide information about individuals and their networks which enables enterprises to create online social communities shared by external stakeholders. A website helps enterprises interact with external factors such as customers and public institutions. This helps enterprise get, transfer, and assimilate external knowledge within the enterprise and then generate innovation.

Table 3.7: Determinants of Firms Performance (sales growth)

In sales	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
capacity_utl	0.004	0.003	1.34	0.181	-0.002 0.010	
pdtinnov	0.132	0.179	0.74	0.461	-0.219 0.483	
mtdpdtinnov	-0.189	0.196	-0.96	0.336	-0.575 0.197	
mktginnov	-0.182	0.208	-0.88	0.382	-0.592 0.227	
orgstrinnov	0.793	0.206	3.85	0.000	0.388 1.197	***
topmagfem	0.033	0.270	0.12	0.904	-0.499 0.564	
website	1.068	0.179	5.97	0.000	0.717 1.420	***
R&D	0.691	0.247	2.80	0.005	0.206 1.177	***
techno	0.097	0.201	0.49	0.627	-0.297 0.492	
training	0.451	0.197	2.29	0.022	0.064 0.837	**
lnage	1.254	0.289	4.34	0.000	0.686 1.822	***
lnage2	-0.111	0.039	-2.88	0.004	-0.187 -0.035	***
top_exp	0.010	0.008	1.27	0.206	-0.006 0.026	
highschool	-0.002	0.002	-0.67	0.506	-0.007 0.003	
lineofcredit	0.818	0.174	4.71	0.000	0.477 1.160	***
infcompet	-0.775	0.166	-4.68	0.000	-1.100 -0.450	***
Constant	11.993	0.495	24.25	0.000	11.021 12.964	***
Mean dependent var		15.657	SD dependent var		2.288	
R-squared		0.426	Number of obs		530.000	
F-test		22.327	Prob> F		0.000	

In sales	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
Akaike crit. (AIC)		2122.642	Bayesian crit. (BIC)		2199.554	

*** p<0.01, ** p<0.05, * p<0.1

The coefficient of R&D is positive and statistically significant at 1% level of significance which indicates firms engaged in R&D performance better than otherwise. Involvement in research and development would help the enterprise search new things, to adopt, to develop, and to use them to achieve the enterprise’s objectives. The econometric result reveals that on-the-job training another factor which positively influence firm’s performance in Ethiopia through improving knowledge and skills of permanent and full-time employees.

The positive and statistically significant coefficient of age of firm shows that older firms’ performance is better than younger firms. More specifically, a 1% rise in age of a firm increases sales growth by 1.25 on average, ceteris paribus. Sales growth for firms with access to line of credit/loan is higher by 0.82 than those firms no access. The implication is that financial constraint hinders firm’s performance. Lastly, firms competing against informal competitors lags behind, in terms of sales growth, counterparts. The sales growth for firms those do not face competition from informal actors is higher by 0.78. It indicates that existence informality negatively affects formal firms’ business activities/performance.

Table 3.8: Determinants of Firm’s Employment Growth

growth	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig	
capacity_utl	0.001	0.002	0.78	0.435	-0.002	0.005	
pdtinnov	0.065	0.111	0.58	0.562	-0.154	0.283	
mtdpdtinnov	0.155	0.124	1.25	0.210	-0.088	0.398	
orgstrinnov	-0.103	0.128	-0.81	0.421	-0.356	0.149	
mktginnov	-0.032	0.129	-0.24	0.807	-0.285	0.222	
top_exp	0.012	0.005	2.33	0.020	0.002	0.022	**
website	0.338	0.108	3.12	0.002	0.125	0.551	***
R&D	0.050	0.149	0.33	0.740	-0.244	0.343	
techno	-0.111	0.121	-0.92	0.359	-0.350	0.127	
Highschool	0.003	0.002	1.76	0.079	0.000	0.006	*
training	-0.044	0.120	-0.37	0.714	-0.280	0.192	
lnage	0.205	0.182	1.13	0.259	-0.152	0.562	
lnage2	0.008	0.027	0.28	0.778	-0.045	0.060	
lineofcredit	0.321	0.104	3.09	0.002	0.117	0.526	***
infcompetition	-0.220	0.100	-2.20	0.028	-0.416	-0.023	**
Constant	-0.148	0.287	-0.52	0.606	-0.712	0.415	
Mean dependent var	1.020		SD dependent var		1.143		
R-squared	0.132		Number of obs		541.000		
F-test	5.327		Prob> F		0.000		
Akaike crit. (AIC)	1634.389		Bayesian crit. (BIC)		1703.083		

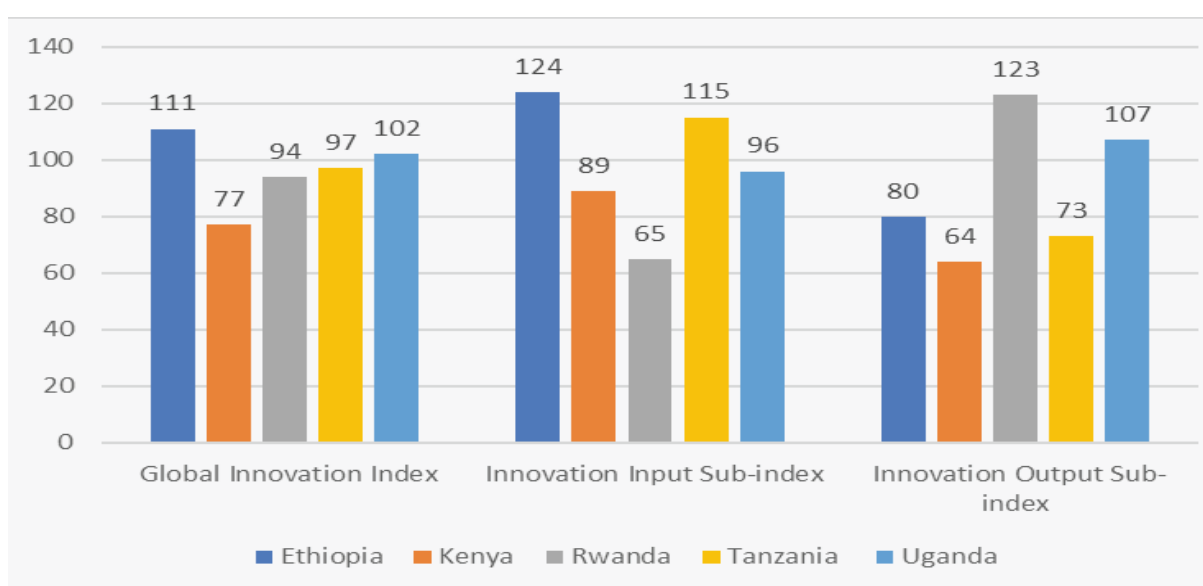
growth	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
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*** p<0.01, ** p<0.05, * p<0.1

Result from econometric analysis (Table 25) reveals that experience of top manager, website ownership, high school education and access to credit line increases firm's employment growth while competing against inform firm decreases it.

Innovation endeavor is a crucial driving force for economic growth of any economy (Abderrezzak, Wafaa, & Benabbou, 2016; Abdu & Jibir, 2017; African Union Commission (AUC), 2014; van Uden, Knobens, & Vermeulen, 2016). This is because innovation activity by a country and/or a firm improves of enterprise-level productivity gains and country-level economic growth (Abdu & Jibir, 2017). The case Ethiopia is not different. Enterprises are playing a crucial role in contributing to economic growth of Ethiopia by supporting science, technology, and innovation activities through research, technology transfer, and diffusion for policy formulation framework (FDRE, 2010). However, Ethiopia lags behind the comparator countries in terms of innovation performance. The Global Innovation Index (2019) placed Ethiopia at the 111th, 124th and 80th in global innovation index, innovation input sub-index and innovation output-sub index, respectively. Cognizant to this, it is good idea to scrutinize factors determining firm's innovation activity in order to identify inhibiting factors.

Figure 3.18: Innovation Index



Source: Global Innovation Index (2019)

Table 26 presents empirical results for determinants of firm's innovation in Ethiopia. Innovation and doing business are intertwined. Innovation that can be taking place at start up or growing stage is functionalized by different factors. In order to make the empirical results robust enough, different types of innovations are considered. Model 1 treats innovation in its aggregate form (innovation score) while Model 2, Model 3, Model 4 and Model 5 treat product innovation, process innovation, marketing innovation and organizational structure innovation as dependent variable.

The result shows that the impact of website ownership on innovation depends on the type of innovation the firm has engaged in. It has no effect on innovation score, product innovation and organization structure innovation. However, it positively influences processes and

marketing innovation. According to the triple helix theory, the success of innovation endeavors depends on what integration and cooperative interaction developed between the academia, the private sector, and the government which is shaped by the social networking sites like website. Enterprises may conduct an assessment of their product, a method of production, and management through an online survey using their website. Website ownership improves enterprise innovation through the provision of important information, resources, and online survey services in order to improve their method of production and marketing of the products.

Variables which have strong positive impact across all types of innovations are: R&D, on-the-job formal training, using technology licensed from a foreign-owned company and capacity utilization. It is empirically well documented that knowledge is the main factor driving innovation in firms (see Aleknavičiūtė, Skvarciany, & Survilaitė, 2016; van Uden et al., 2016). Formal training and R&D play a vital role in building up skill and knowledge (human capital) of employees. Human capital is conducive for the development of new knowledge and supports the ability of firms to absorb knowledge. Though human capital formation is lower relative to the comparator countries (Kenya, Uganda, Rwanda and Tanzania), it is a robust determinant of innovation. The reason is that knowledge has stronger impact and knowledge absorption in Ethiopia are better relative to the peers. Moreover, research talent in business enterprise, knowledge and technology outputs and knowledge creation are better in Ethiopia. The higher the capacity utilization of the firm the more innovative they are. This is due to the fact that when firms operate at higher capacity, they can produce more with the same amount of inputs which encourages investment. It is investing firm that innovate.

Table 3.9: Determinants of Firm's Innovation Propensity

	Model 1	Model 2	Model 3	Model 4	Model 5
topmagfem	-0.00974	0.0172	-0.153	-0.197	-0.203
	(-0.35)	(0.09)	(-0.76)	(-0.93)	(-0.94)
website	0.0346	0.125	0.267*	0.416***	0.223
	(1.94)	(1.03)	(2.19)	(3.34)	(1.74)
R&D	0.100***	0.511**	0.637***	0.779***	1.440***
	(4.33)	(3.18)	(3.93)	(4.89)	(7.89)
technology	0.0906***	0.349**	0.661***	0.534***	0.626***
	(4.60)	(2.61)	(4.85)	(3.94)	(4.48)
training	0.122***	0.642***	0.717***	0.587***	0.594***
	(6.44)	(4.98)	(5.47)	(4.48)	(4.38)
age	-0.0000252	-0.000838	0.0000708	-0.000787	-0.00111
	(-0.04)	(-0.20)	(0.02)	(-0.18)	(-0.25)
age_sqr	2.73e-09	0.000000483	-0.000000223	0.000000493	0.000000324
	(0.01)	(0.24)	(-0.11)	(0.23)	(0.15)
top_exp	0.000498	0.0117*	-0.00634	0.00487	-0.0105
	(0.64)	(2.19)	(-1.18)	(0.87)	(-1.82)
capacity_ut	0.000834**	0.00462*	0.00540**	0.00431*	0.00569**
	(2.91)	(2.36)	(2.68)	(2.10)	(2.73)
highschool	0.000454	0.00402*	0.00128	0.00184	0.00192
	(1.83)	(2.34)	(0.74)	(1.01)	(1.05)
fulltime_emp	-0.00000289	0.0000267	-0.0000573	-0.0000236	-0.000136
	(-0.17)	(0.24)	(-0.50)	(-0.21)	(-1.02)
_cons	0.304***	-1.201***	-1.018***	-1.453***	-1.168***
	(10.84)	(-5.97)	(-5.06)	(-6.77)	(-5.52)
var(e.innovation)	0.0371*** (17.48)				
N	611	611	611	611	611

t statistics in parentheses

* p<0.05, ** p<0.01, *** p<0.001

3.5. Conclusion and Policy Proposals

Ethiopia lags behind the comparator countries in easier to do business, due to the lacking policies and institutional frameworks as well as repressed economic freedom like business freedom, institutional freedom and investment freedom.

Bureaucratic inefficiency and stringent regulation environments are obstacles to doing business in Ethiopia. They create regulatory rent seeking behavior that facilitates favorable ground to illegal practices like corrupting and bribe. They push firms from formal sector to informal sector through high transaction costs. This situation makes doing business difficult.

Credit market regulations of Ethiopia are very strict and limit entrepreneurs' access to financial services and products. These burdensome regulations have imposed stiff constraints on firms' ability to do business easily. Due to strict banking regulations doing banking business is very difficult. Mandatory requirements are discourage doing banking businesses. Moreover, the regulations restrict banking businesses not to engage in non-banking activities. Investment by banks is restricted to only to not more than 20% their net worth. The regulations also exacerbate shortage of foreign exchange through imposing FX surrender requirements, FX allocation management, permissible FX amount upon entry, etc. single credit borrower limit and maximum amount of transfer through e-banking are also indicators of strict credit market regulations. Altogether, the regulations made getting credit very tough. Credit constraint and shortage of FX are serious obstacles hindering doing business in Ethiopia nowadays.

Labour market of Ethiopia is repressed which makes hiring and firing of redundant worker a hard task for employers. Underdeveloped labour market together with the stringent labourmarket regulations negatively affect firm's growth and employment.

Business regulations of Ethiopia are not conducive for doing business. The regulations highly repressed business freedom of entrepreneurs. The regulations are inefficient and onerous which lead to high administrative requirements and bureaucracy cost. Cost of tax compliance and extra payments like bribe are also the result of the regulations. Due to the inefficient business regulations, business licensing and renewal are time taking and costly. This creates additional transaction costs, delays and uncertainty to business community which in turn make starting a business difficult.

Freedom to trade internationally restricted by trade related regulations. Trade tariff is higher in Ethiopia. Non-tariff trade barriers, and compliance costs of importing and exporting are another challenge introduced by the stringent regulations challenging firms in Ethiopia. The exchange rate regime that the country has been following a main cause for prevalence of black-market exchange rates. Free of movement of capital is also restricted. These factors are obstacles to doing business, particularly trading across borders.

Rule of law is repressed in Ethiopia. property rights, judicial effectiveness, and government integrity are very weak. With weak legal system it is difficult to enforce contracts, register property, ensure property rights and protect minority investors. This arises due to the fact that judicial effectiveness is weak and there is weak integrity of the legal system in Ethiopia. Repressed rule of law has detrimental effect on doing business.

The investment freedom index of Ethiopia shows that freedom of business community to invest is restricted. Restrictions arise normally from burdensome bureaucracy, restrictions on land ownership, expropriation of investments without fair compensation, foreign exchange controls, capital control, security problems, a lack of basic investment infrastructure. Restricting free flow investment negatively affects both domestic investment and FDI.

Infrastructure in Ethiopia is underdeveloped and of low quality. The country lags behind in availability and quality of infrastructure. Access and use of ICT is low in Ethiopia compared to its comparators. There is substantial gap between Ethiopia and the comparator countries in logistic performance. Access to land/working premises and electricity are also critical issues challenging business community in Ethiopia.

Business skill gap, labour skills, productivity and innovation are highly related to doing business. Ethiopian firms have business skill gaps which negatively affect their day-to-day activities in doing business. Preparing business plan and bookkeeping problematic due the skill gap. Labour skill is challenging industrial firms in Ethiopia. Due to lack of required skill employees cannot operate on new technologies which results in wastage. Compared to firms in the comparator countries Ethiopian firms are less innovative. These factors diminish productivity of the entrepreneurs which in turn hampers firms to growth and expand their business.

Based on the above conclusions the following policy proposals are forwarded.

General recommendation: Ethiopia need to undertake critical and substantial reforms on its economy so that conducive business environment will be created. Economic freedom of the country needs to be improved. More specifically, reform is required to improve rule of law (property rights, judicial effectiveness and government integrity), regulatory efficiency (business freedom, labour freedom and monetary freedom), and market openness (trade freedom, investment freedom and financial freedom). Specific and detailed policy recommendation are provided below.

Starting a Business

In order to make starting a business easier, the following reforms are required:

- Making doing business less costly by replacing electronic billing machines with free software for value added tax invoices.
- Improving the online registration one-stop shop and streamlining post-registration procedures.
- Reducing the time required to obtain a registration certificate.
- Reducing the business registration fees.
- Eliminating the notarization requirement; introducing standardized memoranda of association; putting publication online; consolidating name-checking, registration fee payment, tax registration and company registration procedures; and reducing the time required to process completed applications.

Registering property

- Improving the land dispute resolution mechanisms of the land administration system.
- Implementing online services to facilitate the registration of property transfers.
- Introducing effective time limits and increasing the transparency of the land administration system.
- Eliminating the requirement to obtain a tax clearance certificate and by implementing the web-based Land Administration Information System for processing land transactions.
- Reduced the time required to transfer property through ongoing improvements in the property registration process.

Dealing with construction permits:

- Reducing the time to obtain a water and sewage connection.
- Requiring all construction professionals to obtain liability insurance on buildings once in use.
- Increased quality control during construction by introducing risk-based inspections.

- Adopting a new building code and new urban planning regulations.
- Eliminating the fee for obtaining a freehold title and by streamlining the process for obtaining an occupancy permit.
- Easier and less costly by reducing the building permit fees, implementing an electronic platform for building permit applications and streamlining procedures.
- Streamlining project clearances—combining the procedures for obtaining a location clearance and a building permit in a single application form—and by introducing a single application form for water, sewerage and electricity connections.
- Decentralizing the construction permit system—which reduced the time for getting a building permit and an occupancy permit—and by reducing the time for obtaining an electricity connection.

Getting electricity:

- Improving the reliability of power supply by upgrading its power grid infrastructure
- The electricity company made getting electricity less costly by eliminating several procedural and administrative fees.
- Reducing the cost of obtaining a new connection.
- Improving the efficiency of the sole power supplier and introducing competition into the power supply market.
- Improving the efficiency of the infrastructure and utility services.

Getting credit

- Addressing the issue of working premises (land) so that firms can raise long term loan for their projects.
- Strengthening access to credit by enacting a new insolvency law.
- Improving access to credit by establishing clear priority rules outside bankruptcy for secured creditors and establishing clear grounds for relief from a stay of enforcement actions by secured creditors during reorganization procedures.
- Providing more flexibility on the types of debts and obligations that can be secured through a collateral agreement.
- Strengthening secured transactions system by allowing a wider range of assets to be used as collateral, permitting a general description of debts and obligations in the security agreement, allowing out-of-court enforcement of collateral, granting secured creditors absolute priority within bankruptcy and creating a new collateral registry.
- Establishing and strengthening credit registry and information bureaus in a coordinate manner.

Protecting minority investors

- Strengthening minority investor protections by making it easier to sue directors, clarifying ownership and control structures and requiring greater corporate transparency.
- Strengthening minority investor protections by introducing provisions allowing holders of small shares of a company's shares to call for an extraordinary meeting of shareholders
- Strengthening investor protections through a new law allowing plaintiffs to cross-examine defendants and witnesses with prior approval of the questions by the court.
- Strengthening investor protections through a new company law requiring greater corporate disclosure, increasing director liability and improving shareholders' access to information.

Paying taxes:

- Establishing an online system for filing and paying taxes. made paying taxes easier for companies by introducing electronic filing and making its use compulsory.

- Rolling out its electronic filing system to the majority of businesses and by reducing the property tax rate and business trading license fee.
- Reducing the frequency of value added tax filings by companies.

Trading across borders

- Reducing the number of trade documents required and enhanced its joint border management procedures with Ethiopia and other neighbors, leading to an improvement in the trade logistics environment.
- Reducing the time required for trading across borders by introducing administrative changes such as expanded operating hours and enhanced border cooperation and by eliminating some documentation requirements.
- Reducing the time for exporting and importing by extending the opening hours of customs points, implementing or improving electronic data interchange and risk-based inspection systems and making improvements in the transport sector.
- Accelerating the acceptance of customs declarations and liberalizing the warehouse services market.
- Improving the efficiency of customs and border management clearance.
- Improving the quality of trade- and transport-related infrastructure.
- Easing the arrangement of competitively priced international shipments.
- Enhancing the competence and quality of logistics services.

Enforcing contracts:

- Enforcing contracts easier by issuing new rules of civil procedure which limit adjournments to unforeseen and exceptional circumstances and establish a simplified procedure for small claims.
- Making judgements rendered at all levels in commercial cases available to the general public through publication on the judiciary's website.
- Introducing an electronic case management system for judges and lawyers.
- Implementing an electronic filing system for initial complaints.

Resolving insolvency

- Making insolvency proceedings more accessible for creditors and granting them greater participation in the proceedings.
- Making judgements rendered at all levels in commercial cases available to the general public through publication on the judiciary's website. made enforcing contracts easier by introducing an electronic case management system for judges and lawyers.
- Made enforcing contracts easier by implementing an electronic filing system for initial complaints.
- enforcing contracts easier by launching 3 commercial courts

Entrepreneurial and Labour Skills

To solve the problem of entrepreneurial skills, investors need training and continuous advisory services on targeted skills such as entrepreneurship, marketing, management, customer and labor handling, import export process, custom process, taxation rules, and production techniques. Information services and sharing is also crucially needed. In this regard, supporting business development service providers, more and so private providers is important. Furthermore, there is a need to embed entrepreneurship training/ business training with other services like finance making some cost sharing adjustments among the beneficiary and service providers.

References

Abderrezzak, B., Wafaa, B., & Benabbou, S. (2016). Key Determinants of Innovation in the Algerian SMEs Abstract : *Topics in Middle Eastern and African Economies*, 18(1), 183–200.

Abdisa, L. T. (2018). Power outages , economic cost , and firm performance : Evidence from Ethiopia. *Utilities Policy*, 53(December 2017), 111–120. <https://doi.org/10.1016/j.jup.2018.06.009>

Abdu, M., & Jibir, A. (2017). Determinants of firms innovation in Nigeria. *Kasetsart Journal of Social Sciences*. <https://doi.org/10.1016/j.kjss.2017.07.006>

Aboal, D., & Noya, N. (2014). Contract Enforcement and Investment : A Systematic Review of the Evidence. *World Development*, 64, 322–338. <https://doi.org/10.1016/j.worlddev.2014.06.002>

Adore, M. (2016). An Assessment of Factors Affecting Access to Finance for Micro and Small Enterprises in the Case of Hossana Town. *International Journal of African and Asian Studies*, 27, 32–43.

African Union Commission (AUC). (2014). *Science, Technology and Innovation Strategy for Africa 2024*. Retrieved from https://au.int/sites/default/files/newsevents/workingdocuments/33178-wd-stisa-english_-_final.pdf

Aleknavičiūtė, R., Skvarciany, V., & Survilaitė, S. (2016). The Role of Human Capital for National Innovation Capability in EU Countries. *Economics and Culture*, 13(01), 114–125. <https://doi.org/10.1515/jec-2016-0014>

Alibhai, S., Buehren, N., Coleman, R., Goldstein, M., & Strobbe, F. (2019). *Disruptive Finance : Using Psychometrics to Overcome Collateral Constraints in Ethiopia*.

Amene, T. B. (2018). Factors Affecting Access To Finance For Micro And Small Enterprises : The Case of West Hararghe Zone, Ethiopia. *International Journal of Current Research*, 9(11). <https://doi.org/10.24941/ijcr.27582.11.2017>

Anderson, J. E., & Wincoop, E. Van. (2004). Trade Costs. *Journal of Economic Literature*, . XLI, 691–751.

Angulo-guerrero, M. J., Pérez-moreno, S., & Abad-guerrero, I. M. (2017). How economic freedom affects opportunity and necessity entrepreneurship in the OECD countries. *Journal of Business Research*, 73, 30–37. <https://doi.org/10.1016/j.jbusres.2016.11.017>

Assefa, B., & Gebre-eyesus, M. (2018). *Alleviating the Barriers to Domestic Investment in Addis Ababa : Underlying Causes and Proposed Solutions*.

Assefa, B., Gebre-eyesus, M., & Bekele, F. (2017). *Alleviating the Barriers to Domestic Investment in Addis Ababa : Underlying Causes and Proposed Solutions*.

Assegu, W. F. (2017). Shareholders Meetings as Organs of Corporate Governance in Ethiopia. *Elixir Finance Management Law*, 107(2), 47132–47140.

Bae, K.-H., & Goyal, V. K. (2009). Creditor Rights , Enforcement , and Bank Loans. *The Journal of Finance*, LXIV(2), 823–860.

Bennett, D. L., & Nikolaev, B. (2019). Economic Freedom , Public Policy , and Entrepreneurship. In J. Gwartney, R. Lawson, J. Hall, & R. Murphy (Eds.), *Economic Freedom of the World: 2019 Edition* (pp. 199–224). Fraser Institute.

Berggren, N. (2003). The Benefits of Economic Freedom: A Survey. *The Independent Review*.

Berkowitz, D., Lin, C., & Ma, Y. (2015). Do property rights matter? Evidence from a property law enactment. *Journal of Financial Economics*, 116(3), 583–593. <https://doi.org/10.1016/j.jfineco.2015.04.003>

Besley, T. (1995). Property rights and investment incentives: theory and evidence from Ghana. *Journal of Political Economy*, 103(5), 903–937. <https://doi.org/10.1086/262008>

Bjornskov, C., & Foss, N. J. (2016). Institutions, Entrepreneurship, and Economic Growth: What Do Know and What Do We Still Need to Know? *Academy of Management Perspectives*, 30(3), 292–315.

Boudreaux, C. J., & Nikolaev, B. (2018). Capital is not enough : opportunity entrepreneurship and formal institutions. *Small Business Economics*.

Boudreaux, C. J., Nikolaev, B. N., & Klein, P. (2018). Socio-cognitive traits and entrepreneurship : The moderating role of economic institutions. *Journal of Business Venturing*, (July), 0–1. <https://doi.org/10.1016/j.jbusvent.2018.08.003>

Catalin, G., & Sorin-George, T. (2017). The Relationship between Doing Business and Economic Freedom around the World in the Period 2014-2016. *“Ovidius” University Annals, Economic Sciences Series*, XVII(1), 41–45.

Coe, D. T., & Helpman, E. (1995). International R&D spillovers. *European Economic Review*, 39, 859–887. [https://doi.org/10.1016/0014-2921\(94\)00100-E](https://doi.org/10.1016/0014-2921(94)00100-E)

Dahya, J., Dimitrov, O., & Mcconnell, J. J. (2008). Dominant shareholders , corporate boards , and corporate value : A cross-

country analysis. *Journal of Financial Economics* 87, 87, 73–100. <https://doi.org/10.1016/j.jfineco.2006.10.005>

Djankov, S., Georgieva, D., & Ramalho, R. (2018). Business regulations and poverty. *Economics Letters*, 165, 82–87. <https://doi.org/10.1016/j.econlet.2018.02.002>

Djankov, S., Porta, R. La, Lopez-de-Silanes, F., & Shleifer, A. (2008). The law and economics of self-dealing. *Journal of Financial Economics*, 88, 430–465. <https://doi.org/10.1016/j.jfineco.2007.02.007>

Doblas-Madrid, A., & Minetti, R. (2013). Sharing information in the credit market: Contract-level evidence from U.S. firms. *Journal of Financial Economics*, 109(1), 198–223. <https://doi.org/10.1016/j.jfineco.2013.02.007>

Enriques, L. (2000). The Law on Company Directors ' Self-Dealing : A Comparative Analysis. *International and Comparative Corporate Law Journal*, 2(3). <https://doi.org/10.2139/ssrn.135674>

García-Posada, M., & Mora-Sanguinetti, J. S. (2014). Are there alternatives to bankruptcy ? A study of small business distress in Spain. *SERIESS*, 5, 287–332. <https://doi.org/10.1007/s13209-014-0109-7>

Gebre-eyesus, M., Ambachew, A., Getahun, T., Assefa, B., Abebe, G., Hassen, S., & Medhin, H. (2018). *Main Features of Micro and Small Manufacturing Enterprises in Ethiopia: Baseline Survey Report*. Addis Ababa, Ethiopia.

Gebremeskel, F. P. (2010). Emerging Separation of Ownership and Control in Ethiopian Share Companies: Legal and Policy Implications. *Mizan Law Review*, 4(1).

Go, E. (2018). *A Sturcture Literature Review: Contribution and Effectiveness of Trade Facilitation Measures*.

Gote, H. (2004). *Ethiopia: Economic Performance and the Role of the Private Sector*.

Grossman, G. M., & Helpman, E. (1990). Comparative advantage and long-run growth. *American Economic Review*, 80, 796–815. <https://doi.org/10.3386/w2809>

Grossman, G. M., & Helpman, E. (1991). Trade, knowledge spillovers, and growth. *European Economic Review*, 35, 517–526. [https://doi.org/10.1016/0014-2921\(91\)90153-A](https://doi.org/10.1016/0014-2921(91)90153-A)

Herrington, M., & Kelley, D. (2012). *African Entrepreneurship: Sub-Saharan African Regional Report*.

Johnson, B. S., Mcmillan, J., & Woodruff, C. (2002). American Economic Association Property Rights and Finance Author (s): Simon Johnson , John McMillan and Christopher Woodruff Source : The American Economic Review , Vol . 92 , No . 5 (Dec . , 2002) , pp . 1335-1356 Published by : American Economic Assoc. *American Economic Association Property*, 92(5), 1335–1356.

Justesen, M. K. (2008). European Journal of Political Economy The effect of economic freedom on growth revisited : New evidence on causality from a panel of countries 1970 –

1999. *European Journal of Political Economy*, 24, 642–660. <https://doi.org/10.1016/j.ejpoleco.2008.06.003>

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2003). *Governance Matters II: Governance Indicators for 1996-2002* (No. 3106).

Kuckertz, A., Berger, E. S. C., & Mpeqa, A. (2016). The more the merrier ? Economic freedom and entrepreneurial activity . *Journal of Business Research*, 69(4), 1288–1293. <https://doi.org/10.1016/j.jbusres.2015.10.094>

McGowan, M. A., & Andrews, D. (2016). Insolvency Regimes and Productivity Growth: A Framework for Analysis. In *Economics Department Working Papers* (Vol. 1309).

McClean, R. D., Zhang, T., & Zhao, M. (2012). *Why Does the Law Matter ? Investor Protection and Its Effects on Investment , Finance , and Growth* Published by : Wiley for the American Finance Association Stable URL : <http://www.jstor.org/stable/41419678> Why Does the Law Matter ? Investor Protection an. *American Finance Association*, 67(1), 313–350.

Menkir, F. G. (2016). *Access to Finance and its Challenges for Private Sector in Ethiopia*. Indira Gadhi Open University.

Miller, T., Kim, A. B., & Roberts, J. M. (2019). *2019 Index of Economic Freedom*.

OECD. (2018). *Improving the business environment for SMEs through effective regulation*. Mexico City.

Osebo, G. P. (2017). Factors Affecting Micro and Small Enterprises in Accessing Credit Facilities : A Study in Hadeya Zone , Hosanna Town. *International Journal of African and Asian Studies*, 39, 39–53.

Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98, S71–S102. <https://doi.org/10.3386/w3210>

Romer, P. M. (1994). New goods, old theory, and the welfare costs of trade restrictions. *Journal of Development Economics*, 43, 5–38. [https://doi.org/10.1016/0304-3878\(94\)90021-3](https://doi.org/10.1016/0304-3878(94)90021-3)

Sakyi, D., Villaverde, J., & Maza, A. (2015). Trade openness, income levels, and economic growth: The case of developing countries, 1970–2009. *Journal of International Trade and Economic Development*, 24(6), 860–882. <https://doi.org/10.1080/09638199.2014.971422>

Shamana, T. W. (2019). The Legal Protection of Minority Shareholders Under Ethiopian Law : Comparative Analysis. *Journal of Law, Policy and Globalization*, 86(2007), 12–29. <https://doi.org/10.7176/JLPG>

Soledad, M., Peria, M., & Singh, S. (2014). The Impact of Credit Information Sharing on Interest Rates. In *Policy Research Working Paper* (No. WPS7013). <https://doi.org/10.2139/ssrn.2798531>

Stel, A. Van, Storey, D. J., & Thurik, A. R. (2007). The Effect of Business Regulations on Nascent and Young Business Entrepreneurship. *Small Business Economics*, 28(171), 171–186. <https://doi.org/10.1007/s11187-006-9014-1>

The Federal Democratic Republic of Ethiopia (FDRE). (2010). *National Science , Technology and Innovation Policy : Building Competitiveness through Innovation*. Addis Ababa, Ethiopia.

UNCTAD. (2013). *The UNCTAD Entrepreneurship Policy Framework and Its Implementation*.

UNDP. (2018). *ETHIOPIA | National Human Development Report 2018 Industrialization with a Human Face*.

van Uden, A., Knobens, J., & Vermeulen, P. (2016). Human capital and innovation in Sub-Saharan countries : a firm-level study. *Innovation: Management, Policy and Practice*, (October), 1–22. <https://doi.org/10.1080/14479338.2016.1237303>

Waseem, M. (2018). Taxes , informality and income shifting : Evidence from a recent

Pakistani tax. *Journal of Public Economics*, 157(October 2016), 41–77. <https://doi.org/10.1016/j.jpubeco.2017.11.003>

World Bank/DB. (2019). *Doing Business 2019: Training for Reform*. Washington DC.

World Bank. (2015). *The Fourth Economic Update: Overcoming Constraints in the Manufacturing Sector*.

World Bank. (2016). *TAX COMPLIANCE COST BURDEN AND TAX PERCEPTIONS TAX COMPLIANCE*.

Yesegat, W. A., & Fjeldstad, O. (2016). *Business people ' s views of paying taxes in Ethiopia* (No. 43). <https://doi.org/10.13140/RG.2.1.3769.9607>

Young, A. (1991). Learning by Doing and the Dynamic Effects of International Trade. *The Quarterly Journal of Economics*, 106, 369–406. <https://doi.org/10.2307/2937942>

ANNEXES

Annex I : Specific and Detailed Policy Proposals Matrix

Indicators	Causes	Impact	Proposed Solutions
Starting a business	<ul style="list-style-type: none"> Bureaucratic inefficiency, regulatory and administrative constraints lack of clear and complete information about investment processes and requirements lack of timely decision poor utilization of better technologies by government institutions low skills (capacity) of the civil servants Stringent requirements for business registration and licensing Repressed investment environment 	<ul style="list-style-type: none"> Higher transactions cost Delays in obtaining business license Corruption Reduces investment Encourages informality Discourages entrepreneurs to start a new business 	<ul style="list-style-type: none"> Availing complete information about all investment processes. Capacitating frontline officers to pass decision rather than passing it to higher officials Digitizing the whole investment processes (filing, registration, licensing and renewal) Capacity building on the job trainings Introducing e-government in digitizing process Streamlining process procedures through one-stop-shopping. Continuously introducing new technologies and building capacity of staff through training
Employing workers	<ul style="list-style-type: none"> Labour market regulation inefficiency (rigid labour market regulations) 	<ul style="list-style-type: none"> Hiring new employees and firing redundant employees are difficult. Fixed-term contracts and hours of work are restricted Increases transaction costs which in turn impedes firms' productivity and innovation. Hinders start-ups 	<ul style="list-style-type: none"> Reforming labour market regulations so that fixed-term contracts will be possible and hours restriction will be removed

Indicators	Causes	Impact	Proposed Solutions
Registering property	<ul style="list-style-type: none"> Inefficient bureaucratic processes Poor quality of land administration system Weak property rights Weak property law enactment Weak judicial effectiveness 	<ul style="list-style-type: none"> Higher transaction costs Delays Decreases the likelihood of land/ asset to be accepted as collateral by banks which constrains credit access Creditors' rights over the assets underlying their secured loans to private firms decrease private firms' protections against the potential expropriation of their assets decrease. Firm's value decrease It degrades entrepreneurs' confidence to invest 	<ul style="list-style-type: none"> Improving the land dispute resolution mechanisms of the land administration system. Implementing online services to facilitate the registration of property transfers. Introducing effective time limits and increasing the transparency of the land administration system. Eliminating the requirement to obtain a tax clearance certificate and by implementing the web-based Land Administration Information System for processing land transactions. Reduced the time required to transfer property through ongoing improvements in the property registration process.
Dealing with construction permits	<ul style="list-style-type: none"> Inefficient bureaucratic processes Poor building quality control system limited capacity of the licensing government bodies at all levels inefficient construction regulations 	<ul style="list-style-type: none"> delays in obtaining construction permits high transaction cost corruption/informal fees 	<ul style="list-style-type: none"> Reducing the time to obtain a water and sewage connection. Requiring all construction professionals to obtain liability insurance on buildings once in use. Increased quality control during construction by introducing risk-based inspections. Adopting a new building code and new urban planning regulations. Eliminating the fee for obtaining a freehold title and by streamlining the process for obtaining an occupancy permit. Easier and less costly by reducing the building permit fees, implementing an electronic platform for building permit applications and streamlining procedures. Streamlining project clearances for the second year in a row— combining the procedures for obtaining a location clearance and a building permit in a single application form—and by introducing a single application form for water, sewerage and electricity connections. Decentralizing the construction permit system—which reduced the time for getting a building permit and an occupancy permit—and by reducing the time for obtaining an electricity connection.

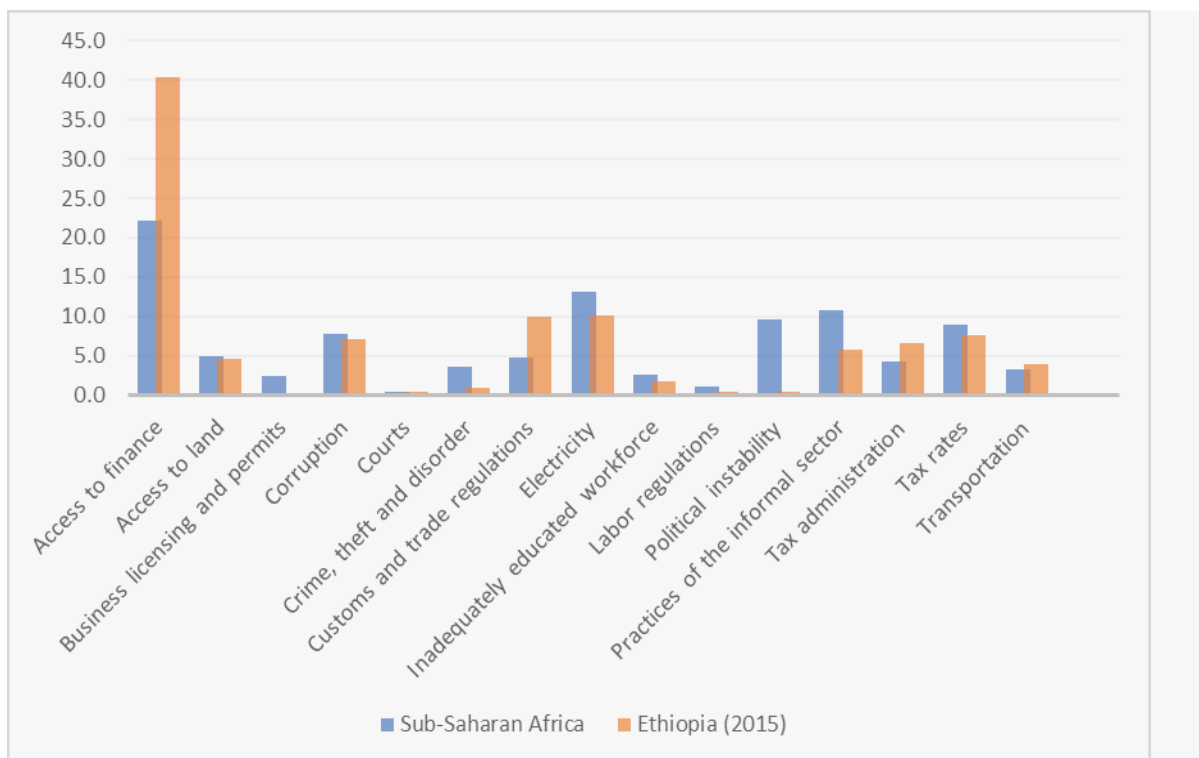
Indicators	Causes	Impact	Proposed Solutions
Getting Electricity	<ul style="list-style-type: none"> Inefficiency of power supplier Power outages and shortage Low access to electricity Corruption and rent-seeking 	<ul style="list-style-type: none"> Delay in getting electric connection Lower production and loss Increases cost of production¹ Decreases productivity 	<ul style="list-style-type: none"> Improving the reliability of power supply by upgrading its power grid infrastructure. made getting electricity more time and cost efficient by having the utility supply all connection material. The electricity company made getting electricity less costly by eliminating several fees. Reducing the cost of obtaining a new connection. Improving the efficiency of the sole power supplier and introducing competition into the power supply market. Improving the efficiency of the infrastructure and utility services.
Getting credit	<ul style="list-style-type: none"> Stringent financial regulations Rigid credit market regulations Controlled interest rates Weak legal rights Inability of movable assets to be used as collateral (Ethiopian banks prefer immovable assets like land for collateral) Limited service offerings Weak credit reporting system Low credit registry coverage Low credit bureau coverage 	<ul style="list-style-type: none"> Restricts availability of diversified savings, credit, payment, and investment services to individuals and businesses. Constrains working capital Impedes business expansion Impedes business competitiveness Restrains banking business 	<ul style="list-style-type: none"> Addressing the issue of working premises (land) so that firms can raise long term loan for their projects. Strengthening access to credit by enacting a new insolvency law. Improving access to credit by establishing clear priority rules outside bankruptcy for secured creditors and establishing clear grounds for relief from a stay of enforcement actions by secured creditors during reorganization procedures. Providing more flexibility on the types of debts and obligations that can be secured through a collateral agreement. Strengthening secured transactions system by allowing a wider range of assets to be used as collateral, permitting a general description of debts and obligations in the security agreement, allowing out-of-court enforcement of collateral, granting secured creditors absolute priority within bankruptcy and creating a new collateral registry. Improving credit registry and credit bureau coverage

Indicators	Causes	Impact	Proposed Solutions
Protecting minority investors	<ul style="list-style-type: none"> Weak commercial code The impossibility to bring derivative action Difficulties to exit from the company Absence of cumulative voting Inefficient corporate governance Weak legal protections Lack of capital markets 	<ul style="list-style-type: none"> Loss in value of minority investors Oppresses minority shareholders by managers and majority shareholders creates loss of investors' confidence in the capital markets, market inefficiency, raises the cost of capitals and inefficient use of scarce resources discourages investment 	<ul style="list-style-type: none"> Strengthening minority investor protections by making it easier to sue directors, clarifying ownership and control structures and requiring greater corporate transparency. Strengthening minority investor protections by introducing provisions allowing holders of small shares of a company's shares to call for an extraordinary meeting of shareholders Strengthening investor protections through a new law allowing plaintiffs to cross-examine defendants and witnesses with prior approval of the questions by the court. Strengthening investor protections through a new company law requiring greater corporate disclosure, increasing director liability and improving shareholders' access to information.
Paying taxes	<ul style="list-style-type: none"> Inefficient bureaucracy Inefficient tax administration Burdensome process of complying with taxation High tax rates 	<ul style="list-style-type: none"> High tax compliance cost Submission of tax returns and payments are difficult and time taking Corruption/informal payments Discourages doing business 	<ul style="list-style-type: none"> Establishing an online system for filing and paying taxes. Made paying taxes easier for companies by introducing electronic filing and making its use compulsory. Reducing the tax compliance burden on smaller businesses Rolling out its electronic filing system to the majority of businesses and by reducing the property tax rate and business trading license fee. Reducing the frequency of value added tax filings by companies.

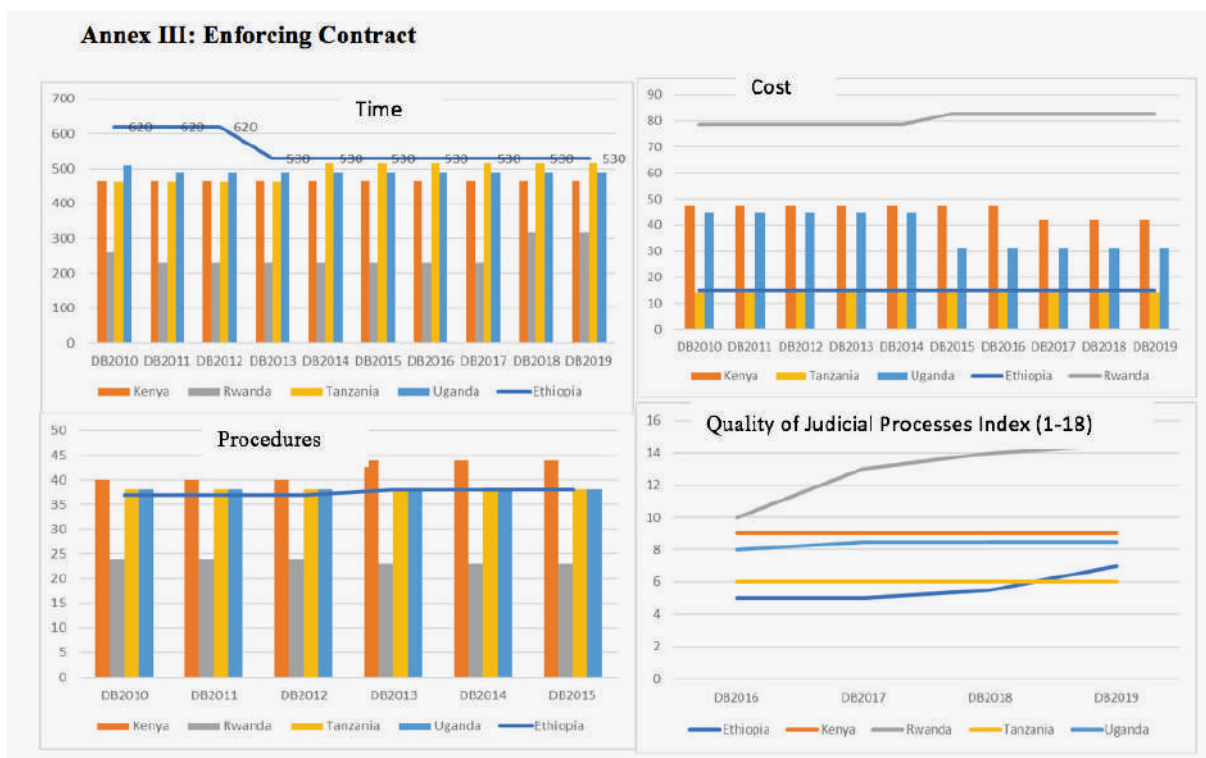
Indicators	Causes	Impact	Proposed Solutions
Trading across borders	<ul style="list-style-type: none"> • Oppressed trade freedom • Inefficient trade facilitation • Prevalence of non-trade barriers • Strong trade barriers • Poor logistic performance • Inefficiency of border clearance 	<ul style="list-style-type: none"> • Clearance delay and delay in delivery • high transportation and administrative costs • impedes international trade 	<ul style="list-style-type: none"> • Reducing the number of trade documents required and enhanced its joint border management procedures with Ethiopia and other neighbors, leading to an improvement in the trade logistics environment. • Reducing the time required for trading across borders by introducing administrative changes such as expanded operating hours and enhanced border cooperation and by eliminating some documentation requirements. • Reducing the time for exporting and importing by extending the opening hours of customs points, implementing or improving electronic data interchange and risk-based inspection systems and making improvements in the transport sector. • Accelerating the acceptance of customs declarations and liberalizing the warehouse services market. • Improving the efficiency of customs and border management clearance. • Improving the quality of trade- and transport-related infrastructure. • Easing the arrangement of competitively priced international shipments. • Enhancing the competence and quality of logistics services.
Enforcing contracts	<ul style="list-style-type: none"> • Weak judicial effectiveness 	<ul style="list-style-type: none"> • Delays in enforcing business disputes • Increases transaction cost • Discourages entrepreneurial endeavors 	<ul style="list-style-type: none"> • Enforcing contracts easier by issuing new rules of civil procedure which limit adjournments to unforeseen and exceptional circumstances and establish a simplified procedure for small claims. • Making judgements rendered at all levels in commercial cases available to the general public through publication on the judiciary's website. • Introducing an electronic case management system for judges and lawyers. • Implementing an electronic filing system for initial complaints.

Indicators	Causes	Impact	Proposed Solutions
Resolving insolvency	<ul style="list-style-type: none"> Weak insolvency framework 	<ul style="list-style-type: none"> Increases fear of bankruptcy and its consequences which terrify potential entrepreneurs from starting a new business venture. Obstacle to efficient exit and new firm creation Discourages previously failed firms from starting a new business 	<ul style="list-style-type: none"> Making insolvency proceedings more accessible for creditors and granting them greater participation in the proceedings. Making judgements rendered at all levels in commercial cases available to the general public through publication on the judiciary's website. made enforcing contracts easier by introducing an electronic case management system for judges and lawyers. Made enforcing contracts easier by implementing an electronic filing system for initial complaints. enforcing contracts easier by launching 3 commercial courts
Foreign exchange	<ul style="list-style-type: none"> stringent monetary/exchange rate policy Absence of Franco valuta and Suppliers Credit Illegal capital outflows Informal inflow of remittances Distortions in foreign exchange markets Inefficient application procedures (high commission fees, long queues, administratively complex) 	<ul style="list-style-type: none"> Creates delay in receiving imports Reduces capacity utilization and production cut Encourages informal payments and corruption to access forex Decreases inflow of FDI Exacerbates foreign currency shortages 	<ul style="list-style-type: none"> Ensuring good governance and transparency in allocating foreign exchange fairly. Reducing commission fees Reducing bureaucratic procedures of foreign exchange applications deregulating exchange rate policy mitigating illegal capital outflows Encouraging remittance inflows through formal channels
Logistic performance	<ul style="list-style-type: none"> inefficiency of customs and boarder management clearance low quality of trade- and transport-related infrastructure and inability to track and trace consignments. 	<ul style="list-style-type: none"> raises the costs of trading and reduces the potential for global integration. Creates delays and reduces predictability in border clearance. Reduces the reliability of supply chains and the predictability of service delivery for producers and exporters. It makes trading across the border very difficult 	<ul style="list-style-type: none"> Improving border management in a broad sense: integration of customs, product standards, tax, rules of origin; Improving the management of key trade related infrastructure, especially gateways and multimodal facilities Improving the quality/professionalism of private logistics services, through technical/economic regulation and capacity building
Entrepreneurial skills	<ul style="list-style-type: none"> entrepreneurship skills and labour skills are low low educational attainment 	<ul style="list-style-type: none"> poor preparation of business plans and market strategies decreases productivity wastage discourages investment 	<ul style="list-style-type: none"> Providing tailored managerial and entrepreneurship training on key managerial and entrepreneurial skills such as business planning, market strategies, book keeping Providing trainings on entrepreneurship, marketing, management, customer handling, custom's process, taxation rules

Annex II: Major Obstacles to Doing Business in Ethiopia



Annex III: Enforcing Contract



Annex IV: Time, Procedures, and cost required to Register Property and Quality Admin



Chapter Four: Improved Competitiveness



Executive Summary

Improving the level of competitiveness is a necessity if countries has to survive in this contemporary era of dynamic world economic system,. This study examines the determinants of Ethiopia's competitiveness and how that affect its private sector. It employed qualitative as well as quantitative methods of analysis(for the span of period 2004-2017).The study develops five models to estimate the dependent variables that are compositely indexed from pillars of competitiveness of Global Competitiveness Index and other key variables. Panel Tobit RE model and Robust Transformed Linear Model are employed since it specifically allows simultaneous estimation of all other models, fit to the nature of the dependent variable which is falling between[0,7] and facilitate the econometrics analysis. For validation of results, different diagnostic tests were tested in each panel models such as CLRM assumptions and the margins of panel Tobit random effect model. The marginal effect of the independent variables in panel Tobit RE model reveals the same result as the panel Tobit RE model econometric regression results. However, the estimation result of the transformed least square is suffered from heteroscedastic problems, and it's corrected by the alternative robust regression. And also the panel models were free from the multicollinearity and autocorrelation problems. To carry out the economic analysis and draw logical conclusion, the robust transformed linear model was selected ,which is in line with the theoretical considerations, documented countries experience, methodological rigor, legal frameworks and empirical evidences. One major finding of the study is that overall level of competitiveness of Ethiopia for the study period is, in the light of the classifications of the Global Competitiveness Index, in the stage of efficiency enhancer. However, its performance shows inconsistency during 2004-2012 whereas it has been continuously increasing from 2013-2017/18. It is also revealed that standard level of GDP per capita, negotiable foreign direct investment, considerable expenditure on R&D, good infrastructure, advanced and fast adoption of technology, equitable electric power supply, and accessible internet services can potentially derive and improve the competitiveness of the private sector in Ethiopia. On the other hand, trade balance dominated by imported manufactured goods, young demography and skilled labor unemployment, poor governance quality, weak corruption control and highly inflated consumer prices are major factors that casts challenge to its competitiveness. Results discerned out from the qualitative sources, i.e. the key informant interview and the experience of other countries, have shown that improving complementarities of government and private sector investments, conducting sector wise competitiveness assessment, enhancing the degree and nature of government intervention, improving the investment climate, establishing performance driven incentive system, fostering relaxed financial system, facilitating the right mix and synergy of local and foreign investment are key to promote competitiveness. Hence, the collaboration between the state and the private sector needs to be enhanced. Apart from this, the government needs to scale up its regulatory and policy sand sector wise assessment of competitiveness, regulate firms uncompetitive behavior should be done to promote the competitiveness in Ethiopian private sectors. Development programs, policies and strategies that could foster the country's competitiveness through productivity improvement need to be sought.

Keywords: Private Sector, Competitiveness Composite Index, Panel Tobit RE, Transformed Linear Model, Improved Competitiveness.

4.1. Background Information

Ethiopia has undergone series of economic reform programs assisted by WB and IMF since 1992. One of the pillars of the reform was focusing on the private sector development. Particularly, the second phase of the reform (1994/95-1996/1997) emphasizes on restricting the role of government and enhancing private sector activity (MOFED, 1998). Since 2005, the government embarked on state-led development program and achieved a successive high economic growth rate above 7 percent, on average. The government has also endorsed the Growth and Transformation Plans, GTP I in 2010 and GTP II in 2016, to bring structural change and achieve middle-income status by 2025. Currently, the country is on the eve to launch a ten-year perspective plan which gives prime attention to competitiveness and private sector development and which aspires to achieve Sustainable Development Goals (SDG) by 2030.

It is evident that the above-mentioned ambitious of the country are going to be achieved if Ethiopia is able to have a strong and competitive private sector. Particularly, in this epoch, with increased globalization and liberalization of trade and capital movements, companies and countries are more than ever exposed to global competition and hence, firms does not any more compete only with others within the national boundaries, but it is confronted with companies from virtually with any other country. In such an environment, it seems indispensable for both companies and nations to develop their capacity to be able to compete at an international level. Competitiveness is, therefore, regarded as a crucial prerequisite of success in the private sector, and is expected to bring about economic growth, sustained development and increase in the standard of living of populations.

The experience of different countries has shown that competitiveness, at both micro and macro dimensions, has played critical role to bring sustainable economic growth. The macro dimension of competitiveness more or less dwells on institution, policies, and factors that determine the level of productivity and long-term prosperity of a nation (WEF, 2017). On the other hand, the micro perspective lodges from the firm perspective. Competitiveness is the ability of firms to produce and sell goods and services of the right quality at the right price and time which is dictated not only by productive efficiency but also performance in terms of quality, innovation, marketing and cost (Balkyte and Tvaronaviciene, 2010).

The Ethiopian government has been engaged in designing development programs and implementing policies and strategies that could foster the country's competitiveness through productivity improvement. These strategies include developing adequate infrastructure, supplying skilled workforce, creating decent business environment, setting up support industries, and attracting foreign direct investment (through Industrial Parks (IPs) and Special Economic Zones (SEZs)). Albeit all those efforts, the country's global competitiveness did not exhibit significant improvement in the last ten years. For instance, for the year 2015/16 alone, it ranked 109th out of 144 countries and its scores were below the African average on export diversification, productivity and technological upgrading (WEF, 2016).

Ethiopia has recently signed African Free Trade Area Agreement and has also been fulfilling the requirements of WTO since 2008. Heading into a more liberal economic system requires the nation to build very competitive private sectors which can withstand stiff competition coming from competing countries. Besides, the private sector should develop a capacity to tap opportunities associated with access to a wider market. Nevertheless, further efforts are quite required to enhance the competitiveness of the private sector of Ethiopia. Hence, to identify right interventions demands assessing different dimensions of competitiveness of Ethiopia.

Weak public-sector performance, unprotected property rights, unethical and corrupted institutions constrain the competitiveness of public institutions of the country. Unavailability of

protection to minority shareholders' interests, non-uniform auditing and reporting standards, complicated procedures and bureaucratic steps required to start a business, trade barriers and tariffs, taxation, small market size and uncompetitive behaviors' of firms are factors that constrain the private sector competitiveness.

The next section of this project summarized both theoretical and empirical literatures. Section three indicates the model development. Chapter four depicts the result of policy assessment, empirical literature reviews and country experiences. The last section recommends interventions that should be considered by Ethiopia to ameliorate its level of competitiveness.

4.1.1. Objectives of the Study

This study examined the level of competitiveness and undertakes policy proposal development actions towards improved competitiveness among the private sector. Specifically it:

- Creating an efficient and flexible labor, goods and financial markets by solving the markets failures and developing stable macroeconomic system.
- Assesse the level of competitiveness of Ethiopia by sector, period and institution and with respect to domestic and international arenas
- Identify the competitiveness position of Ethiopia relative to comparable countries in Africa (Kenya, Tanzania, Egypt, Uganda and Rwanda)
- Assess the competitiveness of the private sector as well as identify challenges and opportunity of competitiveness of economic ages.
- Analyze different quantitative and qualitative approaches regarding the creation and measurement of Competitiveness
- Develop and estimate an index for competitiveness to Ethiopian business sector.
- Identify and analyze economic, political and social determinants of competitiveness and be aware of their interdependencies
- Examine the links between the concepts of competitiveness and development of a country.
- Examine the impact of policies and the regulatory framework on the competitiveness of the private business sector.
- Design policy formulation and strategies for improving competitiveness specific to implementation of long-term industrial development strategies of Small and Medium Scale Enterprises (SMEs) and the private sector .

4.2. Reviewing Related Literature on Competitiveness

Competitiveness is often used to describe economic strength of an entity against its competitors in global market economy in which goods, services, people, skills, and ideas move freely across geographical borders (Ambastha and Momaya, 2005). Competitiveness has no agreed understanding and takes different meaning among scholars in different field.

Within the domain of management studies, there are three levels of competitiveness. These are firm, industry and national level competitiveness. Economics, on its part, identified Micro and macro competitiveness. The latter is identified with a steady upward trend measured by GDP growth; productivity of resources and factors of production growing in macro terms (Birknesh, 2012) whereas the former refers to firm level competitiveness as its share in the competitive market. To provide customers a higher value and satisfaction with respect to the competitors, firms must be operationally efficient, cost effective, and quality conscious (Ambastha and Momaya, 2005). Firms competing on an open market are under pressure to adjust price of their products

and to meet the needs and expectations of customers. A firm has competitive advantages if it can produce and sell in the competitive markets homogenous products by lower price than its rivals without subsidies or if it can develop unique characteristics for the available products and innovative products (Rojaka, 2009:29). Porter (1990) defines an industry as competitive if its trade balance is positive and if the industry's export share exceeds the national average. Kudrle (1994) regards an industry as competitive if it maintains a steady or growing market share and satisfactory profits for all firms in the industry. Also, he indicates that the definition of an industry is problematic because of its heterogeneity.

Competitive rivalry will be high if there is little differentiation between the products sold; if competitors are approximately the same size of each other and the competitors have similar strategies and finally if it is costly to leave the industry (Porter, 2000:21). In any industry, buyers or customers can exert influence and control in certain circumstances. Even if national competitiveness is the combined layout of the firms and industries competitiveness, according to Barker,(1998) , national competitiveness is the degree to which it can, under free and fair market conditions, produce goods or services meeting the test of international markets, while simultaneously maintaining and expanding the real incomes of its population over the longer term. Competitiveness is a capacity to create welfare and an ability to sell on external markets. According to WEF (201), competitiveness is the set of institution and factors that determine the level of productivity. Hence, the concept of competitiveness assumes a major place in modern economics.

Different schools of thoughts have different perspective on competitiveness. The main school of thought namely Classical Theory, Neoclassical Theory, Keynesian Economic Theory, New Economic Growth Theory - Endogenous Growth Theory and New Trade Theory conveys an explicit or implicit implication for notions of 'competitiveness' and in some cases firms. The summary of the perspective of these school about competitiveness have been featured below.

The Classical Perspective: Adam Smith (1776) and David Ricardo (1817) are the two renowned economists who brought competitiveness on board. As one of its key assumptions, this school of thought believes that countries should pay special emphasis on the production of goods and services. According to Adam Smith, countries should produce goods and services which they could produce at the least cost. But David Ricardo extended the views of Adam Smith and he claims that countries can produce goods and services as long as the costs of production are lower than the price of the importing country. This notion is called comparative advantage and still holds true.

Neo-classical Theory: the core element of this school of thought is resource endowment. According to this theory, Heckscher-Ohlin (H-O) theory, assert that countries should produce and export goods and services that intensively uses the most abundant domestic resources and should import those goods that intensively uses the scarcest resource in the domestic economy. According to this school of thought, the base for competitiveness is availability of resources.

Keynesian Theory: Unlike the classical economic theory, Keynes did not believe that prices cleared markets at all time. Therefore, the fiscal tools of a nation play key role for competitiveness. According to this school of thought other factors, in addition to capital and labor, contribute to competitiveness. Therefore, in Keynesian theory capital intense economy, good climate for investment and government spending, such as investment in the public domain and subsidies/ tax cuts for enterprises can drive the highest competitive position of the economy.

New Economic Growth Theory –Endogenous Growth Theory: the key economic growth and then competitiveness assumptions are: Technological progress no 'manna from heaven'; increasing returns from accumulation of knowledge; introduction of human capital as production factor; markets do not automatically generate optimum and path dependency. In other words,

accumulation of knowledge generates increasing returns, and highly skilled workers tend to be more productive and innovative. Thus, R&D expenditure, innovativeness (patents), education level, spending on investment in human capital (schooling, training), and effective dissemination of knowledge (knowledge centers) has the power to influence the competitiveness of the economy in general.

The new trade theory is developed to modify the traditional trade theories (Classical and Neo-Classical) assumptions which implies that trade will occur between countries with different technology/ or factor endowment. In new trade theory, increasing returns are a motive for specialization and trade over and above conventional comparative advantage and can indeed cause trade even where comparative advantage is of negligible importance. Thus, therefore, in this theory the key deriving factors that can potentially influencing the competitiveness of a nation are skilled labor, specialized infrastructure, networks of suppliers and localized technologies.

4.2.1. Management Principles and Competitiveness

This is the second major section of the theoretical fact considerations and exploring on the three management theories namely: Michael Porter Diamond Theory, the Resource-Based Approach, and the Grounding-Enterprise-Markets (GEM) Model. In management theory, even if firm level competitiveness is the most popular, Michael Porter also introduced the national competitiveness. In fact, management looks an international business environment and how actors and factors can influence the domestic market via information.

Michael Porter model helps to analyzing why some nations are more competitive than others are, and why some industries within nations are more competitive than others. It suggests that the national home base of an organization plays an important role in shaping the extent to which it is likely to achieve advantage on a global scale. This home base provides basic factors, which support or hinder organizations from building advantages in global competition. He identifies four classes of country attributes (which he calls the National Diamond) that provide the underlying conditions or platform for the determination of the national competitive advantage of a nation such as Factor Conditions, Home Demand Conditions, Related & Supporting industries and Firm Strategy, Structure, and Rivalry while Government and Chance are two exogenous factors.

Factor Conditions: The situation in a country regarding production factors, like skilled labor, infrastructure, etc., which are relevant for competition in particular industries. Factor conditions include those factors that can be exploited by companies in a given nation. These factors can be grouped into human resources qualification level, cost of knowledge resources, capital resources, and infrastructure. They also include factors like quality of research on universities, deregulation of labor markets, or liquidity of national stock markets. Each country has its own particular set of factor conditions; hence, each country will develop those industries for which the particular set of factor conditions is optimal.

Home Demand Conditions: It describes the state of home demand for products and services produced in a country. Home demand conditions influence the shaping of particular factor conditions. They have impact on the pace and direction of innovation and product development. According to Porter, home demand is determined by three major characteristics: their mixture (the mix of customers' needs and wants), their scope and growth rate, and the mechanisms that transmit domestic preferences to foreign markets. Porter states that a country can achieve national advantages in an industry or market segment, if home demand provides clearer and earlier signals of demand trends to domestic suppliers than to foreign competitors. Generally, home markets have a much higher influence on an organization's ability to recognize customers' needs than foreign markets do.

Porter, however, focuses more on demand differences than on similarities to explain the international competitiveness of countries. According to him, it is not only the size of the home demand that matters, but also the sophistication of home country buyers. It is the composition of home demand that shapes how firms perceive, interpret and respond to buyers' needs. This forces home country firms to continually innovate and upgrade their competitive positions to meet the high standards in terms of product quality, features and service demands. More specifically, Porter (1990a, 1998a) regards the essential conditions of demand as: a home demand that anticipates and leads international demand, industry segments with a significant share of home demand, and sophisticated and demanding buyers.

Related and Supporting Industries: Related and supporting industries explain the existence or non-existence of internationally competitive supplying industries and supporting industries. One internationally successful industry may lead to advantages in other related or supporting industries. Competitive supplying industries will reinforce innovation and internationalization in industries at later stages in the value system.

Government: The government may have an influence on the four aspects mentioned above by affecting conditions for the supply of key production factors, demand conditions and competition patterns among enterprises. Its intervention can also have an impact at local, national and supranational levels. On national level, governments can (and should) consider the policies that they should follow to establish national advantage, which enable local industries to develop strong competitive positions globally. According to Porter, governments can foster such advantages by ensuring high expectation of product performance, safety or environmental standards, or by encouraging vertical co-operation between suppliers and buyers at the domestic level.

Chance: Chance means things that have little to do with particular circumstance in a nation and lie beyond the power of the firm. Fortuitous events, such as interventions, political decisions by foreign governments or wars, which are beyond the firm's control, can generate discontinuities that will influence gaining or losing a competitive position.

Grounding-Enterprise-Markets (GEM) Model: This model was developed by Tim Padmore and Hervey Gibson by improving the Porter Diamond model. Tim Padmore and Hervey Gibson classify factors that determine competitiveness in to six groups, which is resource, infrastructures, supplies and related industries, enterprise structure, strategy and rivalry, local market and external market. Such categories compose three parts that is factor pair I (or grounding), factor pair II (or enterprise) and factor pair III (or market) which includes local markets and external markets.

Factor pair I, (grounding) -includes resource and infrastructure, consists of the supply determinants which are inputs to the enterprises in the cluster in their productive process.

Resources: are natural, inherited or developed endowments available within the region. These include natural resources such as forests, mineral deposits and land, labor supply that is skilled, flexible and reasonably priced, strategic geographical location, financial capital, technology and patent.

Infrastructure: Infrastructure consists of physical structure and institutional arrangements that facilitate access to resources and support other business functions. The physical infrastructure includes roads, ports, pipelines and communication as well as intangible infrastructure such as business associations, research laboratories, training system, tax and regulatory regime, national monetary policy, financial markets, business and labor climate, and quality of life (housing, crime etc.)

Factor pair II, (or enterprise) -includes suppliers and related industries and firm structure, strategy and rivalry, refers to the structural factors of clustered enterprises which determine the productivity of a cluster.

Supplier and related industries: The cluster uses the goods and services with other enterprises within the region i.e. suppliers. Success factors include diversity, quality, cost and proficiency, as well as the quality of buyer supplier relationships. The other aspect of clustering is related with firms that use similar technology, transferable human resources, similar specialized infrastructure, or that serve common markets. Success factors include the number and quality of these related firms, and the existence of formal and informal linkages among the cluster firms.

Firm structure, strategy and rivalry: these refer to the number and scale of enterprises in a cluster, the manner of arrangement of goods production among firms, the mode of management of enterprises and the structure type of firm property right. These influence the strategy direction and the competition tactic of the whole cluster. The reasonable size of a firm and effective arrangement manner of production make the value-chain in the cluster secure and nimble, thus assuring production process to realize not only the convergence effect of cluster but also the scale effect of production. Meanwhile, the overall management level and the property right structure of enterprises in the cluster will have an impact on whether the firms succeed with an advantage of cost differentiation. It then determines the growth and competitive strategies of the cluster in markets.

Factor pair III, (market) means the demand conditions, including the end market demands, medium demands and the demands (local markets and external markets) of enterprises in a cluster.

Local market: - It refers to a market. The notion "local" can be defined as province, a region or a nation. Our preferences have been restricted to the notion of "local market" or to the domestic market itself. This is largely because of small size compared to the whole nation and the essential differences between the domestic market and the international market. Important issues in this regard are the size of the market, market share, growth and prospects, extent of local sourcing by purchasers, standards and quality expected of firms, distinctiveness of local demand, and willingness of buyers to work with the local cluster.

External Markets: In principle, regions face a more or less common set of external markets except the local market. What differentiates between regions, therefore, is the accessibility of external markets, including issues such as closeness of markets, their size and growth rate, global market share for the cluster, characteristics of end users, existing market relationships, barrier to entry, trade and export barriers.

The Resource-Based Approach (RBV): Theoretically, the central premise of RBV addresses the fundamental question of why firms are different and how firms achieve and sustain competitive advantage by deploying their resources. However, the founding idea of viewing a firm as a bundle of resources was pioneered by Penrose in 1959. Penrose argued that it is the heterogeneity, not the homogeneity, of the productive services available from its resources that give each firm its unique character. The notion of firm's resources heterogeneity is the basis of the RBV. Then broadly recognized by numerous RBV authors (Peteraf and Barney, 2003; Amit and Schoemaker, 1993; Peteraf, 1993, Mahoney and Pandian, 1992; Conner, 1991; Barney, 1991; Wernerfelt, 1984) recognize that the resource-based perspective and industrial organization tools complement each other in explaining the sources of firm performance. These authors write about the fact that a firm may reach a sustainable competitive advantage through unique resources which it holds, and these resources cannot be easily bought, transferred, or copied, and simultaneously, they add value to a firm while being rare.

The fundamental principle of the RBV is that the basis for a competitive advantage of a firm lies primarily in the application of the bundle of valuable resources at the firm's disposal (Wernerfelt, 1984). To transform a short-run competitive advantage into a sustained competitive advantage requires that these resources are heterogeneous in nature and not perfectly mobile (Barney, 1991, Peteraf, 1993). Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable without great effort (Barney, 1991). This approach emphasizes the firm's resources as the fundamental determinants of competitive advantage and performance. It adopts two assumptions in analyzing sources of competitive advantage (Barney, 1991 and Peteraf and Barney, 2003). First, this model assumes that firms within an industry (or within a strategic group) may be heterogeneous with respect to the bundle of resources that they control. Second, it assumes that resource heterogeneity may persist over time because the resources used to implement firms' strategies are not perfectly mobile across firms (i.e., some of the resources cannot be traded in factor markets and are difficult to accumulate and imitate). Resource heterogeneity (or uniqueness) is considered a necessary condition for a resource bundle to contribute to a competitive advantage. The argument goes "If all firms in a market have the same stock of resources, no strategy is available to one firm that would not also be available to all other firms in the market" (Cool, Almeida Costa and Dierickx, 2002).

According to Barney (1991), a firm resource must, in addition, be valuable, rare, and imperfectly imitable by competitors and substitutable in order to be source of a sustained competitive advantage. Peteraf (1993) presents four conditions underlying sustained competitive advantage: superior resources (heterogeneity within an industry), ex post limit to competition, imperfect resource mobility and ex ante limits to competition. The RBV has developed very interesting contributions, among others, with regard to imitation with the concepts of isolating mechanisms (Rumelt, 1984), time compression diseconomies, asset mass efficiencies, and causal ambiguity (Dierickx and Cool, 1989). Recently, much resource-based research has focused on intangible assets, which include information (Sampler, 1998), knowledge (e.g. Spender, 1996), and dynamic capabilities (Teece, Pisano and Shuen, 1997).

4.2.2. Related Studies

There are some researches that have been carried out so far linking competitiveness with economic growth and that identify factors that affect competitiveness. Asian Development Bank (2002) have empirically shown that the major determinants of the international competitiveness of Asian firms are the firm's human resource orientation, extent of technological innovation, organizational structure, government industrial policy, access to capital, as well as state of the financial market. To do so, the researcher used the dataset on eight selected country's firms during 1997-2001.

Isabel (2009) examined the competitiveness of middle-income countries. The study found out that trade and FDI generates competitiveness of a country. The study further shows that both of internal (national system of innovation, technological skills) and external factors (inward and outward FDI) are crucial for the improvement of the international competitiveness in these economies. Taras (2013) has shown that in Ukraine GDP, FDI inflow, trade balance (foreign), and export were significantly determined to some extent a countries international competitiveness. Gheorghe (2014) brought a new dimension which links foreign exchange policy with competitiveness. He revealed that competitiveness can be enhanced through fiscal devaluations.

Mayank Gupta and Harish Kumar (2017) carried a study to examine the Revealed Comparative Advantage of the exports of Rwanda. The Standard Balassa Revealed Comparative Advantage Index (BRCAI) has been used for analysis. Rwanda' RCAI in its otherwise primary exports product lines has been declining owing to increasing pressure from the supply side. The same results

have been documented from Ethiopia, Kenya and Tanzania as well. The issues are then linked to sorting out factors that determine competitiveness. Different researches have been carried out in this regard.

Researches have shown that innovation is one source of competitiveness. For instance, Reseracy (2007) carried out a study on firms in UK and concluded that product innovation had a positive impact on firm performance. The same result has been obtained from Atlay, Anafarta and Sarvan (2013) who studied the competitiveness of the automotive supplier industry in Turkey. Belderbos, Duvivier and Wynen (2010) carried out a study on innovation and export competitiveness in Flemish firms by examining the effect of innovation on export intensity and growth. They concluded that the implementation of innovations especially product innovations had a robust positive correlation with export intensity of firms. Sidek and Rosli (2013) have also revealed that innovation positively impacted the performance Small and Medium Manufacturing Enterprises in Malaysia.

Gilgeous and Gilgeous (1999) developed a framework which captured more dimensions of competitiveness in the UK manufacturing firms. The framework addresses firm level characteristics. The variables included in the framework are empowerment, management, the learning organization, commitment to quality, technology and information systems, innovation and change, customer focus and win-win relationship with suppliers. Each initiative was supported by a set of enablers which were specific activities carried out at the operations level. Using this framework, Gilgeous and Gilgeous (1999) carried a research on hotel businesses. The study identifies quality function deployment as an effective tool for implementing the hard phase and total productive maintenance and failure modes and effects analysis as effective in implementing the soft phase. Boniface (2015) revealed that the operations function of a business plays a critical role in the attainment or sustainment of a competitive advantage in the market. Waweru (2016) demonstrated that infrastructure provision is a key to competitiveness in Kenya. Aschauer (1988) investigated the relationship between aggregate productivity and stock as well as flow of government spending variables in the USA from 1945 to 1989. He therefore concluded that core infrastructure bears the highest explanatory power of productivity (competitiveness) of an economy. Bougheas et al (1999) analyses the relationship between infrastructure stock and increased specialization in European six countries over the period 1970 to 1990 and concluded that infrastructure is the most significant variable to affect competitiveness. Jehovaness (2015) found out that competitiveness of SMES in Tanzania has been hindered by investment climate impediments, inadequate innovation, poor infrastructure and high transactions cost.

4.2.3. Lesson Learnt From Literature

The literature reviewed has revealed that both macro and micro situations are very much important for competitiveness. From the macro side, the studies have shown that countries need to invest in research and development, technological advancements, attracting FDI, using sound fiscal, monetary and foreign exchange policies and invest on skilled manpower (education) in order to boost output and exports. The government needs to push reforms in industrial sector and open up the economy for private players in more industries, especially agro-processing and leather-goods. As far firms are concerned, it has been revealed that they must develop certain core capabilities that enable them be more competitive. They should involve in innovation etc.

The literature also proved that there are no one size fits all and a sort of a readymade panacea for improving a firm's competitiveness in the world rather it is determined by national demands, resources, political factors (governance) and other factors which are outside the control of firms such as chance, civil war, etc.

It also learned, from its review of the Global Competitiveness Index report, that there is no uniform mechanism of improving the competitiveness of a given country which is accounted to the variation in resources, geographical set ups, economic performance, environmental

and some other differences. Hence, ways that other countries have applied and succeeded in improving their competitiveness could not work for Ethiopia. In addition, the key insight inferred is that the economic factors and non-economic factors can potentially derive or constrain the improved competitiveness of a country. At this age and time, firm's competitiveness is much more discussed and has wider visibility than national competitiveness and increasingly corporate strategies have to be seen in a global context. Even if a business company does not plan to import or to export directly, management has to look at an international business environment, in which actions of competitors, buyers, sellers, new entrants of providers of substitutes may influence the domestic market. Information technology is reinforcing this trend.

4.3. Methods of Analysis

This section comprises the quality and quantity of the study dataset availability and describes how sufficient data were collected to construct competitiveness of Ethiopia by varies economic aspects. Through doing so, the study develops different models such as mathematical, statistical and econometrical which used to analyze the dataset. Furthermore, in this section the model specification and developments are actively involved in order to draw a logical conclusion about the dataset, and to identify the economic relationship between the study variables. The details are as follow.

4.3.1. Research Design

Panel data was collected from 2004 up to 2017 on each study variables. Thus, the panel data econometric model has been employed to establish link between competitiveness and other covariates. The panel models employed are broadly classified as the linear panel models which are estimated by the transformed ordinary least square models, and the non-linear panel Tobit random effect modals.

4.3.2. Data Collection Methods

This research is primarily based on secondary data obtained from National Bank's reports, National Survey's, and annual reports on international economic, and non- economic reports. In particular, from the Global Competitiveness and Africa Competitiveness report the researcher collects competitive rank of Ethiopia which falls between 0 and 7. It measures the competitiveness position of the counties based on their economic, political, and social out puts. Global Competitiveness Index has basically 3 indexes (that further disaggregated in to 12 and 111 pillars and sub-pillars respectively) to measure country's competitiveness.

These are the basic factor driven index (which includes institution, infrastructure, macroeconomic environment, health and primary education and market size), efficiency enhancer (the higher education and training, goods market development, labor market efficiency, financial market development and technological readiness) and innovation driven (business sophistication and innovations).

The independent variables in particular are collected from World Bank Data Bank, World Bank Development indicator, International Monetary Fund, and from the Worldwide Governance Indicators (WGI) under the study periods.

4.3.3. Model Specification

The model specification of this study relies on Shingeyuki(2005), Isabel (2009), Panayiotis (2010), Taras (2013), Georghe(2014), Dhritidyuti(2014) , and Michael (2015). From these literatures, it has been learned that economic factors (GDP per capita, net trade balance, unemployment (share of total labor), inflation and non-economic factors(rule of law, labor productivity, foreign direct investment inflow, government expenditure, infrastructure, capital, technology, electricity, control of corruption and internet outreach) are the most important variables that

affect competitiveness. The dependent variable of the study is competitiveness composite index of Ethiopia which included institutions' (private and public), domestic, and international level competitiveness.

Public institutions competitiveness is composed of property rights, ethics and corruption, undue influence, public-sector performance, and security while private institutions is composed from corporate ethics, accountability, strength of auditing and reporting standards, efficacy of corporate boards, protection of minority shareholders' interests, and strength of investor protection. In the same way, domestic competition is the composition index intensity of local competition, extent of market dominance, effectiveness of anti-monopoly policy, effect of taxation on incentives to invest, total tax rate, number of procedures required to start a business, time required to start a business, agricultural policy costs. The foreign competition variables, prevalence of trade barriers, trade tariffs, prevalence of foreign ownership, business impact of rules on FDI, burden of customs procedures and Imports as a percentage of GDP.

On top of this, the national level competitiveness response to international economy is addressed by the followings: The twelve pillars compositely create the three development stages of competitiveness such as basic pillar: Institution, infrastructure, macroeconomic stability, health and primary education, higher education & training, efficiency enhancer pillar: markets (goods, financial & labor markets, market size, technological readiness, and finally innovation and sophistication pillar: innovation & sophistications. Therefore, with the above concept of model specification and considering all possible determinants in mind, we can formulate the functional form of the dependent variables as:

Model One: Domestic Competitiveness of Ethiopia as a dependent variable $DCD_{it} = f(X_{it})$

Model Two: Foreign Competitiveness of Ethiopia as a dependent variable $FCD_{it} = f(X_{it})$

Model Three: National Level Competitiveness of Ethiopia as a dependent variable $NCD_{it} = f(X_{it})$

Model Four: Private Institution Competitiveness of Ethiopia as a dependent variable $RCD_{it} = f(X_{it})$

Model Five: Public Institution Competitiveness of Ethiopia as a dependent variable $UCD_{it} = f(X_{it})$

Where $f(X_{it})$ is the summation of all independent variables in this study. The independent variables are GDP per capita, Net Trade Balance, Unemployment, Rule of Law, Corruption Control, Foreign Direct Investment inflow, Expenditure on R&D, Infrastructure, Technological Advancement, Electricity supply, Internet outreach, Inflation, Total Government Expenditure. The equation (4.3-4.7) will be simultaneously estimated to see the competitiveness position and competitiveness determinants of Ethiopia.

4.4. Estimation Methods

The nature of the dependent and the type of data determine the type of method of estimation we use. The above dependent variables fall on intervals between 0 and 7. The panel data analysis technique is used to estimate all models simultaneously. The obvious advantages of the panel dataset are it has NT observations, give more informative data, more variability, less collinearity

among variables, more degrees of freedom and more efficiency, among variables. In view of this, the study panel models are balanced and non-linear panels with censored dependent variable (Yit). Hence, the paper employee panel Tobit random effect and transformed OLS methods of estimation. The details of the two estimators of the models are discussed turn by turn.

4.4.1. The Panel Tobit models and Estimation Methods

If the dependent variable is two sided censored for a significant fraction of the observations, parameter estimates obtained by conventional regression methods (e.g. OLS) are biased. Consistent estimates can be obtained by the method proposed by Tobin (1958). This approach is usually called Tobit model and is a special case of the more general censored regression model. Another researcher also confirms that censored dependent variable is estimated by Tobit model such as Giuseppe Bruno (2004), Greene (2008), Kleiber and Zeileis (2008, 2009), Sule Alan (2011), and the like.

We employed only panel Tobit random effect model, because according to Orme (1999) Honoré and Kyriazidou (2000), Hahn (2001), and William Greene (2002), the panel Tobit fixed effect model is biased and inconsistent estimator for the study dataset. Thus, the competitiveness composite index at each model of the study dataset for Panel Tobit random effect is:

$$COPit^* = Xit\beta + \mu_i + Vit \dots \dots \dots (4.8)$$

$$COPit = \begin{cases} a & \text{if } COPit \leq a \\ COPit^* & \text{if } a < COPit^* < b \\ b & \text{if } b \leq COPit^* \end{cases} \dots \dots \dots (4.9)$$

Where, $i=1, \dots, N$ & $t=1, \dots, T$, Yit = competitive composite index, Yit^* = censored version, μ_i = time invariant country specific effect, and Vit = the remaining disturbance, Xit = all explanatory variables listed in above equations, β = the parameter vector, a = lower limit (ll) and b = upper limit (ul). Even if there are different methods for estimating the panel Tobit RE model, but we can automatically estimate by using the STATA. And then some post estimations are test in order to validate the power for such model and increase the confidentiality to imply the policy for the stakeholders.

4.4.2. The Transformed Linear Model and Estimation Method

Alternatively, to see the relationship between the study variables, we can linearize the nonlinear panel model by using natural logarithms. And again, we have observed that across various aspects of Ethiopia there is no a single value which is exactly falling either the lower or upper limits under the study periods. Therefore, we will employ the transformed ordinary least square model comparable to the panel Tobit random effect model for estimating the dataset.

Thus, transformed model of the data is:

$$\ln COP_{it} = \ln X_{it} + \mu_i$$

The generalized least square can be estimated for distributional parameters through log-logistic distributions. Moreover, after all, other post estimations are diagnosed in order to control the misleading inferences of the estimations.

Definition of Variables

Competitiveness: is proxy by competitiveness composite indices, which is the dependent variable obtained from varies variables, and which is falling between 0 and 7(WEF,2017).

GDP per capita (PPP): PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates (WB,2016).

Net Trade Balance: is derived by offsetting imports of goods and services against exports of goods and services(WB,2016).

Unemployment (% total labor): refers to the share of the labor force that is without work but available for and seeking employment, and the person wants to have a job and is willing to work at the current market wage rate(WB,2016).

Rule of Law Index: governance effectiveness which is proxied by the estimate of Rule of Law (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performances) (WGI,2016).

Corruption Control: capture perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as capture of the state by elites and private interests. It is ranging from -2.5 to 2.5(WGI,2016).

Foreign Direct Investment: is an investment in the form of a controlling ownership in a business in country by an entity based in another country. It is proxy by 100 million thousands of USD(WB,2016).

Expenditure on R&D: Proxy by companies spending on R&D, 0-7 (best)(WEF,2017)

Infrastructure: Infrastructure consists of physical structure and institutional arrangements that facilitate access to resources and support other business functions. It is proxy by 0 the poor infrastructure to 7 is the best one (WEF,2017).

Technology: is sum of techniques, skills, methods, and processes used in the production of goods and services which is proxies by availabilities of latest technologies as 0 to 7 (WEF, 2017).

Electricity Supply: provide for a certain electric power to be able to meet the power demand with a sufficient margin of safety. It is measured by the quality of electricity supply with 0 to 7(WEF, 2017).

Internet outreach: an effort to bring services or information to people where they are live or spend on time. It is proxy by the accesses of internet from 0 to 7(WEF, 2017).

Inflation: the rate at which the average price level of a basket of selected goods and services in an economy increases over a period of time. It is measured by consumer price index (IMF, 2017).

Government Expenditure: the purchase of goods and services which includes public consumption public investment, and transfer payments consisting of income transfers (pensions, social benefits) and capital transfer. It is measured by billions of USD (WB, 2016).

4.5. Review of Ethiopian competition policy, laws and regulations

4.5.1. Legal Framework for Competition in Ethiopia

The competition laws comply with standard principles such as the prohibition of anti-competitive agreements (both of a horizontal and vertical nature); the prevention of abuse of dominant positions (or monopolization); and regulation of mergers and acquisitions; and enforcement of the law by an independent competition authority. When we see Ethiopia's context in terms of the above listed standards, various regulation, laws and policies that support the competitiveness

of the economy were designed and implemented. This section examines their impact on competitiveness of the economy and the market structure that it develops in main sub sectors of the economy.

The major objective of trade practices proclamation (No. 329/2003) was to secure a fair competitive process and safeguarding the interests of consumers, impeding anti-competitive practices and stopping market monopoly behavior and/or agreements, and monopolization. It further proscribed infringements of property right of individual firms and of trade policy which implied intellectual property rights (IPRS). However, this proclamation had gaps such as it did not provide for the control of mergers and acquisitions and did not provide clear definition for dominance; Specific IPRS such as copy right, design, patent and trademarks were not covered; competition advocacy were also not dealt with; and It was also criticized for its inadequacy and absence of truly independent and strong competition commission and a competition tribunal (Harka Haroye,2005).

To fill the gaps of the above proclamation, trade practice and consumers protection proclamation (No.813/2010) was put in to practice in 2010. This proclamation is highly oriented towards harmonizing commercial activities with free market economic policy; Protecting the business community from anti- competitive and unfair market practices, and also consumers from misleading market conducts, safeness and wellbeing; and to establish a system that is conducive for the promotion of competitive market. The basic addendum of this proclamation is that it dealt with consumer protection comprehensively for the first time in Ethiopia.

The Trade Competition and Consumers Protection Proclamation (No. 813/2013), which is the current competition legislation in Ethiopia, came into force on 21 March 2014. The Proclamation's preamble is explanatory on its intentions, it includes; regulation of commercial practices, protection of businesses from anti-competitive practices and consumers from misleading market conducts, ensuring quality, safe and fair prices for goods and services offered to consumers and provides an institutional framework for the enforcement of the law.

The basic elements of this proclamation are Prohibition of Anti-Competitive Trade practices and regulation of mergers; protection of consumers and distribution of goods and services; trade competition and consumer protection authority, federal trade competition and consumers protection appellate tribunal and regional consumers protection judicial organs and appellate tribunals; and conducting investigations, institution of action and adjudication.

4.6. Policies and Strategies that Support Competitiveness in Ethiopia

The industrial policy has two basic dimensions of divergence and convergence in terms of its relation with the competition policy. The convergences aspect of industrial policy is product market intervention aimed at promoting competition; while, the divergences are that industrial policy promotes specific industries or sectors, with the creation and promotion of national champions being the key element of that policy. Therefore, the expose of the protected firms for both internal and external competition will enable to mitigate the divergence effect on competition of industrial policy.

In line with this, Ethiopia has designed its industrial development policy and strategy (IDS) since 2002 which is regarded as the country's first ever comprehensive industrial development strategy. It has a principle of market oriented guiding policy/vision and it is private led but strong state. Domestic private sector is envisaged to be key player; and ownership structure is proposed to be dominance of domestic private owned enterprise. The target industries in this strategy are export oriented and labor-intensive industries (e.g. Textile, leather, agro-processing,

cement etc...). The main crafted policy instruments are direct support for selected export sectors through capacity building and other means; provision of economic incentives and preferential credit scheme; and cluster development.

The primarily focus on the promotion of agricultural-led industrialization, export development, and expansion of labor-intensive industries. The government of Ethiopia has given the industrial sector in general and manufacturing sector in particular prime emphasis in its various development plans namely the 'Plan for Accelerated and Sustained Development to End Poverty I and II (PASDEP I & II)' and the 'Growth and Transformation Plan I and II (GTP I and II)'. On these plans, the enhancement of the productivity and competitiveness of the economy in the export sector has been the main pillar.

Ethiopia's Industrial Policy and Competition Policy are mutually supportive, and not in a conflict with one another. It facilitates the entry of new players in the market, thereby increasing competition, and reducing the levels of market concentration, provision of general economic incentives and capacity building across the prioritized industries and sectors that do not distort the level playing field for competitors in the industries and sectors. The instruments used also do not grant exemptions from the country's competition law, or create regulatory barriers to competition.

When we see the trade policy, its basic tenet is to impose trade barriers to protect strategic import substitution industries; and comprises rules, regulations, and instruments to promote export competitiveness, growth and development. These basic instruments are embedded on National Defense Theory, Infant Industry Theory and Anti-Dumping Theory. One of the main disadvantages of trade policy is reduced competition; and escalations of trade protectionism leading to lower economic efficiency and competition on a global scale.

Ethiopia does not have a comprehensive trade policy which was systematically linked to sectorial policies and strategies. Trade policies are more or else fiscal in nature and are much digressed from incentivizing the best performers. They are holistically applied. These trade policies include 10.3 percent average import tariff rate; export incentives through the provision of tax holidays etc. The country is now currently a member of international and regional trade agreements such as COMESA; African Economic Community (AEC); the African, Caribbean and Pacific (ACP) group of countries; (AGOA). Furthermore, a broad range of manufactured goods from Ethiopia are entitled to preferential access under the Generalized System of Preferences (GSP) in the United States, most countries of the European Union and other developed countries.

However, the implemented trade policies did not bring about the desired export sector competitiveness. For example, in 2015, the share of firms with positive level of export was only 7 % (CSA, 2017). One of the reasons for this poor export participation in Ethiopia is more lucrative and attractive domestic market than exporting due to price incentives created in the domestic market caused by trade and non-trade barriers. For instance, as presented in the below table, in Ethiopia simple average duty rate for raw materials is 14.85 %, 23.95% and 17.49% for raw materials, consumer goods and WTO HS industrial goods, respectively, which shows the rate is by far exceeds another regions average.

Table 4.1: Comparison of Ethiopian Duty Rate with Other Regions

	Simple Average Duty rate				Weighted Average duty rate			
	Ethiopia	All	LDCs	SSA	Ethiopia	All	LDCs	SSA
Raw materials	14.85	4.53	10.92	7.76	9.89	1.72	7.87	1.85

	Simple Average Duty rate				Weighted Average duty rate			
	Ethiopia	All	LDCs	SSA	Ethiopia	All	LDCs	SSA
Consumer goods	23.95	7.69	16.03	15	15.42	3.9	12.23	10.55
Industrial	17.49	5.3	11.2	9.89	12.88	2.24	10.53	6.71

Source: PDC, 2018

It also witnesses that the overall trade protection is very large when considering tariff and non-tariff barriers. These factors push the overall anti-export bias to reach about 200% (textile and apparel) and 350% (leather and footwear) (Gebreyesus and Kebede, (2017)).

One of the policies that developing countries use to promote competition is luring FDI. In this regard, the investment policy of Ethiopia promotes FDI and includes incentives to it. The policy is composed from legal, regulatory and institutional framework. It seems competition friendly without discriminating foreign and domestic investors although there are positive fiscal lists for FDI participation.

In the fiscal arena, there are customs duty exemption on imported capital goods, construction materials, and spare parts which worth up to 15% of the value of imported capital goods; there is also income tax exemption (2 to 9 years); Loss carry forward (for half of income tax exemption period). The incentive policy does not discriminate between domestic and foreign investors though there are positive lists for FDI participation. Such incentives are entertained by investors engaged in manufacturing investment such as textiles and garments / Apparel and leather and leather products, agricultural investment opportunities such as agro-processing and agricultural opportunities e.g. Rubber tree, sugarcane, horticulture Floriculture, Fiber crops: cotton, jutes, etc. and Cattle raising & dairy development and other investment opportunities such as mining and tourism.

The FDI inflow (current US\$ billions) in to the country reached 1 billion in 2010 from 0.2 in 2005, and it reached 1.5 in 2014 and reached 4.6 in 2017/18. While in Kenya FDI in 2007 was 729 million in 2010 it reached 1.2 billion, in 2014 it declined to 520 million, and 2018 it reached 1.6 billion. (<https://www.ceicdata.com/en/indicator/kenya/foreign-direct-investment>). On the other hand, FDI as a Share of GDP reached 4% in 2009 from 2.6% in 2007, declined to 0.97% in 2015, and raised to 1.6% in 2018; in Ethiopia it reached 4.9 % in 2017 from 1.1%; and declined to 3.9% in 2018 <https://knoema.com/atlas/Ethiopia/topics/Economy/Balance-of-Payments-Capital-and-financial-account/Net-FDI-inflows-percent-of-GDP>).

Good procurement policy promotes efficiency (Robert D. Anderson, William E. Kovacic, and Anna Caroline Müller). In line with this, transparency, accountability, objectivity, fairness and non-discrimination are basic principles of the procurement policy of Ethiopia which encourages competitiveness of the economy both domestically and internationally. The Proclamation No. 649/2009, in its preamble states the following objectives to ensure greater economy and efficiency; benefit and efficiency from bulk purchase; to utilize public money efficiently to derive maximum profit.

The proclamation also designs institutional arrangements and a manual to handle complains and to effective implementation of the proclamation a public procurement manual was prepared in 2008 that was revised in 2011.

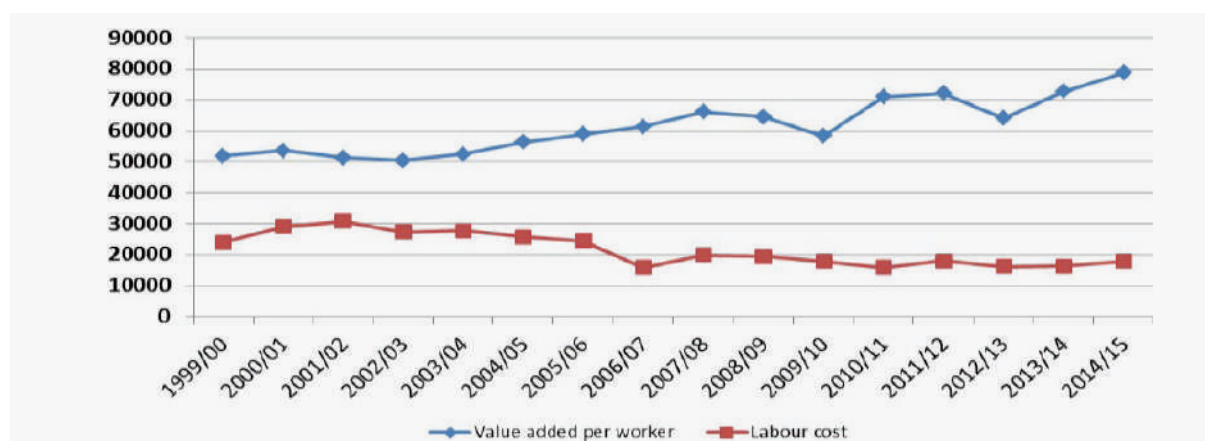
The competitiveness of the private sector depends on the availability of skilled manpower. The labor law defines minimum conditions of work that must be observed by parties to an

employment contract. The policy aiming at protecting workers from rent extraction of employers such as prohibiting discrimination in the labor market, empowering labor unions. The issued labor law of Ethiopia has a basic objective of maintaining industrial peace, and work in as spirit of harmony and cooperation. The labor law is consistent with the investment policy of the country such that Foreign investors should obtain work permits for their expatriate employees directly from the EIC during the Implementation Phase of the project. The government has strategic intervention to ensure linkage between economic growth and employment.

Wages and salaries vary depending on the size of the enterprise, type of profession and level of skills required. They are determined by agreement between the employer and the employee. Generally, the cost of labor in Ethiopia is low by African standards. Labor disputes in Ethiopia are resolved through the application of the law, collective agreements, work rules and employment contracts.

Studies on the impact of Ethiopian labor laws on business efficiency and competitiveness indicated that Ethiopian workers had been overprotected by strict labor laws that impeded industrial growth and employment creation, and that labor legislations stipulated minimum benefits that accrued to workers and restricted the rights of hiring and firing, thereby raising labor costs and affecting productivity and competitiveness. For instance, looking at the manufacturing sector as a whole, Labor Productivity (LP) grew in real terms by 3.3% per annum over the period 2001/02 to 2010/11; average labor compensation increased at a rate of 15.7% per annum over the same period. Although both average labor compensation and LP have shown an increasing trend, the former grew faster than the latter. Unit labor cost, an indicator of competitiveness, increased from 0.15 in 2001/02 to 0.22 in 2010/11, at annual average rate of 5.4%. This indicates a discouraging performance of the manufacturing sector in terms of labor cost competitiveness.

Figure 4.1: Labor Productivity and Cost Trends in Ethiopia



Source: Kidanemariam, 2017

Trends in labor productivity and labor cost presented in the above table shows that labor productivity grew up until 2007/08 beyond which there appears to be a fluctuating trend; and labor cost per worker has fallen broadly beyond 2001/02 and then it starts to raise 2013/14 (Kidane-mariam, 2017).

The National Science, Technology and Innovation Policy stress the need for scaling up endogenous knowledge and linkage between firms in the economy. The policy clearly put the milestones on research expenditure, number of researchers and patents, utility models and technology licenses granted, and number of publications between 2010 and 2025.

Regarding Infrastructure and Logistics Support Policy, an efficient infrastructure and logistics system is needed for reducing transaction costs for its enterprises relative to those of their competitors in other economies. The Ethiopian Infrastructure and logistic policy direction encompass providing supports and services for all sectors in trade facilitation, transportation, storage and logistics information systems; water, energy and telecommunication facilities as well as dedicated and selective infrastructure support given to particular initiatives involving clusters, industrial districts and R&D facilities. Competitiveness and the development of productive capacities in developing countries may be supported by infrastructure and logistics support policies.

It is highly believed that competition policy and environmental policies have interdependency in that Competition policies contribute to the environmental goals of sustainable development, and environmental policy provides instruments that enhance the firms' capabilities to compete internationally as well as safeguard productive capabilities and competitiveness achievements from environmental risks.

The overall goal of the environment policy of Ethiopia is to improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. It however lacks instruments to promote environmentally friendly mode of production and provide appropriate certificate for such means of production.

4.7. The Impact of Domestic Policies and Strategies on Competitiveness

The average growth rate of industrial production over the period 2010/11-17/18 was 21.5%, far exceeding the respective figures for agricultural and service sectors. The construction sector has been a major contributor. Despite rapid growth, however, the manufacturing share still remains at 5-6% of overall GDP and, as such, the contribution of manufacturing to GDP growth is rather small. Although the government of Ethiopia has been trying to promote a number of priority sectors like Agro-processing, Textiles/Apparel, Leather/Footwear, Chemicals/Pharmaceuticals and Metal Products, these sectors have not been able to gain higher shares in production, value addition, capital formation, or employment at all. There exists no clear tendency of any sectoral shift towards high value-added industries within manufacturing (Siwook Lee, 2019).

The expansion of manufacturing has been mainly driven by LMSM, with one clear exception of the year 2016/17, the growth rates of value-added for LMSM and SSCI were 18.8% and 9.8% per annum during the GTP I & II era, respectively. As a result, the proportion of value added from LMSM among total manufacturing has gradually increased, from 57.8% in 2010/11 to 66.4% in 2017/18 (Siwook Lee, 2019).

Another characteristic of recent manufacturing growth is that the importance of private firms' activities relative to public enterprises within LMSM has steadily increased over the last decade. And most recent investments in new capital formation have originated from private firms. Private firms account now for 96.3% of the total number of establishments, 79.2% of value addition, and 88.9% of total employment within LMSM in 2016/17. During the GTP I& II periods, exports and imports grew by 0.5% and 9.2% per annum respectively. On the other hand, the Ethiopian export structure did not change much. Other than Leather/Footwear and Textiles/Apparel, export intensities for most manufacturing sub-sectors still remain less than 2%. Overall export performance is well below the quantitative target set by the GTP programs. As import growth outweighed export growth, trade deficit has steadily deteriorated from 6.3 billion US dollars in

2010/11 to 12.4 billion in 2017/18. However, since its domestic market is still under- developed, Ethiopia should definitely explore the vast opportunities presented by foreign markets and, to that end, strive to promote export activities. This indicates that the Ethiopian manufacturing sector is not competitive enough.

One of the reasons for less competitiveness is associated with high share of imported materials among total raw material costs in all sectors except agro-processing and non-metallic Products. Consequently, the ratios of value added to production for manufacturing remain at a low level. Growth Accounting Analysis results have also shown that Tobacco, Apparel, Leather/Footwear and Wood products are TFP- driven growth sectors. But the majority of the priority sectors notably Food/Beverages, Textiles, and Chemicals, are either labor-driven or capital-driven. Furthermore, the TFP contribution in these sectors is quite low relative to other sectors, which definitely hampers expansion of those priority sectors. Therefore, more systematic and effective policy initiatives to improve TFP in these sectors should be prepared and implemented in coming years.

4.8. The Status of the overall Economy Competitiveness of Ethiopia

According to the WEF (2017), Ethiopia is ranked 109 out of 144 countries in 2016 in its overall competitiveness. From 2012 to 2016 the GCI increased slightly from 3.6 to 3.8, showing not this much significant change. Accordingly, the recent improvement in Ethiopia 's global competitiveness ranking is mainly due to improvements in its relative institutional and macroeconomic environment and gains in labor market efficiency, innovation, and market size. It also scored below the African average on capacity utilization in manufacturing production, export diversification, labor productivity and technological upgrading.

The main identified challenges of competitiveness in the economy can be categorized as institutional, innovation and technology, infrastructural and human capital, supply chain factors etc. Among the institutional factors, poor public service delivery due to excessive bureaucracy, limited capacity, poor work discipline of the workforce, inadequate technical capacity, attrition of experienced staff, the instable security, limited technical capacity to fully support, regulate and administer the productive sector, failure of contractual agreements. Vis-a-vis innovation and technology; weak innovative capacity limited innovation and product diversification due to little investment in R&D, weak linkage with universities and research institutions, obsolescence of machinery and equipment used in the production process are the major constraints.

Unfair competition within market, and malpractices of actors in the economy, and poor labor productivity also deteriorated competitive and productivity nature of the economy. Related to financial support, limited access to credit and lack of foreign currency has also been a huge obstacle to enhance Competitiveness. Infrastructural and human capital related factors such as frequent power breakage, high inland and outbound transport cost, lack of support industries high tariff rates are deterring manufacturers from backward integration benefits of GVCs links; and supply chain factors such as shortage of quality raw materials; and acute shortage of reliable input suppliers and support industries, poor vertical integration impeded the competitiveness capacity of the economy in general and the manufacturing sector in particular.

Despite the economy is circumscribed by all these challenges of competitiveness, the country has untapped potential that can be used as fertilizer of competitiveness. To mention these, abundant and inexpensive workforce, natural resources, and closeness to global markets and growing domestic demand for manufactures; government's commitment towards productivity and competitiveness in the economy in form of investment on human resource, infrastructure and Industrial Parks, incentives provision, and cheap utility services, growing construction and power industry, and existence of high demand in the world market for raw and intermediate

commodities; Different types of fiscal incentives for private investment including Remittances of Profit and dividends; raw material endowment, untapped market, conducive investment environment and population growth with increased income and urbanization could be regarded as huge potentials.

However, to harness these potentials, the country is needed to make significant improvement in the following areas. Investment on human capital, infrastructure and industrial parks, law enforcement capacity and incentive provisions, exercise industry and export disciplines both public and private, domestic market protection, technology transfer, efficient public services, more incentives and human capital investment, infrastructure and health and primary education, easy credit access for working capital and for buying the necessary technology and to allocate its own budget for research and development.

4.9. The Impact of Policies on Competitiveness

Ricardian comparative advantage would entail that countries export when their levels of productivity are higher than their peers or competitors. Countries will export goods where output per worker (i.e. productivity) is higher. There is positive correlation between output per worker and value/volume and type of exports (competitiveness of the economy). The literature on productivity mainly identifies several important factors that influence both the levels and growth of labor productivity in any economy: Capital accumulation or deepening or the use of more capital per worker; Labour quality and Management practices/Managerial capital and Total factor (multifactor) productivity are among the important ones (PDC, 2018).

When Ethiopia is compared with its neighboring and compatriot countries in terms of labor productivity, it lags behind. For instance, manufacturing, value added per worker (Constant 2010 US\$) of selected countries, in Ethiopia it progresses from 530 to 935 in 2013, while in Bangladesh it reached 2610, in Kenya it reached 8488, it reached 2748 in Vietnam all performing better than Ethiopia. In terms of export of goods and services as a share of GDP was 12.5 in Ethiopia, 19.9 in Kenya, 83.6 in Vietnam and 19.5 in Bangladesh (PDC, 2018).

Trend of labor productivity gap between Ethiopia and selected developing countries have been compared. Taking Kenyan the aggregate productivity index as a base in 2000, it is observed that the aggregate labor productivity differentials between Vietnam and Kenya converged in 2016, and between Kenya and Bangladesh is very narrowed; whereas that of Ethiopia and SSA low income countries when compared with Kenya remained constant in the last 17 years between 2000 and 2016 (PDC,2018). This entails that Ethiopia's competitiveness has not been improving across years. The possible reason for such low level of labor productivity is lack of complementary investments and low level of investment efficiency.

Despite a considerable public investment in recent years, however, Ethiopia remains at low levels in productivity due to use of rudimentary capital and technology; low quality of labor that is witnessed by Ethiopia ranked 172 out of 189 countries in terms of Human Development Index (World Bank, 2016); and weak innovation, research and development. The innovation by firms in Ethiopia is weak compared to other competitor countries. The share of firms who do innovate in Ethiopia is around half of the share of the firms that do in China and Kenya and also lags far behind even from the average of Low-Income Countries (PDC, 2018).

To sum up, Ethiopia's productivity is low even by developing countries' standard. Recently productivity seems to be improving particularly in the industrial sector. On aggregate, productivity grew at 6.5% per year between 2005 and 2017. The productivity gap with benchmarked developing countries does not seem to be narrowing down over time. Agriculture is a major productivity drag; it will take several years for Ethiopia to reach to the productivity

levels of Kenya and other countries. Without improving productivity, export promotion policies to enhance competitiveness will not yield a good return. Regulatory and promotion policies may not be effective unless accompanied by strategies to help firms become more productive.

4.10. The Impact of Trade Logistics Performance on Competitiveness

Effective trade logistics sector is recognized as one of the core enablers of development; instrumental for export competitiveness; enhances competitiveness by allowing countries to trade goods and services on a timely basis with lower transaction costs; and attracting export-oriented FDI. Ethiopia's industrial policy is largely export oriented; however, this export-oriented growth model is being impaired by Ethiopia's highly inefficient logistics system. Regarding Measurement of Trade Logistics and Efficiency; The WB and UNCTAD commonly use Transit Time (days), and Transit Cost (USD) as a basic unit. Time to export is the time necessary to comply with all procedures required to export goods. Transit Cost (USD) includes all the fees associated with completing the procedures to export the goods. These include costs for documents, administrative fees for customs clearance and technical control; customs broker fees, terminal handling charges and inland transport. Ethiopia's export transit time is about 42 days, which is much higher compared to even its landlocked comparator countries such as Rwanda and Uganda. The time it takes to export is about twice as long for Ethiopia as it is for China, Vietnam, and Kenya.

In addition, Ethiopia's cost to export a 20-foot container is 2660 USD; this means that Ethiopia pays an additional cost of 310 USD per 20-foot container compared to Kenya and 2060 USD compared to Vietnam. The impact is lower competitiveness for Ethiopia in the global market. The high inland transport cost in Ethiopia is explained by variables such as distance to port; inefficiency characterized by lack of capacity & competitive behavior of transporters & operators, and waiting for supporting processes; and scale effect – lack of container freight stations. The high cost of export is driven by document processing that exporters in Ethiopia are expected to process more than 8 documents. In other countries such as Vietnam, number of documents range from 3 to 5. Lack of risk management inspection and control are mostly done manually, lack of automation/ICT and system is usually unreliable and down; and port fees, such that port costs in Djibouti are high compared to competing export locations in South and East Asia.

In general, the key constraints for the development of competitiveness in trade logistics sector are coordination problem resulted from the involvement of many uncoordinated agencies in the provision of trade logistics services; Customs processes that is slow customs and technical control clearance due to burdensome inspections procedures; Shortage and low capacity of trucks; Competition Problem explained by Low efficiency and monopoly in the provision of multimodal transport service; and Bureaucratic Red-tape where Many of the institutions involved in the export trade bureaucracy lack professionalism and are involved in corruption (PDC,2018).

4.11. Descriptive and Econometric Results

4.11.1. Descriptive Statistics

The descriptive statistics of main variables have been depicted in Table 5.1(in the appendix). The result has shown that the overall mean value of Ethiopian competitiveness by competitiveness entities such as domestic, foreign, private institution, public institution and national level of Ethiopian competitiveness is 3.67 with at 0.38 standard deviations and with 2.15 and 4.5 maximum and minimum values, respectively in the study period. In particular, in the study period the mean value of the domestic, foreign, national level, private institution, and public institution competitiveness of Ethiopia during the study period is 3.78, 3.53, 3.44, 3.83 and

3.75, respectively. Thus, the development stage of Ethiopia is efficiency enhancer, implying that Ethiopia did comparatively well in different markets efficiency. In contrast, the minimum value tells us Ethiopia scored very low competition position while the maximum value confirms us the country was improved its competitiveness position during 2004 to 2017.

The competitiveness of Ethiopia by various competitiveness aspects such as domestic, foreign, private institution, public institution and the whole country level competitiveness display inconsistency across the study period. This is due to economic factors such as low GDP per capita, youth demography and productive unemployment, unhealthy trade balance and the like and non-economic factors such as corrupted institution, weak governance. Moreover, from the graph, domestic competitiveness of Ethiopia shows continuous pattern i.e. increasing from 2004-2008 whereas decreasing 2009-2017. The level competitiveness of Ethiopia at the domestic level indicates a sharp corner and incremental improvements. Foreign competitiveness of Ethiopia, on the contrary, shows wave like changes. Both private and public institutional competitiveness are confirmed a descent directions.

The efficiency enhancers' stages of development compromises higher education and training, goods markets, financial market, labor markets, market size and technological readiness. In Africa, Ethiopia included whereby domestic markets are too small and fragmented, achieving the economies of scale is necessary to boost international competitiveness. The result also indicates that Ethiopia is positioned in efficiency enhancers and its competitiveness could improve if, among others, there is increased investment in institution of higher education's and training centers and improving the university-inudstry linkage to create competent manpower for the domestic and international market. The mean values of other auxiliary variables have been featured in the appendix.

i. The Panel Models Econometric Results

The panel model of the study is functionally structured in to two i.e. the linear and non-linear panel models, and the corresponding econometric result of the models is estimate by panel Tobit random effects and by transformed ordinary least square method respectively. The details of each panel model econometric results are presented below.

ii. The Random-Effects Tobit Regression Results

As justified in the model specification of the study, the panel Tobit fixed effect model is biased and inconsistent estimator for the study dataset. Therefore, in non-linear panel dataset models, only the details of panel Tobit Random effect regression result is discussed. The details of random effect Tobit regression results on the transformed dataset of the study variables are presented in Appendix-I. The value of the Log likelihood, which is the log likelihood of the fitted model is -13. 436215. The combined layout Prob> chi2 is also the components of the displayed results of random effect panel Tobit model with values equal to 0.0000. These results have entailed that overall significance of the model is robust.

The results have shown that GDP per capita, net trade balance, unemployment, rule of law, corruption control, foreign direct investment inflow, infrastructure, internet outreach and consumer price index (Inflation) are statistically significant in panel Tobit random effect model. On the contrary, expenditure on R&D, electricity supply and government expenditure are statistically insignificant. Therefore, the competitiveness position of Ethiopian is potentially determined by significant variable and modeled by:

$$cop = 0.7763745gap - 0.0002911trb - 5.868646uem + 31.16514rol - 27.11524cor - 0.2191881fdi + 5.330654ifr + 1.296129ino - 0.1206234cpi + \epsilon_i$$

..... (4.1)

In panel Tobit random effect model result the variables which have a negative coefficient imply that they are constraints in the improved competitiveness of Ethiopia while the positives are the improved competitiveness producers. From (4.1) we have observed that GDP per capita, trade balance, unemployment, corruption control, foreign direct investment inflow and inflation are potentially constrained while rule of law, infrastructure and internet outreach can potentially derive the competitiveness positions of Ethiopia.

iii. The Transformed Panel Model Econometric Results

The overall significance of the model has shown that the model is robust enough. The value of variances of composite competitiveness index of Ethiopia explained by the predictor variables of the study is 81.54 % which rectified that the model is good to fit the study dataset of Ethiopia under the study periods (see annex-II & III). The result in GLS model of the dataset (see annex III) revealed that GDP per capita, trade balance unemployment rule of law, expenditure on R&D, infrastructure and internet outreach are positively significant while corruption, foreign direct investment inflow, technology, electricity supply and government expenditure are negatively significantly. Thus, therefore the composite competitiveness indices model of Ethiopia estimated by the transformed panel model is:

$$\begin{aligned} cop = & 1.078575 gap - 4.950106 trb - 45.73114 uem + 31.20041rol - 52.49159 cor + \\ & 5.977045 fdi + 7.086398 erd + 18.13841 ifr + 32.26672tea + 64.26 ele + 2.005922ino - \\ & 3.567053 cpi + \epsilon_i \end{aligned} \quad \dots\dots\dots (4.2)$$

From equation (4.2) the variables which has a negative coefficient is strongly constrain while the variables which has a positive coefficient in the model is the potential driver of Ethiopian competitiveness.

iv. Model Selection

Of the two panel models' researchers did not put clear literature on which method must be chosen. Some prefer Panel Tobit; others use transformed panel linear OLS model. From the two regression results (annex-I & III), we have observed that almost all variables have exactly opposite sign of coefficient. Hence, in this study the transformed panel linear regression model estimated by OLS result on the study dataset is better and in line with the facts than the panel Tobit RE model. Porter (1990), Barney, J. (1991),

A.J. Smit (2010), Zerayehu (2014), Taras (2015), (ECA,2016), WEF (2017), Abel (2018) and Sendeku (2018) have shown its superior quality. In this paper, the generalized or transformed ordinary least square econometric model was selected for the discussion of the study variables for their economic and non- economic relationship on the improved competitiveness of Ethiopia.

4.11.2. Econometric Result and Discussions

The economic analysis was conducted based on the transformed panel linear model of the study as justified so far. In the result, the negative coefficient indicates that the international competitiveness of Ethiopia was protracted by that amounts (take the magnitude of the coefficients) of the corresponding independent variable. In the contrary, the positive sign indicates that the corresponding variable enhances the competitiveness of Ethiopia by the magnitudes of the respective coefficient. The variables discussed here are only significant variables.

Different literatures have shown that different macroeconomic variables have their own impact on competitiveness of different countries. In Ethiopian context, the results of the regression have shown that a one percent increase in GDP per capita leads to a 1.08% increase in the competitiveness status of Ethiopia. This is because of the two macroeconomic variables namely

GDP per capita and balance of payment ameliorate the economy's export and import capacity which is strongly linked with the country's level of integration. In the same token, a one percent increase in unhealthy and non-improved trade balance decrease competitiveness by -4.95%. This is because of Ethiopia is net importer. On the other hand, a one percent decreases in the level of youth and productive labor decrease by -45.73% in international competitiveness of Ethiopia.

Institutional factors and provision of infrastructure that promote connectivity are the other important factors that influence competitiveness. It has the same economic result as the study done by Bougheas *et al* (1999) and Michael Njoro (2016). For instance, the result revealed that a one percent decrease in the rule of law of Ethiopia can derive improved competitiveness by 31.20%. On the same trend, a one percent increase in the provision of infrastructure induces an 18.14% improvement in the level of competitiveness. Technological advancement and the fastest adoption have a great role in competitiveness. For instance a one percent increase in technological advancement there is 32.26 % improvement in Ethiopian competitiveness. The experiences of developed and emerging economies have revealed that expenditure on Research and Development has played key role to bring global competitiveness. The result of the regression has also shown that a one percent increase in the expenditure on R&D induces a 7.09% improvement on competitiveness. On top this; internet connectivity facilitates global integration and competitiveness. The regression result has shown that when there is a one percent increase in internet connectivity, there is a 2.01% improvement in competitiveness.

The results of the regression have revealed that Foreign Direct Investment (Infdi) is positively significantly determining the competitiveness of Ethiopia during the study periods. The result has shown that a one percent increase in the foreign direct investment in Ethiopia leads to 5.98% improvement in competitiveness. Astoundingly, reducing corruption negatively impacted competitiveness. The result disclosed that a one percent decrease in the corruption control in Ethiopia can lead to -52.49% constraints in competitiveness. The result has also revealed that electricity supply able to foster competitiveness in Ethiopia. That is associated to issue of equity. In this regard, the result has shown that a one percent increase in the electricity supply within the Ethiopia can lead to 64.26% derive improved competitiveness of Ethiopia during the study periods. By providing an optimal electric power to be able to meet the power demand with a sufficient margin of safety the country can improved their firms, industries, institutional, domestic and international competitiveness. The other issue related to competitiveness is the nature of expenditure of government and its extent of complementarities to the private sector. Inflation has a great role in the determination of competitiveness in the globe. In particular, the result confirmed that a one percent decrease in inflation leads to -3.57% in improving competitiveness.

According to the major findings , if the stakeholders ought to become institutionally(private and public), domestically and internationally (national level and foreign) competitive they should be improve trade balance by changing the trade patterns, lowering the rate of youth and productive labor, effectively control corruption, more spending on R&D, create safe investment climate, accessible internet services , qualified infrastructure , standard level of GDP per capita , advanced technology, equitable power supply, non-variable inflation , and popularly accepted rule of law.

4.11.3. Qualitative Analysis

Two senior economists who have extensive years of experience of Development Economics have been interviewed. The first question was to evaluate the status of the private sector of Ethiopia. Both of them agreed that the Ethiopian private sector is feeble and are not that much strong enough to be competitive. They asserted that the private sector is not even as competitive as Kenyan firms. They have mentioned multiple reasons that cause.

The following are the point addressed by the key informant interviews:

Poor institutions

- Policy inconsistency: the country has practiced different economic policies.
- Skill labor mismatch: the required skills by the private sector and the actual labor force are not compatible.
- Low quality and accessibility of infrastructure.
- Lack of performance driven incentive system
- Weak domestic sectoral linkage
- Inadequate Foreign exchange reserves
- Poor coordination between government and private sectors
- Lack of development oriented economic plan
- Low synergy between local and foreign firms
- Low quality of production
- Lengthy investment procedures

Actions proposed by Experts

- Improving the investment climate of the country.
- Establishing incentive that promotes competitiveness.
- Linking the education sector with the skill requirement of the private sector.
- Integrated sector planning which promotes sectoral linkages.
- Promoting saving so that financial bottle necks could be broken.
- Assessing sector by sector competitiveness and sorting sector wise bottlenecks.
- Prioritizing the provision of power and other accelerators to the real sectors

4.12. Country Experience and Lesson Drawn

i. Korean and Singapore Experience

Singapore and Korea are the two most successful countries which have achieved fast and sustainable economic and have attained global competitiveness. For instance, Singapore is the only Asian nation in the Top 5 of world competitiveness. It has maintained a high average rank of 2.4 in both basic requirements and efficiency enhances.

It tops in business impact on rules on foreign direct investment and ease of customs procedures. It is one of the countries that has attracted foreign investment and encouraged international trade. Singapore tops in five indicators namely public trust of politicians, efficiency in providing goods and services, ease of doing business, efficient legal framework in settling disputes and transparency of government policy making. Singapore is number 1 in rewarding pay according to productivity. Singapore today is the only first world status nation in South East Asia and nearly one in every six households has more than \$1 million in assets, making it the densest population of wealthy households in the world. The policies that these countries have used to achieve competitiveness could be used as platform to learn from it.

The plans and policies in both countries concentrate on the supply side of the economy particularly on the economic growth by strengthening the long-term productivity and competitiveness of the economy. In the initial phase of development in both economies, the guiding principles were utilizing comparative and competitive advantages through export-oriented labor-intensive industrialization strategy. In order to strengthen competitiveness, there was provision of quality

infrastructure services, relatively corrupt-free civil service and a highly educated workforce. In the subsequent phase of development, the guiding principles were upgrading the domestic value addition through innovation-based development. In this stage the capital-intensive economy was driven by innovation-led industrialization. In order to ensure competitiveness, the government engaged in the provision of skilled manpower by reshaping the education system as tool for building up skill bases, qualified technical and engineering personnel, and management trained in modern techniques; and low labor productivity growth. There were also efforts to promote science and technology, including activities in research and development (R&D) with a good technology infrastructure and efforts to change the mindset of the people to bring out the enterprising and adventurous spirit in them. Infrastructures both physical and institutional have been provided to promote competitiveness.

ii. Vietnams Experience

Before 1986, Vietnam was one of the poorest countries and was following a central planning system. The economy was largely closed and inward-looking. The trade regime was characterized by state monopoly, tight trade regulations and rigid quantity targets. Since 1986, Vietnam has implemented radical economic reforms to shift the country to a market-oriented and open economy. The central planning system has been partially abolished and the private sector has been given more important role. Radical policy changes have been conducted to liberalize trade regime such that quotas were removed from almost all export and import goods. Major measures have been conducted to open up the economy to FDI.

To facilitate further expansion of exports and FDI, Vietnam has joined various regional and multilateral groups including ASEAN (in 1995), APEC (in 1998) and WTO (in 2006). Unleashed by economic reforms, Vietnam's GDP has increased enormously, from US\$4.8 billion in 1986 to US\$201 billion in 2016. GDP per capita has risen from US\$80 to US\$2,173 over the same period, moving Vietnam from the low-income range into the lower middle-income group since 2008. Vietnam's GDP structure has shifted drastically from agriculture toward industry and services. The share of the manufacturing sector has soared from 28.9% in 1986 to 42.7% in 2016 while the share of agriculture to GDP declined from 38.1 in 1986 to 16.3% in 2016.

In order to ameliorate its level of competitiveness, Vietnam has intensively engaged in infrastructural development. As a result, enormous progress has been made in paved roads, telephone lines, port capacity and power supply. Further efforts have been exerted to increase the stock of skilled human resources, particularly primary and secondary education. To break the financial constraint to the private sector, Vietnam's financial sector has expanded rapidly, mostly supplying banking loans to the private sector. Following such reform, the credit to GDP ratio reached 66%; bank deposits to GDP stands at 57%; high surge of stock market with high level of capitalization; high money supply to GDP ratio (M2) 82.4% in 2005 (Philippines (38.1%) and Indonesia (44.1%)); high capital market expansion e.g. increased number of listed companies, share price soared, market capitalization. Due to all these financial deepening and accession efforts, over the last decades Vietnam has expanded its national saving rate and investment to 27% of the GDP in 2004 from -3.5% in 1990.

Vietnam has performed well in attracting FDI inflow since 1990. The FDI inflow to the country has been higher than the Philippines and Indonesia due to the abundant low-cost labor and the reform policy of the economy. In recent years, the government has acted to codify practices in law and greatly supported increased transparency of the trade regime. The Government has implemented its commitments to push the scheme of trade policy reform and liberalization further. First, as trading rights are further liberalized and private firms get a larger share of export quotas; as non-tariff import barriers, like import-licensing, are improved; state-owned enterprises

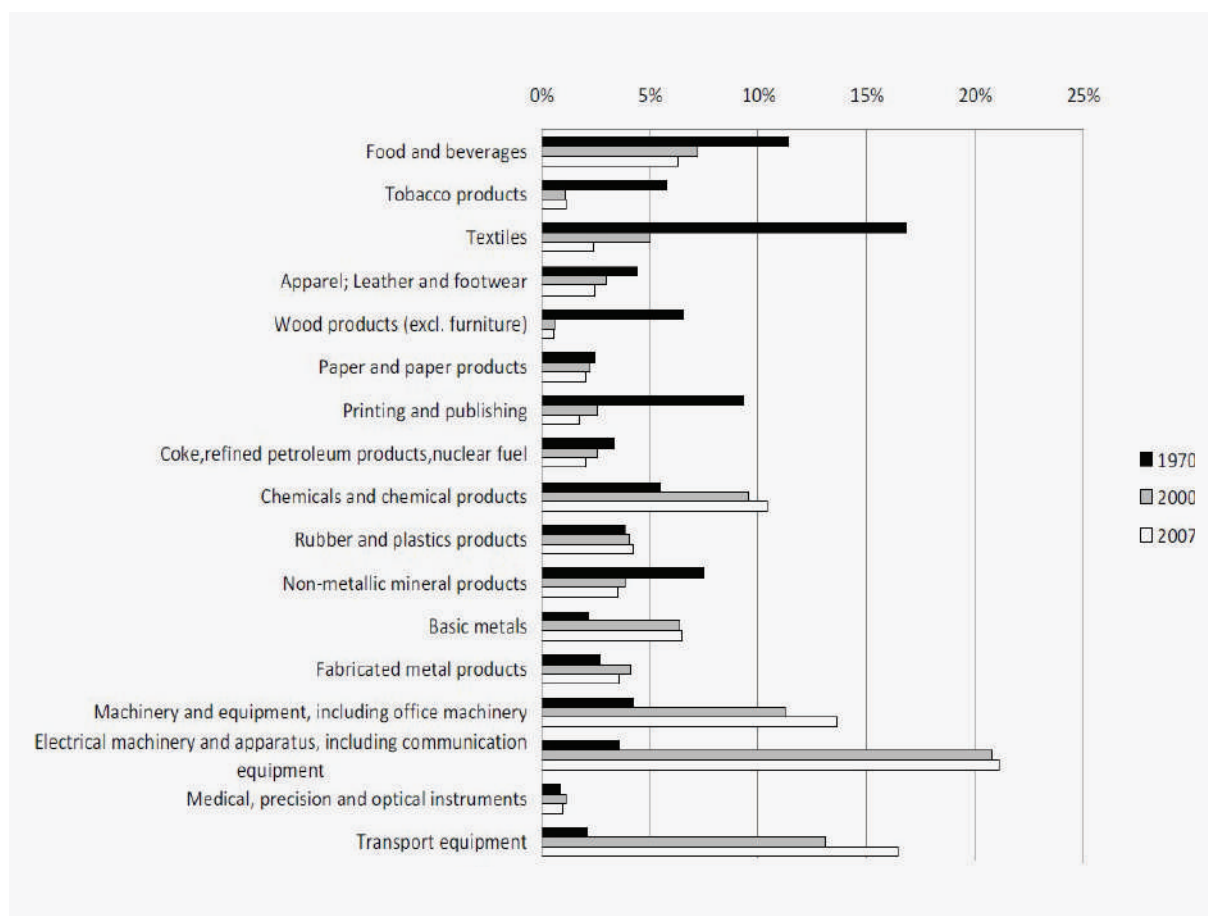
have been exposed to more discipline and competitiveness. Second, lower import protection and lower implicit and explicit taxes on exports have improved incentives for investors to move toward processed agriculture and manufactured exports.

Analyses show that Vietnam's pattern of integration in world trade is faster than that of China and ASEAN-4 countries. Comparative analysis has shown that, in terms of labor market efficiency and productivity, Vietnam ranked 57 and Ethiopia Positioned 70. The Vietnamese government has been playing a crucial role in enhancing its national competitiveness by deploying the nation's resources with high and rising levels of productivity; establishing legal frameworks and public financial management as well as administration procedure reform.

The expansions of industries in SEA were accompanied by considerable growth in manufacturing-sector employment between as well as industrial exports 1950 and 1990. In this time, industrial employment soared from 15.4 percent to 24.1 percent in Japan, from 7 percent to 26.9 percent in South Korea, from 12 percent to 32 percent in Taiwan and from 19 percent to 29.5 percent in Singapore. Between 1967 and 1993, the share of industrial exports increased from 93.4 percent to 96.8 percent in Japan, from 67.3 percent to 93.7 percent in South Korea, from 21 percent to 78 percent in Singapore, from 3.7 percent to 50.5 percent in Indonesia, from 12.6 percent to 65.5 percent in Thailand and from 24.9 percent to 68.4 percent in Malaysia (UNCTAD, 1996).

SEA has climbed on the ladder of development by following distinct development phases each of which focusing on creating wide economic base. This is done by adoption of a sector-by-sector bottom-upwards strategy (Hammouda, 2004). In this approach, in the first phase of industrialization, SEA particularly Korea produced final products which intensively use imported capital goods and the abundant unskilled and semi-skilled labor force. This process decreases unemployment and increases output, which generates more capital to the next phase of industrialization. The roles of institutions at this phase, therefore, focused on improving the productivity of firms through technical support and select the most profitable sector that could use the available resource. In the subsequent phase, these countries began producing capital goods which relatively use skilled labor force and both imported and domestically produced capital goods. The role of institutions in this time have been focusing on availing skilled and educated labor force which could be used together with sophisticated capital and the provision of the required capital. In the later phase, they started producing sophisticated capital goods that intensively use skilled labor force. At last, these countries have started producing capital goods domestically and able to switch to knowledge drive economies. The following figures shows the transformation of the Korean economy form labor intensive industries (textile and garment, food and beverage) into capital and knowledge driven productions such as transport equipment and electrical machineries from the year 1970 and 2007 (UNIDO, 2009).

Figure 4.2: Republic of Korea: Structure of the Manufacturing Sector from 1970 to 2007



Source: UNIDO, 2009

In all these phases, institutions and the state play prominent role to enhance efficiencies of production and enable the economy proceeds from one phase to the next. The state launched a clear and visible growth path of the nation and systematically channel resources assisted by policy toolkits. A planned rapid rise in labor-intensive, export-oriented industries led to growing demand for foundation skills. As a response to such demand pressure, the government extended vocational and technical secondary education to develop skills for industries including technology-intensive heavy and chemical industries (Lee, 2002). The state developed trade and industrial policies and synchronized it with the education policy in a bid to directing the economy towards higher value-added industries such as electronics which requires skilled labor force and innovation (UNESCO,2012). Sonobe and Otsuka (2006) point out that those enterprise managers cannot innovate as long as high-quality human resources are lacking, because in absence of human capital resources the cost of innovation is too high. Thus, throughout all stages, attempts have been made to maintain balance between labor intensive, lower skill industries that provide jobs for many, and more knowledge intensive industries that require higher levels of skills. It is, indeed doubtful that market forces could maintain such matching in skills supply and demand. Thus, the state had played crucial role in policy making and appropriate synchronization of policy and the required skills across in all stages of development.

The lesson draw from South East Asian countries regarding human resources accumulation shows that it is not only formal education that matter most but also the informal one. On top of that, recent studies on national system of innovation of Korea have pointed out that schools' only form one part of the system. For industrial development training institutions are as important

as formal schools. Training includes both trainings given by formal training institutions and on job training. The Korean Government encouraged on the job training at the firm level. In the 1970s on the job training was even made compulsory for firms above certain size (Chang, 1994). Therefore, for countries that are not at the frontier of technological development, such as Africa, working more on vocational training is much more important. This is because it is the well-skilled labor forces and the general work force that enabled South East Asian countries to effectively absorb advanced technology and come up with new ideas. On the other front, those countries like India which has world class human resources at the highest level in certain important areas (aerospace, nuclear physics, computer software development) without a well-educated and well-trained work force at all levels and economy's ability to learn and innovate can remain poor (Lee,2002).

The experience of Korea adheres to this fact. Korea promoted to vocational training to upgrade the skill of their unskilled labor force in the first course of industrialization. These vocational trainings equip labor forces and enable them work together with the imported capital. This phase could be called phase of absorption and adoption of technologies. The accumulation of huge number of vocationally trained labor force could absorb and adopt imported technologies and could effectively work with imported technologies. On later days, the accumulation of well skilled labor force helps to imitate and produce imported capital goods.

As the catching up process evolves just following the aforementioned way, the opportunity or scope for borrowing technology declines as the technical gap or distance between the frontier technology and the technology in use in a given country falls. As a country grows and continues to adopt improved technologies, the gap between own practice and the best practice the world can offer becomes smaller. The adoption of foreign technology is not free. For the very poor, even to keep the technical gap constant may be a constant struggle (Torbeck and Wan, 2004). In this stage, the role of education as well as financial institutions should be switched to innovation than focusing on imitation. The following diagram summarized how a country could mount on the development ladder by appropriately mixing institutions and growth inducing factors.

4.13. Conclusion

This project addressed primarily whether Ethiopia has improved its competitiveness position and assessed how that determine the performance and development of the private sector. It set to explore economic and non-economic factors that can facilitate or curtail the country's competitiveness during the period- that span from 2004-2017 and suggest viable policy proposals for the relevant stakeholders. In doing so, the relevant competitiveness composite index was composed out of key variables and the twelve pillars which possibly might determine the improved competitiveness of Ethiopia.

The study revealed, from its descriptive statistics analysis of the trend, performance and competitiveness indicators, that there are variations across periods and areas of competitiveness in the level of performance of Ethiopia. The country is doing poorly vis-a vis competent private and public institutions, fare better in domestic competitiveness whereas mediocre in the international level competitiveness. While measured in the overall competitiveness position indicators, Ethiopia was found on efficiency enhancer's stage of development. It should be noted here that this does not specifically imply the strength and size of the local market.

Thus, standard level GDP per capita, foreign direct investment, balanced expenditure on R&D, good physical infrastructure, high level of governance quality, advanced and adoptable technology, electric power supply, and accessible internet services are key factors to improve the competitiveness of Ethiopia. On the contrary, unhealthy and import dominated trade balance, youth and skilled labor unemployment, poor corruption control policy and highly inflated consumer prices were identified to cast challenges on the competitiveness of Ethiopia.

Furthermore, fostering public private sector collaboration, enhancing complementarities of government and private sector investment, conducting sectoral competitiveness assessment, regulating the degree and form of government intervention, improving the investment climate, establishing performance driven incentive system, incubating a relaxed financial system, producing competent manpower for the local and international market through encouraging industry–university linkage are additional setbacks identified. Yet, there are additional challenges. First, the public and private manufacturing sectors are occupied by unskilled labor that does not produce services and goods in the required amount and quality. Second, the existence of too small and inefficient existing labor, financial and goods markets which costs heavily the private sector. Third, uncompetitive behavior of firms via price cutting and under and /or over invoicing affects the government revenue which in turn affects financial capacity building of the government and the structure and the efficiency of the private sector. Fourth, the availability of limited foreign currency to the private sector that adversely affects its competitiveness and the international trade. Fifth, Bureaucratic licensing, corrupted auditing system, weak access of infrastructure, unstable political system, political violence and radicalism, macroeconomic instability, high rate of youth and skilled labor unemployment. Sixth, Weak Public-Private partnerships, university- industry linkage, and improper government interventions on private sector.

Hence, this project calls for the introduction of series of legal and policy changes in order to promote competitiveness among the private sector and the economy at large.

4.14. Recommended General Policy Strategies

Based on the findings gleaned from the empirical literature and the econometrics result, this project suggested that realizing effective partnership and collaboration between the state and the private sector if there is a need to improve the competitiveness of Ethiopia. The following specific interventions are forwarded:-

- Creating an efficient and flexible labor, goods and financial markets by solving the markets failures and developing stable macroeconomic system.
- Redesigning the economic policy in a way that could deliver broad-based economic growth while ensuring social inclusion.
- The existing trade incentive schemes and mechanisms to promote a vibrant business ecology needs to be revised.
- The investment climate of the country to foreigners that has a positive impact in boosting the local private investors and their level of competitiveness has to be improved.
- Establishing incentives that induce and promote competitiveness such as flexible market, promoting quality educations, increasing the market size, participating skilled labors in the production sectors, increasing expenditure on R&D, equally distributed resources, strong and reliable institutions, good infrastructure, create job opportunities, and the like that promotes improved competitiveness of the private sector.
- Linking the education sector with skill requirement of the private sector, which helps to create solid macroeconomic environment, improve ICT indicators and technological readiness, create innovators and to produce a large pool of qualified workers.
- Integrated sector planning with at promotes sectoral linkages it can change the nature of the interactions between the private sector and public sector by focusing them on long-term objectives, rather than lobbying for short-term and sector-specific gains.
- Promoting saving in order to enhance the financial capacity in the country.
- Conducting sectoral competitiveness assessment and identifying specific challenges.

- Enhancing the energy supply and ensuring adequate provision of services such as electricity to the manufacturing industry.
- The government and the private sector have to define priorities and coordinate since both have limited resources. It needs to be, however, noted that factors of competitiveness are complementary and an economy cannot make sustained progress without advancing simultaneously on all competitiveness pillars.
- Upgrade and revise approaches and intervention on property rights, ethics and corruption, sectoral performance evaluation, protection of investors and minority shareholders' interests, efficacy of corporate boards, reporting standards
- Regulating local competition, ensuring effective implementation and monitoring of the anti-monopoly policy, optimizing the ease of doing business. This specifically applies to enhancing domestic competitiveness in Ethiopia. Whereas, the foreign competitiveness can be enhanced through reducing the trade barriers (such as lowering trade tariffs and simplifying the customs procedures), allowing more foreign investment, modernizing the policies on FDI.

4.15. Strategic Area of Action: Key Performance Indicators

The proceeding section briefly outlines the concrete signposts that the concerned stakeholders might use to measure their performance and evaluate where they fall in the process of improving their level of competitiveness. These are GDP per capita, FDI net flow, Inflation, Trade Balance, Unemployment, Corruption control, Infrastructure.

The table below shows the relative Competitiveness position of Ethiopia in Global Competitiveness Index (GCI) in relation to comparable countries in Africa.

Table 4.2 : Selected Countries Score and Rank in GCI

Country	GCI	Year								
		2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2017/18
Ethiopia	Score	3.41	3.56	3.51	3.76	3.55	3.5	3.6	3.74	3.78
	Rank	121	111	119	106	121	12	118	109	108
Kenya	Score	3.84	3.67	3.65	3.82	3.75	3.85	3.93	3.85	3.98
	Rank	93	98	106	102	106	96	90	99	93
Egypt	Score	3.98	4.04	4.00	3.88	3.73	3.63	3.6	3.66	3.9
	Rank	81	70	81	94	105	118	119	116	100
Tanzania	Score	3.49	3.71	3.56	3.56	3.60	3.5	3.57	3.57	3.71
	Rank	113	103	113	120	120	125	121	120	113
Uganda	Score	3.35	3.58	3.51	3.56	3.53	3.45	3.56	3.66	3.7
	Rank	128	108	118	121	123	129	122	115	114
Rwanda	Score	-	-	4	-	-	4.21	4.27	4.29	4.35
	Rank	-	-	80	-	-	66	62	58	58

GDP per capita (as per World Bank and IMF data) - It is one of the basic competitiveness indicator. It has a key variable and has a positive impact in improving the competitiveness of Ethiopia. For instance, a one percent increases in GDP per capita leads to a 1.08% increase in the competitiveness status of Ethiopia.

Table 4.3: Countries GDP per capita in WB & IMF

Country	Years									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Ethiopia	888.14	948.22	1,052.10	1,162.78	1,253.24	1,371.98	1,500.65	1,632.55	1,734.46	1,899.21
Kenya	2,243.37	2,271.97	2,425.92	2,556.96	2,650.54	2,776.60	2,900.37	3,019.95	3,156.12	3,285.91
Egypt	8,939.28	9,255.38	9,658.07	9,823.82	10,003.35	10,156.41	10,407.78	10,750.46	11,134.03	11,582.59
Tanzania	1,908.74	1,963.59	2,048.29	2,186.13	2,268.87	2,397.21	2,530.47	2,652.53	2,786.21	2,945.88
Uganda	1,382.49	1,437.43	1,485.20	1,602.54	1,638.07	1,666.98	1,724.77	1,774.01	1,819.43	1,863.84
Rwanda	1,213.80	1,264.36	1,337.56	1,436.87	1,549.66	1,606.89	1,716.97	1,843.33	1,930.70	2,035.65

FDI Net Inflow- FDI has a crucial role in determining the competitiveness position of the economy through facilitating technology transfer and mobility of labor and innovations. It has a positive impact on Ethiopia's competitiveness. For instance, a one percent increases in the foreign direct investment in Ethiopia leads to 5.98% improvement in competitiveness.

Table 4.4: Countries FDI inflow (% GDP) from world bank

Country	Year									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Ethiopia	0.4	0.68	0.96	1.96	0.64	2.82	3.34	4.07	5.51	5.56
Kenya	0.27	0.31	0.45	3.46	2.74	2.03	1.34	0.97	0.56	1.03
Egypt	5.83	3.55	2.92	-0.2	1	1.45	1.57	2.07	2.44	2.56
Tanzania	5.05	3.33	5.77	3.63	4.6	4.71	3.47	3.52	2.88	2.57
Uganda	5.12	4.63	2.69	4.43	5.21	4.46	3.88	1.99	2.17	2.12
Rwanda	2.13	2.21	4.34	1.83	3.49	3.38	3.93	2.7	3.04	3.33

Trade Balance- Improved and healthy trade balance can potentially determine the competitiveness of a country's economy. In Ethiopia trade balance was negatively induce improved competitiveness of private sector. This is may be due to the country's trade pattern such as the country's import is dominated by manufacturing goods which has higher price than the country's primary goods export and off siting export over import is negative. For instance a one percent increase in unhealthiness of a trade balance decrease competitiveness by -4.95%.

Table 4.5: Countries Net Trade Balance (Billion US\$)from World Bank

Country	Year									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Ethiopia	-6.1	-5.61	-5.27	-5.84	-8.14	-8.1	-11.77	-13.81	-14	-16.32
Kenya	-4.27	-3.92	-4.55	-6.46	-6.84	-7.86	-9.04	-7.06	-6.21	-8.65
Egypt	-12.5	-9.23	-11.03	-14.33	-20.2	-20.53	-26.83	-30.37	-34.19	-35.22
Tanzania	-3.1	-2.4	-2.68	-4.64	-4	-5.06	-5	-3.7	-1.31	-3.54
Uganda	-2.26	-1.87	-2.71	-3.16	-2.81	-2.47	-2.87	-2.61	-1.62	-2.11
Rwanda	-1.28	-1.24	-0.96	-1.21	-1.28	-1.17	-1.35	-1.51	-1.56	-0.9

Rule of Law – The prevalence of law and its respect by everyone in the society has a basic role in the matrix of improved competitiveness. In Ethiopia rule of law has a positive impact on the improving competitiveness of private sector. For instance a one percent increase in the effectiveness of Ethiopia 31.20% of competitiveness are induced.

Table 4. 6: Countries effectiveness of rule of law in WGI

Country	Year									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Ethiopia	-0.7	-0.83	-0.8	-0.74	-0.68	-0.65	-0.47	-0.51	-0.39	-0.27
Kenya	-0.99	-1.01	-0.94	-0.9	-0.82	-0.71	-0.42	-0.49	-0.53	-0.76
Egypt	-0.13	-0.11	-0.18	-0.45	-0.47	-0.63	-0.66	-0.59	-0.41	-0.4
Tanzania	-0.42	-0.45	-0.54	-0.59	-0.76	-0.77	-0.75	-0.68	-0.51	-0.6073
Uganda	-0.35	-0.41	-0.4	-0.36	-0.35	-0.34	-0.39	-0.39	-0.24	-0.36
Rwanda	-0.48	-0.5	-0.33	-0.31	-0.27	-0.15	0.06	0.05	0.07	-0.21

Corruption Control- Control public power is exercisers for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests can derive improved competitiveness. Weak corruption control has negatively impacted on improved competitiveness. The result disclosed that a one percent decrease in the corruption control in Ethiopia can lead to -52.49% constraints in improved competitiveness.

Table 4.7: Selected Countries effectiveness of rule of law in WGI

Country	Year									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Ethiopia	-0.66	-0.7	-0.69	-0.66	-0.6	-0.49	-0.44	-0.45	-0.44	-0.47
Kenya	-1.06	-1.06	-0.91	-0.95	-1.09	-1.03	-0.93	-1.01	-0.9	-0.98
Egypt	-0.78	-0.52	-0.63	-0.7	-0.6	-0.63	-0.62	-0.64	-0.63	-0.63

Country	Year									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Tanzania	-0.417	-0.4455	-0.5352	-0.5917	-0.7569	-0.7742	-0.7545	-0.6821	-0.5085	-4.5
Uganda	-0.83	-0.9	-0.92	-0.92	-0.99	-1.04	-1.09	-1.05	-1.06	-1.08
Rwanda	0.1	0.09	0.35	0.36	0.56	0.63	0.76	0.64	0.69	0.67

Unemployment- Labor is one key factor of production which in turn determines the competitiveness position of the economy. Flexible labor and protected labor right has a great role improved competitiveness, but in recent past there are a lot of youth and productive number of peoples in Ethiopia has no job. Thus, unemployment of labor greatly negatively affects the improved competitiveness of Ethiopia in the study period. For instance, a one percent decreases in the level of employment decrease by -45.73% in international competitiveness of Ethiopia.

Table 4.8: Selected Countries Unemployment (% of total labor) in WB

Country	Years									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Ethiopia	5.27	5.23	5.2	5.18	5.14	4.98	4.98	4.97	5.09	5.2
Kenya	10.93	12.17	12.09	11.99	11.88	11.77	11.67	11.59	11.52	11.47
Egypt	8.52	9.09	11.85	11.85	12.6	13.15	13.1	13.05	12.41	12.08
Tanzania	3.51	2.5	2.97	3.47	3.24	2.93	2.12	2.12	2.17	2.21
Uganda	3.61	4.16	4.01	3.85	3.55	1.91	1.91	1.9	2.01	2.1
Rwanda	2.49	2.74	3	3.25	3.44	2.27	1.17	1.16	1.23	1.3

Inflation- has a great role in the determination of competitiveness in the globe. In particular, the result confirmed that a one percent decrease in inflation leads to -3.57% in improving competitiveness.

Table 4.9: Inflation (CPI) in World Bank

Country	Year									
	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Ethiopia	85.26	92.48	100	133.22	163.56	176.77	189.84	209.08	224.27	246.36
Kenya	26.24	9.23	3.96	14.02	9.38	5.72	6.88	6.58	6.3	6.57
Egypt	18.32	11.76	11.27	10.05	7.12	9.42	10.15	10.36	13.81	12.35
Tanzania	10.28	12.14	6.2	12.69	16	7.87	6.13	5.59	5.17	5.13
Uganda	12.05	13.02	3.98	18.69	12.68	4.9	3.08	5.42	5.46	6.76
Rwanda	15.44	10.39	2.31	5.67	6.27	4.23	1.78	2.52	5.73	4.6

Other Policy variables in improved competitiveness of Ethiopia- Physical and specialized infrastructure like road facility and others are the potential determinant of competitiveness. For instance one percent increase in the provision of infrastructure induces an 18.14% improvement in the level of competitiveness. The experiences of developed and emerging economies have revealed that expenditure on Research and Development has played key role to bring global competitiveness. The result of the regression has also shown that a one percent increase in the expenditure on R&D induces a 7.09% improvement on competitiveness. Internet connectivity facilitates global integration and competitiveness. The regression result has shown that when there is a one percent increase in internet connectivity, there is a 2.01% improvement in competitiveness. The result has also revealed that electricity supply able to foster competitiveness in Ethiopia. That is associated to issue of equity. In this regard, the result has shown that a one percent increase in the electricity supply within the Ethiopia can lead to 64.26% derive improved competitiveness of Ethiopia during the study periods. Localized and advancing technology has a great impact on Ethiopian competitiveness. For instance, a one percent advanced in technology derives the improved competitiveness of Ethiopia by 32.26 percent.

Table 4.10: List of Policy Variables

Year	Expenditure on R&D	Infrastructure	Technological Advancement	Electric Power	Internet Outreach
2008/9	2.73	2.66	3.13	3.88	0.45
2009/11	2.51	2.94	3.57	3.18	0.54
2010/11	2.46	2.65	3.92	2.72	0.75
2011/12	2.22	2.64	3.84	2.84	1.1
2012/13	2.15	2.65	3.83	3.16	2.9
2013/14	2.18	2.61	3.92	3.1	4.6
2014/15	2.56	2.49	3.96	2.83	7.7
2015/16	3.5	2.61	3.91	3.1	13.86
2016/17	3.77	3.17	3.72	3.36	15.37
2017/18	2.67	2.7	3.46	3.22	18.62

Reference

A.J. Smit (2010). The competitive advantage of nations: is Porter's Diamond Framework a new theory that explains the international competitiveness of countries?

Alexander, K. (2016). The Fiscal Theory of the Exchange Rate: A Quantitative Assessment.

Aristomène, Varoudakis, and Thierry, L. (1997). Les facteurs structurels de la compétitivité manufacturière. Une analyse en données de panel pour le Sénégal », *Revue économique*.

Mr. S.M.S. Abuthahir Ali (2014), Reviewed by: Ms. Neeru, (2014). Management theory and practice.

Barney, J. (1991). "Firm resources and sustained competitive advantage", *Journal of management*, 17(1), pp. 8-9.

Baum, C. F. (2006). An Introduction to Modern Econometrics Using Stata.

Birkinesh, G.(2012). Competitiveness of Ethiopian shoe industry: response to export market, Addis Ababa university school of graduate studies.

Borena , D.(2013). The effect of exchange rate movement on trade balance in Ethiopia, University of Tokyo.

Cellini, R., and Soci, A. (2002). Pop Competitiveness, *Banca Nazionale del Lavoro, Quarterly*

Cockburn, J. and Siegel, E. (1998). Measuring Competitiveness and its Sources: The case of Mali's Manufacturing Sector, *African Economic Policy Paper 16*, pp. 1-99.

Conner, K. R. (1991), "A historical comparison of the resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm?" *Journal of Management*, 17: pp. 121-154.

Cragg, J. (1971). Some statistical models for limited dependent variables with application Daron, A. Text book . *Introduction to Modern Economic Growth*, Department of Economics

Davide, G (2008). Endogenous and exogenous factors in growth theory.

Dirk, W. (2004). Regional Integration and Foreign Direct Investment in Developing Countries. Economic commission for Africa the annual reports 2004-2017.

Elias A. (2011). The effect of depreciation of birr on major export products of Ethiopia: the case of hides and skins, Addis Ababa university school of graduate studies.

Fikadu, M. (2012). *The Role of COMESA in Growth and Development of Ethiopia A Thesis Submitted to the Department of Economics Presented in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Economics, (Applied Trade Policy Analysis), AAU.*

Frans, B. (2011). *Exogenous and Endogenous Spatial Growth Models, Faculty of Economics*

Free University of Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, the Netherlands.

Gabriel, D. (2007): IMF working paper, assessing competitiveness and real exchange rate misalignment in low-income countries, policy development and review department.

Greene, W. (2003). *Econometric Analysis*. New Jersey: Prentice Hall.

Hyoung, K. (2013): the concepts, consequences, and determinants of currency internationalization, national graduate institute for policy studies (grips).

Isabel, A. (2008). *Internal and external factors of competitiveness in the middle-income countries, Georgina Maldonado,ISSN 1444-4534.*

Kennedy, P. (2003). *A Guide to Econometrics*. 5th ed. Cambridge, MA: MIT Press.

Lewis, D., Paola, A., and Kornelia, K. (2011). Working paper, *A New Regional Competitiveness Index: Theory, Methods and Findings, A series of short papers on regional*

research and indicators produced by the Directorate-General for Regional Policy, EUR Policy.

Long, J. Scott. (1997). *Regression Models for Categorical and Limited Dependent Variables*. London: Sage Publications.

Manel, M., and Faika,C.(2013). *The Macro-Economic Determinants of Export Competitiveness*

of the Tunisian Economy in a Context of Liberalization and Crisis, International Journal of Business and Management Invention ISSN (Online): 2319 – 8028.

Matthew, B., Robert, E., and Behzad, T. (2000). *Fiscal discipline and exchange rate systems Economics Department, Georgetown University.*

Mihaela, H. (2015). "Economic Prospects in the Context of Growing Global and Regional Interdependencies, 22nd International Economic Conference.

Neyman, J. and E. Scott. (1948). "Consistent Estimates Based on Partially Consistent Observations," *Econometrica*, 16, 1948, pp. 1-32.

Nick, G. (2008). *Why is competition important for growth and poverty reduction? global forum on international investment.*

Njoroge,L. (2010). *The impact of regional integration on economic growth: Empirical evidence from COMESA, EAC and SADC trade blocs, Central Bank of Kenya, Research Department, Nairobi, Kenya American Journal of Social and Management Sciences.*

Pindyck, R. S., and D. L. Rubinfeld. (1998). *Econometric Models and Economic Forecasts*.

Porter, M. (1990). *The competitive advantage of nations*, Macmillan, London

Porter, M.E. (1998), "Clusters and the New Economics of Competition", Harvard Business

Robinson, P. (1982). *On the Asymptotic Properties of Estimators of Models Containing*

Sigelman, L., & Langche, Z. (1999). *Analyzing Censored and Sample-Selected Data with Tobit and Heckit Models.* Political Analysis 8:167–182.

Taras,S.(2013). *The International Competitiveness of Countries: Economic-Mathematical Approach*, Economics & Sociology, Vol. 6, No 2, 2013, pp. 39-52. DOI: 10.14254/2071

Tobin, J. (1958). *Estimation of relationships for limited dependent variables*. *Econometrica*

Tomasz, S., and Aldonaza W. (2013). *Competitiveness in the economic concepts, theories and empirical research*, Warsaw University of life sciences-SGGW.

Weiss, N.A. (1999). *An Introductory Statistics*, Addison Wesley.

Wooldridge, J. (2002). *Econometric Analysis of Cross Section and Panel Data*. Cambridge: MIT Press. Wooldridge, J. M. (2002). *Econometric Analysis of Cross Section and Panel Data*. Cambridge,

WEF Annual Reports, Global & Africa Competitiveness Annual Reports of the Year 2004-2017. Yeliz ,M. *Generalized Least Squares and Weighted Least Squares Estimation Methods*.

Zerayehu, S. (2014). *The Political Economy of Capital Flight: Governance Quality and Capital Flight in East Africa Community*, American Journal of Social Sciences.

Annex

Annex I: Graphical Analysis of the Panel Data

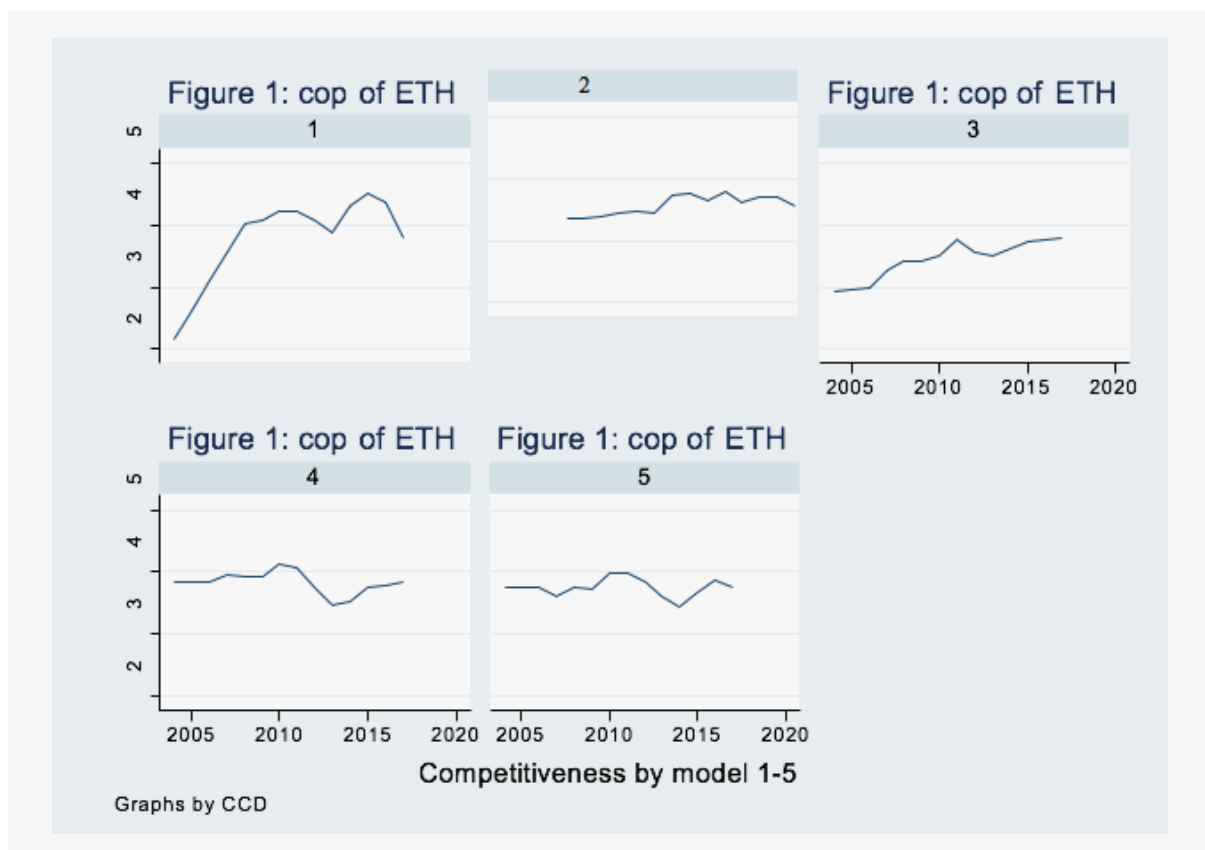
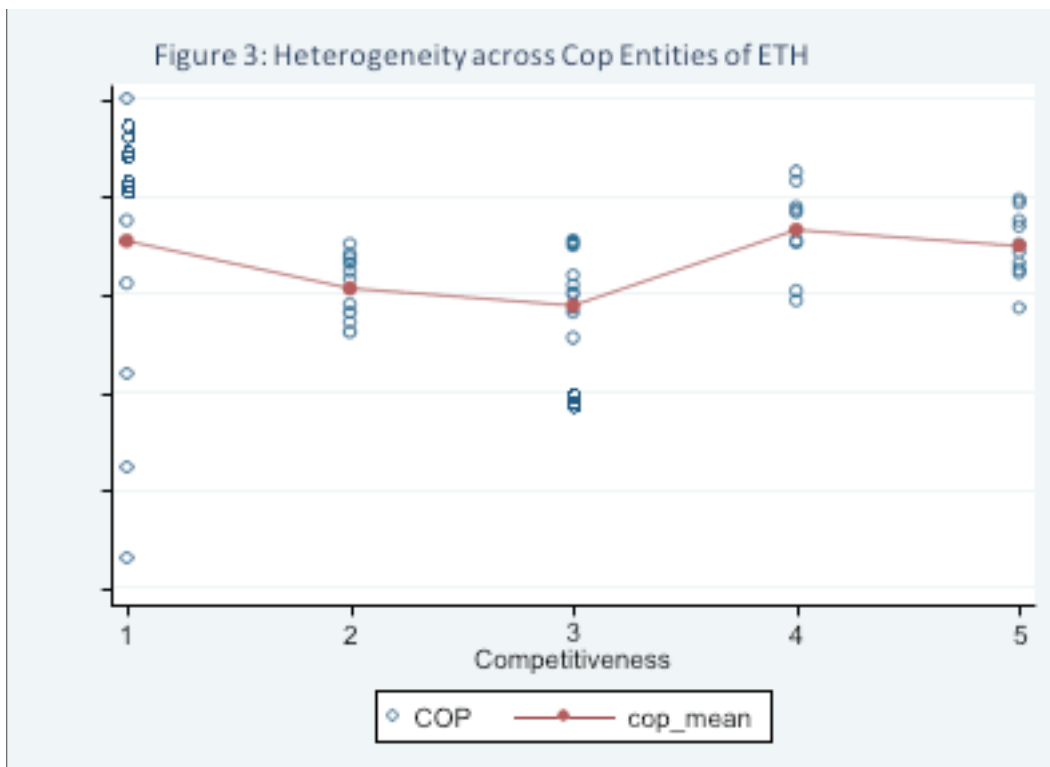
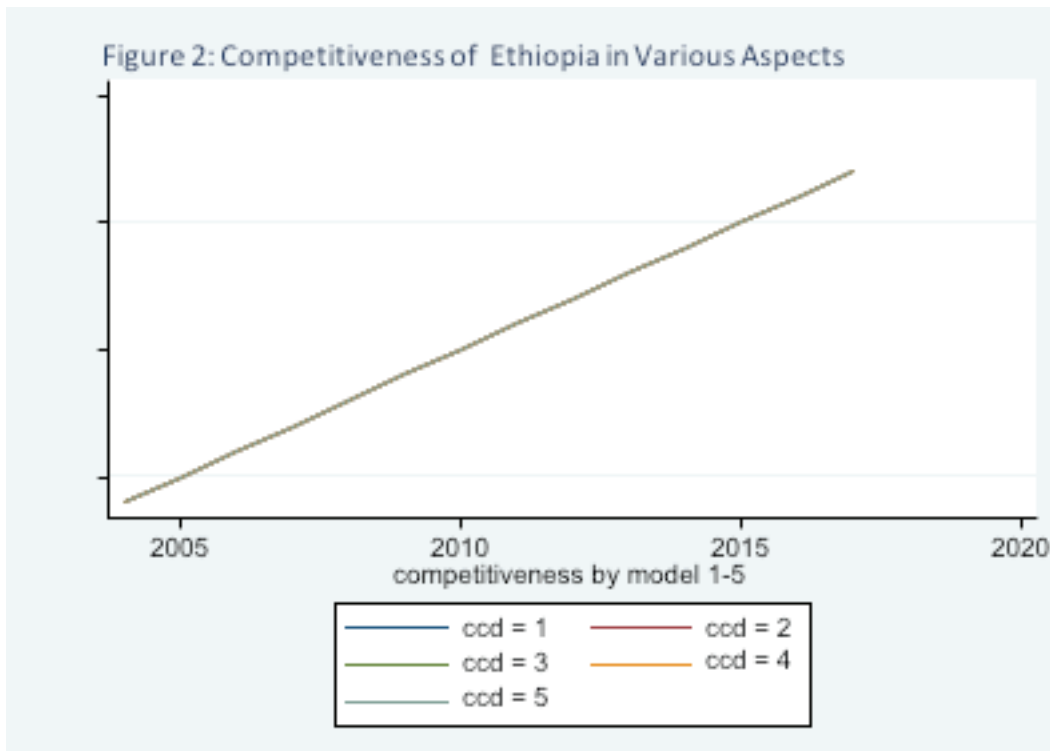


Figure 2: Competitiveness of Ethiopia in Various Aspects



Source: own computation using STATA

Annex II: Diagnostics Tests of the Regression Results

In order to draw a logical conclusion about the results of regression analysis we first validate all the estimation results by considering various ranges of diagnostic tests. Thus, the diagnostic tests were tested for the estimation methods as summarized in the table below, and indicated by “√” if the test will be examine and “X” if not.

Table I: The Summary of Diagnostic Tests of the Study Models

Econometrics Models	Diagnostic Tests to be Checked				
	Margins	Normality	Autocorrelation	Multicolliearity	Hetroschedasicity
Panel Tobit	√	√	√	√	X
Transformed linear panel model	X	√	√	√	√

Source: Own Estimation

Except margins all other tests are the assumptions of classical linear regression models. Thus, the study uses the linear model on the transformed dataset called Ethiopian competitiveness transformed OLS model, and therefore, testing the CLRM assumptions in general is so important. Moreover, some times the CLRM assumptions are called Gauss’s Markov assumptions and the components are:

1. The mean value of the error term in the study model is assumed to be zero. Meaning for each values of the study independent variables, error assume varies values, and an average value is equals to zero i.e. $E(e_i) = 0$.
2. The variance of the error term across the model is constant. Meaning that , for all values of the study independent variables , the error terms will show the same desperation around the mean i.e. $Var(e_i) = E(e_i e_i) = E(e_i^2) = \sigma^2$
3. There is no autocorrelation between two different error terms. Meaning the random term of different observations are independent i.e. $E(e_i e_j) = 0$, where $i \neq j$.

Error terms are normally distributed with (1) and (2). Meaning the values of e_i (for each independent variables of the being in the study model) has symmetrical distribution about their zero mean and constant variance.

Multicollinearity assumptions: there is no correlation between two or more independent study variables.

1. **There is no correlation between the independent study variable and the error term.**
2. **There is no correlation between the consecutive values of the dependent study variable i.e $cov(Y_t, Y_{t-1})$.**

The Marginal Effects

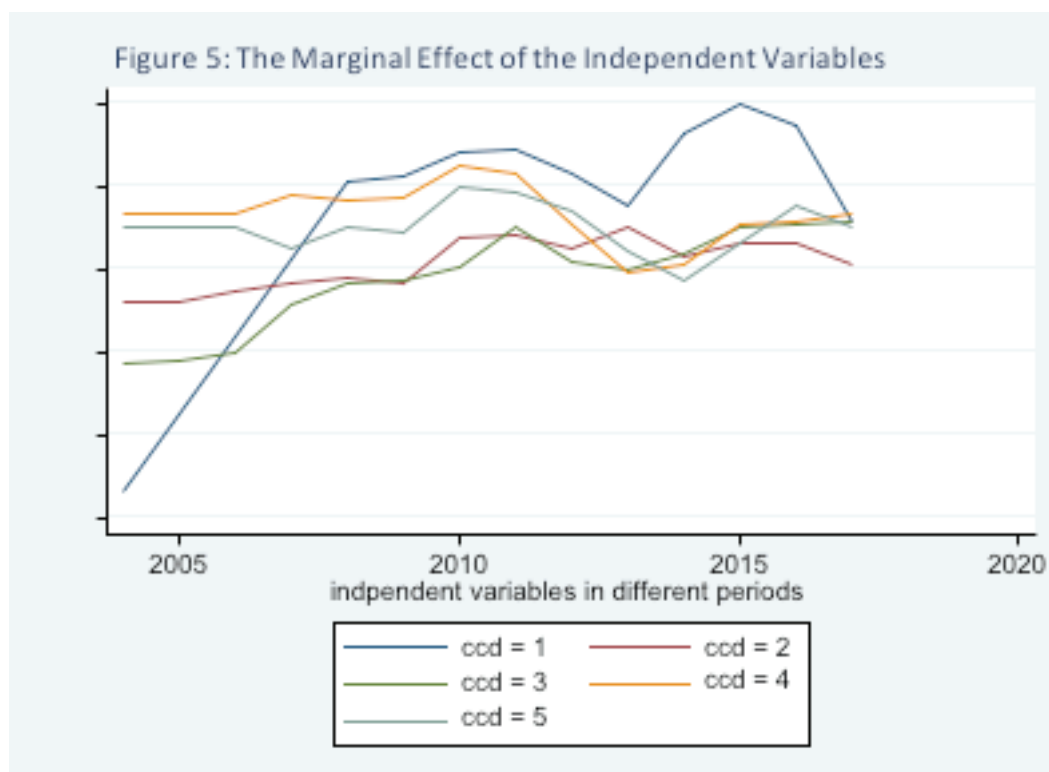
In this section the margin effect of the panel Tobit RE model regression result, and other related post estimation tests such as contrast, and pair wise margins were discussed in some details. The purpose of the tests is to give the special considerations on the substantive and practical significance rather than focusing on the sign and statistical significance of the independent variables.

Margins are statistics calculated from some covariates and averaging or otherwise integrating over the remaining. The marginal effect is the effect of a change in dependent variables,

everything else held constant, on the probability that alternatively choosing. There are three types of marginal effects such as marginal effect on the latent dependent variable; on the expected value for the dependent variable for uncensored observations; and on the expected value for the dependent value (censored and uncensored). Moreover, the marginal effect on the latent variable is indicates that how a one unit change in an independent variable alters the latent dependent variable.

And also, the marginal effect on the expected value for the dependent variable for uncensored observations indicates that how a one unit change in an independent variable affect uncensored observations. The change in independent variable affects the conditional mean of the dependent variable is showed by on the expected value for the dependent value (censored and uncensored). The marginal effect on the limited dependent was calculated on the average delta-method , the results are reported as derivatives or as elasticity at 1 percent and 5 percent levels of significance. Accordingly, in this study the derivatives and the elasticity of the independent variables on the Ethiopia competitiveness under the globe are signposts as the marginal effect of those variables on the dependent variable(see annex –IV). Thus, only the detail of the derivative of margin is presented by using delta-method (by approximating the partial derivatives of the model w.r.t each individual independent variable).

In appendix-IV we have observed that marginal effect of almost all independent variables are the same as the panel Tobit RE model regression results of the competitiveness of Ethiopia. Contrast tests is takes places on non-linear hypotheses and forms contrasts involving factor variables and their interactions from the most recently fit model such as Ethiopia competitiveness panel Tobit RE model. The tests include ANOVA-style tests of main effects, simple effects, interactions, and nested effects. Contrast can use named contrasts to decompose these effects into comparisons against reference categories, comparisons of adjacent levels, and comparisons against the grand mean, orthogonal polynomials, and such. Custom contrasts may also be specified. The figure below shows the pair wise contrast effect on the average marginal effect.



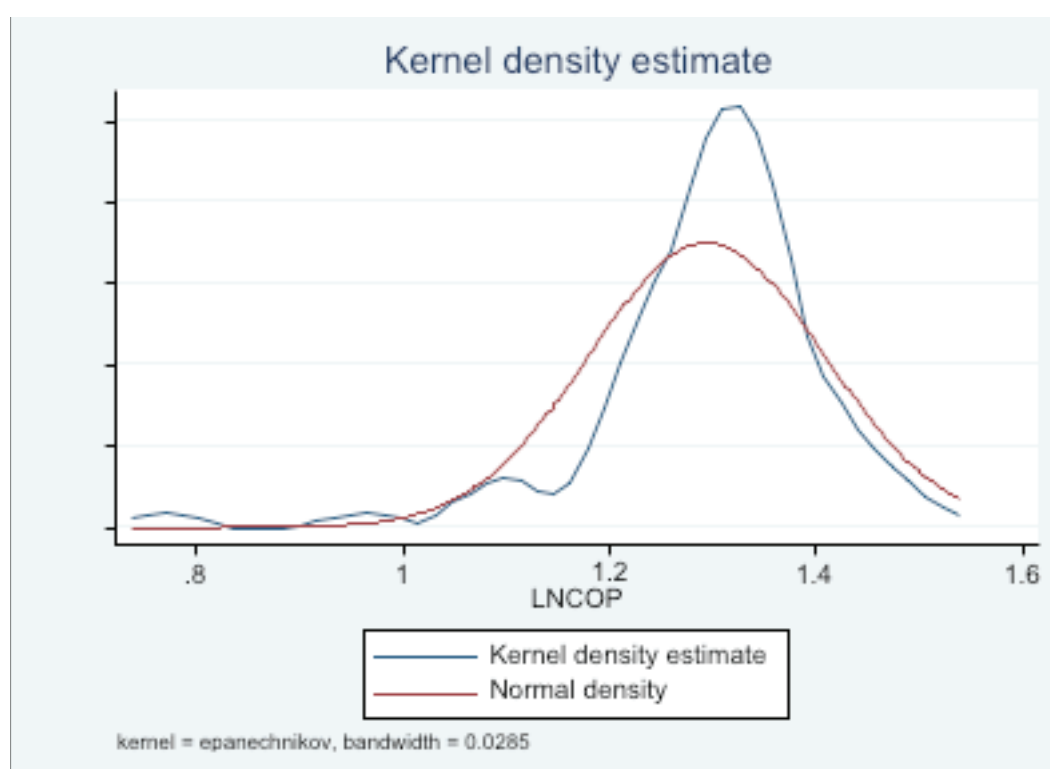
In the above figure, in magnitude almost all study variables except governance effectiveness has approximately the same effect on improved competitiveness of Ethiopia

under the study periods. However, as justified before, some study variables has a negative effect while others has a positive effect on the Ethiopia competitiveness model. According to <http://www.stata.com>, the pair wise comparisons across the levels of independent variables from the most recently fit model can compare estimated cell means, marginal means, intercepts, marginal intercepts, slopes, or marginal slopes collectively called margins. Reports of the pair wise comparisons are presented as contrasts (differences) of margins along with significance tests or confidence intervals for the contrasts. The tests and confidence intervals can be adjusted for multiple comparisons. Accordingly, the margins are different across the independent variables as rejecting the null hypothesis as all independent variables have equal margins (see annex- IV).

Test the Normality Assumptions for Panel Models

In fact the generalized least square estimation method analysis is based on distributional parameters, and therefore, testing of the normality of the distribution is so important. The normality assumption is one of the important assumptions in CLRM. But panel Tobit RE model estimation is based on residuals. Normality is tested by skewedness and coefficient of kurtosis through graphical and/or numerical methods such as drawing a stem-and-leaf plot, scatterplot, box-plot, histogram, probability-probability (P-P) plot, and quantile-quantile (Q-Q) plot. In fact, the normal distribution is symmetric and bell shaped i.e. the p -value given at the bottom of the normality test screen should be bigger than 0.05 not to reject the null of normality at the 5% level (Brooks 2008). Moreover, in Shapiro-Wilk, Shapiro-Francia, and the extent to which a distribution isn't symmetric about its mean value is measured by skewness, and fatness of the tails of the distribution are measured by kurtosis (3) (Annex-V). Accordingly, in this study the residuals are normally distributed.

Figure 6: Normality Test in Panel Models



Accordingly, in the figure 5.4, we have observed that the model is normally distributed over the residuals and. Thus, therefore, the dataset is normally distributed in both panel models.

Test Auto correlation Problems for Panel Regressions

In this section of the diagnostic tests that the presences of autocorrelation problem in panel models are recognized. Indeed, misspecifications of the model, data manipulation, seasonal factors, government fiscal policies, weather patterns, etc are the good situations for the rising of the autocorrelation problem in the study models. In particular if the mean of the error terms is different from zero can raise the autocorrelation problem. Autocorrelation problem affects the validation of econometric analysis such as the variance of the transformed GLS estimator is affected, and then the standard errors of the transformed GLS regression become unreliable. This, in turn, causes the values of the t-ratios to be bigger than what they should be.

On the other hand, the basic situation for autocorrelation problem is the errors do not have the expected zero mean. The panel Tobit model estimation may arise autocorrelation problems, and the analyses is based on standard errors of the covariance matrices (Robinson, 1982). And then, if the errors are correlated with one another, then the autocorrelation problem are presented. The presence of autocorrelation problem affects the confidence intervals of the coefficient parameters. Indeed, the study models have differed but systematically define a cross-sectional unit of the dataset values of the dependent variable.

Hence, erroneous conclusions are drawn on the significance of the variables under study. The test is an important diagnostic tests in panel Tobit model. It is based on the standard error analysis. However, in the transformed GLS model, the presence of autocorrelation problem econometric analysis is tasted out through generalized least square methods. Therefore, the autocorrelation problem does not existed in the study model (refer appendix –VI). The same is true for the panel Tobit RE model of the study, and revealed that there is no correlation among residuals for all models (annex-VI). Thus, the panel models are not detected by serial or autocorrelation problems.

Test Multicollinearity Problem for Panel Models

In order to avoid the double effects of the explanatory variables among the Panel models of this study called multicollinearity problem was tested by the correlation analysis. Such problem is in panel models are identified by the degree of the relationship between two explanatory variables measured through correlation analysis. The high positive or negative correlation among any two of the explanatory variables built-in a regression model shows the way of multicollinearity problems. Moreover, the multicollinearity problem is said to be perfect multicollinearity if the correlation coefficient between any two explanatory variables built in a model are positive or negative one.

According to different scholars a serious multicollinearity problem is determined at different coefficient of correlations such as any correlation coefficient above 0.7 could cause a serious multicollinearity problem (Kennedy, 2008), and the correlation coefficient below 0.9 may not cause serious multicollinearity problem (Hair *et al.*, 2006). However, the multicollinearity problem should be corrected when the correlation extent to be above 0.8 (Cooper and Schindler, 2009) and 0.9 (Hailer et al, 2006). Similarly, almost all correlation coefficients demonstrated that the relationship between any two of the explanatory variables of the study is weak, in other words there is a weak correlations among any two of the explanatory variables of competitiveness composite index; and which in turn indicates that there is no the existence of multicollinearity problem on the study variables (see annex -VII).

In both panel models, almost all correlation coefficients shows that the relationship between any two of the explanatory variables of the study are weak, in other words there is a weak correlations among any two of the explanatory variables of competitiveness composite index models of Ethiopia; and which in turn indicates that there is no the existence of multicollinearity problem on the study. On the top of this, in appendix-II we have observed that there is a strong multicollinearity problems since the correlation between six study variables is greater than 0.9. However, the presence of the problem is formally corrected by robust standard error regression of the model.

Test the Heteroscedasticity Assumptions of the Models

In this section, the diagnostic tests that the presence of Heteroscedasticity problem which arising at several situations in panel models are tested. Basically the presence of the problem affects the confidence interval of the coefficient parameters which in turn affects the logical conclusion of the study, but it is also corrected by robust regressions. However, Heteroscedasticity problem is inherent behavior of panel fixed effect model and may be affected the transformed GLS.

Indeed, the study models have differed but systematically define a cross-sectional unit of the dataset values of the dependent variable, and the panel Tobit uses only the random effects. Therefore, unlike the transformed GLS study model, testing Heteroscedasticity problem is not crucial rather using it as the reference in panel Tobit RE model of the study. Moreover, presence Heteroscedasticity problem in transformed OLS model of the study was identified by the GLS regression methods. Accordingly, the transformed least square regression model result out lies that there is Heteroscedasticity problem in the transformed OLS study model (Appendix –VI). And therefore; the presence of the problem is formally corrected by robust standard error regression of the model.

Annex III : Non-linear Panel Tobit Regression Result

```
.xttobit cop gap trb uem rol cor fdi erd ifr tea ele ino cpi gex, ll(0) ul(7)
```

Obtaining starting values for full model:

Iteration 0: log likelihood = -14.633744

Iteration 1: log likelihood = -13.842353

Iteration 2: log likelihood = -13.446488

Iteration 3: log likelihood = -13.436224

Iteration 4: log likelihood = -13.436215

Fitting full model:

Iteration 0: log likelihood = -13.436215
Iteration 1: log likelihood = -13.436215

Random-effects tobit regression	Number of	obs =	70
Group variable: ccd	Number of	groups =	5

Random effects u_i ~ Gaussian

Obs per group:

min =
14

avg =
14.0

max =
14

Integration method: mvaghermite
12

Integration pts. =

Log likelihood = Wald = -13.436215 Prob = chi2(13) = 44.58
> chi2 = 0.0000

Cop	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Gap	.7763745	.3631897	2.14	0.033	1.488213	.0645357
Trb	-.0002911	.0001266	-2.30	0.021	-.0005392	-.0000431
Uem	-5.868646	2.982412	-1.97	0.049	-11.71406	-.0232263
Rol	31.16514	14.20031	2.19	0.028	3.333038	58.99724
Cor	-27.11524	12.95318	-2.09	0.036	-52.503	-1.727484
Fdi	-.2191881	.0961663	-2.28	0.023	-.4076705	-.0307057
Erd	-4.718572	2.5581	-1.84	0.065	-9.732355	.2952116
Ifr	5.330654	2.558116	2.08	0.037	.3168397	10.34447
Tea	11.82391	6.02073	1.96	0.050	.0234991	23.62433
Ele	5.144804	2.883529	1.78	0.074	-.5068091	10.79642
Ino	1.296129	.6503486	1.99	0.046	.0214696	2.570789
Cpi	-.1206234	.0600072	-2.01	0.044	-.2382354	-.0030115
Gex	-.2562174	.2084515	-1.23	0.219	-.6647749	.15234
_cons	-9.762144	7.840992	-1.25	0.213	-25.13021	5.605919
/sigma_u	.1311959	.0549921	2.39	0.017	.0234134	.2389783
/sigma_e	.278763	.0244491	11.40	0.000	.2308435	.3266824
Rho	.1813332	.1288533			.0308597	.5190282

0 left-censored observations
70 uncensored observations
0 right-censored observations

Annex IV: The Robust Panel GLS Estimation Result

```
. xtreg lncop lngap lntrb lnuem lnrol lncor lnfdi lnerd lnifr lnfea lnele lnino l
> ncpi lngex, robust
note: lngex omitted because of collinearity
```

```
Random-effects GLS regression      Number of obs   =       70
Group variable: ccd                Number of groups =        5
```

```
R-sq:                               Obs per group:
  within = 0.0000                    min =       14
  between = 0.0000                   avg =      14.0
  overall = 0.8154                    max =       14
```

```
corr(u_i, X) = 0 (assumed)           Wald chi2(1)    =      .
                                           Prob > chi2     =      .
```

(Std. Err. adjusted for 5 clusters in ccd)

lncop	Robust					[95% Conf. Interval]	
	Coef.	Std. Err.	z	P>|z|			
lngap	1.078575	2.86e-10	3.8e+09	0.000	1.078575	1.078575	
lntrb	-4.950106	1.27e-09	-3.9e+09	0.000	-4.950106	-4.950106	
lnuem	-45.73114	8.14e-09	-5.6e+09	0.000	-45.73114	-45.73114	
lnrol	31.20041	5.29e-09	7.2e+09	0.000	31.20041	31.20041	
lncor	-52.49159	1.24e-08	-6.7e+09	0.000	-52.49159	-52.49159	
lnfdi	5.977045	1.78e-09	3.3e+09	0.000	5.977045	5.977045	
lnerd	7.086398	9.33e-10	7.6e+09	0.000	7.086398	7.086398	
lnifr	18.13841	3.56e-09	5.1e+09	0.000	18.13841	18.13841	
lnfea	32.26672	4.34e-09	7.4e+09	0.000	32.26672	32.26672	
lnele	64.26	1.60e-08	4.0e+09	0.000	64.26	64.26	
lnino	2.005922	1.35e-09	1.5e+09	0.000	2.005922	2.005922	
lncpi	-3.567053	3.61e-09	-9.9e+08	0.000	-3.567053	-3.567053	
lngex	0	(omitted)					
_cons	-35.735	8.30e-09	-4.3e+09	0.000	-35.735	-35.735	
sigma_u	0						
sigma_e	.11892413						
rho	0	(fraction of variance due to u_i)					

Panel Tobit Post- Estimations IV: The Margins of the Independent Variables in Panel Tobit RE model

```
. margins, eyex(gap trb uem rol cor fdi erd ifr tea ele ino cpigex)
```

```
Average marginal effects Number of obs =       70
```

```
Model VCE      : OIM
```

```
Expression     : Linear prediction, predict()
```

```
ey/ex w.r.t. : gap trb uem rol cor fdi erd ifr tea ele ino cpi gex
```


. margins

Predictive margins Number of obs = 70

Model VCE : OIM

Expression : Linear prediction, predict()

	Margin	Delta-method Std. Err.	z	P>|z|	[95% Conf. Interval]
_cons	3.666857	.0674729	54.35	0.000	3.534613 3.799102

. testparm cop gap trb uem rol cor erd ifr tea ino cpi gex equal

(1)	- [cop]gap	+	[cop]trb	=	0
(2)	- [cop]gap	+	[cop]uem	=	0
(3)	- [cop]gap	+	[cop]rol	=	0
(4)	- [cop]gap	+	[cop]cor	=	0
(5)	- [cop]gap	+	[cop]erd	=	0
(6)	- [cop]gap	+	[cop]ifr	=	0
(7)	- [cop]gap	+	[cop]tea	=	0
(8)	- [cop]gap	+	[cop]ino	=	0
(9)	- [cop]gap	+	[cop]cpi	=	0
(10)	- [cop]gap	+	[cop]gex	=	0

chi2(10) = 26.06

Prob > chi2 = 0.0037

Variable	Obs	Pr(Skewness)	Pr(Kurtosis) adj	chi2(2)	Prob>chi2
Incop	70	0.0000	0.0000	30.40	0.0000
Ingap	70	0.0000	0.0028	21.02	0.0000
Intrb	70	0.4188	0.0005	10.71	0.0047
Inuem	70	0.0000	0.0008	25.51	0.0000
Inrol	70	0.1012	0.6068	3.07	0.2152
Incor	70	0.0676	0.0008	11.92	0.0026
Infdi	70	0.2348	0.0115	7.07	0.0291
Inerd	70	0.0003	0.2476	11.85	0.0027
Inifr	70	0.0000	0.0084	20.15	0.0000
Intea	70	0.0000	0.0234	17.24	0.0002
Inele	70	0.0292	0.5233	5.07	0.0791
Inino	70	0.3284	0.0000	43.72	0.0000

Incpi	70	0.2705	0.0000	26.68	0.0000
Ingex	70	0.7695	0.0033	7.73	0.0209

Annex VI: Test Normality Assumption

. skstest Incop Ingap Intrb Inuem Inrol Incor Infdi Inerd Inifr Intea Inele Inino Incpi In

> gex

Skewness/Kurtosis tests for Normality

joint

Variable	Obs	W'	V'	z	Prob>z
Lncop	70	0.85652	9.765	4.401	0.00001
Lngap	70	0.84472	10.569	4.554	0.00001
Lntrb	70	0.96109	2.648	1.881	0.03000
Lnuem	70	0.80723	13.120	4.972	0.00001
Lnrol	70	0.95524	3.047	2.152	0.01571
Lncor	70	0.90675	6.347	3.569	0.00018
Lnfdi	70	0.96226	2.568	1.822	0.03424
Lnerd	70	0.84864	10.302	4.505	0.00001
Lnifr	70	0.80775	13.085	4.966	0.00001
Lntea	70	0.84808	10.340	4.512	0.00001
Lnele	70	0.90960	6.153	3.509	0.00022
Lnino	70	0.92480	5.118	3.154	0.00081
Lncpi	70	0.93647	4.324	2.828	0.00234
Lngex	70	0.98087	1.302	0.510	0.30515

. sfrancia Incop Ingap Intrb Inuem Inrol Incor Infdi Inerd Inifr Intea Inele IninoIncpi

> Ingex

Shapiro-Francia W' test for normal data

. mvtest normality Incop Ingap Intrb Inuem Inrollncor Infdilnerd Inifr Intealnele Ini

> no Incpi Ingex

Test for multivariate normality

Doornik-Hansen chi2(28) = 383.175 Prob>chi2 = 0.0000

Annex VII: Test the Autocorrelation Problem and Heteroscedasticity Problems

```
. xtglm Incop Ingap Intrb Inuem Inrol Incor Infdi Inerd Inifr Intea Inele Inino Incpi Ingex
```

```
> ex
```

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares Panels: homoskedastic Correlation: no autocorrelation

Estimated covariances	=	1	Number of obs	=	70
Estimated autocorrelations	=	0	Number of groups	=	5
Estimated coefficients	=	14	Time periods	=	14
			Wald chi2(13)	=	37.68
Log likelihood	=	68.31496	Prob > chi2	=	0.0003

Incop	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Ingap	.1666449	.114996	1.45	0.147	-.0587432 .392033
Intrb	.6876926	.5974933	1.15	0.250	-.4833727 1.858758
Inuem	6.565105	5.351663	1.23	0.220	-3.923962 17.05417
Inrol	2.85209	2.280441	1.25	0.211	-1.617493 7.321673
Incor	-7.448075	5.39533	-1.38	0.167	-18.02273 3.126577
Infdi	-.5617347	.433207	-1.30	0.195	-1.410805 .2873354
Inerd	.8031132	.4816006	1.67	0.095	-.1408066 1.747033
Inifr	2.017538	1.440575	1.40	0.161	-.8059379 4.841013
Intea	-3.857219	2.428599	-1.59	0.112	-8.617185 .9027468
Inele	-4.514931	2.985927	-1.51	0.131	-10.36724 1.337379
Inino	.4781326	.4665963	1.02	0.305	-.4363794 1.392645
Incpi	-.6532116	1.309698	-0.50	0.618	-3.220173 1.91375
Ingex	-.5892187	.6209713	-0.95	0.343	-1.8063 .6278626
_cons	-1.283037	3.060053	-0.42	0.675	-7.280631 4.714557

Chapter Five: BETTER ACCESS TO FINANCE



Executive Summary

The overwhelming majority of enterprises claim that access to finance remains the main challenge in operating day to day business activities. Out of 50 documents reviewed, 46 of them mentioned access to finance as the critical problem their enterprises encounter. Ethiopia's rank in getting credit has been worsening over the last decade with its best ranking of 123rd coming in 2009 and its worst ranking of 176th coming this 2020. In this same 2020, Kenya, Rwanda, Tanzania and Uganda were 4th, 60th, and 73rd respectively with credit scores (0-100) of 95,95,65, and 60 respectively. Ethiopia's score is a lowly 15. Credit to the private sector as a percentage of GDP has shown improvement in the past five years; but it remains below the Sub-Saharan Average (SSA) average and competitor countries like Kenya, Tanzania, Rwanda and Uganda. Its share is expected to increase from the current value of 29% to 30.2% by 2025. The share of credit going to the private sector was as high as 36 percent back in 2011/12 but that fell to 32 percent as of June 2018.

The effect of lack of finance on the performance of businesses is considerable as firms with access to finance, registered high employment and sales growth. Firms with access to loans exhibit employment growth and sales growth of 0.3 percentage points and 0.82 percentage points respectively. On the other hand, firms with no access to finance, who waited an extended period to get foreign currency, scored 0.2 percentage points less sales growth than those who managed to get timely foreign currency.

Having a **high bank concentration** with dominant state banks is the banking system in Ethiopia. Furthermore, most of the banks are located in the capital, Addis Ababa with close to 36% of bank branches and 54% of insurance branches found in the capital.

Higher collateral (296.2% than Kenya, Rwanda, Tanzania and Uganda; under valuation of collateral, unclear rules and restricted list of items that usually preclude movable items characterize the loan practice.

Insufficient and Costly Loan Processing

Getting credit takes a considerably long time as it is procedurally complicated, and more favorable towards foreign investors. The loan process could range from 3 months to a year; that lag could make businesses abandon the project. The bank loan process is attached to different expenses including stamp duty, payments to the city council, and service charge that would ultimately make the extra cost reach up to 8% of the loan size.

Loan Maturity Period and Loan Size

Short-term loan maturity poses challenges for enterprises' performance. Usually, a maturity period, especially short-term periods lasting less than a year, expires before the enterprise starts normal function. Furthermore, loan rationing is not uncommon in the credit market and this also hinders optimal performance.

NBE Stringent Directives

Both banks and Micro-finance institutions claim a shortage of loanable funds to the private sector, in part by the NBE restrictive directives, regarding credit. Banks have a loan cap of 27% of the credit supply when granting credit to the government - the amount of short-term loans cannot be more than 40% of the total outstanding loan.

Absence of alternative source of finance

Ethiopia is yet to benefit from available venture capital opportunities. The country doesn't have a clear policy framework to benefit potentially high growth entrepreneurs. As outlined above, credit markets are constrained by a lack of liquidity and excessive collateral requirements from banks. Thus, private equity and venture capital can be a good alternative to addressing the financing needs of enterprises.

Access to Foreign Currency

Access, management and regulation of foreign currency are obstacles that businesses engaging in international businesses, must cross.

Accessing forex is highly bureaucratic. The bureaucracy can take a minimum of two months and a maximum of three years. The criteria to allocate forex are not clear. The opening letter of credit is also time consuming and expensive thus eroding the investors working capital.

Access to forex has a significant effect on sales growth, however. The empirical analysis shows that enterprises that faced long delays scored 0.2% less sales growth than those who managed to get forex promptly.

Policies and Regulations

Other factors affecting enterprise performances are foreign exchange and related financial policies, high foreign exchange intermediation fees, international payment restrictions, sector specific legislative and regulatory framework, land policy, and financial consumer protection. All these will require special attention from the government and relevant stakeholders.

Possible recommendations

- Collateral
- Legally increasing the types of items to be used as collateral. For instance, the legal system supports the use of movable assets as collateral and a well-developed credit information system.
- Strengthening guarantee schemes (public or private) in a coordinated manner, especially for small enterprises that cannot manage accessing finance from formal lending institutions, due to a lack of credit history.
- Factoring or leasing can also increase the chance of securing finance for entrepreneurs.
- Facilitating the use of intellectual property as collateral to encourage people that have innovative ideas but no implementation mechanism.
- Employing universal collateral evaluation techniques
- **Short-loan maturity**
- Revising the NBE directive on short loan maturity (increasing the short loan maturity to more than two years) is highly advised. This will allow banks to extend sufficient loans to the private sector, subsequently reducing the amount of non-performing loans.
- Narrow Credit Base
- Preparing clear policy framework to introduce capital market to broaden the financial resources.
- Strengthening lease financing services- both state and private leases service providing organizations.

- Flexibility in Treatment of Sectors and Businesses
- The selection of sectors in credit allocation needs flexibility. The non-priority sectors need to be considered in loan allocation as long as they present projects that are viable economically as well as environmentally. Furthermore, revising loan allocations between private and state-owned enterprises enhances the catalyzing effect of private sector to economic growth.
- High Bank Concentration
- Liberalizing the financial sector helps attract new banks, enhances competition, innovation and service delivery.
- Access to Forex
- Ensuring fair, transparent, and priority-based allocation of forex;
- Addressing the root causes of illegal capital outflow;
- Encouraging remittance through different mechanisms including incentive packages, account opening, easy deposit mobilization;
- Reducing the incomparably high Letter of Credit charges and 100% deposit of the foreign exchange value in local currency to open Letter of Credit to manageable and justifiable levels like 30%;
- Revisiting the time and limits placed on retention accounts so that exporters can utilise more of their foreign currency over a longer period;
- Revisiting and reducing the 30% of forex to NBE surrender requirement of banks;
- Simplifying paperwork and reducing logistics and paperwork commitments, thus reducing the amount of time which foreign exchange is blocked or held up for;
- **Liberalizing the forex market**
- **Enhancing coordination among relevant stakeholders, engaging in the forex market and international trade including national bank of Ethiopia and Customs.**

5.1. Introduction

5.1.1. Background

For a developing country such as Ethiopia, whose economy is still predominantly agrarian, the private sector is undoubtedly a key player in its overall economic growth. Geda (2008) documented the role of private businesses in becoming veritable agents of change for employment creation and income generation, human development and poverty alleviation, export promotion, import substitution and entrepreneurship and hence the driving forces behind the growth of the country economy.

Policies and initiatives pertinent to enthralling private businesses are therefore a priority for Ethiopia. The government, in its recent important policy-cum-plan documents, unequivocally highlighted the importance it attaches to the development of the private sector (Menkir, 2016). Although improvements have been registered during the last few years, the performances of Enterprises have fallen short of expectations due to various challenges (Ethiopian Economics Association, 2015).

Businesses in Ethiopia are confronted with several challenges stemming from policy and legal framework on one hand and implementation of policies and laws on the other hand. Challenges related to the economic status of the country are also not uncommon. Extant literature shows that access to finance tops the list of problems hampering businesses in Ethiopia (AACCSA, 2016; Amentie, Negash, & Kumera, 2016; Ethiopian Economics Association, 2015; File, Kumera, & Tanku, 2018; Gurmessa, 2017; Kibret, Lalisho, Rokandla, & Belayneh, 2015; Menkir, 2016; Tesfaye & Hussen, 2018; World Bank/DB, 2019; World Bank/ES, 2015, 2012; World Economic Forum, 2017).

The issue of finance basically considers access to finance in the domestic market as well as access to foreign currency. The problem soars from time to time. For instance, according to the World Bank Group Enterprise Survey data base, perceived financial problems increased from 33% to 40% between 2011 to 2015 (World Bank Enterprise Survey; 2011,2015). Consistent with this, the review of about 50 documents on the challenges of doing business in Ethiopia revealed that the most pressing problem the business community encounters, is access to finance.

Table 5.1: Summary of Entrepreneurial Challenges

Indicator	Number	Percent
Access to finance	46	28
Business Skills	21	13
Input supply, access to land, electricity	20	12
Bureaucratic burden	18	11
Tax rate and tax administration	15	9
Infrastructure	15	9
Corruption	8	5
Market Problem	7	4
Competition	5	3
Limited BDS	5	3
Innovation	5	3
Total	165	100

Source: Authors Compilation

In view of the above, the World Bank Group, in its Doing Business report (2020), ranked Ethiopia 176th out of 190 countries in getting credit while competitor countries such as Kenya, Rwanda, Tanzania, and Uganda were ranked 4th, 4th, 67th, and 80th respectively. The rank for Ethiopia has worsened since 2014.

The adverse effect of access to finance constraints on the performance and productivity of private sector in Ethiopia is not to be understated (see File et al., 2018; Gurmessa, 2017; Regassa, Fielding, & Roberts, 2017; Tarfasa, Ferede, Kebede, & Behailu, 2016; UNIDO, 2019). For instance, a credit constrained¹⁵ firm has 15% less sales growth, 5% less employment growth and 11% less labor productivity than firms with no credit constraints. Similarly, Mukasa, Simpasa, Salami, and John (2017) reported that credit constraint reduced Ethiopian smallholders’ productivity by 60%. Thus ensuring credit to the private sector is vital to enhance productive capacity, thereby laying the foundation for a sustainable growth path (Sennoga & Zerihun, 2018; World Bank, 2014). It promotes growth by channelling credit to the most eligible firms (Levine, 2005)¹⁶.

In view of the above, this study aims to investigate the current legal, institutional, policy and implementation issues and challenges hindering access to finance in order to forward policy

15 Credit constrained households are those who have applied for loan but who got a loan amount which is less than the amount they have applied for (Jappelli, 1990)

16 Levine, R., 2005. Finance and growth: theory and evidence. In: Aghion, P., Durlauf, S. (Eds.), Handbook of Economic Growth, vol. 1, part A. ElsevierScience, The Netherlands, pp. 865–934.

recommendations for the betterment of access to finance in the country. In doing so, secondary data was the major source of data for the study. It was also supplemented by primary data from relevant stakeholders. We mainly used the G20 financial inclusion indicators; we used the World Bank Global Findex, the IMF Financial Access Surveys, the World Bank Global Payment Systems, the World Bank Group Enterprise Survey, the World Bank Group Doing Business Report, reports, policies and decrees of organizations in Ethiopia and different articles. Members of the business community and selected institutions were also interviewed.

The study entails an in-depth desk review of pertinent studies, reports, proclamations and documents related to the access to domestic finance and forex. Furthermore, the study viewed reports available in governmental organizations (e.g. Chamber of Commerce) and non-governmental think tanks.

5.1.2. Purpose of the Study

To study better access to finance the consultants have scanned the current legal, institutional, policy and implementation issues and challenges. The study shall also review and distil synthesis of researches and studies made earlier on the topic. With decent understanding of the magnitude and figures of each key performance indicators for the strategic area of action, the consulting firm shall undertake a trend analysis of impact. Finally, the study looks at best practices from neighbouring, competitor countries such as Kenya, Tanzania, Uganda, and Rwanda.

5.1.3. Scope of the Assignment

The scope of the study was to specifically cover the following:

- Undertake review of the preliminary AACCSA 2025 policy plan, specifically revisit KPIs and policy proposals of the theme for improvements;
- Carefully review and distil synthesis of researches and studies made earlier on the subject matter
- Assess current legal, institutional, policy and implementation issues and challenges.
- Understand the magnitude and figures and undertake trend analysis of data with the aim setoff setting targets for each identified KPIs.
- Undertake analysis of impact
- Benchmark regional countries best practices and
- Provide a brief and direct message to policy makers and forward sound policy proposals.

5.2. Review of the Status and Challenges affecting Access to Finance in Ethiopia: A comparative Perspective

This section of the paper entails an in-depth review of pertinent documents related to access to finance in Ethiopia. The review mainly addresses current legal, institutional, policy and implementation issues and challenges related to access to finance, access to forex, trend analysis, and benchmark regional countries' best practices.

In doing so, different sources of data, including IMF financials access survey, the World Bank Group Enterprise survey and Doing business reports, the Global Competitiveness Index reports, National reports and articles from reputable journals were consulted. The results are discussed below.

The importance of finance on the growth of firms and the economy has been well documented in the literature (OECD, 2006a, b; Deakins et al., 2008; IFC, 2010). Access to financial services at

affordable rates and fair terms is instrumental for firms expanding operations, innovating and investing in production facilities and new staff (OECD, 2006b). The World Bank Group (2019) indicated that an increment in bank loans to large firms would increase total factor productivity by about 30%. In the same vein, King and Levine (1993b)¹⁷ indicated that a 10-percentage point increase in the ratio of broad money to GDP is associated with an acceleration in GDP growth of a quarter of a percentage point per year. In Bangladesh, nearly half the poor people who credit escaped poverty, but only 4% of those without credit did (World Bank Group Doing Business Report, 2007¹⁸).

We reviewed more than 50 papers pertinent to doing business in Ethiopia. The result indicated that though there are several roadblocks in the way of doing business, finance is the biggest obstacle. To make sense of this, the lack of finance was mentioned as a challenge in 46 of the 50 papers reviewed for the study (see the annex for detail). In the studies reviewed, we noted that 30%-80% of micro and small enterprises mentioned access to finance as the top hindrance to conducting business in Ethiopia.

The proportion of firms in Ethiopia that listed access to credit as the top constraint to doing business was by far greater than that of Sub-Saharan Africa as well as competitor countries like Kenya, per the latest World Bank Group Enterprise Survey data for each. While the figure for Ethiopia was 40.4%, it was 22.9% for Kenya, 23% for Rwanda, 37.9% for Tanzania and 23.4% for Uganda. The Global Competitiveness Report (2019), ranked Ethiopia 107th out of 141 countries in the performance of its financial system. In depth interviews undertaken for the assignment validate the results of the literature review. The respondents highlighted the importance of finances both at the start up stage as well as operation stages of their business. A representative of a small enterprise operator in Bole Sub-city, around Jakros, for instance, indicated the importance of access to finance in their business:

“For me finance is the heartbeat of any business’ success. Business skill without enough finance is worthless. It should be supplemented by finance to make ideas real. It took us long to secure finances to start this business.” He also added that *“the MIFs are not providing credit as indicated in the strategy document. They work for profit and demand high collateral, which is not affordable by enterprises alike ours”*

The document review further highlighted the existence of visible differences among enterprises regarding access to finance. Small businesses are found to be more constrained by financing compared to their larger counterparts. By way of example, 40.8% of small firms claimed access to finance as the top obstacle against 19.5% of large firms (World Bank Group Enterprise Survey, 2011). The severity was felt more by medium firms or the missing middle. As indicated in the table below, the large firms consider finance as a minor obstacle while their smaller counterparts see finance as a very severe obstacle. 37% of large businesses considered finance a minor problem compared to a lowly 13% that considered it a severe objective. This can be an indication that access to finance constraint is a major problem for doing business in Ethiopia particularly for small firms.

Table 5.2: Severity of Financing Obstacle

How Much of an Obstacle: Access to Finance	Firm Size				
	Micro	Small	Medium	Large	Total
Minor Obstacle	1	127	101	79	308

17 King, R. and Levine, R. (1993b), “Finance and Growth. Schumpeter Might Be Right”, *Quarterly Journal of Economics*, August 1993, 108(3), pp. 717-37.

18 World Bank Group Doing Business Report (2007): How to Reform

	6.67%	24.52%	31.27%	37.44%	28.87%
Moderate Obstacle	6	130	97	60	293
	40%	25.1%	30.03%	28.44%	27.46%
Major Obstacle	6	166	78	45	295
	40%	32.05%	24.15%	21.33%	27.65%
Very Severe Obstacle	2	95	47	27	171
	13.33%	18.34%	14.55%	12.80%	16.03%
Total	15	518	323	211	1067
	100	100	100	100	100
$\chi^2(9) = 28.1428$ ***					

Source: Computed based on WBGES Data (2015)

Our assessment of enterprises on their perceptions regarding the supply of credit indicated that the proportion of firms identifying access to finance as a major constraint has shown more developments overtime for larger firms. To make sense of this, the percent of firms that rated access to finance as a major constraint decreased from 33.6% in 2011 to 24.4% in 2015. But 51.2% of large firms believe that access to External finance has been improved against only 15% for microenterprises. More than 50% of small enterprises replied that there is no change in access to external finance. The evidence shows that the situation seems to be worse for micro enterprises compared to small, medium and large sized enterprises.

Table 5.3: Changes in Access to External Finance overtime

How has your access to external finance changed over the last three years?	Enterprise Size				
	Micro	Small	Medium	Large	Total
Improved	3	76	79	85	243
	15%	22.22%	34.05%	51.20%	31.97%
No change	10	210	110	57	387
	50%	61.40%	47.41%	34.34%	50.92%
Worsened	7	56	43	24	130
	35%	16.37%	18.53%	14.46%	17.11%
Total	20	342	232	166	760
	100	100	100	100	100
$\chi^2(6) = 51.7595$ ***					

Source: Computed from WDES Data (2015)

Similarly, loan rejection was also found to be higher for smaller firms. The percentage of small firms whose recent loan application were rejected was 22.7 percent, a much higher percentage compared to rejection rates of medium and large firms (6.5 and 0.6 percent respectively). Only 30.4 percent of small firms have a loan or line of credit. This rate is much lower than that of large firms (68.1 percent).

Considering small businesses’ potential to grow into medium and large enterprises and their contribution to revitalize the economy, responsible entities need to devise policies that can help small enterprises overcome financing constraints pertinent to their size.

Given this background information, the following section discusses financial developments in Ethiopia from a comparative perspective and the challenges that constrain the business community from getting credit. In so doing, both descriptive and econometric analysis techniques were employed.

5.2.1. Assessment of Financial Development in Ethiopia: from a comparative perspective

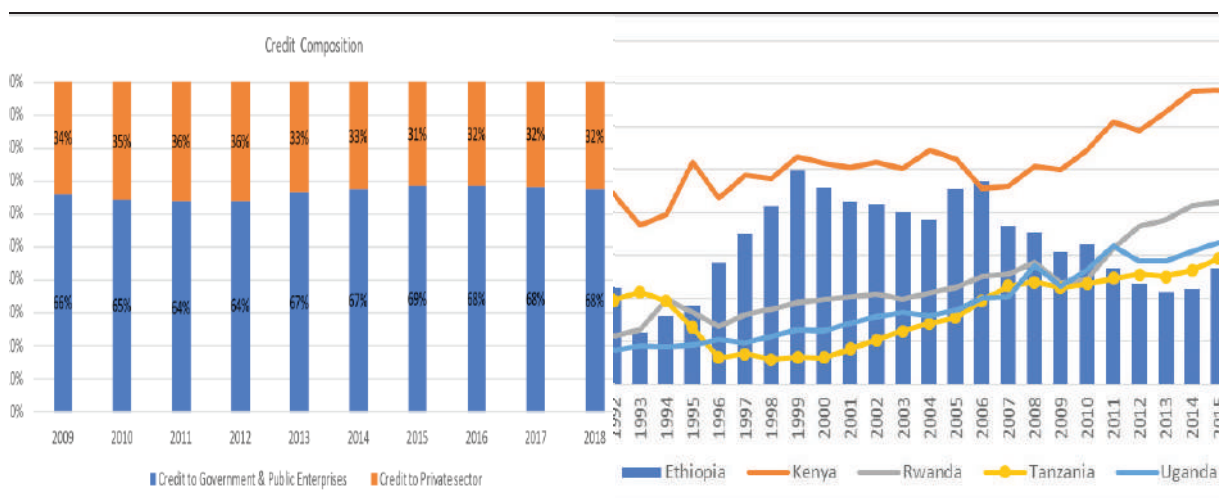
Understanding the financial development of a country is important when devising relevant mechanisms to address the financial bottlenecks that the business community encounters. The financial development of Ethiopia, in this case, was analyzed using both the demand side (barriers to use) and supply side (access or physical points of service) indicators.

5.2.1.1. Credit to the Private Sector

Credit to the private sector refers to financial resources provided to the private sector by financial corporations through loans, purchases of non-equity securities, trade credits and other accounts receivable that establish a claim for repayment (WDI, 2008).

Specific examination of the supply of credit to the private sector indicates Ethiopia is falling behind its competitors. In 2011, credit to the private sector in Ethiopia was about 14 percent of GDP compared to the regional average of 23 percent and this value further declined to 11.5% in 2015. Even though the country’s private sector credit, as a percent of GDP, has been improving in the past five years, it is still below that of the SSA average and competitor countries. Furthermore, the share of credit going to the private sector was as high as 36 percent of total credit back in 2011/12. That figure fell even further to 32 percent as of June 2018.

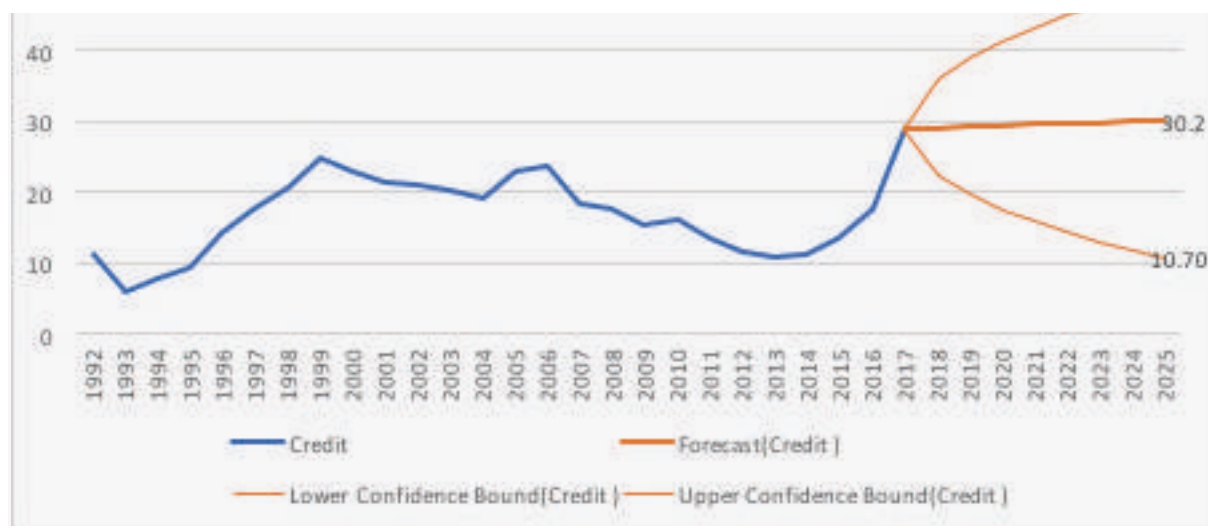
Figure 5.1: Private Sector Credit as a Share of GDP and Composition of Domestic Credit Stock (%)



With the use of the moving average technique, this study used Ethiopia’s historical values of credit to the private sector to predict values reaching the year 2025. We used this simple forecasting technique as the values of this variable are not quite varying. The expected value

for credit to the private sector in 2025 will be 30.2% with lower and upper confidence bounds at 10.7 and 49.7% (Annex XX). This value is not so different from the current values of some competitor countries such as Kenya.

Figure 5.2: Credit to the Private Sector



The World Bank Group Doing Business Report considers two aspects of access to finance - the strength of credit reporting systems and the effectiveness of collateral and bankruptcy laws in facilitating lending.

Based on these indicators, Ethiopia’s rank in getting credit has worsened over the last decade. The best ranking was 123rd in 2009 and the worst is this year’s 176th place. It has performed less than its four competitor countries in terms of strength of legal rights index, depth of credit information index, and credit bureau coverage. The strength of legal rights index plummeted from 4 between 2007 and 2012 to 3 between 2013 and 2020 (World Bank Group Doing Business, 2020).

As indicated in the table below, the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders (strength of legal rights index), and availability of credit information(credit history or information on defaults) matters the most in getting credit.

Kenya and Rwanda can be good examples to learn from in terms of getting credit. Both have remarkable reforms that can empower both the private sector and the business community. In fact, Rwanda’s improvements have been consistent over a decade (Figure, 5).

Kenya has strengthened access to credit by introducing online registration, modification and cancelling security interests, and public online searches of its collateral registry; while for Rwanda, an automatic stay is now imposed on secured creditors for a period of six months and the law provides for relief from such stay when the assets are perishable or are not needed for the reorganization of the company (World Bank Group Doing Business; 2019,2020)

Table 5.4: Getting Credit Indicators Ethiopia and Comparator Countries

Country	Rank	Score for getting credit (0-100)	Strength of legal rights index (0-12)	Depth of credit information index (0-8)	Credit bureau coverage (% of adults)	Credit registry coverage (% of adults)
Ethiopia	176	15	3	0	0	0.4

Country	Rank	Score for getting credit (0-100)	Strength of legal rights index (0-12)	Depth of credit information index (0-8)	Credit bureau coverage (% of adults)	Credit registry coverage (% of adults)
Kenya	4	95	11	8	36.4	0.0
Rwanda	4	95	11	8	15.4	10.4
Tanzania	60	65	5	8	6.0	0.0
Uganda	73	60	5	7	6.6	0.0

Source: World Bank Group Doing Business Report (2020)

In fact, the National Bank of Ethiopia has issued a directive called “ Establishment and Operation of Credit Reference Bureau Directives No. CRB/02/2019” for financial institutions registered with Credit Reference System and other entities authorized by law or the National Bank of Ethiopia.¹⁹

This will be of paramount importance to address problems of getting credit. This new directive will more importantly address the heavy collateral requirements that enterprises are oftentimes required to present to lenders in order for these lenders to make informed decisions. It has recently reported to launch Credit Bureau and Credit Information System to facilitate sophisticated credit information sharing in the economy.

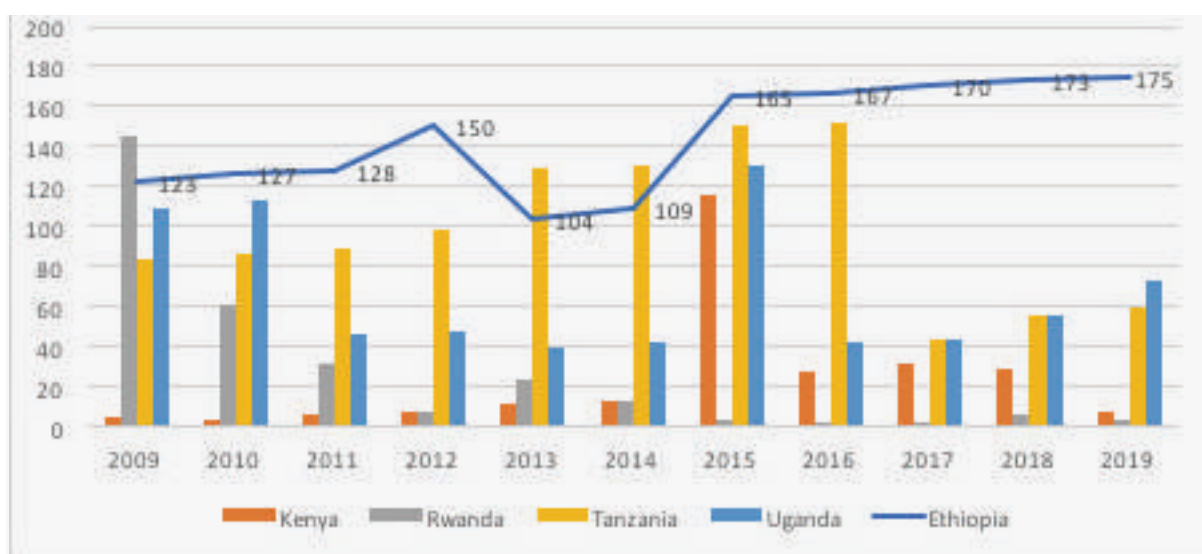
Strengthening the Credit Bureau with accurate and sufficient information about the borrowers is critical. This will be a reality when the responsible bodies and the financial institutions, work in a collaboraitve manner. Moreover, the Bureau needs to automate the system to avail the required borrower credit information, to the authorized body.

Furthermore, increasing the efficiency level of bankruptcy laws will be critical in increasing access to credit and enterprise performances. Previous research also confirms this proposition as raising the efficiency level of bankruptcy laws in selected high-income economies was found to increase their total factor productivity by 30%, through a rise in bank loans to large firms (WBGDB, 2019)²⁰.

19 <https://www.nbe.gov.et/pdf/directives/creditreferencebureau/Revised%20CRB%20Directives%20CRB%2002%202019%20new1.pdf>

20 World Bank Group Flagship Report (2019). Doing Business 2019: Training for Reforms

Figure 5.3: Getting Credit Rank for Ethiopia and Comparator

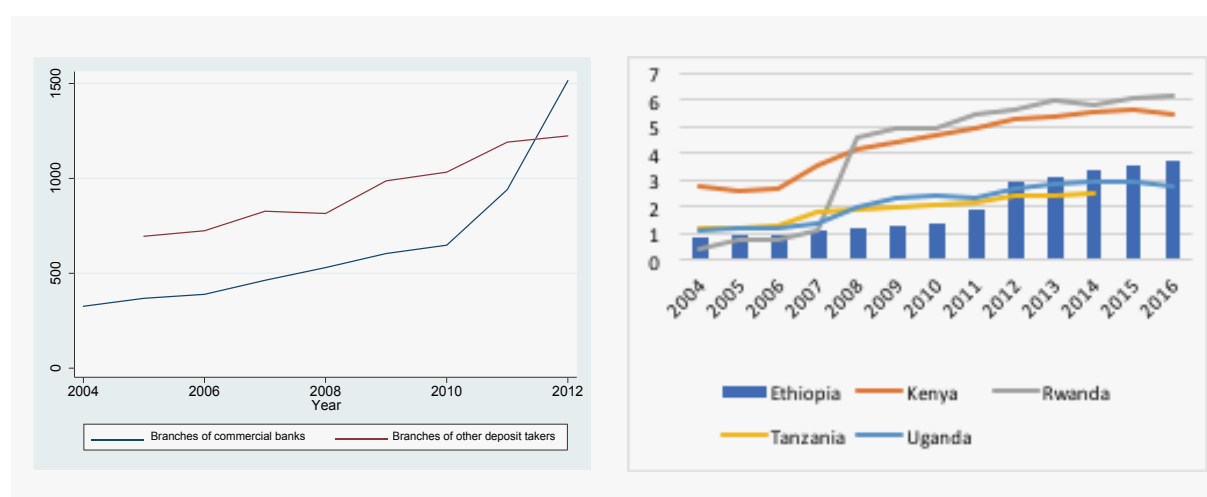


5.2.1.2. Access Indicators: Physical Points of Service

Ethiopia has registered remarkable improvements on the supply side (physical point of access) of access to finance in the last decade. The number of bank branches (both commercial bank of Ethiopia and other private banks) has been increasing overtime (Figure 6). Ethiopia has shown remarkable improvements in the bank branches per 100,000 people though it remains below the four competing countries.

Out of the four competing countries, Rwanda has shown tremendous improvement in Bank branches per 100,000 people. It increased from 0.39 in 2004 to 6.16 in 2016. Kenya follows Rwanda. According to the national bank of Ethiopia report, the bank branch to population ratio in Ethiopia stood at 1:20 (NBE, 2017/18). That means it is close to 5 for Ethiopia.

Figure 5.4: Trends of Branches of Banks in Ethiopia and Bank Branches per 100000 Adults

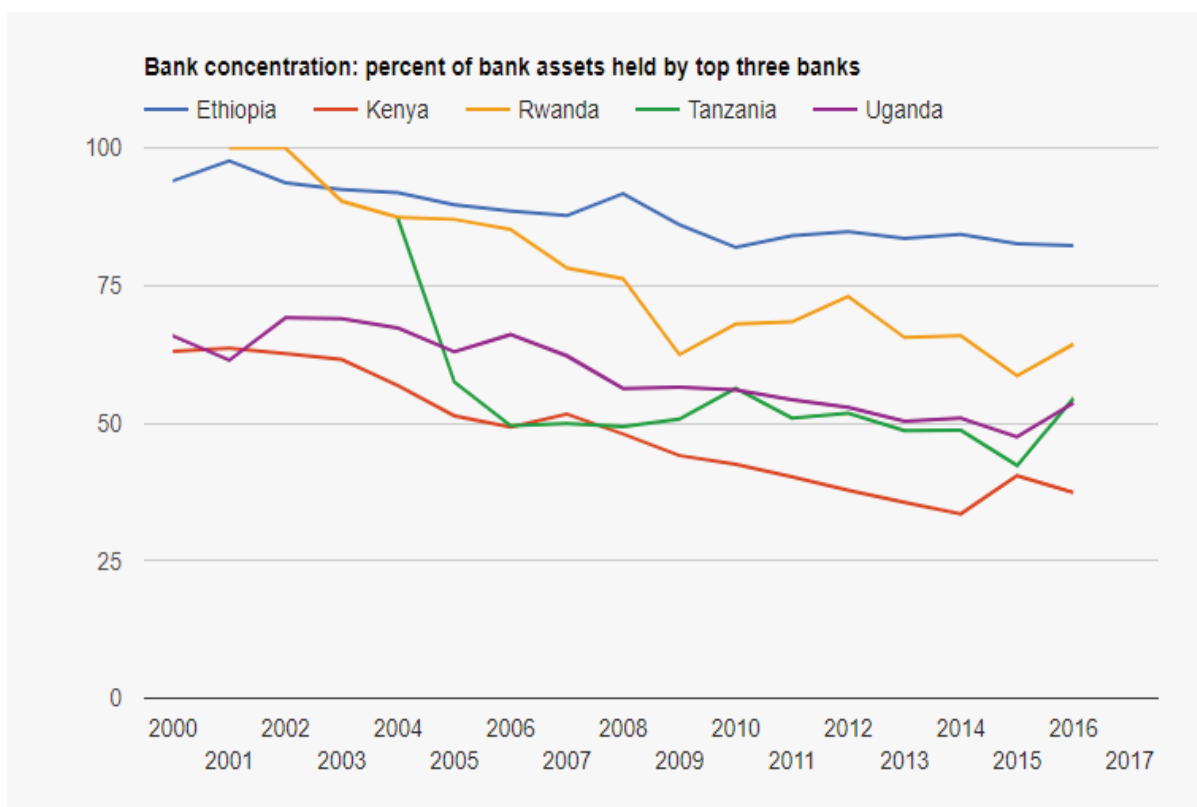


The banking sector in Ethiopia has also been dominated by state-owned banks, namely the Commercial Bank of Ethiopia (CBE), due to its aggressive expansion. Ethiopia was ranked 2nd next to Belize in bank concentration index with a score of about 95% (Beck et al, 2019).²¹ Bank concentration increases financing obstacles and decreases the likelihood of receiving bank

21 Beck, T., Hoseini, M., & Uras, B. (2019). Trade Credit and Access to Finance: Evidence from Ethiopian Retailers. Journal of African Economies, (1997), 1–27.

finance. As indicated in the graph below, the bank concentration index for Ethiopia has been higher than its four peer countries over the last fifteen years. Ethiopia’s bank concentration index is expected to decrease to 73.84 in 2025. While this is still greater than the current values of all competing countries, it may restrict the probability of extending loans to the private businesses. It is not unusual for state owned banks to extend more loans to public projects rather than private enterprises.

Figure 5.5: Bank Concentration: Percent of Bank Assets Held by Top Three Banks

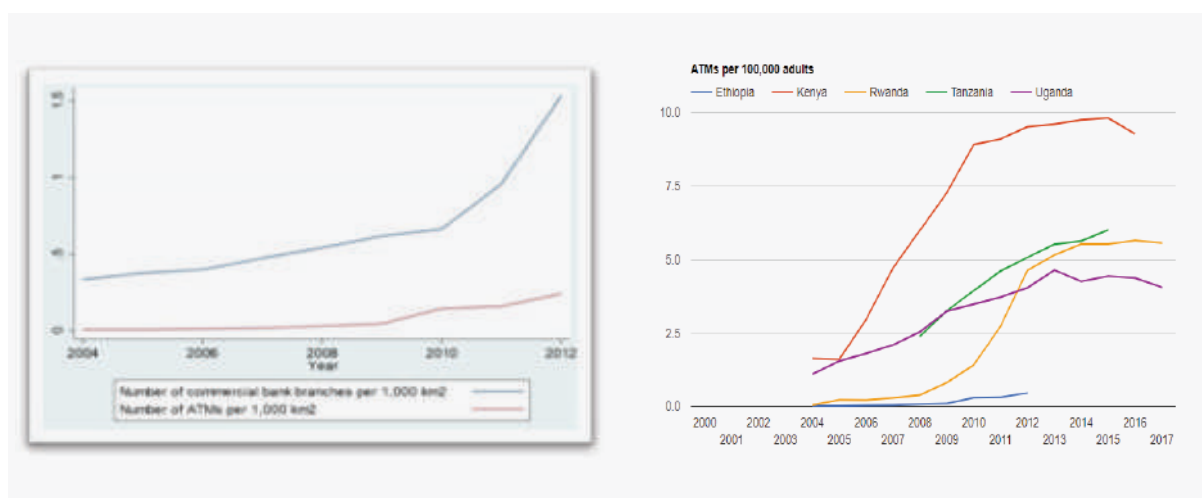


The geographical outreach of physical point of access has also improved during the period under consideration. There has been an upsurge in the number of commercial banks and ATMs per 1000 km² as shown in Figure 6.

Despite these notable improvements, financial institutions are concentrated in the capital, Addis Ababa, leaving the rural and semi-urban areas underserved. For instance, 36% of bank branches and 54% of insurance branches were operating in Addis Ababa in 2016 (National Bank of Ethiopia, 2017). Furthermore, access to financial services measured in terms of ATM availability remains highly limited all over Ethiopia, though it is improving over time. In 2004, ATM per 1,000 km² and ATM per 100,000 adults were 0.008 and 0.02 respectively; that increased to 0.24 and 0.46 in 2012. This is really a tiny fraction of values compared to other countries like Kenya and Tanzania (9.9 and 14.6 ATM per 100,000 adults in Kenya and Tanzania, respectively).

This shows that location is also a significant barrier in terms of access to finance in Ethiopia. Distance makes it difficult to open accounts and mobilize deposits. That means, while thinking of opening new bank branches, the geographical location of the branches also needs to be considered. It is also of critical importance to strengthen the established rural banking systems in the country to address those who live in the remote areas. Promoting agent banking can also be a good solution to enhance financial inclusion.

Figure 5.6: Number of Commercial Bank Branches and ATMS per 1000 KM2



The bank concentration may also be exacerbated by stricter regulations enacted by the national bank of Ethiopia and other exogenous factors that need the government's intervention.

Firstly, tighter proclamations when starting new banks can contribute to the concentration of banking services among few banks. Starting a new bank in Ethiopia requires relatively higher paid up capital. The minimum capital required to establish a new bank was raised from 10 million Birr in 1994 to 75 million Birr in 1999, to Birr 500 million (16.5 million USD) in 2011²². For competing countries, the minimum paid up capital is 1 billion Kenyan shilling (9.8 million USD) in Kenya, 15 billion Tanzanian shilling (6.5 million USD) in Tanzania, 4 billion Ugandan shilling (1.1 million USD) in Uganda, and 5 billion Rwandan shilling (1.4 million USD) in Rwanda. Looking back at Ethiopia, the number of banks flourishing in the banking system in the country is decreasing after the proclamation became an obstacle new banks faced. For instance, only one bank, Debub Global Bank, was established after the proclamation in 2011 on the minimum capital requirement

Table 5.5: Banks in Ethiopia with their Year of Establishment

Bank	Year of Establishment	Bank	Year of Establishment
DBE	1909	Lion International	2006
CBE	1963	Oromia International	2008
Awash	1994	Bunna	2009
Abyssinia	1996	Zemen	2009
Wegagen	1997	Abay	2010
United Bank	1998	Berhan International	2010
Nib	1999	Addis International	2011
Dashen	2003	Debub Global	2012
Cooperative Bank of Oromia	2005		

22 Licensing and Supervision of Banking Business Minimum Capital Requirement for Banks Directives No. SBB/50/2011, <https://www.nbe.gov.et/pdf/directives/bankingbusiness/sbb-50-11.pdf>

Secondly, the banking sector faces tight regulations in relation to lending funds (mandatory purchase of NBE Bills equal to 27% of gross lending- MFA/NBE Bills/001/2011). Ethiopian private banks are required to allocate 27 percent of their new lending funds to the government with an interest rate of just 3 percent and a 5-year maturity period. Banks considered this the most serious impediment to private sector lending activities. They claimed the bills shrunk their liquidity and smashed their capacity to provide loans for the private sector. They argued that the 3 percent interest rate went against the minimum market rate that NBE itself imposed. When the directive, 'MFA/ NBE BILLS/001/2011', became effective, the minimum interest rate was 5 percent; that increased to 7 percent a year ago when the birr devalued by 15 percent along with other major hard currencies (Capital Ethiopia, 2018).

Research also highlighted the negative effect of the 27% Bond Purchase Directive on credit performance and profitability of Private Banks (Mintesnot and Semeneh, 2018)²³. The bill basically favors existing, established clients when allocating loans as opposed to newer, riskier SMEs (Fredu and Edris, 2016).²⁴

So, easing the requirements to attract private banks to the industry is commendable. For instance, lifting the 27% mandatory purchase of NBE Bills.

Thirdly, the NBE Licensing and Supervisions of Banking Proclamation No. 84/1994 clearly stated that no foreign national shall undertake banking business in Ethiopia. The banking activity is entirely owned by domestic banks and the dominant state banks. This affects the private sector's chances of getting loans. Opening the door to foreign banks will create competition in the banking sector which in turn will create avenues for alternative sources of finance, at a cheaper price.

Fourthly, House Rent: bank officials seriously claim that opening new branches is tough due to the skyrocketing office rent prices. The officials say office rent covers more than 25% of the operational expenses. As such, regulating the house rent price may encourage private banks to open new branches.

5.2.1.3. Usage Indicators: Enterprises

There are improvements in the utilization of financial services in Ethiopia (Figure 11) though the rate of utilization remains limited countrywide. Outstanding deposits and loans from Commercial banks have shown improvements overtime.

Total outstanding credit of the banking system, including to the central government, increased by 22.8 percent and reached 449 billion Birr by the end of June 2018. **The loan disbursement seems** to be biased towards some priority sectors like industry, excluding other priority sectors like the service sector. Excluding the central government, credit to industry accounted for 39.3 percent followed by international trade (19.8 percent), domestic trade (11.4 percent), housing and construction (11 percent), other sectors (5.8 percent) and agriculture (4.9 percent). The share of the private sector in outstanding credit was 284.5 billion Birr (or 63.4 percent) reflecting a 23 percent year-on-year growth (NBE, 2017/18). This is appreciable though **non-priority sectors** do not have significant opportunity to access credit. This is one of the critical challenges that enterprise operators in the 10 biggest cities in Ethiopia claim to face (EDRI BDS Survey, 2018). They indicated that their loan requests usually get rejected; if granted, no more than half of the loan amount requested can be used in non-priority sectors. Therefore, it is in the country's best interest to reduce the proportion of loans granted to the priority sectors and to give the non-

23 Mintesnot Seyoum and Semeneh Bessie (2018), The Impact of National Bank of Ethiopia's 27% Bond Purchase Directive on Credit Performance and Profitability of Private Banks. *Research Journal of Finance and Accounting* ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) Vol.9, No.9, 2018

24 Fredu and Edris (2016). Small and Medium Enterprise Access to Finance in Ethiopia: Synthesis of Demand and Supply, The *Horn Economic and Social Policy Institute (HESPI) Working Paper 01/16*.

priority sectors more of a chance. After all, the amount of credit extended to the private sector should vary with place and time. The success of sectors obviously changes with time and place. Furthermore, the economic and environmental viability of projects needs to be a criterion. For instance, a loan to people who need to engage in the education sector has never been in the list of loan priorities. The quality of labor force hampers the productivity of other sectors.

Deposits increased by 29.8% in 2016/17, 10 percentage points higher than the previous year, due to the expansion of bank branches and higher per capita incomes. However, the financial sector remains shallow and offers a limited range of financial products and services.

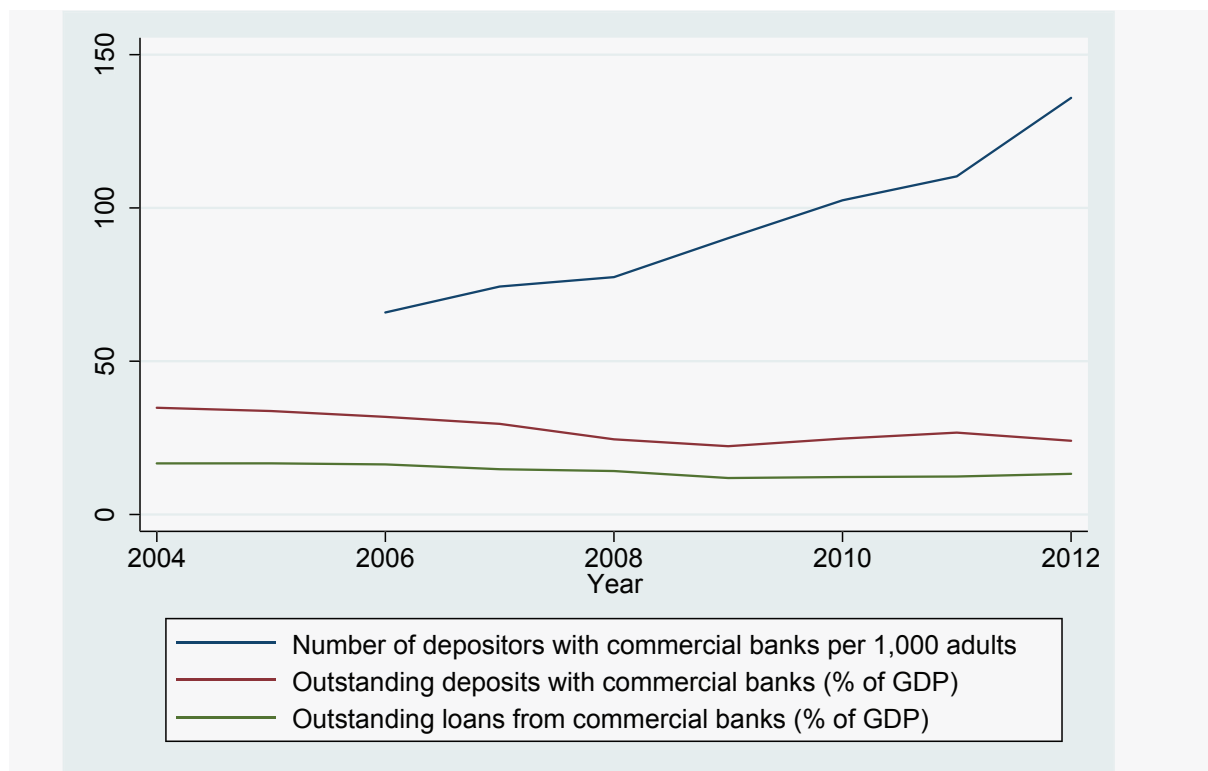
Both indicators as a percentage of GDP have been declining as shown in Figure 11 below. This shows that the rates of growth of outstanding deposits and loans is lagging behind the rate of economic growth in the country. This still doesn't align with the government's plan for the second Growth and Transformation (GTP) period to finance the private sector's investment largely from domestic sources through the assortment of saving mechanisms (National Planning Commission, 2016). The goal of GTP II was to finance at least two-thirds of the gross the domestic investment from domestic saving. To this end, the target was set to increase the share of gross domestic saving in GDP from 21.8 percent in 2014/15 to 29.6 percent by 2019/20 (National Planning Commission 2016, p. 111). To achieve this target, the following policy instruments were implemented:

- Awareness creation and public mobilization,
- Maintaining positive real interest rate,
- Controlling inflation,
- Expanding and improving financial institutions,
- Implementing saving instruments and services such as saving for housing program, saving for investment equipment scheme, social security saving, health insurance saving, etc.

Moreover, accelerated economic growth and transformation, as well as expanding productive job opportunities were part and parcel of the strategy designed to promote domestic savings during the planned period.

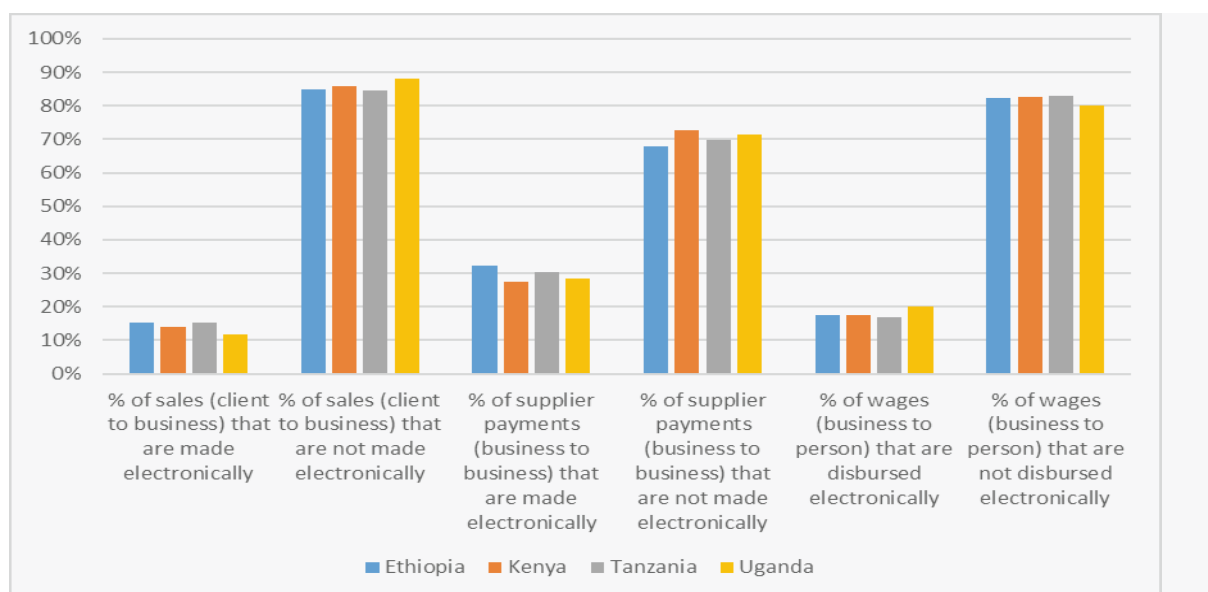
The target looks unattainable however, due to the rising inflation and house rent that reduces saving mobilization of households. It is also evident that relevant stakeholders are not exerting much effort to curb these issues. Controlling inflation and providing financial literacy trainings can be instrumental to reinforce deposits in the financial institutions.

Figure 5.7: Trends of Utilization of Financial Services in Ethiopia



Digital Banking: Though the basic infrastructure to offer digital banking is in place at most banks (ATMs, POS, internet/mobile banking), the actual usage of digital channels to conduct a substantial share of banking and payment activities remains limited (Figure 7). Sales made and suppliers’ payments made electronically are quite insignificant. This is ascribed to low levels of internet penetration and a poorly developed telecommunication infrastructure. The infrastructures for telecommunications, internet and online payments are inadequate.

Figure 5.8: Electronic Payments



Source: World Bank’s UFA (2015)

Generally, banks in Ethiopia have shown significant improvements in most of the access to finance and usage indicators. But relative to competing countries in Africa, Banks in Ethiopia lag far behind.

5.2.2. Challenges to Accessing Finance

5.2.2.1. Stringent Collateral Requirements

One of the critical challenges to access to finance is the **type and amount of collateral** required by banks. By tradition, sheer inertia and general risk aversion lending institutions require collateral for most loan products, despite the viability of the business proposals. The private sector raises different issues regarding the collateral requirements by banks.

Firstly, banks only accept a few types of items as collateral. Movable assets (such as machinery, and accounts receivables) account for most of a firm's assets, especially for smaller firms, as they do not have access to fixed assets, such as land or buildings. At the same time, due to a weak legal and regulatory environment, banks are often reluctant to accept these assets as collateral, especially in developing countries, like Ethiopia. That means lenders cannot force borrowers to repay their debts unless the debts are secured. Hence, banks prefer immovable assets which are more difficult to hide and are less likely to be subject to ownership disputes, as collateral. Strengthening the legal framework to consider movable assets as collateral has been found to improve enterprises' access to finance. For instance, according to the World Bank Group Doing Business Report (2019), the introduction of collateral registries for movable assets increased firms' access to finance by approximately 8%.

Table 5.6: Types of Collateral Used by Enterprises

	Micro	Small	Medium	Large
Land and Buildings	40%	60%	72.46%	83.87%
Equipment	0%	31.85%	53.62%	75%
Personal Assets	80%	61.19%	34.06%	19.2%
Accounts	0%	17.16%	23.92%	28.51%
Other	0%	11.85%	6.52%	12.9%

Source: Computed from WBES Data (2015)

The common types of collateral used were land and buildings (40 and 60 percent for micro and small enterprises respectively) or personal assets (80 and 61.2 percent for micro and small enterprises respectively). Large firms are the main ones who use equipment as collateral. The use of accounts as collateral is also rare, even for large firms; less than a quarter of large firms use this as a form of collateral.

Secondly, there is a high value of collateral needed for loans.

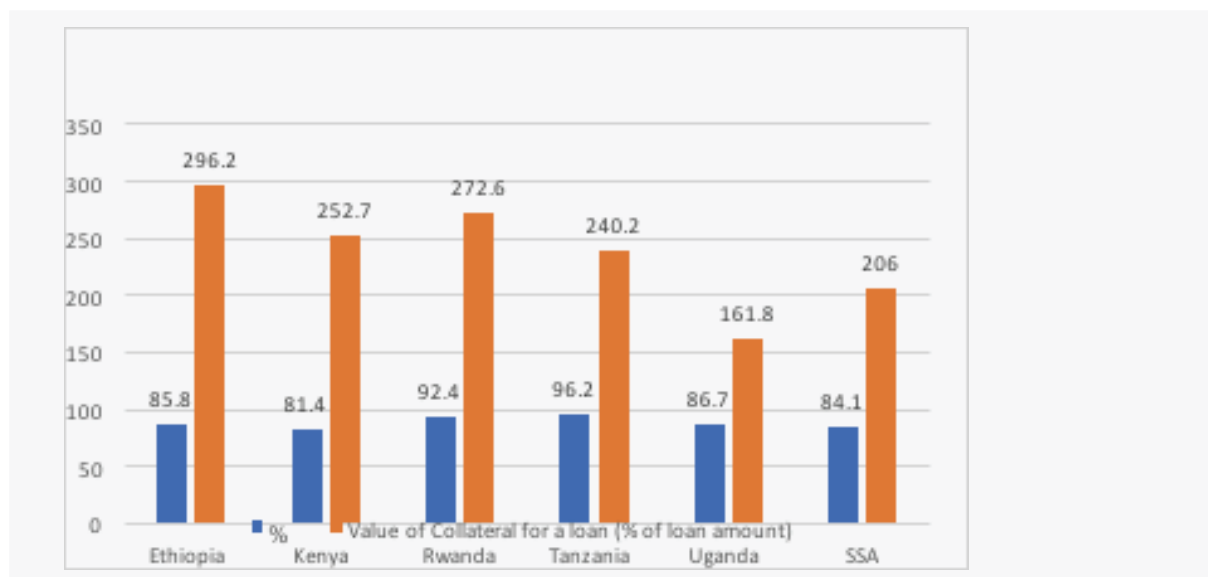
The average value of collateral needed for loans in Ethiopia was uncharacteristically high (296.2%) compared to the four competing countries and Sub-Saharan Average (SSA) (Figure 13).

Thirdly, lenders frequently underestimate and fail to properly evaluate their collateral borrowers. They often combine property/real security and require securities in excess of the loan size. This problem is exacerbated by the fact that banks, in the absence of clear rules, often appear to undervalue the collateral provided. They offer a loan less than the value of collateral. The World

Bank Enterprise survey data compiled by Fredu (2016) indicated that the LTV is 0.27 (27%) which means that the value of the collateral is four times the value of a loan. This is significantly higher than what we get in the literature, i.e., a lot of financial lenders require the loan to value ratio to be no less than 75%.

Small enterprises face more difficulties in the valuation of collateral they present. It was revealed that the LTV ratio is different for medium and small enterprises. Small enterprises have an LTV (0.23) which is almost half of the LTV of medium enterprises (0.43). While medium size firms' value of collateral is slightly more than double the value of the loan, small firms' value of collateral is almost five times the value of loan. It is thus clear that young and small firms in Ethiopia are less likely to access the services that financial institutions provide. Professor Tassew (2017),²⁵ on his study about financial access to micro and small enterprise operators: the case of youth-owned firms in Ethiopia, indicated that about 8.7% is used borrowing from the formal sector as a source of funding their investment.

Figure 5.9: Loans Requiring Collateral



The results were consistent with key informant interviews done with enterprise operators. Enterprise operators indicated that financial institutions, be it bank or micro finance institutions, require inconceivable collateral amount. Uncollateralized business is not a priority for lenders at all despite the viability of the projects. The key informants further indicated their dissatisfaction with the valuation of the collateral they present to the lenders. It is not consistent and transparent. They either underestimate or overestimate collaterals.

A key informant who engaged in the manufacturing sector expressed his discontent as follows

"I am not convinced with the results of the valuations of the collateral I present to the Bank. It was far lower than what I expected. There is no transparency at all. The loan that the bank told me to give wouldn't be sufficient to satisfy my financial needs to bring change to my firm"

The exaggerated collateral requirement in Ethiopia may be ascribed to the weak reporting systems and the ineffectiveness of collateral and bankruptcy laws in facilitating lending in Ethiopia. Consistent with this, Prof. Tassew (2017) indicated that the difficulty of proving credit worthiness, or the absence of credit history, discouraged youth MSE operators from submitting applications for bank loans. Key informants from two private Banks -Dashen and United Bank -

25 Tassew, W (2007), Financial Access to Micro and Small Enterprise Operators: The Case of Youth-Owned Firms in Ethiopia. *Ethiopian Journal of Economics* Vol. XXVI No 1, April 2017.

agreed with this claim. They said the lack of a strong, legal framework on collaterals contributes to the small selected loan amount or the limited types of items used as collateral by the respective banks. According to IFC (2013)²⁶, there is no legally authorized body to register machinery and/or equipment to be held as collateral.

The problems associated with collateral requirements can be addressed through:

- Legally increasing the types of items to be used as collateral. For instance, a legal system that supports the use of movable assets as collateral and a well-developed credit information system.
- Strengthening guarantee schemes (public or private). This is particularly important for small enterprises that cannot manage accessing finance from formal lending institutions due to a lack of credit history. Regional governments and some NGOs have already proposed the scheme to micro and small enterprises, although not in a coordinated manner.
- Factoring or leasing can also increase the chance of securing finance for entrepreneurs. For instance, suppliers to larger firms in the value chain may obtain loans by presenting a signed purchase order/service agreement from its large buyer as collateral. The larger buyer then pays the invoice for the goods/services directly to the lending institutions, which remits the payment to the supplier net of the loan principal and interest. This effectively transfers credit risk from the lender to the large buyer. The only remaining risk could be the supplier not delivering the ordered goods (which is mitigated by larger buyer's screening of the suppliers it chooses to work with).
- Facilitating the use of intellectual property as collateral to encourage people that have innovative idea but cannot go further than that.

5.2.2.2. Short Loan Maturity

Enterprises also mentioned short loan maturity periods as a deterrent to approaching lenders.

The average loan maturity for SME loans reported by MFIs was 2.38 years while for the banks it was 6 years and up to 10.4 years for large enterprises. This indicates that the long-term financing needs, especially those of SME's, are not met and that there is a potential market gap here (World Bank, 2015)²⁷.

Banks also shared the enterprises' concerns about the short loan maturity period. They felt that the directive regarding loan maturity periods inhibits them from extending loans to the private sector.

Furthermore, these provisions are regarded as an unduly limiting factor of banks' capacity to flexibly meet the financing needs of their clients (actual loan maturity to clients should rather be determined by the term structure of the banks' liabilities). Removal of the above legislative provisions would translate into a significant increase in private sector lending.

5.2.2.3. Loan Size and Loan Processing

Enterprise operators approached for this assignment claimed that complex procedures to get loans are another deterrent from accessing finance. The process of getting credit is long and time consuming. For instance, it could take 18 months to get a loan from the Development Bank of Ethiopia.

After passing the complex procedures and a pile of paperwork, the loan application rejection rate was significantly high. A survey of 519 business firms by Fredu and Edris (2016) indicated that out of those who applied for a loan, close to 30% were rejected and around 32% were in process. Only 38% of the loan applications were approved.

26 IFC (2013), Access to Finance in Ethiopia: Policy, Regulatory and Administrative Impediments

27 World Bank. 2015. *SME Finance in Ethiopia: Addressing the Missing Middle Challenge (English)*. Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/805371468247458154/pdf/943650WP0Box380nt0Feb01002015040Web.pdf>

The approval rate is higher in medium firms than small firms. While more than 42% of loan applications by medium firms are approved, the approval rate for small firms is only 37%. The difference is even more vivid in the loan applications that were rejected. While only 21% of loan applications by medium firms are rejected, the figure for small firms stands at 32%, 10 percentage points higher than their medium counterparts.

Furthermore, most Ethiopian enterprises (more than 90%) own a bank account, but only about 16% in 2011 and 33% in 2015, had a loan or credit line facility from banks, compared to the average of 22% for the whole Sub Saharan Africa. Due to this fact, Ethiopian firms finance only small proportions of investment (less than 10%) and working capital (less than 20%) needs, compared to their counterparts in SSA.

Quite perplexing is the fact that foreign investors have access to credit from the DBE, contrary to their local investors.

5.2.2.4. High Cost of Borrowing

The cost of borrowing in Ethiopia is very high. Following the recent devaluation, banks nominal interest raised from 15%-17% to 18%-20% and the interest rate for microfinance institutions is around 14% (AACCSA Policy Paper). This implies that the revenue should be at least 18% to cover the cost. This is quite problematic as the rate of return is equivalent to cost of borrowing; for profit making enterprises, this makes loan repayment even tougher. The same applies to interest rate for lease financing. It is around 18% though the directive of lease financing stated it to be close to 9%.

5.2.2.5. Lack of Transparency and Corruption

Accessing finance is not corruption free. Enterprise operators claimed that fulfilling the requirements of lenders on paper does not necessary guarantee loans. The large number of loan applicants, the exhausting procedures and the shortage of credit supply have characterized the credit market to be corrupt. Loan applicants may have to pay bribes in order to get their loans approved at the expense of other loan seekers. This is also facilitated by the lack of transparency about the criteria when taking loan decisions: many businesses complained that the reasons for not being granted a loan, or for being granted a loan of a much smaller size than requested, often remain unclear. Extant literature shows that bribery is more prevalent in getting forex. According to Lloyd and Bisrat (2019), informal payments, to accelerate allocation, are most likely to be made while businesses wait in the queue. These payments average **Three Birr per US dollar** requested.

This situation can be remedied by designing an objective criterion and by modernizing the credit system to ensure transparency in the loan processing.

5.2.2.6. Inadequate Monitoring and Follow up

Inadequate monitoring and follow up by banks on borrowers make the default rate high, reducing the amount of loanable funds to enterprises. The lack of follow up makes borrowers divert their loans towards unintended and unproductive consumption purposes. The Development Bank of Ethiopia is a good case in point as it has incurred close to 18 billion Birr in bad debt.

On the other hand, the penalty of defaulting is high. Business enterprises that fail to repay the loan, usually face a discouraging penalty; circa 3% in addition to the already high interest rate. Overall, giving second chances, encouraging and following up honest investors allows borrowers to learn from their mistakes and pay off their loan properly.

5.2.2.7. Lack of Information about Financial Institutions Services

Financial institutions on their side claimed that a great deal of business owners, or would be entrepreneurs, lacked the adequate financial literacy to secure credit. Some don't have basic knowledge of the services financial institutions provide. Thus, it is advisable for lending institutions to consider financing as a package that includes loans as well as other services like business development or entrepreneurial training. Moreover, giving the loan in phases could also reduce the risk of using the money for unintended purpose.

5.2.2.8. Tight Requirements to get Credit

The business community usually faces stringent requirements by the financial institutions. The requirements are difficult to manage for those that have the skills but lack the finances to realize their ideas. For instance, some banks, like the development bank of Ethiopia, require enterprises to satisfy 30/70 requirement. Big projects worth 30 million, entertained by the 30/70 scheme for instance, require 9 million Birr. This is quite difficult to satisfy. This scheme needs to be flexible that way it does not discourage enterprises that could impact the economy.

5.2.2.9. Narrow Scope for Manufacturers

For manufacturing investments, financial sources from private sources (including private and commercial banks) are quite limited. Private financial institutions (commercial banks and microfinance institutions) focus on short-term loans, mainly for the trading sector. Long-term financing from private financial institutions is not only extremely limited but it is also extremely expensive. They charge prohibitively high interest rates and require significant collaterals.

The cheaper and better option for manufacturers is to access loans through public sources like the Development Bank of Ethiopia (DBE).

However, as DBE cannot manage to solve the financial bottlenecks of all manufacturers due to its limited financial resources, it prioritizes sectors. DBE is naturally a policy lending institution - with its lending criteria in line with Ethiopia's industrial priorities where the manufacturing, Agro-processing, large commercial farming and mining are the policy priorities. So, an investor must be big enough and must be considered a priority sector to access DBE finance²⁸. Moreover, an investor must provide an equity of 25 percent to access the 75 percent from DBE. Since DBE's financing is project-based, no collateral is required, and decisions are based on the cash flow and feasibility of the project. Project loans are long term with a payback period of 5 to 15 years and a grace period ranging from 1 to 5 years, depending on the project. The loans can be used for construction, capital goods, and working capital. The interest rate ranges from 9 to 12 percent. Those exporting can enjoy 9% interest (if they export 80% of their product) and 9.5% interest for import substitution while for others, the interest rate is 12 percent. Since DBE does not require collaterals, it monitors and provides technical support to solve problems with implementation.

For small businesses, DBE has just launched a new lease financing program. Once small businesses have the minimum capital, the DBE imports machinery and leases the machinery. For one enterprise, up to 30 million Birr is the maximum machinery cost allowed. The leasing period can go from 5 to 10 years. The minimum requirements to get the lease financing are:

- Having 20% of machinery cost in blocked account (The 20% will be released for working capital)
- Employing at least six people

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28 Development Bank of Ethiopia, Credit Policy. CP/001/2018 <https://www.dbe.com.et/images/Revised%20Credit%20Policy%20Feb%202018.pdf>

The DBE argues that if everything is done according to the guidelines and regulations, the average loan processing time is 45 working days²⁹. However, in practice it takes much longer – sometimes up to a year. It would be more beneficial for the bank to use a different simulation software to reduce the loan process time.

However, for many domestic investors, meeting the two key requirements is a challenge because raising the minimum equity of 25 percent (a minimum of 7.5 million) is tedious. Although the 75 percent DBE loan is quite attractive, the 25 percent is too big for many domestic investors.

Securing working premises is the other main challenge that the business community reported as critical and a hindrance to their loan requests from DBE. DBE requires serviced industrial land or a 5-year contractual agreement of work premise as a requirement.

Regarding this, a key informant engaged in a manufacturing sector expressed his dissatisfaction:

“I went to the Development Bank of Ethiopia requesting a loan to expand my business. But the information received from the loan officers made me frustrated. The equity requirement for me is totally unattainable. The land lease agreement document for at least five years would also escalate the cost.”

Project finance/investment finance suffers the most in terms of access to finance. Discussions with would-be investors has shown that securing loans for newly established businesses is one of the main problems that causes a business to stall. This is because new businesses have limited interaction with commercial banks and most of the time, they have limited or no collateral. Additionally, a lack of access to land also limits business’ ability to borrow from the formal financial institutions.

One enterprise operator shared the difficulty of getting a loan due to a lack of private buildings to borrow from Development Bank of Ethiopia.

“I couldn’t afford to get a contractual agreement for five years due to the high rent to be paid for at least a year. If I pay a year’s rent, I will not have any money for the equity contribution. The requirements put me at a crossroad. Basically, the DBE loan looks to favor large scale projects.”

5.2.2.10.Absence of Alternative Source of Finance

Ethiopia is not maximizing the potential benefits available through venture capital opportunities. The country does not have a clear policy framework to make potentially high growth entrepreneurs benefit from. As outlined above, credit markets are constrained by a lack of liquidity and excessive collateral requirements from banks. Thus, private equity and venture capital can be a good alternative to address the financing needs of enterprises.

5.2.2.11.High Precredit Costs

Securing bank credit is liable to different costs. The costs are driven up by several expenses attached to bank lending, including a 1% stamp duty paid to the tax authority, a 2% payment made to the city council and a 1-2% service charge paid to banks – ultimately pushing total outlays up to 5-8% of the loan size (IFC, 2013).

5.2.2.12.Biased Loan Allocation

As indicated above, the private sector’s credit stock is less than 40%. Financial institutions need to devise a mechanism that plans to allocate certain levels of credit quota, to the private sector.

.....
29 Kasu Jilcha, Hailu Worku and Eshetie Berhan (2019). Loan Cycle Time Analysis for Industrial Project Financing of Development Bank of Ethiopia, *Ind Eng Manage* 2019, 8:1.

This requires relaxing credit limit and ensuring transparency in the allocation of loanable funds. Moreover, strengthening private-public partnerships could address the credit shortages that the private sector faces.

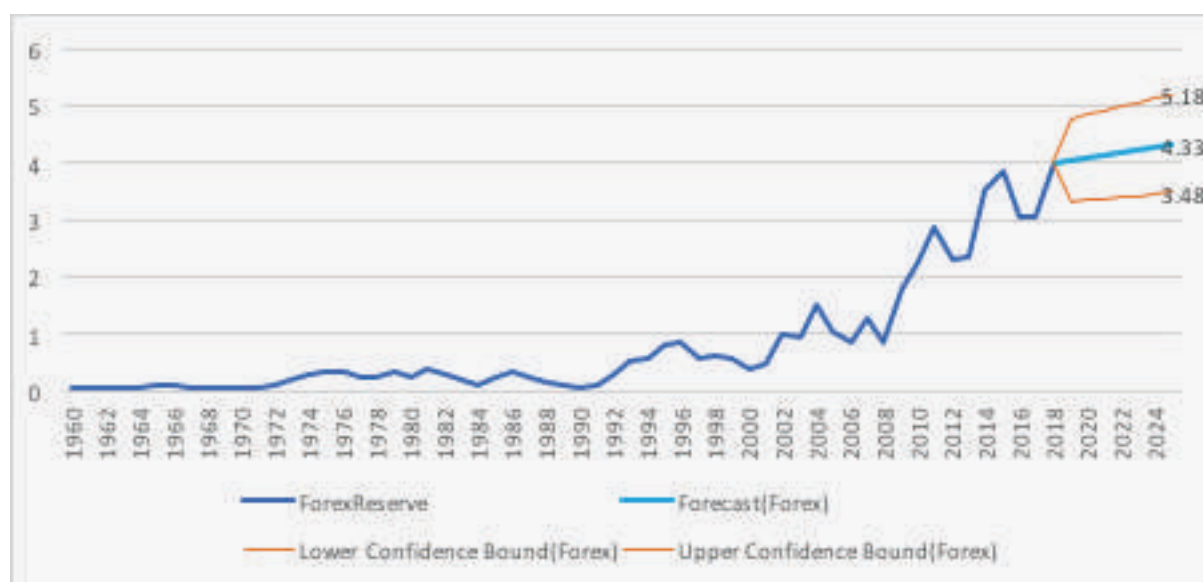
5.3. Issues and Challenges Regarding of Access to Forex

5.3.1. Introduction

Adequate foreign exchange reserves are an important factor of any well-managed economy. These reserves help cushion the effects of economic shocks, domestic or international. A shortage of forex supply has been a major bottleneck that has stunned the operation of businesses in Ethiopia. Of the multiple factors hampering business flow in Ethiopia, access, regulation and management of foreign currency are ahead of corruption and access to domestic loan (Global Competitiveness Report, 2017/18). Getting hard currency is becoming arduous. Quoting the Capital News Paper, it has become “*hard times for hard currency*”³⁰.

Furthermore, according to the International Monetary Fund (IMF), Ethiopia’s foreign reserve position is lower than it should be. The country’s foreign exchange control regime is exacerbating this situation as reserves are drawn down to cover the widening current account deficit (Keatinge, 2014). While the foreign exchange reserve has shown remarkable increments, it cannot keep up with the increasing foreign currency demand for those seeking to source from abroad (Figure 13). The reserve has increased from 0.87 billion dollars in 2008 to 3.99 billion dollars in 2018 and it is expected to increase to 4.33 billion dollars in 2025. Forecasts were done using the moving average forecasting techniques. We employed this technique because the variable forex reserve has not been showing significant and sharp changes overtime.

Figure 5.10: Foreign Exchange Reserve Trend of Ethiopia



Generally, financial services and products of Ethiopia are of low quality, they are less affordable and less accessible which means limited access to finance. In this regard, the Global competitiveness report of 2016/17 ranked Ethiopia 113th in financial services meeting business needs, 70th in affordability of financial services, 61st in financing through local equity market and 79th in ease of access to loans.

30 <https://www.capitalethiopia.com/featured/hard-times-hard-currency/>

5.3.2. Foreign Currency Supply and Demand Gap Analysis

Foreign currency supply largely depends on the amount of currency that will be generated from exports of goods and services, money transfer, foreign direct investment, loans and grants; its allocation will depend on credit for investment, working capital, and imports of goods and services (GTP II). In order to increase export and reduce trade balance deficit, Ethiopia has devalued the birr several times. However, the high inflation rate before the devaluation of the birr has made the intervention ineffective in terms of improving export performances and trade balance deficits. The devaluation policy resulted in higher production costs and higher domestic prices than the prices on the international markets. Due to this, Ethiopia lost its competitive advantage in the international markets.

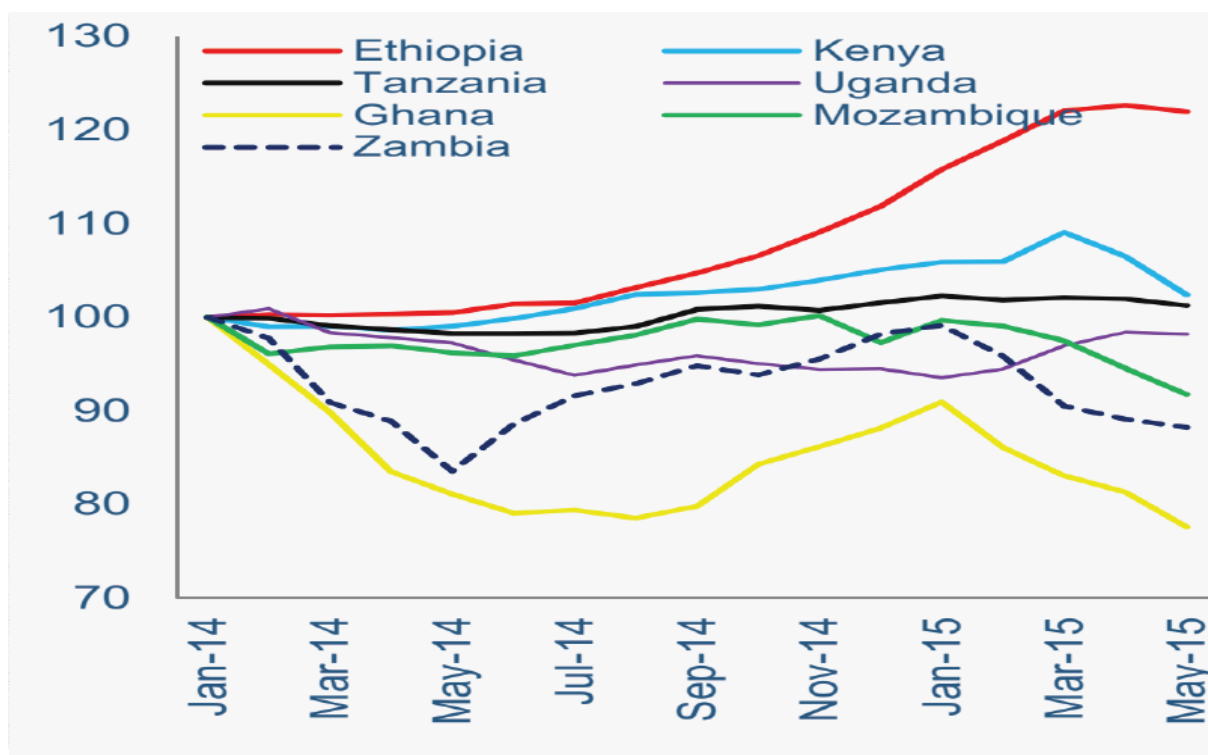
Ethiopia's official exchange rate regime is classified by the authorities as managed float. An interbank foreign exchange market determines the nominal exchange rate. However, the exchange rate has been determined mainly by supply side factors which make the nominal exchange rate unresponsive to changes in macroeconomic fundamentals and external shocks. The birr is closely managed against the USD, which serves as the nominal anchor of Ethiopia's exchange rate policy. For instance, Ethiopia allowed the birr to depreciate by 16.5 percent in nominal terms against the US Dollar by the end of 2017/18. However, the managed exchange rate regimes could be effective only if adjustments were made for significant changes in the exchange rates and inflation rates of the anchor currency country.

A stronger US dollar and a higher domestic inflation led to rapid real appreciation of the birr in the context of a pegged exchange rate regime. Given the appreciated US dollar and the higher positive inflation differentials that Ethiopia has been experiencing relative to its major trading partners, the birr has been on an upward curve compared to currencies that are depreciating against the USD. Despite the considerable appreciation in the USD and high domestic inflation, the nominal exchange rate is adjusting slowly however. According to Dorosh et al. (2009), Ethiopia does not need to reduce imports and expand exports because the demand for foreign exchange and imports at the official exchange rate, exceeds the supply of foreign exchange. This implies that the adjustment has insufficiently addressed the excess demand for foreign exchange and it has prevented further real appreciation resulting in Ethiopia's loss of international competitiveness.

The shortcomings in addressing the excess demand for foreign currency resulted in a significantly appreciated real effective exchange rate (REER). According to NBE's (2018) annual report, the REER increased from 157.6 in 2014/15 to 161.8 in 2017/18. More specifically, the recent devaluation of the birr resulted in an appreciation of REER by 5.9% in 2017/18 despite a 10.9% depreciation in nominal effective exchange rate (NEER). Empirical findings confirm that a strong appreciation of REER deteriorates export performance and reduces external competitiveness and stability. Though there are differences in this regard, Wondemu and Potts (2016) found that the undervaluation and depreciation of REER increases export.

The REER for Ethiopia is by far higher, with a diverging gap, than its structural peers (Uganda, Tanzania, Mozambique, and Kenya). As compared to these countries, Ethiopia has continually lost external competitiveness over the last years because of the sharp real appreciation of the birr. Ethiopia's REER moved in tandem with those of its peers until around mid-2014 when it spiked sharply and has not depreciated since.

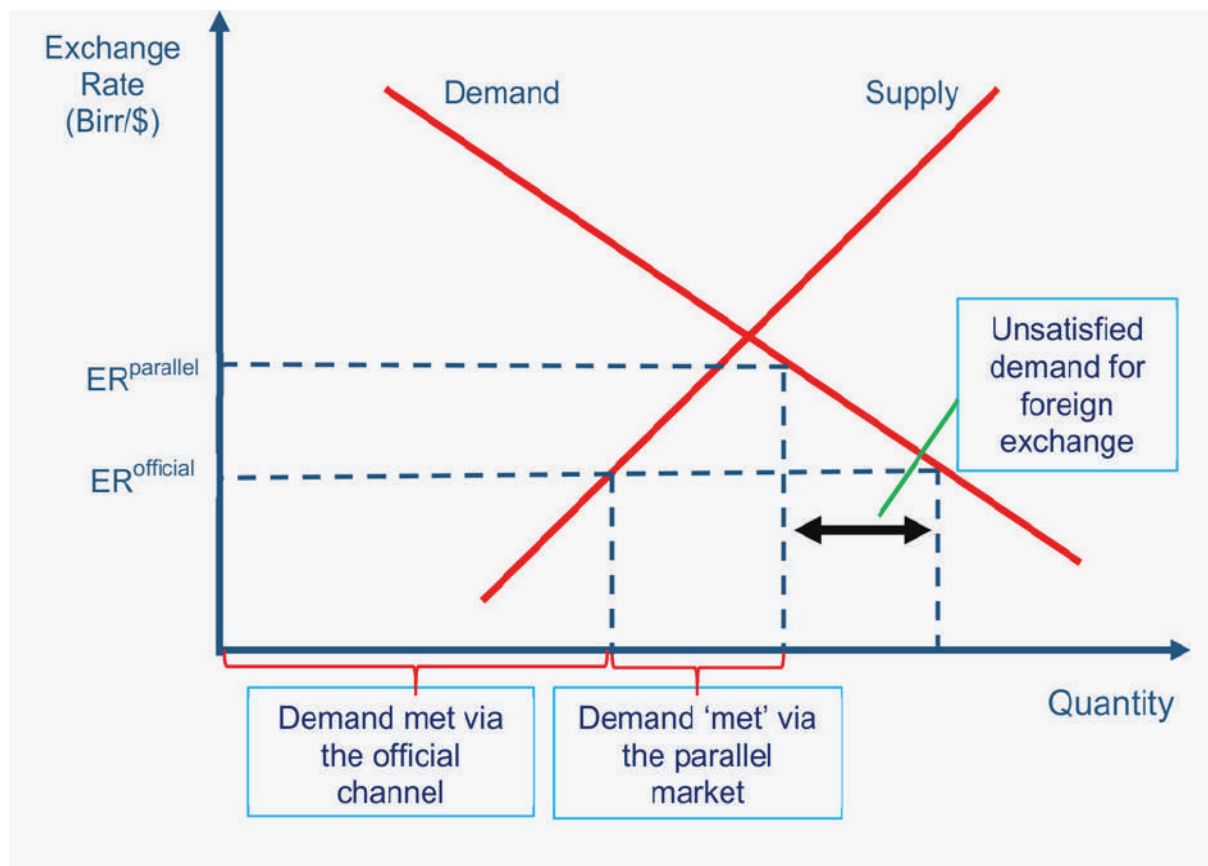
Figure 5.11: REER Ethiopia and Comparators



The flourishing parallel market in Ethiopia is another evidence of the birr's overvaluation which in turn confirms that Ethiopia's real exchange is misaligned. The parallel market premium (PMP) has widened significantly starting in 2014/15. Dorosh et al. (2009) documented that a high PMP has substantial efficiency and distribution effects on Ethiopian Economy.

The managed exchange rate regime and the policy of maintaining a relatively constant foreign exchange reserves resulted in an expanding gap between export and import (trade deficit). Under this circumstance, currency rationing has been the only market clearing mechanism. The excess demand for dollars cannot be satisfied by the official exchange rate. A portion of the demand, unsatisfied through the official exchange rate, is met via the parallel market while the rest is left unsatisfied.

Figure 5.12: Demand for and Supply of Forex

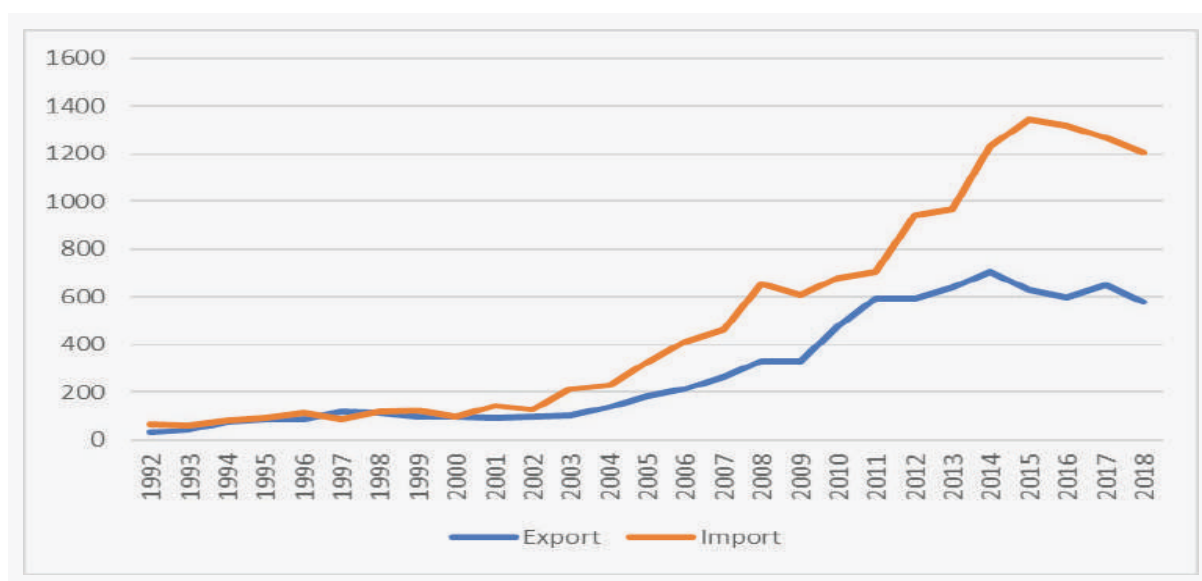


Due to the massive expansion of the infrastructure and economic growth in the country over the last decade, imports have increased dramatically to more than USD 16 billion per year as shown in Figure 16. The increasing gap between imports and exports indicates that Ethiopia's economy has a trade deficit. Moreover, the scarcity of foreign currency is becoming severe as the gap between imports and exports is widening. As a result, the Ethiopian economy has become increasingly fragile in terms of trade balance and the country's foreign currency scarcity.

Exports of goods which generate hard currency inflows are below the GTP II targets. Exports of goods decreased from 11.6 % of GDP in 2014 to 7.8% of GDP in 2017.³¹ The value of the import of goods has surpassed the projections in the GTP II. The deficit in the current account is driven largely by growth in the demand for imported goods. The value of imports was 20% of GDP in 2017 and it is expected to rise by an average rate of 7.5% between 2017 and 2022.

31 Lloyd and Teshome (2019)

Figure 5.13: Ethiopian Import and Export Trend



Source: World Development Indicators

5.3.3. Major Challenges of Access to Foreign Exchange

i. Absence of Franco Valuta and Suppliers Credit

In an Ethiopian context, Franco Valuta refers to a permit to import goods in which no foreign currency is payable from the domestic banking system. Importing goods using the Franco Valuta basis is restricted to diplomatic missions (such as goods imported with donor money) and businesses that are 100% foreign owned. Businesses Franco Valuta use is restricted to acquiring machines up to commissioning stage, or for key spare parts. In practice, NBE also permits it for wider purchases by key businesses. The broader use of Franco Valuta may clash with Ethiopian Revenue and Customs Authority tax requirements. Cases have occurred where ERCA did not recognize expense payments outside of Ethiopia. The recognition of equity in kind contributions e.g. the import of goods as part of a shareholder's equity contribution, also raises concerns. Many of the businesses using Franco Valuta however benefit from long corporation tax holidays as they export 100% of their products.

ii. Distortions in Foreign Exchange Markets

Market forces play a very limited role in the formal foreign exchange regime. The GTP II proposed adopting an exchange rate policy that promotes exports. However, the overvalued exchange rate, to protect purchasing power under the MPF, resulted in exports being more expensive while fueling the demand for imports. This causes people to use the black market.

The imbalance between the supply and demand of foreign currency is worsened by the inflow of remittances through informal channels and the allocation process. According to the magazine Addis Standard (July 24, 2018), there are obstacles deliberately put in place to obstruct normal inflow of remittances to Ethiopia. As of July 7th, 2018, the bank to cash ratio (%) for ETB, in case of Bahrain Exchange (money transfer operator) in Kuwait, was 74.25% while it was close to 100% for most of countries - this implies that Ethiopian authorities have created a system that actively discriminates against transferring to bank accounts, the most convenient money transfer mechanism. Under this bank to cash ratio, if one Kuwaiti Dinar (KWD) is transferred to a

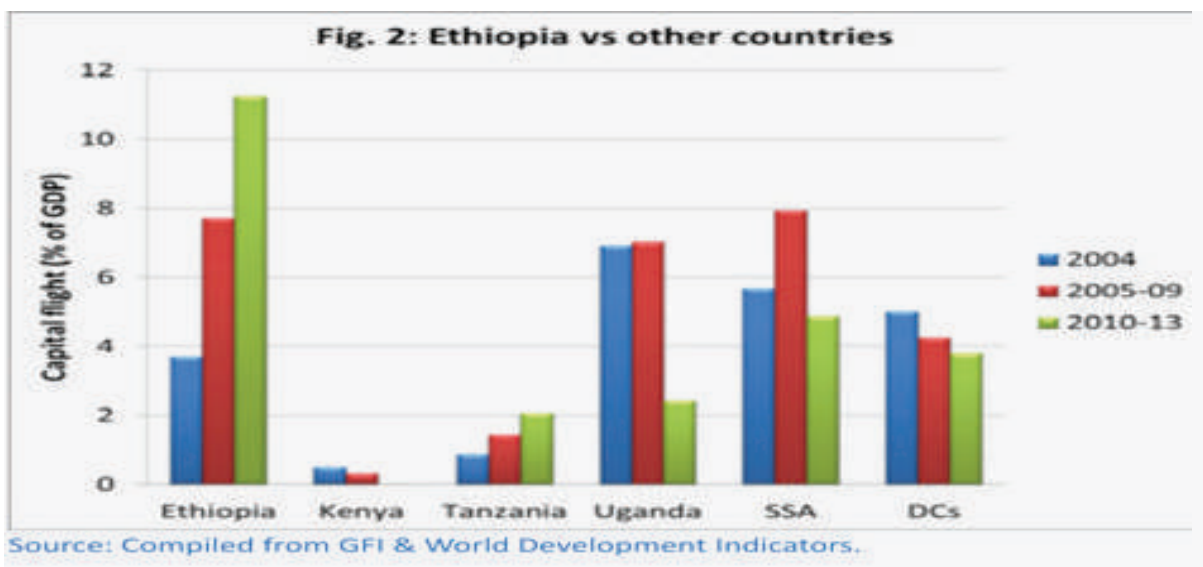
bank account, only 68 birr arrives but if it is a cash pick-up, then the beneficiary would receive 90 birr, a difference of 22 birr per KWD. Ruling out the most convenient currency transfer through official channels essentially worsens Ethiopia’s foreign exchange crisis.³²

It is difficult for the government to determine the size and importance of remittance flows because of the unknown and unrecorded earnings informally remitted. These combine to further encourage the operation of the parallel market for foreign exchange, operating under a separate rate of exchange. In turn, this encourages smuggling, capital flight, tax avoidance and higher prices. Incentivizing the flow of remittance through formal channels may help reduce its illegal flow as well as its amount.

iii. Illegal Capital Flights

Illicit financial outflows reduce the availability of foreign currency. Sub-Saharan Africa tops the list when illicit financial flows are scaled as a percentage of gross domestic product (GDP); with illicit financial outflows averaging 6.1 percent of the region’s GDP.³³ Substantial sums of money have been illegally flowing out of Ethiopia during the last decade. According to information from AACCSA, based on Sheger FM, for the past 27 years (1991-2018), 36 billion USD has left Ethiopia illegally. The following figure shows that illicit financial flows from Ethiopia is by far higher than its competitors and the overall Sub-Sharan Africa Average. The Global Financial Integrity (2015) ranked Ethiopia 46th in terms of illicit financial flows (with average illicit financial flows of 2,583) while Kenya and Rwanda were ranked 125th and 97th respectively.

Figure 5.14: Capital Flight for Ethiopia and Comparators



iv. Application procedures by businesses

Letters of Credit:

Businesses in Ethiopia use several formal mechanisms to access foreign currency with letters of credit (LC) being the most used mechanism. While the process is time consuming, it is much shorter in state owned banks. Long queues, due to delays, increase the likelihood of firms making informal payments to accelerate foreign currency allocations. According to Lloyd and Teshome (2018) these informal payments amount to 3 birr per US dollar requested on average.

32 <http://addisstandard.com/analysis-how-can-ethiopia-boost-remittance-inflows/>

33 https://securerusercontent.com/45.40.149.159/34n.8bd.myftpupload.com/wp-content/uploads/2015/12/IFF-Update_2015-Final-Executive-Summary.pdf?time=1573766550

Banks, specially the stated-owned banks, do not always allocate the full values of the LC to the applicants. Businesses regularly receive only 50% of the foreign currency they request. Due to poor management of foreign currency exposure, there are situations where banks are not able to meet their guarantees once LC are approved. This has resulted in reduced consent of foreign banks to deal with Ethiopian banks. Moreover, the problem of the delays in accessing foreign currency is that often the imports required by a business change, or become obsolete, during the application period. This can lead to a discrepancy or rejection, and the NBE may classify this as a business delinquency.

High LC acceptance and opening commission fees to open a LC are another burden that aggravates access to foreign currency. A LC fee in Ethiopian private banks (excluding NBE fees) is 8.75% which is about 5 times higher than that of the Kenyan DIB Bank. The acceptance and opening commission fees to open a LC for US\$ 2 million pro forma in an Ethiopian private banks costs about US\$ 175,000 while it is only US\$36,000 in Kenya.

Cash Against Documents (CAD):

CAD processes are the next frequently used process after access to foreign currency. Though the CAD process is administratively less complex than that of LC, both processes create delays in accessing foreign currency. Compared to import under LC, there are larger variations in CAD fees among private banks in Ethiopia. Importing under CAD in Ethiopia is costlier (8.75%) than doing the same in Kenya where it is only 0.55%.

Telegraphic Transfer (TT)

Telegraphic transfers are used by Ethiopian businesses. However, it is limited to US\$5000 per transfer and the mechanism is not suitable for large scale importing businesses. Delays for TT are like delays for CAD and LC.

Long queues and tough requirements are consistent across the three forms of payments for imports mentioned above (LC, CAD and TT). The long queue highlights uncertainties in the decision-making process of businesses and ties up capital that would have been allocated for alternative investments. Moreover, firms are required to deposit 100% of the whole money in the bank in order to access foreign currency; this is followed by a waiting period of three months to a year. As a result, businesses in Ethiopia incur high opportunity costs since they would have been allocated the money for other alternative business until they got LC approval. On top of this, firms are not allowed to apply for LC both at government and private banks simultaneously which reduces likelihood of getting LC earlier. The lack of transparency in the allocation of foreign currency thus resulted in malpractices and corruption by bank officers.

5.3.4. Impact of Foreign Currency Shortages

The shortage of foreign currency is a problematic factor that hinders firms from operating efficiently (see Beck, Demirgüç-Kunt, & Honohan, 2009; Menkir, 2016; Sennoga & Zerihun, 2018; Tesfaye & Hussen, 2018; World Economic Forum, 2017). It holds back firms from utilizing their full production capacity. Enterprises can be forced to under produce and become less competitive. Lloyd and Teshome (2018) discovered that import substitution companies in Ethiopia operate, on average, at 40-50% of their production capacity due to foreign currency constraint.

The lack of foreign currency may also increase the unit cost of production and then the price. Lloyd and Teshome (2018) found out that unit production costs for a manufacturer engaged in export, have increased by around 20% and production levels have reduced by around 30% because of the shortage of foreign exchange. While firms often don't receive 100% of their foreign exchange requests, delays are holding up production. This may hinder the achievement of GTP II goals.

Overall, to address the forex problem the country and business owners face, we propose the following:

- Revising policies and directives restricting access to foreign currency,
- Addressing the constraints through increasing exports,
- Liberalizing foreign exchange market,
- Ensuring fair, transparent, and priority-based allocation of forex,
- Addressing the root causes of illegal capital outflow,
- Encouraging remittance inflows through formal channels different mechanisms,
- Savings accounts in foreign currencies,
- Competitive and attractive interest rates for hard currency saving accounts,
- Structure interest rates based on access to the funds,
- Encouraging investment,
- Incentivizing formal remitters through recognition and prizes,
- Reducing LC charges and minimizing 100% deposit of the foreign currency exchange value in local currency to open LC to a reasonable level.

5.4. Policy and Regulatory Analysis

This section is devoted to a critical review of policies, legislations and regulations related to the financial sector, including access to foreign currency. By the end of the section, we aim to evaluate the extent to which the access to finance gaps can be attributed to policy or regulatory 'failure'.

5.4.1. General Government Policies

5.4.1.1. Foreign Exchange and Related Financial Policies

Ethiopia adopts a managed floating exchange rate regime to ensure the competitiveness of the local currency, where the National Bank of Ethiopia (NBE) supplies foreign exchange to the market based on estimates of likely supply and demand. With this regard, the NBE maintains a monopoly power on all foreign currency transactions. In recent years, foreign exchange reserves are the primary monetary policy tool used by the NBE to control high inflation. As a result, since early-2012, international reserves have created a severe shortage of foreign currency at Ethiopian commercial banks. This situation has become a major difficulty for commercial banks to timely and/or fully meet client's demand for foreign currency.

As per Proclamation No. 591/2008, the NBE is mandated to

- 1. regulate and determine the supply and availability of money and credit as well as the applicable interest rates and other charges;**
- 2. formulate and implement exchange rate policy;**
- 3. manage and administer the international reserves of Ethiopia;**
- 4. license and supervise banks, insurers and other financial institutions;**
- 5. create favourable conditions for the expansion of banking, insurance and other financial services;**
- 6. set limits on gold and silver bullion and foreign exchange assets which banks and authorized dealers can hold; and**
- 7. set limits on the net foreign exchange position and on the terms and the amount of external indebtedness of banks and other financial institutions.**

The NBE amended the Transparency in Foreign Currency Allocation and Foreign Exchange Management FXD/45/2016 (Transparency Directive) by Directive No. FXD/46/2016. The Transparency Directives provide the priority areas where foreign currency is allocated for import purposes based on the country's social and economic needs. These directives determine the accessibility of foreign exchange according to the identified priority areas, based on a first come first served principle

According to the amended directives, the priority areas are imports of essential goods (fuel, motor oil, lubricants and LPG gas; fertilizer; agricultural inputs and machineries; pharmaceutical products; educational materials; imports of chemicals, etc.). Some of the priority areas mentioned under Directive No. FXD/46/2016 are allocated with foreign exchange on a restricted basis. For instance, among firms importing spare parts for construction materials, only those whose total value of import is less than or equal to \$50,000, are served.

The Transparency Directive Amendment further allows foreign exchange sales on demand, without registration procedures. The following categories are included in the exemption:

- 1. On-demand services for an account holder of either a non-resident foreign currency and non-resident transferable birr account, foreign currency account of nonresident Ethiopian and Nonresident Ethiopian origin or retention accounts.**
- 2. Invisible payments. These are payments like installation, commissioning, consultancy, erecting and royalty fee, cargo handling, freight and other associated costs.**
- 3. Salary transfer of foreign employees.**
- 4. External debt payment and supplier's credits.**

The Transparency Directive prohibited the allocation of foreign exchange without due procedure. Commercial banks are prohibited from approving L/C applications without collecting a minimum of 30% of the L/C value, in liquid cash. The directive also prohibited releasing the CAD documents to their customers without effecting payments to suppliers based on the modality of payments, as per the international practice. These provisions are maintained under the Transparency Directive Amendment. However, an exception is added to the rules regarding CAD and L/C, for the manufacturing sector.

In addition to the above, the Transparency Directive Amendment prohibits banks from issuing permit for goods shipped before approval especially after the expiry of L/C and purchase order. Processing import application for approved foreign currency exceeding the period of 15 consecutive days from the date of approval is prohibited. Moreover, banks are prohibited from accepting requests on change of items and suppliers after the registration of a proforma invoice. Importers are also prohibited from filing import on the same item at different banks.

The external Loan and Supplier's Credit Directive No. REL/05/2002 was amended by directive No. FXD/47/2017. This amendment directive provides the procedures of external loan and supplier's credit agreement approval. All foreign loans must be registered by the NBE. Failure to register foreign loan could result in prohibition of repayment in convertible currency. All entities seeking to obtain foreign loans must submit the draft loan agreement for review to the NBE. The draft loan agreement is expected to include the interest rate, applicable charges, borrower lender-relationship, loan disbursement schedule, repayment schedule and purpose of the loan. The directive also provides the all-in cost ceiling for external loan and the debt to equity ratio for foreign capital. Upon approval of the loan agreement by the NBE, the applicant is granted a foreign loan registration certificate. Without such certification, any subsequent request for debt repayment, in foreign exchange, will not be approved by the NBE.

Ethiopia has specific directives which govern retention and utilization of export earnings and inward remittance receipts. Regular recipients of foreign exchange remittance from abroad, and exporters, are eligible to open retention accounts at commercial banks following Directives No.

FXD/11/1998. The directives allow two types of retention accounts to be opened for eligible customers: Foreign Exchange Retention Account A and Foreign Exchange Retention Account B. Both retention accounts are credited from exports of goods and services and incoming transfers made for inward remittances receipts. This directive stated that eligible customers can retain only 10% of their foreign exchange earnings for an indefinite period of time under account A and 90% of their foreign exchange earnings for 28 days under account B. The NBE has amended Directives No. FXD/11/1998 by Directives No. FXD/48/2017. The current amendment has increased the percentage of foreign exchange earnings that can be retained indefinitely to 30% under account A and the remaining 70% under account B will be converted to local currency if it is not utilized within 28 days. Therefore, Accounts A and B are only used to finance direct business related and current payments such as the importation of goods, the payment for promotion, subscription fees, settlement of external loans and others.

The National Bank of Ethiopia (NBE) issued another controversial directive that allowed foreign investors to access foreign currency on credit, for importing capital goods; another source of frustration for local investors. The 'Directive for Regulation of External Loan in Kind No. FXD /61/2019 allowed foreign investors, even though they are not exporters, to access a long-term foreign currency loan to import capital goods.

5.4.1.2. High Foreign Exchange intermediation fees

Fees for opening Letters of Credits (L/Cs) are now between 6 and 7.5 percent at most private banks. Ten years ago, the same fees were 1 to 2 before increasing to 3 to 4 percent five years later. Such fees are very high in a cross-country context, with the banks' high pricing power arising due to tight forex conditions and excess demand for foreign exchange.

Table 5.7: International Comparison of LC Fees

International LC Acceptance and Opening Commission fees to open LC for USD 2 mln. Proforma			
Country	Time Period	% Bank fees	USD cost
Ethiopia (private bank, exc, NBE fees)	3 months	8.75%	\$175,000
Kenya (DIB Bank)	3 months	1.8%	\$36,000
United Kingdom (Barclays Bank)	3 months	0.55%	\$11,000

Source: Lloyd and Teshome (2018)³⁴

Finally, a lack of coordination between NBE, banks and the Ethiopian Revenue and Customs Authority (ERCA) negatively affects international payment claims by exporters because investigating exporters' payment document takes a while which in turn delays payments.

5.4.1.3. International Payment Restrictions

Importers are required to deposit 100% of the transaction value before executing a contract to open a LC. Such a provision is considered binding and an unnecessarily high amount of working capital for many businesses, especially considering the delays typically faced by businesses to get a LC.

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 34 Lloyd and Teshome (2018). Business Environment Reform Facility Foreign Exchange Allocation and Access for Businesses in Ethiopia. *Business Environment Reform Facility*

The maximum amount for advance payment of an import transaction is set at US\$ 5,000 by the NBE Directive of 1998. This cap has never been revised since and it is regarded by a bank representative as excessively low and as a factor negatively affecting the effectiveness of payment services for small item imports.

Preferential Treatment of State-Owned Banks

Governmental initiatives seem to favour state-owned banks, more specifically the CBE; this preferential treatment is seen as a major impediment to activities of private banks, especially with regards to adequate savings mobilization. Here are three particular cases of preferential treatment to illustrate the severity of this problem.

Firstly, the CBE has been exclusively assigned to collect saving deposits and advance loans under the housing saving scheme which clearly excluded private banks from large scale deposit mobilization.

Secondly, aggressive branch expansion of (and lower interest rates offered to borrowers by) the CBE is another impediment that crowds out private banks. CBE alone mobilized more than 60% percent of the total deposits due to its extensive branch network while the share of private banks is only 40%.

Thirdly, MFIs are also being negatively affected by unfair competition and treatments. More specifically, government supported MFIs are considered to take undue advantage from equity finance injections from regional governments as well as from preferential access to loan funds raised from international sources.

5.4.1.4. Prohibition of Foreign Operators

The prohibition of entry for foreign operators restricts the financial development of the country. Proclamation No. 626/2009 excludes FDI in MFIs which may restrict expansion and development of the sector. The inaccessibility to foreign capital is regarded as a major limit to the expansion of the private sector by both commercial banks and MFI, given the funding shortage in the domestic market. In contrast with what is the case in most other African countries, foreign direct investments into the financial sector are prohibited under the Ethiopian Foreign Direct Investment Laws. Such a policy prevents borrowing long-term funds from abroad which could significantly expand the on-lending onto credit-worthy clients thus and making banks and MFI lending largely dependent on domestic savings. Such an approach also negatively affects activities of IFI and bilateral DFI, which have not funded credit lines and other programs in Ethiopia aimed at facilitating SME's access to credit.

5.4.1.5. Sector Specific Legislative and Regulatory Framework

Banking Sector: Some legislative provisions play an important role in the decreasing availability and size of loans and in the reducing ability of private banks to effectively provide loans to private businesses. Among related provisions, Directives No. MFA/NBEBill/002/2013 are the major impediments for financial developments in sector. The directive requires commercial banks to invest 27% of their gross loan disbursements in NBE bonds - the most serious impediment to private sector lending activities. According to the IMF (2012), the 27 percent NBE bill requirement has the potential of crowding out private sector financing and it also has the potential of creating maturity mismatches.

In order to make the financial sector sustainable, the NBE has issued different directives that can regulate financial institutions through limiting the level of loans provided to related parties and single borrower. The directive no. SBB/53/2012 stated that the maximum level of credit that commercial banks can provide should not exceed 25% of their total capital for a single borrower and 15% of their total capital for a related party. The NBE, to regulate the level of credit provided

by MFIs, also issued the same directive. Directive No. MFI/18/06 which limits the level of credit, states that MFIs level of credit to an individual who can provide collateral should not exceed 1% of its total capital while for an individual who can provide group collateral, credit should not exceed 4% of its total capital.

The directive no. SBB/53/2012 also imposed restrictions on financial institutions regarding the amount of outstanding loans. The directives stipulated that the aggregate sum of loans extended or permitted to be outstanding, directly or indirectly to all related parties at any one time, shall not exceed 35% of the total capital of the commercial bank.

Non-bank Financial Institutions: According to the NBE's Directives No. SIB/25/2004, investment options of insurance companies are limited. Investment is mainly constrained to assets characterized by moderate-low return and limited risk: treasury bills (and bonds, in case of long-term insurance funds) and deposits should account for at least 65% and 50% of general and long-term insurance funds respectively. The balance shall be invested in company shares (up to 15% for both types of insurers), real estate (up to 10% and 25% for general insurance funds and long-term insurers respectively), and investments of the company's choice (10%). Such a provision is bound to limit insurers' ability to earn investment income, thereby constraining the expansion of their activities.

5.4.2. Legislative and Regulatory Framework in Related Areas

Land Policy: Even though the 'Re-Enactment of Lease Holding of Urban Lands Proclamation No. 272/2002' allows for the use of leased land as collateral, in practice, land is not 'mortgageable'. The fact that the GOE does not permit private land ownership is regarded as a major cause for the chronic shortage of collateral for borrowers. Furthermore, the government policy concerning land values and the fact that a free market does not really exist, prevents the establishment of a 'real' market price, thereby increasing the risk of mortgage lending.

Financial Consumer Protection. In Ethiopia, there is no single standalone law that deals with financial consumer protection. Some key consumer protection provisions have been included in a general consumer protection proclamation and others can be found in various financial sector-specific proclamations and regulations. Initial efforts have been deployed by the GOE to bring more effective consumer protection by amending relevant legislation: The Trade Practice and Consumer Protection Law was enacted in 2010. However, while enforcement remains problematic, there is also the lack of a well-functioning legal and administrative court to help protect and ensure the safety of those who deposit their savings in financial institutions. Considering that advances in consumer protection, including the provision of better information to customers (including the transparency of pricing), are expected to promote market competition, the lack of effective consumer protection measures was distinctively lamented by some representatives in the microfinance sector. In this respect, it is worth mentioning that some client protection initiatives, such as the Smart Campaign and the Transparent Pricing Initiative, are underway.

5.5. Econometric Analysis

This section will empirically analyze the relationship between access to domestic finance/forex and firm performance, determinants of access to finance, and barriers to access. The section will try to address both the demand and the supply side factors.

5.5.1. The Effect of Lack of Access to Finance on Firms' Performance

The main objective of this section is to empirically analyze the effects of access to finance constraint on firm's performance in Ethiopia. In order to base our arguments on a robust base, two indicators of firms' performance/growth, such as change in number of permanent employment and change in annual sales revenue, were used.

In order to quantify the impact of finance constraint on private sectors' performance, the following growth model was applied. Measuring firm's growth in terms of employment growth is preferable to other measures such as sales, profits or fixed assets because it is less susceptible to measurement error and is not correlated with inflation. Following Evans (1987), the functional relationship between firm growth (\dot{S}_t), age A_t and size of firm (S_t) can be expressed as:

$$\dot{S}_t = [G(A_t, S_t)]^d (S_t) e^{\varepsilon_t} \dots \dots \dots (1)$$

Where G the growth is function and d denotes the time interval and ε_t log-normally distributed error term.

Taking logarithm on both sides of equation (1) and re-arranging, we have

$$\frac{\ln(\dot{S}_t) - \ln(S_t)}{d} = \ln(A_t, S_t) + \varepsilon_t \dots \dots \dots (2)$$

The specific functional form of the right-hand side of the equation (2) can also be expressed as:

$$\ln(A_t, S_t) + \varepsilon_t = b_0 + b_1 \ln(A_t) + b_2 \ln(S_t) + b_3 (\ln S_t)(\ln A_t) + b_4 (\ln A_t)^2 + b_5 (\ln S_t)^2 + \varepsilon_t \dots \dots (3)$$

Augmenting equation (3) by a vector of factors (X) that accounts for other factors that affect firm growth and denoting the left hand side of equation (2), Y_i , as the average annual growth rate of a firm in terms of employment, we have the following equation

$$Y_i = b_0 + b_1 \ln(A_t) + b_2 \ln(S_t) + b_3 (\ln S_t)(\ln A_t) + b_4 (\ln A_t)^2 + b_5 (\ln S_t)^2 + \sum_i^n b_i X_i + \varepsilon_i \dots \dots \dots (3)$$

The vector X_i captures factors such as access to finance (obstacles hindering access to finance for firms' performance), characteristics of the top manager, firm characteristics, location and business environment of the firms, sector of operation, availability of infrastructures, etc. This equation will be analysed using **ordinary least square**

Table 5.8: Determinants of Employment Growth

Employment growth	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Capacity utilization	0.001	0.002	0.84	0.403	-0.002	0.005	
Innovation	0.056	0.110	0.51	0.612	-0.160	0.271	
Top mgt experience	0.012	0.005	2.41	0.016	0.002	0.022	**
Website use	0.268	0.108	2.48	0.014	0.056	0.481	**
R&D	0.050	0.147	0.34	0.735	-0.239	0.339	
techno	-0.153	0.120	-1.27	0.204	-0.389	0.083	
Training	-0.089	0.119	-0.75	0.456	-0.323	0.145	
Inage	0.186	0.179	1.04	0.299	-0.166	0.538	
Inage2	0.008	0.026	0.30	0.767	-0.044	0.059	
Highschool	0.003	0.001	1.82	0.069	0.000	0.006	*
Access to line of credit	0.256	0.104	2.46	0.014	0.052	0.460	**
Competition from Informal	-0.204	0.099	-2.07	0.039	-0.398	-0.011	**
Constant	-0.112	0.283	-0.40	0.693	-0.668	0.444	
Mean dependent var		1.020	SD dependent var			1.143	
R-squared		0.158	Number of obs			541.000	
F-test		6.146	Prob > F			0.000	
Akaike crit. (AIC)		1619.98	Bayesian crit. (BIC)			1692.969	

The OLS result indicates a strong positive relationship between access to finance and employment growth. Firms with access to loans exhibit employment growth of 0.26 percentage points higher than firms with no access to finance. This is consistent with previous studies undertaken by File et al., 2018; Gebreeyesus, 2009; Tesfaye & Hussien, 2018; UNIDO, 2019; World Bank/DB, 2019.

Furthermore, firms that face competition from informal firms concede lower employment growth, while those that own websites and are managed by experienced managers, recorded higher employment growth.

Consistent with the above regression result, access to finance related factors affects firms' growth. More specifically, barriers imposed on access to foreign currency, through bureaucratic permit, degrade firms' sales growth. A longer time period to get a foreign currency permit implies that a firms' sales growth is low. Enterprises that faced waits to get foreign currency scored 0.186 less sales growth than those who managed to get foreign currency promptly. In the same vein, firms that do not have access to loans/ lines of credit have lower sales compared to those accessing loans or line of credit. Enterprises that had access to credit scored 0.818 more in sales growth than enterprises that had credit constraints. The results lend credence to the view that financing is very important for firm growth.

It is well established that access to finance constraints have negative effects on firms' growth as well as doing business in Ethiopia (see Gurmessa, 2017; Regassa et al., 2017; Sennoga & Zerihun, 2018; Tarfasa et al., 2016; Tesfaye & Hussien, 2018; UNIDO, 2019; World Bank/DB, 2019)³⁵.

Financially constrained firms face the liquidity problems associated with business activities which negatively affects their competitiveness.

Table 5.9: Determinants of Firms' Performance (sales)

Insales	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig	
Capacity utilization	0.004	0.003	1.34	0.181	-0.002	0.010		
Product Innovation	0.132	0.179	0.74	0.461	-0.219	0.483		
Market Innovation	-0.182	0.208	-0.88	0.382	-0.592	0.227		
Organization Innovation	0.793	0.206	3.85	0.000	0.388	1.197	***	
Top mgt female	0.033	0.270	0.12	0.904	-0.499	0.564		
website	1.068	0.179	5.97	0.000	0.717	1.420	***	
R&D	0.691	0.247	2.80	0.005	0.206	1.177	***	
Training	0.451	0.197	2.29	0.022	0.064	0.837	**	
lnage	1.254	0.289	4.34	0.000	0.686	1.822	***	
lnage2	-0.111	0.039	-2.88	0.004	-0.187	-0.035	***	
Top managers experience	0.010	0.008	1.27	0.206	-0.006	0.026		
High school	-0.002	0.002	-0.67	0.506	-0.007	0.003		
Full time employment	0.001	0.000	5.70	0.000	0.001	0.001	***	
Access to line of credit	0.818	0.174	4.71	0.000	0.477	1.160	***	
Forex permit	-0.186	0.078	-2.38	0.003	-0.009	-0.002	***	
Competition from informal	-0.775	0.166	-4.68	0.000	-1.100	-0.450	***	
Constant	11.993	0.495	24.25	0.000	11.021	12.964	***	
Mean dependent variable	15.657		SD dependent var			2.288		
R-squared	0.426		Number of obs			530.000		
F-test	22.327		Prob > F			0.000		
Akaike crit. (AIC)	2122.642		Bayesian crit. (BIC)			2199.554		

*** p<0.01, ** p<0.05, * p<0.1

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35 Full document review on impacts of access to finance constraint on doing business/firms' performance in Ethiopia can be read from Annex 1 of this report.

5.5.2. Macro-Economic Determinants of Domestic Credit to the Private Sector

When we looked at the ratio of domestic credit as a percentage of GDP, the results indicated a long relationship between lending interest rate, GDP growth and growth broad money supply. A 1% increase in broad money supply is likely to increase the private sector credit by 7.2% while a 1% increase in GDP growth will likely increase the private sector credit by 4.4%. As expected, growth in lending interest negatively affects credit to the private sector. A 1% increase in lending interest rate leads to 0.3% percent decrease in domestic credit to the private sector while it increases by 7.2% when broad money increases by 1% (Table 10).

Table 5. 10: Long-Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LIR	-0.312765	0.064482	-4.850438	0.0400
LNGDP	4.451098	0.912595	4.877410	0.0396
LN2	7.203936	1.487237	4.843837	0.0401
C	50.659109	9.933973	5.099582	0.0364
@TREND	0.036932	0.004787	7.715143	0.0164

Table 5.11: Short-Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCREDIT(-1))	0.049748	0.277451	0.179305	0.8742
D(LNCREDIT(-2))	-0.327218	0.233204	-1.403141	0.2957
D(LNCREDIT(-3))	1.206629	0.388192	3.108329	0.0898
D(LIR)	-0.462868	0.122980	-3.763764	0.0639
D(LIR(-1))	-0.337698	0.095729	-3.527639	0.0718
D(LIR(-2))	0.338008	0.091776	3.682974	0.0665
D(LIR(-3))	-0.083142	0.034435	-2.414492	0.1371
D(LNGDP)	-4.078592	1.423674	-2.864836	0.1033
D(LNGDP(-1))	-1.169546	0.891226	-1.312288	0.3198
D(LNGDP(-2))	2.473214	0.684799	3.611591	0.0688
D(LNGDP(-3))	-1.522261	0.556413	-2.735846	0.1117
D(LNM2)	0.015746	0.577999	0.027242	0.9807
D(LNM2(-1))	4.650475	1.814685	2.562689	0.1245
D(LNM2(-2))	-2.250781	1.089627	-2.065643	0.1749
D(@TREND())	0.072920	0.016348	4.460444	0.0468
CointEq(-1)	-1.974449	0.372682	-5.297950	0.0338

5.6. Matrix Table of the Proposed Recommendations

This section aims to forward some recommendations to the problems of access to finance and forex discussed in the previous sections.

Issue	Cause	Possible Solution
Regulations		
NBE Bill 84/1994 (Restriction on Foreign Banks Participation)	<ul style="list-style-type: none"> High Bank concentration 	<ul style="list-style-type: none"> Opening the financial sector to foreign investors
MFA/NBE Bills/001/2011 (27% loan to NBE Bill)	<ul style="list-style-type: none"> Decrease banks' lending power and profit Low credit to the private sector and favour only established big businesses 	<ul style="list-style-type: none"> Lift the bill
MFA/NBE Bills/002/2013(Time for short term loan)	<ul style="list-style-type: none"> Difficult to get long term loans and high NPLs 	<ul style="list-style-type: none"> Revise/remove this legislative provision
SBB/50/2011(Minimum capital requirement to establish bank)	<ul style="list-style-type: none"> Restrains Banks entry 	<ul style="list-style-type: none"> Revise the minimum requirement for banks
Loan floor	<ul style="list-style-type: none"> Small loan to the private sector 	<ul style="list-style-type: none"> Make it competitive
Bank requirements		
Collateral	<ul style="list-style-type: none"> Movable assets cannot be used as collateral (new and small firms cannot access credit) High collateral and small/no loan Lack of transparency in the valuation of collateral (Small or no loan) Enterprise may stop the project 	<ul style="list-style-type: none"> Strengthening bankruptcy laws/strong legal framework about collaterals Promoting leasing Promoting guarantee schemes especially for new, innovative and small firms Preparing standard document to clearly evaluate collaterals to consistently assess property Establishing or strengthening Credit information and registry bureau Preparing policy to consider patent as collateral
Long loan processing time	<ul style="list-style-type: none"> The time consuming (up to one year) loan process makes business abandon projects 	<ul style="list-style-type: none"> Automate loan processing and information
Transparency in Credit Supply	<ul style="list-style-type: none"> Small or no loan 	<ul style="list-style-type: none"> Prepare clear and objective loan policy and guideline
Capital Market	<ul style="list-style-type: none"> Lack of capital market narrows the credit base to the private sector 	<ul style="list-style-type: none"> Prepare clear policy framework for capital market and establishing Capital Market
Financial Literacy	<ul style="list-style-type: none"> Borrowers' lack of financial literacy may lead to a loan rejection or bring project failure 	<ul style="list-style-type: none"> Financers need to give credit plus services (credit plus other business development services like training)
Digital banking	<ul style="list-style-type: none"> Slow down online sale and payments 	<ul style="list-style-type: none"> Telecommunication infrastructure development

Issue	Cause	Possible Solution
Regulations		
House rent	<ul style="list-style-type: none"> Hinders Bank branch expansion and access to credit 	<ul style="list-style-type: none"> Rent regulation
Capital outflow	<ul style="list-style-type: none"> Exacerbates forex shortage 	<ul style="list-style-type: none"> Formalizing informal exchange market Enforcing controlling measures to tackle the illegal hard currency circulation in the economy Addressing the root causes of illegal capital outflow, such as a lack of good governance and unethical practices
Payment and Transaction Services		
Approval and disbursement of foreign currency (long queue)	<ul style="list-style-type: none"> Increase costs Stall the relationship between importer and foreign business partner Corruption 	<ul style="list-style-type: none"> Establishing an open system that enables applicants to know their queue position Coordinate works among different stakeholders like NBE and Customs
Opening letters of credit (LC)	<ul style="list-style-type: none"> Enterprises face shortages of working capital 	<ul style="list-style-type: none"> Lift it or revise the rule (suggested from literature 30%)
Advance payment	<ul style="list-style-type: none"> Big importers cannot import their demand 	<ul style="list-style-type: none"> Increasing the ceiling based on the purchase order and type of enterprise
Lack of transparency in foreign currency allocation (FXD/54/2018)	<ul style="list-style-type: none"> Firms, especially new ones, face delays in arranging trade-related payments Credit rationing Corruption 	<ul style="list-style-type: none"> Employ the first come first served principle given the criteria Liberalize the forex market
Foreign currency surrender requirements, Directive no. (FXD/54/2018)	<ul style="list-style-type: none"> Limits the amount of foreign exchange that is available to the commercial/business market. 	<ul style="list-style-type: none"> Revisiting the 30% surrender requirement

Generally, an efficient financial system is at the crux of a vibrant private sector and a sustained economic growth. Thus, whether business owners can access adequate and appropriate finance is a concern for policy makers. Journal articles, reports, policies and regulations in Ethiopia, pertinent to access to finance, indicated that enterprises usually face difficulties in getting finance to optimally undertake their business activities. A percentage of the private sector's GDP has not been growing on par with the demand from the private sector.

The giant banks have long been under the control of the government that primarily extends loans to government and public enterprises. The private financial institutions on the other hand require an extremely huge collateral that small and new firms cannot satisfy. A lack of credit information, weak legal rights and low credit registry coverage absence of credit bureau coverage play a significant role in making the loan highly collateralized. Furthermore, majority of the financial institutions are in the big cities, excluding the rural areas. Broad money supply, lending interest rates and Gross domestic product also significantly determine access to finance. Similarly, foreign currency reserve, regulation and management makes access to finance, especially to those sourcing from abroad, extremely difficult. The lack of liquidity between foreign currency and Birr may also result in the use of informal means of currency transfer at an extremely higher rate; this might push more capital away from the banking system and appreciate the Birr hence aggravating the foreign reserve problem.

As such, enterprises in Ethiopia cannot produce with full capacity. So far, they are not using more than two-thirds of their capacity. They are constrained to bring about the impact expected of the private sector.

The government of Ethiopia and other relevant stakeholders should implement different reforms that can catalyze the private sector and be the pillar of sustainable economic development. In view of this the relevant stakeholders can:

- Diversify the Finance Bases

Introducing and establishing a clear policy framework for capital markets will improve the liquidity and high collateral requirement problems from banks. Private equity and venture capital can be good alternatives to address the financing needs of enterprises. It will help further to take advantage of the financial flow from the diaspora community and foreign financing institutions.

- As indicated above, the private sector has a small share of the domestic credit while its contribution to the growth of the economy is remarkable. Therefore, there should be a clear framework that allocates some portion of the loan to the government and some to the private sector.
- Lenders should strengthen their credit monitoring and evaluation systems to ensure that loans are used for the intended purposes; this could decrease the probability of loan defaults that will have a negative effect on the credit available for the private sector.
- **Revise the equity requirements** that lenders require the borrowers to contribute to secure loans. The 30:70 requirement is difficult for businesses to satisfy as it erodes the capital for operational purpose. Reducing equity requirements by half, to about 15%, could help businesses function normally.
- In order to **alleviate the collateral requirements and minimize loan risks**, there is a need to employ the international collateral evaluation system or to introduce a rule that allow independent external private firms to provide collateral evaluation service. Governments can also establish and strengthen credit registry bureaus as well as strengthen public/private guarantees and using patent as collateral.
- **Liberalize the financial system** as it will also contribute to increased competition and innovation thus granting access to financial services.
- **Improve Loan Processing Efficiency**: preparing an online/electronic system that clearly outlines the requirements and procedures to access credit.
- Revise the NBE directives on loan, minimum capital to start bank, foreign bank etc.
- Establish different types of banks that target different groups like rural bank, investment bank and the like.
- Ensure stability to encourage investment and loan repayments to arrange loans for new firms entering the market.
- Encourage lenders to provide business development services to clients. This guarantees entrepreneurial success, loan repayments and credit to the private sector.

Reference

AACCSA. (2016). *Assessment of the Role of Private Sector Plays in GTP II*. Addis Ababa, Ethiopia.

Abel, S., Mutandwa, L., & Roux, P. Le. (2018). A Review of Determinants of Financial Inclusion. *International Journal of Economics and Financial Issues*, 8(3), 1–8.

Adore, M. (2016). An Assessment of Factors Affecting Access to Finance for Micro and Small Enterprises in the Case of Hossana Town. *International Journal of African and Asian Studies*, 27, 32–43.

Ageba, G., & Amha, W. (2006). Micro and Small Enterprises (MSEs) Finance in Ethiopia: Empirical Evidence. *Eastern Africa Social Science Research Review*, 22(1), 63–86. <https://doi.org/10.1353/eas.2006.0002>

Alibhai, S., Buehren, N., & Papineni, S. (2015). Female entrepreneurs who succeed in male-dominated sectors in Ethiopia. *Policy Brief*.

Amene, T. B. (2018). Factors Affecting Access To Finance For Micro And Small Enterprises : The Case of West Hararghe Zone, Ethiopia. *International Journal of Current Research*, 9(11). <https://doi.org/10.24941/ijcr.27582.11.2017>

Amentie, C., Negash, E., & Kumera, L. (2016). Barriers to Growth of Medium and Small Enterprises in Developing Country : Case

Study Ethiopia Journal of Entrepreneurship & Organization Management. *Journal of Entrepreneurship & Organization Management*, 5(3), 3–6. <https://doi.org/10.4172/2169-026X.1000190>

Amhaa, W., & Woldehanna, T. (2016). Policy and Regulatory Challenges Militating against the Development of Youth-Owned Micro-and Small-Enterprises in Ethiopia. *Eastern Africa Social Science Research Review*. <https://doi.org/10.1353/eas.2016.0007>

Assefa, B., Zerfu, A., & Tekle, B. (2014). *Identifying Key Success Factors and Constraints in Ethiopia's MSE Development : An Exploratory Research* (No. 18). <https://doi.org/10.13140/RG.2.1.1572.4963>

Association of Ethiopian Micro-Finance Institution. (2015). *Enhancing Livelihoods for Young People in Ethiopia*.

Asuming, P. O., Osei-agyei, L. G., & Ibrahim, J. (2019). Financial Inclusion in Sub-Saharan Africa : Recent Trends and Determinants Financial Inclusion in Sub-Saharan Africa : Recent Trends and. *Journal of African Business*, 20(1), 112–134. <https://doi.org/10.1080/15228916.2018.1484209>

Awel, Y. M., Bane, J., Menkir, H., Shafi, A., Yitbarek, E. A., & Zerihun, M. F. (2018). *Financial Inclusion , Gender Disparity in Risk Appetite, and Micro and Small Enterprise Performance : Evidence from urban Ethiopia*.

Bardasi, E., & Getahun, A. (2009). Unlocking the Power of Women. In *Ethiopia Investment Climate: Toward the Competitive Frontier: Strategies for Improving Ethiopia's Investment Climate*. Washington DC: World Bank.

Bardasi, E., Sabarwal, S., Terrell, K., Bardasi, E., & Sabarwal, S. (2016). *How do female entrepreneurs perform? Evidence from three developing regions*. *How do female entrepreneurs perform? Evidence from three developing regions*. 37(4), 417–441.

Baza, A. U., & Rao, K. S. (2017). Financial Inclusion in Ethiopia. *International Journal of Economics and Finance*, 9(4), 191. <https://doi.org/10.5539/ijef.v9n4p191>

Beck, T., Demirgüç-Kunt, A., & Honohan, P. (2009). Access to financial services: Measurement, impact, and policies. *World Bank Research Observer*, 24(1), 119–145. <https://doi.org/10.1093/wbro/lkn008>

Beck, T., Demirgüç-kunt, A., Laeven, L., & Maksimovic, V. (2004). *The determinants of financing obstacles* (No. 3204).

Beck, T., Hoseini, M., & Uras, B. (2019). Trade Credit and Access to Finance: Evidence from Ethiopian Retailers†. *Journal of African Economies*, (1997), 1–27. <https://doi.org/10.1093/jae/ejz018>

Buyinza, F., Mutenyo, J., & Tibaingana, A. (2018). Factors Affecting Access to Formal Credit by Micro and Small Enterprises in Uganda. *Athens Journal of Business & Economics*, 4(4), 405–424. <https://doi.org/10.30958/ajbe.4-4-4>

Camara, N., & Tuesta, D. (2014). *Measuring Financial Inclusion : A Multidimensional Index* (No. 14/26). Madrid.

CEPHEUS Research & Analytics. (2019). *Ethiopia 's Banking Sector*.

Chowdhury, M., & Alam, Z. (2017). Factors Affecting Access to Finance of Small And Medium Enterprises (SMEs) of Bangladesh. *USV Annals of Economics and Public Administration*, 17(2(26)), 55–68.

Chundakkadan, R., & Sasidharan, S. (2019). Financial constraints, government support, and firm innovation: empirical evidence from developing economies. *Innovation and Development*, 0(0), 1–23. <https://doi.org/10.1080/2157930x.2019.1594680>

Demirgüç-Kunt, A., Beck, T., & Honohan, P. (2008). Access to Finance and Development: Theory and Measurement. In *Finance for All? Policies and Pitfalls in Expanding Access* (pp. 21–54).

Demirguc-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. Washington DC: The World Bank.

Desalegn, G., & Yemataw, G. (2017). Financial Inclusion in Ethiopia : Using LSMS (Ethiopia Socioeconomic Survey) Data. *Ethiopian Journal of Economics*, XXVI. Retrieved from <https://www.ajol.info/index.php/eje/article/viewFile/177737/167090>

Dorosh, P., Robinson, S., & Ahmed, H. (2009). *Economic Implications of Foreign Exchange Rationing in Ethiopia*.

Endale, K. (2011). Investment climate and manufacturing performance in Ethiopia. *Ethiopian Journal of Business and Economics*, 2(1), 1–35.

Engida, E., Dereje, M., Worku, I., Yimer, F., & Yifredew, S. (2017). *The major bottlenecks of micro and small scale enterprises' Universite Laval growth in Ethiopia: An econometric analysis* (No. 2017–19). Addis Ababa, Ethiopia.

Erdogan, A. I. (2018). Factors affecting SME access to bank financing: an interview study with Turkish bankers. *Small Enterprise Research*, 25(1), 23–35. <https://doi.org/10.1080/013215906.2018.1428911>

Erdogan, A. I. (2019). Determinants of perceived bank financing accessibility for SMEs: evidence from an emerging market. *Economic Research-Ekonomska Istrazivanja*, 32(1), 690–716. <https://doi.org/10.1080/1331677X.2019.1578678>

Eshetu, O. M. (2014). *Determinants of credit constraints in Ethiopia*.

Ethiopian Economics Association. (2015). Small and Micro Enterprises (SMEs) Development in Ethiopia: Policies, Performances, Constraints and Prospects. *EEA Research Brief*, (5).

Fanta, A. B. (2015). *Banking reform and SME financing in Ethiopia : Evidence from the manufacturing sector*. (May 2012). <https://doi.org/10.5897/AJBM11.3050>

FDRE. (2016). *Growth and Transformation Plan II (GTP II) (2015/16-2019/20)*. Addis Ababa, Ethiopia.

File, B., Kumera, E., & Tanku, M. (2018). Sourcing, Input Supply and Linkages as Determinants of Investment in Manufacturing. *Addis Ababa Journal of Trade and Business*, III(I).

Fowowe, B. (2017). Access to finance and firm performance: Evidence from African countries. *Review of Development Finance*, 7(1), 6–17. <https://doi.org/10.1016/j.rdf.2017.01.006>

Gebeyehu, M. G. (n.d.). *Effect of Credit Constraints on Intensity of Fertilizer Adoption and Agriculatural Productivity in Amhara Region , Ethiopia : An Endogenous Switching Regression Analysis*.

Gebreeyesus, M. (2009). *Innovation and microenterprises growth in Research Paper No . 2009 / 51 Innovation and Microenterprises Growth in Ethiopia Mulu Gebreeyesus * (No. 2009–053)*.

Gebreeyesus, M. (2011). Innovation and Microenterprise Growth in Ethiopia. In *Entrepreneurship, Innovation, and Economic Development*. <https://doi.org/10.1093/acprof:oso/9780199596515.003.0006>

Gerba, Y. T., & Viswanadham, P. (2016). Small Scale Enterprise Finance Sources and Constraints in Ethiopia, Case Study of Addis Ababa. *International Journal of Science and Research (IJSR)*, 5(4), 1426–1430. <https://doi.org/10.21275/v5i4.nov162911>

- Gurmessa, N. E. (2017). Smallholder s ' Access to a nd Demand for Credit and Influencing Factors : Policy and Research Implications for Ethiopia. *Journal of Business & Economic Policy*, 4(3), 48–60.
- Haile, F. (2019a). *The Exchange Rate Why It Matters for Structural Transformation and Growth in Ethiopia* (No. 8868).
- Haile, F. (2019b). *The Exchange Rate Why It Matters for Structural Transformation and Growth in Ethiopia* (No. 8868).
- Hansen, H., & Rand, J. (2014). Estimates of gender differences in firm ' s access to credit in Sub-Saharan Africa. *Economics Letters*, 123(3), 374–377. <https://doi.org/10.1016/j.econlet.2014.04.001>
- Keatinge, T. (2014). *Growing an Economy: Impact of Foreign Exchange and Remittances on Ethiopian Development*.
- Kedir, A. M. (2003). Determinants of Access to Credit and Loan Amount : Household-level Evidence from Urban Ethiopia. *International Conference on African Development Archives*, (Paper 64).
- Kedir, A. M., & Ibrahim, G. (2011). Household-level Credit Constraints in Urban Ethiopia. *Ethiopian Journal of Economics*, XX(1), 1–24.
- Kibret, B. G., Lalisho, A. A., Rokandla, V. R., & Belayneh, E. S. (2015). Opportunities and Challenges of Small Business Enterprises in Gedeo Zone- Ethiopia: From Policy, Regulatory and Institutional Perspectives. *Asia Pacific Journal of Applied Finance*, IV(2), 18–24.
- Lashitew, A. A. (2017). The Uneven Effect of Financial Constraints : Size , Public Ownership , and Firm Investment in Ethiopia. *World Development*. <https://doi.org/10.1016/j.worlddev.2017.04.008>
- Lloyd, J., & Teshome, B. (2018). *Foreign Exchange Allocation and Access for Businesses in Ethiopia*.
- Menkir, F. G. (2016). *Access to Finance and its Challenges for Private Sector in Ethiopia*. Indira Gadhi Open University.
- Mersha, D., & Ayenew, Z. (2018). Determinants of Access to Finance of Smallholder Farmers : A study on Members of Agricultural Cooperatives in Southwest Oromia Region ,. *Horn of Africa Journal of Business and Economics (HAJBE)*, 1(1), 1–15.
- Mukasa, A. N., Simpasa, A. M., Salami, A. O., & John, C. (2017). *Credit constraints and farm productivity : Micro-level evidence from smallholder farmers in Ethiopia* (No. 247).
- National Bank of Ethiopia. (2017). *Ethiopia: National Financial Inclusion Strategy*. Addis Ababa, Ethiopia.
- National Bnak of Ethiopia. (2017). *Ethiopian National Financial Inclusion Strategy*.
- Nega, F., & Hussein, E. (2016). *Small and Medium Enterprise Access to Finance in Ethiopia : Synthesis of Demand and Supply* (No. 01/16). Addis Ababa, Ethiopia.
- Osano, H. M., & Languitone, H. (2015). Factors influencing access to finance by SMEs in Mozambique: case of SMEs in Maputo central

business district. *Journal of Innovation and Entrepreneurship*, 5(1). <https://doi.org/10.1186/s13731-016-0041-0>

Osebo, G. P. (2017). Factors Affecting Micro and Small Enterprises in Accessing Credit Facilities : A Study in Hadeya Zone , Hosanna Town. *International Journal of African and Asian Studies*, 39, 39–53.

Rao, K. S., & Baza, A. U. (2017). Barriers to Access to and Usage of Financial Services in Ethiopia. *Business and Economic Research*, 7(1), 139–148. <https://doi.org/10.5296/ber.v7i1.11034>

Regassa, D., Fielding, D., & Roberts, H. (2017). *Access to Financing and Firm Growth : Evidence from Ethiopia* (No. 1707).

Sennoga, E. B., & Zerihun, A. W. (2018). *2018 African Economic Outlook:Ethiopia*.

Shiferaw, A. (2017). *Productive Capacity and Economic Growth in Ethiopia*. (34).

Soumaré, I., Tchana, F. T., & Kengne, T. M. (2016). *Analysis of the determinants of financial inclusion in Central and West Africa*. 6444. <https://doi.org/10.1080/19186444.2016.1265763>

Tarfasa, S., Ferede, T., Kebede, S., & Behailu, D. (2016). Determinants of growth of Micro and Small Enterprises: Empirical evidence from Ethiopia. In *R4D Working Paper* (No. 2016/3). Retrieved from https://www.wti.org/media/filer_public/d9/24/d924ca53-6f68-472e-a26b-45190f1418fb/wp_2016_03_growth_determinants_mses_ethiopia.pdf

Tesfaye, E., & Hussen, N. (2018). Empirical Analysis of FDI in Ethiopia. *Addis Chamber Journal of Trade and Business*, 3(1), 63–136.

Tiruneh, A., Tesfaye, T., Mwangi, W., Tiruneh, A., Mwangi, W., & Verkuil, H. (2001). *Gender Differentials in Agricultural Production and Decision-Making Among Smallholders in Ada , Lume , and Gimbichu Woredas of the Central Highlands of Ethiopia Gender Differentials in Agricultural Production and Decision-Making Among Smallholders in Ada*. Mexico.

UNIDO. (2019). *Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry*.

Wiedmaier-pfister, M., Gesesse, D., Amha, W., Mommartz, R., Duflos, E., & Steel, W. (2008). *Access to Finance in Ethiopia* (Vol. 2).

World Bank/DB. (2019). *Doing Business 2019: Training for Reform*. Washington DC.

World Bank/ES. (2012). Ethiopia Country Profile. In *Enterprise Surveys 2011*.

World Bank/ES. (2015). Ethiopia 2015 Country Profile. In *Enterprise Surveys*. <https://doi.org/10.1596/30305>

World Bank/IFC. (2013). *International Finance Corporation Access to Finance in Ethiopia: Policy, Regulatory and Administrative Impediments*.

World Bank. (2014). *SME Finance in Ethiopia: Addressing the Missing Middle Challenges*.

World Bank. (2018). *Ethiopia Economic Update: The Inescapable Manufacturing-Service Nexus: Exploring the potential of distribution services*. Washington DC.

World Economic Forum. (2017). *The Global Competitiveness Report 2016–2017*. Geneva.

Yeha, A. J. (2016). *Determinant of Access to Formal Finance in Small and Medium Manufacturing Enterprises' in Addis Ababa Administrative City*. St. Mary's University.

Zeru, F. (2010). *Access to Finance and Its Challenge for Small Business Enterprises Case of Addis Ababa City Study conducted in partial fulfilment of the MSc in accounting and finance*. Addis Ababa University.

Zins, A., & Weill, L. (2016a). The determinants of financial inclusion in Africa. *Journal of Advanced Research*, 1–12. <https://doi.org/10.1016/j.rdf.2016.05.001>

Zins, A., & Weill, L. (2016b). The determinants of financial inclusion in Africa. *Journal of Advanced Research*, 6(1), 46–57. <https://doi.org/10.1016/j.rdf.2016.05.001>

Zwedu, G. A. (2014). *Financial inclusion, regulation and inclusive growth in Ethiopia* (No. 408).

Annexes Annex 1: Barriers to Firms' Growth/Performance

Author/s	Title	Barriers/Challenges
Nega and Hussein (2016)	Small and Medium Enterprise Access to Finance in Ethiopia : Synthesis of Demand and Supply	lack of power, telecommunication, transport and customs issues; market competition; access to land; tax rate and administration; labour constraints; and access to finance issues.
Sennoga and Zerihun (2018)	2018 African Economic Outlook:Ethiopia	Key impediments to improved competitiveness include low access to finance, regressive foreign currency regulations, high tax rates, inefficient Government bureaucracy, and inadequate infrastructure supply and services.
Wiedmaier-pfister et al. (2008)	<i>Access to Finance in Ethiopia</i> (Vol. 2)	The constraints facing micro and small enterprises in Ethiopia are lack of access to markets, finance and business information, etc.
Baza and Rao, (2017)	Financial Inclusion in Ethiopia	The poor, Youth, rural residents and women appear to face greater constraints for access to financial services in jurisdiction.
Regassa, Fielding, and Roberts (2017)	Access to Financing and Firm Growth: Evidence from Ethiopia	Access to finance, firm size, experience, type of industry, innovation, etc. determines firm's growth
Endale (2011)	Investment climate and manufacturing performance in Ethiopia	Infrastructural, financial, institutional, macroeconomic factors and firm specific characteristics constrain performance of different size firms.
Tesfaye and Hussen (2018)	Empirical Analysis of FDI in Ethiopia	Access to credit and foreign exchange constraint found to be the most binding constraints in doing business in Ethiopia.
Tarfasa, Ferede, Kebede, and Behailu (2016)	Determinants of Growth of Micro and Small Enterprises: Empirical evidence from Ethiopia	Inadequate access to finance, firm age, firm's start-up size, and power outage constrain firm's growth
Beck, Hoseini, and Uras (2019)	The determinants of financing obstacles	
Menkir (2016)	Access to Finance and its Challenges for Private Sector in Ethiopia	Lack of access to financing on reasonable terms and conditions is probably the most serious constraint facing SMEs.
Gurmessa (2017)	Smallholders' Access to and Demand for Credit and Influencing Factors: Policy and Research Implications for Ethiopia	Lack of access to loan finance limits smallholder agricultural producers' productivity

Awel et al. (2018)	Financial Inclusion, Gender Disparity in Risk Appetite, and Micro and Small Enterprise Performance: Evidence from urban Ethiopia	Provision of credit, training or a combination of credit and training positively affect the performance of MSEs compared to have not received any of these treatments.
Demirgüç-Kunt, Beck, and Honohan (2008)	Access to Finance and Development: Theory and Measurement	Financing, inflation, taxes and regulations, political instability, corruption, street crime, exchange rate, anticompetitive practices, organized crime, infrastructure, and functioning of the judiciary
Mersha and Ayenew, (2018)	Determinants of Access to Finance of Smallholder Farmers: A study on Members of Agricultural Cooperatives in Southwest Oromia Region, Ethiopia	Participation in extension package, simplicity in lending procedures, Christianity in religion, large number of working family size and large land size positively affect access to cooperative credit
World Bank (2019)	Doing Business 2019: Training for Reform	Access to credit is a critical factor hindering doing business in Ethiopia
Fowowe (2017)	Access to finance and firm performance: Evidence from African countries	Access to finance, customs and trade, informal sector competitors, tax administrations, political instability, corruption, courts, labour regulations, and access to land
Bardasi and Getahun (2009)	Unlocking the Power of Women	Access to land, access to finance, competition from the informal sector, electricity, tax rate, tax administration, and corruption is mentioned as the first most important problem by at least 3 percent of the enterprises.
Amentie, Negash, and Kumera (2016)	Barriers to Growth of Medium and Small Enterprises in Developing Country: Case Study Ethiopia	Low availability of finance from lenders were rated as high barriers for small and medium business growth.
Zeru (2010)	Access to Finance and Its Challenge for Small Business Enterprises Case of Addis Ababa City	Access to finance is the second most pressing problem next to access to market that hinders performance of small businesses.
File, Kumera, and Tanku (2018)	Sourcing, Input Supply and Linkages as Determinants of Investment in Manufacturing	The overarching general determinants of investment in manufacturing in the country are access to finance and inputs
UNIDO (2019)	<i>Supporting the improvement of the development strategy and policy for Ethiopia's Technology-Based Chemical Industry.</i>	The performance of the manufacturing sector has been adversely affected by low worker productivity and the use of obsolete technologies, which is further compounded by poor infrastructure, limited access to finance, limited research and development, poor institutional framework, and inadequate managerial and technical skills.
FDRE (2016)	Growth and Transformation Plan II (GTP II) (2015/16-2019/20)	Working premises, infrastructure and energy, trade and custom facilitation, transport and logistics, power supply, credit access, technological and business management support particularly to domestic private firms are currently impeding the expansion of the manufacturing industry.

<p>Ethiopian Economics Association (2015)</p>	<p>Small and Micro Enterprises (SMEs) Development in Ethiopia: Policies, Performances, Constraints and Prospects</p>	<p>The performance of SMEs has fallen short of expectations due to various challenges. These include, problems related to finance, access to market and low competitiveness, business information, working premises, poor acquisition of technical skills and managerial expertise, appropriate technology, and access to quality infrastructure.</p>
<p>Kibret, Lalisho, Rokandla, and Belayneh (2015)</p>	<p>Opportunities and Challenges of Small Business Enterprises in Gedeo Zone- Ethiopia: From Policy, Regulatory and Institutional Perspectives</p>	<p>Bureaucratic burden (51.25%), credit access (51.25%), tax administration (46.25%), high taxes (46.25%), high interest rate (45%), high collateral requirement (43.75%), lack of raw materials (42.5%) and luck of business premises (36.25%) are factors hindering small business enterprises performance in Gedeo zone</p>
<p>World Bank (2018)</p>	<p>Ethiopia Economic Update: The Inescapable Manufacturing-Service Nexus: Exploring the potential of distribution services</p>	<p>Lack of access to finance, uneven cash flows, absence of management knowledge, and highly fragmented and inefficient supply chains are key constraints faced by enterprises in the informal sector.</p>
<p>International Finance Corporation (2013)</p>	<p>International Finance Corporation Access to Finance in Ethiopia: Policy, Regulatory and Administrative Impediments</p>	<p>Access to finance is the second most critical problem after tax administration issues which is barrier for private sector operations in Ethiopia.</p>
<p>National Bank of Ethiopia (2017)</p>	<p>Ethiopia: National Financial Inclusion Strategy.</p>	<p>Emerging and growing micro, small and medium enterprises in Ethiopia face greater constraints when accessing credit to support their business</p>
<p>Tiruneh et al. (2001)</p>	<p>Gender Differentials in Agricultural Production and Decision-Making Among Smallholders in Ada, Lume, and Gimbichu Woredas of the Central Highlands of Ethiopia Gender Differentials in Agricultural Production and Decision-Making Among Smallholders in Ada</p>	<p>The high price of fertilizer and agro-chemical supplies and the non-availability of loans from the bank and informal credit sources are among the major problems of crop production.</p>
<p>Alibhai, Buehren, and Papineni (2015)</p>	<p>Female entrepreneurs who succeed in male-dominated sectors in Ethiopia</p>	<p>Access to credit is the top challenge to both crossover and non-crossover entrepreneurs.</p>
<p>Gebreeyesus (2011)</p>	<p>Innovation and Microenterprise Growth in Ethiopia</p>	<p>Credit constraint is highly significant and negatively related with firm growth.</p>
<p>WEF (2017)</p>		<p>Foreign currency regulations, Corruption, Access to finance, Inefficient government bureaucracy, Inflation, Inadequate supply of infrastructure, Poor work ethic in national labor force, inadequately educated work force, Tax rates, Policy instability, Tax regulations, Restrictive labor regulations, Government instability /coups, crime and theft, Insufficient capacity to innovate, poor public health</p>

World Bank (2015)	<i>Ethiopia 2015 Country Profile. In Enterprise Surveys</i>	Access to finance, Electricity, trade regulations, tax rates, corruption, tax administration, informal sectors, access to land, transportation, poorly educated work force
Fanta (2015)	Banking reform and SME financing in Ethiopia: Evidence from the manufacturing sector	Lack of finance is the most serious challenge in setting up a new business in Ethiopia.
Amhaa and Woldehanna (2016) followed by limited access to credit, lack of business premise, lack of business support services, frequent interruption of infrastructure services (such as, telecom, power, and water)	Policy and Regulatory Challenges Militating against the Development of Youth-Owned Micro-and Small-Enterprises in Ethiopia	High collateral requirement of finance, limited access to credit, lack of business premise, lack of business support services, frequent interruption of infrastructure services (such as, telecom, power, and water), and lack of raw material inputs
Assefa, Zerfu, and Tekle (2014)		Access to finance, collateral challenges, marketing challenges, working and Sales Space Constraints, Capital goods and Machinery challenges, Licensing and registration challenges, attitudinal challenges, institutional coordination problem
Weldegbriel (2012)	Problems of Micro and Small Enterprises in Addis Ababa: The Case of Kirkos, Kolfe, and Yeka Sub Cities	Lack business plan, lack of formal and informal association, lack of favorable business environment, high cost and shortage of raw materials, lack of proper institutional support, lack of proper marketing practice, and stiff competition
World Bank (2007)	Ethiopia - Urban labor markets: challenges and prospects	Tax rates, tax administration, access to land, access to foreign credit, access to domestic credit, corruption, cost of financing, skills and education of workers, transportation, business licensing and administration, labor regulations
Singh and Belwal (2007)	Entrepreneurship and SMEs in Ethiopia: Evaluating the role, prospects and problems faced by women in this emergent sector	Finance, lack of entrepreneurial and management competence and exposure, problems in finding the markets and distribution networks, limited opportunities for promotion and participation; limited amount of government and institutional support; absence of technological know-how and integration mechanism; and rampant corruption
Adore (2016)	An Assessment of Factors Affecting Access to Finance for Micro and Small Enterprises in the Case of Hossana Town	Lack of access to finance is one among the other problems of MSEs to grow and expand.
ILO (2005)	Support for Growth-oriented Women Entrepreneurs in Ethiopia	Irregular and erratic supply of raw materials, shortage of suitable working premises, the lack of working premises, insufficient capital

World Bank Doing Business (2012)	Doing Business in a More Transparent World	Access to finance, corruption, inefficient government bureaucracy
Getahun (2016)	The Challenge and Prospects of Small-Scale Enterprise in Ethiopia: A Survey of Some Selected Small-Scale Enterprise in Addis Ababa City	Inadequate finance, inadequate infrastructures, poor management practices, multiple taxation and capital shortage
Engida, Dereje, Worku, Yimer, and Yifredew (2017)	The major bottlenecks of micro and small-scale enterprises' University Level growth in Ethiopia: An econometric analysis	women owners, in particular, face more severe credit, market and working premises constraints.
Association of Ethiopian Micro-Finance Institution (2015)	Youth Self-Employment in Ethiopia: Promoting Micro and Small Enterprises (MSEs)	Energetic youths in Ethiopia are remain disadvantaged by lack of business skills, financing, premises, equipment and infrastructures. They need tailored support, including technical and business development training, access to finance and access other resources such as land, equipment, operating premises, technology and markets.
Mukasa, Simpasa, Salami, and John, (2017)	Credit constraints and farm productivity: Micro-level evidence from small holder farmers in Ethiopia	Credit constraint reduced small holder's productivity by 60%.
Gebeyehu (n.d.)	Effect of Credit Constraints on Intensity of Fertilizer Adoption and Agricultural Productivity in Amhara Region, Ethiopia: An Endogenous Switching Regression Analysis	Credit constraints limit the ability of households to use inputs at optimal level and thereby stifles agricultural productivity.
Chundakkadan and Sasidharan (2019)	Financial constraints, government support, and firm innovation: empirical evidence from developing economies	Financial constraints have a significant negative impact on firms' innovation activities.
Lashitew (2017)	The Uneven Effect of Financial Constraints: Size, Public Ownership, and Firm Investment in Ethiopia	small firms are more financially constrained in spite of having superior productivity.

Annex 2: Factors Affecting Access to Finance

Author/s	Country/Case Study	Estimation Method	Determinants
Baza and Rao (2017)	Ethiopia	Linear Regression	Lack of necessary documents, lack of trust, lack of money, and distance.
Kedir (2003)	Ethiopia, urban households	Probit and tobit regressions	geographical location of households, current household resources, schooling of the household head, value of assets, collateral, number of dependants, marital status and outstanding debt
Erdogan (2019)	Unorganised Manufacturing Enterprises in India	Probit and Tobit	Scale of operation, proportion of owned assets, enterprise type and ownership type, maintenance of accounts and registration with the government agencies
Osebo (2017)	MSE, Hosanna, Ethiopia	Binary logistic regression	age of operator, educational level, and possession of fixed asset, employment size, lending procedure and loan repayment period
Buyinza, Mutenyo, and Tibaingana, (2018)	Uganda, MSE	Probit model	firm sales, owner's education level, belonging to a business association, belonging to business group, use of internet, owning a personal and business bank account, and gender of the owner
Yeha (2016)	Addis Ababa Small and Medium Manufacturing Enterprises	Logistic regression	educational level of owner manager, bank relation with credit provider and age of owner manager
Erdogan (2018)	Turkey, SME	Thematic analysis	the commitment of an SME to its credit obligations, its financial data, the adequacy of equity for the area of activity, the profitability of the firm, its debt ratio and current ratio, and the firm's ability to generate sufficient cash flow, the length of the firm's relationship with the bank, the industry in which the firm operates, the age of the firm and impressions gained from onsite visits.
Chowdhury (2017)	Bangladesh, SME	Descriptive method	the size and age of the firms, education and skills of the owners, and unfavourable credit terms such as high interest rates, lack of collateral security, corruption by bank officials
Osano and Languitone (2015)	Mozambique, SME	Multiple regression	Collateral requirement, small business support services, awareness of funding opportunities and structure of financial sector
Mersha and Ayenew (2018)	Ethiopia, Agricultural Cooperatives	Logistic regression	Participation in extension package, simplicity in lending procedures, Christianity in religion, large number of working family size and large land size positively affect access to cooperative credit. short distance from MFIs, simplicity in lending procedures; higher educational level, large working family size, and possession of non-farm income positively affect access to MFIs' credit.

Adore (2016)	Ethiopia. Hosanna Town (MSE)	Binary logistic regression model	long-time of loan process and bureaucracy; requirement of large amount of advance saving; short term loan repayment period; high collateral; high interest rate; absence of interest free loan providing institutions have been hindering MSEs from access to finance
Amene (2018)	Ethiopia, West Hararge SME	Structural Equation Model	preparing business plan, financial statements, and collateral availability
Eshetu (2014)	Ethiopia	bivariate probit model	age, gender, education of the household head along with the size and location of the household influenced the households' fate in the credit market.
Zins and Weill (2016)	37 African countries	Logistic model (panel)	being a man, richer, more educated and older favour financial inclusion with a higher influence of education and income
Desalegn and Yemataw (2017)	Ethiopia	Probit Model	Gender, age, education, marital status, rural/urban, preference, financial literacy, and financial capability.
Hansen and Rand (2014)	Sub-Saharan Africa	Logistic regression	Size, age, manager education, minority ownership, export, foreign ownership and sole proprietorship
Asuming, Osei-agyei, and Ibrahim (2019)	Sub-Saharan Africa	Probit and Logit models	age, education, gender and wealth, growth rate of GDP and presence of financial institutions and business freedom
Soumaré, Tchana, and Kengne (2016)	Central and West Africa	Probit and Logit models	gender, education, age, income, residence area, employment status, marital status, household size and degree of trust
Abel, Mutandwa, and Roux (2018)	Zimbabwe	Logit and probit Models	Age, sex, financial distance, trust, income and internet connectivity

Annex 3: Barriers of Access to Finance

Author/s	Country	Method of Estimation	Findings
Beck et al. (2004)	80 countries		High interest rates, collateral requirements, Access to long-term loans, Bank paperwork, need special connection, bank lack money to lend, access to foreign banks, access to non-bank equity, access to export finance, access to leasing finance, inadequate credit information, corruption of bank officials
National Bank of Ethiopia (2017)	Ethiopia	Strategy Document	Perception regarding owning funds, high costs of service, burdensome documentation requirements, distrust, religious preferences, distance, underdeveloped financial infrastructure, inadequate supply a range of sustainable financial products, services and access points, inadequate financial customer protection, and low-levels of financial capability and awareness
Demirguc-Kunt et al. (2018)	Global	Descriptive	Not enough money, do not need an account, family members already has an account, accounts too expensive, distance, lack of necessary documentation, lack of trust and religious reasons
Desalegn and Yemataw (2017)	Ethiopia	Probit model	Complexity of process, distance, affordability, lack of knowledge, prefer informal, lack of trust, and lack of money
Camara and Tuesta (2014)	82 countries	Principal Component Analysis	Distance, affordability, documents requirement and lack of trust
Nega and Hussein (2016)	Ethiopia	Logit model	SME specific factors, Absence of clear policy towards the SMEs, banks & MFIs, Legal environment, Government regulation towards SMEs, banks & MFIs, Macro economic conditions, Competition in the SME sector among the financial sector and Lack of SME demand for financial services
World Bank (2019)	Ethiopia, Doing Business 2019	Survey	Absence of credit information, weak legal rights, very low credit registry coverage, and absence of Credit bureau coverage
Kedir and Ibrahim (2011)	Ethiopia	IV Probit model	current household resources, number of dependants and geographical location
Rao and Baza (2017)	Ethiopia	Linear regression	lack of access to physical point of financial services, poverty, lack of credit, prohibitive fixed cost of transacting at financial institution, legal and regulatory barriers and low competition among financial institutions
Amene (2018)	Ethiopia, West Hararge SME	Structural Equation Model	long-time loan process and bureaucracy, requirement of large amount of advance saving, short term loan repayment period; high collateral and high interest rate

Demirgüç-Kunt, Beck, and Honohan, 2008)	General	Physical access barriers, lack of documentation, affordability, lack of appropriate products and services,
Menkir (2016)	Ethiopia	Insufficient loan size, too short loan term, level and type of collateral required, foreign currency shortage, lack of transparency on loan conditions, bureaucracy, high cost of loan, limited understanding of needs and risk adversity of loan providers
Zwedu (2014)	Ethiopia	lack of physical access, access to the existing banks (large borrowers with large volume of transactions are preferred), high paid-in capital, unfavourable financial regulation and
Gerba and Viswanadham (2016)	Ethiopia, Addis Ababa (SMEs)	Descriptive Analysis underdeveloped financial institutions, high collateral to secure the bank loans, high interest on borrowed sum of money and complicated and tedious banks and other financial institution loan application procedures.

Annex 4: Predicted Values of Credit to the Private Sector and Bank Concentration Index

Time	Credit	Bank Concentration Index
1992	11.30827	
1993	6.10779	
1994	7.97119	
1995	9.196625	
1996	14.11254	
1997	17.52281	
1998	20.75912	
1999	24.96231	
2000	22.89507	94.02
2001	21.28215	97.59
2002	21.01433	93.65
2003	20.15809	92.45
2004	19.19794	91.83
2005	22.81377	89.68
2006	23.66099	88.55
2007	18.52508	87.67
2008	17.71015	91.68
2009	15.465	86.05
2010	16.346	81.93
2011	13.5463	84.05
2012	11.753	84.74
2013	10.729	84.56
2014	11.1	84.57
2015	13.5	85.48
2016	17.71	82.21
2017	29	80.27
2018	29.15	79.47
2019	29.30	78.66
2020	29.45	77.86
2021	29.60	77.06
2022	29.75	76.25
2023	29.90	75.45
2024	30.05	74.64
2025	30.20	73.84

Chapter Six: Better Access to Qualified Skilled Labor



Executive Summary

Introduction

It is generally agreed that education is a crucial driving force for the various development dimensions of nations. The world development scenario has shown in the globe that economic, social, cultural, technological and environmental developments uphold better in a nation where citizens are educated. In this light, Ethiopia has started a modern secular education scrapping the old system that began in the 20th century during the reign of Menelik II (1906). Haile Selassie I, after he came to power in 1930, followed his predecessor's footsteps though education at the time, was mainly accessible to the feudal members of the system. In other words, education was restricted to the major cities and towns with people of a certain class. After the imperial regime was overthrown (1930-1974), the military junta seized power through a coup d'état and the Ethiopia transitioned to a socialist ideological realm from 1974-1991. By then, education accessibility was better distributed to the rural community: primary schools from grade 1-6 were constructed in the rural areas, and junior and senior secondary schools were widely opened in the major woreda towns and above. Adult education was widely given to the farming community that enabled them to at least read, write and compute simple mathematics. However, the number of schools, trained teachers, school materials and laboratories, infrastructures such as road, electricity, toilet facilities etc. were not up to the expected standard. Back then, the conceptual understanding of education from the trainers, trainees and parents was to join university, to graduate and then get hired by the government; hence the relevance of Technical and Vocational Education and Training (TVET)- though it was in place to a certain extent - was overlooked and underestimated. In 1991, Ethiopian Peoples' Revolutionary Front (EPRDF) came to power and came up with radical education policy change such as extending primary education from grade 1 -8 and extending secondary schools from grade 9 to 12. The issue of TVET was also given special emphasis and was taught at college levels 1, 2, 3,4 and 5. TVET is awarded after the completion of General Secondary Education (grade 10). Those candidates who do not reach the cut off points to pursue the next preparatory school (grade 11-12) are legible to join TVET. Similarly, there was a limited number of universities significantly enhanced to accommodate the rapidly increasing number of students in the country. Nevertheless, the absorption capacity of industries to entertain the newly job seeking graduates every year has become the concern of the government and the public at large.

Objectives in cognizance with the constraints related to access to skilled and qualified labor in the country, AACCSA has commissioned the consultancy service to Kaya Research and Development PLC under the title "Brief Study and Examination of Policy Proposal on Better Access to Qualified and Skilled Labor in Ethiopia" in order to analyze key strategic problems related to labor access, develop Key Performance Indicators (KPIs) and present policy proposals to the government of Ethiopia in the subject under study. More specifically, the objectives of the study include identifying the strategic problem areas and appraising the KPIs, conducting in-depth review of literatures on the best experiences and providing policy proposal supported with evidences that target up to 2025.

Methods employed: In order to achieve the intended study, the team employed both primary and secondary data from the concerned government and private organizations and key informants. The team used two categories of checklists: the first checklist dealt with matters

related to education and training while the second was developed to capture the issue of qualified and skilled labor from the perspectives of employers and job opportunity creators. The collected data was analyzed and narrated thematically one after the other.

Strategic problems analysis: Institutions and systems linked to the supply or demand side of labor and steering the labor market, which mediates the achievement of middle economy status by implementing GTP II, have been assessed. Accordingly, strategic problematic issues related to the quality of education and the mismatch in qualifications, access to skilled labor, a mismatch in skills, the prevalent high unemployment rate, and volume of internship and certifications, have been scrutinized. The findings of the study concluded that despite the remarkable achievements gained with the relentless effort made in the education sector since the imperial period, the overall quality is still questioned. Mismatches in skilled manpower are manifested in many aspects. One is the assignment of educational administration and trainers. In many cases, political solidarity undermines merit or experience and capacity. Second, the industry is either misrepresented or has little participation in the implementation of the technical and vocational training and education where its legal role ranges from occupational standard preparation to practical trainings and outcome-based assessment and certification. Third, the strategy itself did not consider the realities of Ethiopia when it came to standardization of study units, preparation of TTLM and outcome-based assessment, and certification. Moreover, a dilemma persists on whether generalists or specialist should train in institutions so as to meet the demand of the labor market. Thus, the educational system has been challenged by the question of quality and mismatch in qualifications though there are undeniable successes in terms of access and equity at all levels for all citizens. Thus, quality and qualification mismatch need relentless effort from all stakeholders to access skilled labor in the era of rapid economic growth and structural transformation.

The access to skilled labor, employment enforcement frameworks, qualification of leaders and trainers, and background and readiness of trainees can also be relevant. Employment enforcement in Ethiopia is too weak for it to impact cost minimization and its profitability of industries; furthermore, getting industries governed by such a framework in case their survival is not guaranteed, is difficult. Usually, TVET trainers are inexperienced and have gaps in the practical and/or theoretical aspect of the training such as in arithmetic and trigonometry, which have critical application in technical works. This goes against the strategy which stipulates that trained professionals have the required competence, experience and ethics in their profession. As a result, students are not equipped with the required skills that meet the needs of the industry. Moreover, from the general academic education level to TVET and higher education, producing skilled and qualified human power, based on the need of the labor market, is questionable. This is evident from the relevance of the general education, the skill of trainees and trainer as well as the training system implementation. Finally, trainers' engagement on action research and transfer of appropriate technology happens inefficiently and ineffectively; hence creating an nexus between permanent employment and joint employment.

The high unemployment rate in Ethiopia is attributed to either the limitation in the capacity of the economy or the labour market's inability to accommodate the high number of graduates. Such a discrepancy is also exacerbated by the absence of well functioning labor market management system and a huge influx of rural-urban labor migration. The task of linking employees and employers using modern communication systems to help the promotion of full, productive, and freely chosen decent employment in Ethiopia is still inefficient. A large number of the labor force is moving from rural areas to urban centers seeking better job opportunities, an influx that industries cannot handle. Besides that, the industrial parks are built in the outskirts of the city where transport accessibility/affordability is very much limited. Finally, as compared to university, the TVET sector caters better to the needs of the job industry in the form of wage and

salaries, and self employment. Both the state and non-state actors' job retention and security, job search and acquisition, access to job information, and technology and digital literacy are pending issues.

The macro-micro mismatch in skills was identified as one of strategic problems that resulted in ad efficiency in the training system of institutions (colleges and universities), financial constraint (capital intensive), prior background and competency of trainers and candidates among others. Furthermore, the current system makes it hard for youth to pursue self-employment opportunities and exercise informal livelihood activities. The inability for the youth to job search is further exacerbated by a lack of coordination among stakeholders, issues related to licensing and low wages, the attitude of the youth and society towards self-employment and working Medium and Small Enterprises (MSEs). In general, young Ethiopian graduates lack soft and hard skills required by companies.

Although internships and apprenticeships are being practiced by TVET colleges and universities, the practical implementation is weak. This can be attributed to the absence of a legal framework which specifies the roles and responsibilities of all stakeholders. Cooperative training, as a practical attachment with industries, is not effective because of a lack of coordination between company (trainer) and institution (trainer) to plan and help trainees. The experience of other countries shows that the mission of TVET training should be achieved by the active participation of the industry in the preparation for occupational standard and training. Participation of the industry is not as directed by the policy; hence both the quality of assessment tool and occupational standard is questioned. Therefore, outcome-based assessment and certification need severe attention in order to access skilled labor.

Key performance indicators (KPIs): In line with the concrete situations of the country and using prior study results as standard references, the team has developed six(6) targets with the respective KPIs and six (6) policy proposals to be accomplished by 2025. The major targets include promoting on the educational system to enhance the quality of education, reducing the rate of unemployment, enhancing the volumes of internships and certifications, supporting the government to build and upgrade education facilities in the higher institutions, increasing pre-service and in-service trainings, creating strong linkages between the job seekers/graduates and employing private companies.

Lessons learned: the key lessons learned were taken from Chinese and Nigerian education systems and labor production experiences. The Chinese compulsory education system has helped them to bring every school age child to school. This has contributed to the country producing skilled and qualified graduates in their respective profession both in TVET and academic universities. Despite China producing 1.5 million new graduates every year, the country has a low unemployment rate due to the production of skilled and knowledgeable graduates and the large absorption capacity of the industries, especially of the manufacturing component. On the other hand, the case in Nigeria indicated that the labor absorption capacity of the industries is surpassed by the labor production. The immense numbers of job seekers moving into the country is said to be the causing of political turmoil in the country. Similarly, the skills and the qualities of the graduates that emanated from the education policy and implementation is as questionable as is Ethiopia's case.

Policy proposals: In cognizance with the weaknesses inherited from the education policy and implementation, the study team has forwarded comprehensive policy proposals that help augment the quality of education as a prerequisite to produce skilled and qualified labors. Currently, the employability of the new graduates from various colleges and universities is in jeopardy because employers do not have confidence in their newly graduated employees. This has only increased the unemployment rate as huge numbers of new job seekers join the job searching environment every year. Thus, we recommend that classes and apprenticeships

should not be provided in parallel modality, rather, institutes should be furnished with the required laboratory equipment, there should be a strong link between the universities/colleges and the host industries – that way, students firstly have the proper supervision and follow ups, and secondly, industry owners are more aware of ready talent. In general, we are recommending:

- Reforming the education systems to produce quality and skillful laborers
- Enhancing industry and university linkages
- Enhancing in company training and internships
- Providing pre-service trainings for new graduates
- Advocating to provide incentives for entrepreneurs
- Promoting pro-business labor laws

Conclusion: The strategic problems of better access to qualified and skilled labor in Ethiopia are related with quality of education and the mismatch in qualifications, skill mismatch, prevalence of high unemployment rate, and the volume of attachments (like apprenticeships and interships). Despite the remarkable progress made in the education sector since the imperial period and the increased access to education for all, doubts remain over the quality of Ethiopian education. Despite the formulation and implementation of egalitarian policies, the supply of middle and higher level skilled manpower to sustain economic growth rapid industrialization, agricultural productivity, and structural transformation remains a common denominator for all sectors. Mismatches in skilled manpower are manifested in many aspects. One is the assignment of educational administration and trainers or teachers - in many cases, political solidarity undermines merit or experience and capacity. Secondly, the industry is either misrepresented or only a few participated in the implementation of the technical and vocational training and education. Thirdly, when looking at the standardization of study units, the preparation of TTLM and outcome-based assessment, and certification, this strategy was drawn up without further consideration of the reality in Ethiopia. Overall, the quality and qualification mismatch needs relentless effort from all stakeholders to access skilled labor in the era of rapid economic growth and structural transformation.

The employment enforcement has a weak impact on cost minimization. TVET trainers on the other hand are inexperienced and have gaps at practical and/or theoretical aspect of their trainings. As a result, the students do not cultivate the required knowledge to transition into the workforce/industry. Finally, trainers’ engagement on action research and transfer of appropriate technology is inefficient and ineffective creating a nexus between permanent employment and joint employment.

Finally, the youth’s inability to self-employ and exercise an informal livelihood does nothing but worsen the high number of unemployed, young graduates.

6.1. Background of the Study

6.1.1. An Overview of Ethiopia’s Education System

Since the Ethiopian Peoples’ Revolutionary Democratic Front (EPRDF) claimed power by defeating the Derg regime³⁶, egalitarian legal policy and institutional actions have been initiated in Ethiopia, with the goal of poverty alleviation through the production of competent

36 The Derg regime overthrew the Ethiopian Empire Emperor Haile Selassie I in a coup d’état on September 1974, establishing Ethiopia as a Marxist-Leninist state with itself as a military junta and provisional government. Since then the it came to power, the regime faced oppositions from Eritrean Peoples’ Liberation Front (EPLF) and Tigray Peoples’ Liberation Front (TPLF), Ethiopian Peoples’ Revolutionary Party (EPEP). Especially, the fought between the former two lasted solid 17 years (1974-991) civil war and finally by 1991, it was overthrown by the coalition forces of EPLF and TPLF.

and skilled labor force. The country introduced the new Education and Training Policy (ETP) in 1994 with the aim of developing its human capital. The policy includes major changes in terms of primary and secondary school trainings, university trainings and Technical and Vocational Education Training (TVET). Under this new system, those who cannot attend university can pursue the TVET program that ranges from levels one through five. The Ministry of Education issued a proclamation in 2004 providing further guidelines for the standards of certification and accreditation, cost-sharing internships, board and council establishments on TVET programs. Unlike the current system, education before the fall of the Derg regime was more focused on the skill labor force rather than grooming large numbers of unskilled secondary school graduates.

Furthermore, it is clearly cascaded in the Growth and Transformation Plan (GTP) II that students' enrollment rate and the supply of quality teachers at each levels of schooling have been given more attention. The accomplishment of GTP I (2014/2015) was taken as a reference point to plan for GTP II.

Table 6.1 : GTP II on Enrolment and Qualified Teachers Supply

S.N	Description of Activities	Achievements and Plans (%)	
		2014/15	2019/20
1	Pre-primary education gross enrolment rate	39	80
2	Primary education (grade1-8) net enrolment rate	96.9	100
3	Secondary education enrolment rate	40.5	79
4	Adult education enrolment	-	95
5	Certified teachers	20	70
6	Share of qualified teachers in the primary education	71.37	95
7	Share of qualified teachers in the secondary education	87.3	100
8	Completion rate of primary education	52.2	74

Source: FDRE GTP II, 2015

Over the last two decades, Ethiopia has increased its focus on education at all levels. University enrolment has increased from 10,000 in 1990 to 360,000 in 2015. The country has also invested heavily in TVET with the aim of producing semi-skilled and relatively well-suited workers to the growing manufacturing and construction sectors – this is evident from the increase in TVET students from 5,264 in 1999 to 271,389 in 2014. Ethiopia however is not resting on its progress as it plans to increase technical and vocational education and training (TVET) from 1,329 in 2014/15 to 1,778 by 2019/20 by increasing the government, private and non-government TVET institutions. This increase is meant to place at least one TVET institute in each *Worde* and the number of regular students attending is forecasted to increase from 238,584 in 2014/15 to 596, 455 by 2019/20. In addition to the supply of educated and skilled human power for the development program, there are plans to increase TVET professionals' standard certification process and the number of assessors at the industry level from 632 and 26,406 in 2014/15 to 850 and 40,538 by 2019/20, respectively. Similarly, to strengthen the competitiveness of micro and small-scale enterprise in the supply of products/services on the basis of the Value Chain Analysis, the number of feasible technologies is forecasted to increase from 3,000 in 2014/15 to 5,442 by 2019/20. Furthermore, by providing industry extension services to existing micro and small-scale enterprises, the number of graduating micro and small-scale enterprises is expected to increase from 42, 216 in 2014/15 to 342,310 by 2019/20 (GTP II, 2015). The challenge is in the

quality of the training as many graduates cannot meet the skills and knowledge needs of the market. Thus, the required skill gained through training and the demand of the market has long been condemned.

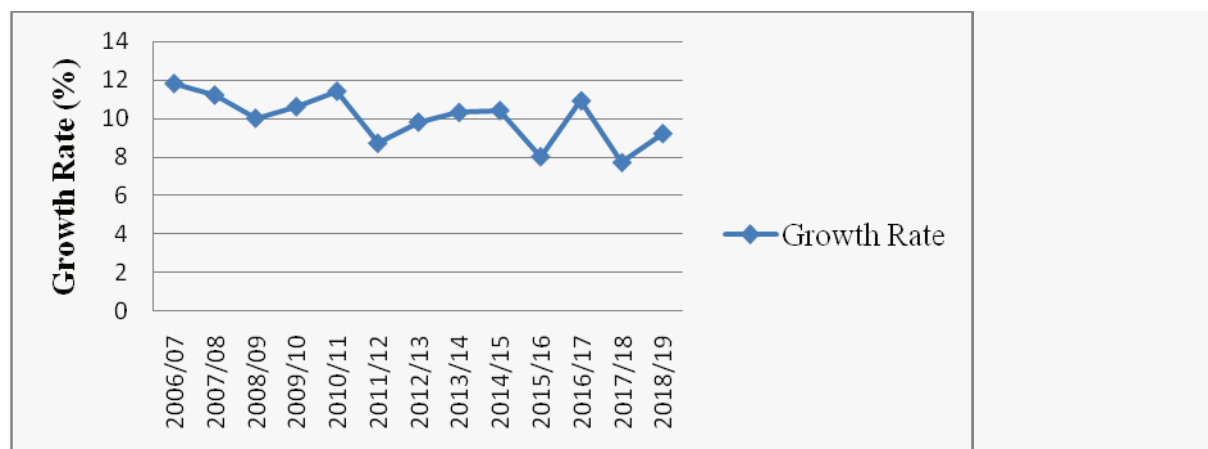
6.2. Population, Economy and Unemployment

Ethiopia is the second-most populous country in Africa after Nigeria. As of 2016, the population exceeded 100,000,000 and as of January 2018 stood at over 106,380,626, based on the latest United Nations population projection estimates (CSA, 2018).

Economic growth in Ethiopia has shifted away from the traditional and primary sectors mainly towards secondary and tertiary manufacturing sectors. In other words, labour is gradually moving away from agriculture to the services sector and the industry. This is seen in the investment by the government of Ethiopia in industrial parks. There has been a high rate of public investment in infrastructure resulting in growth in construction and related industries. However, the economy is not generating enough jobs to accommodate this large number of labourers added every year to the job environment.

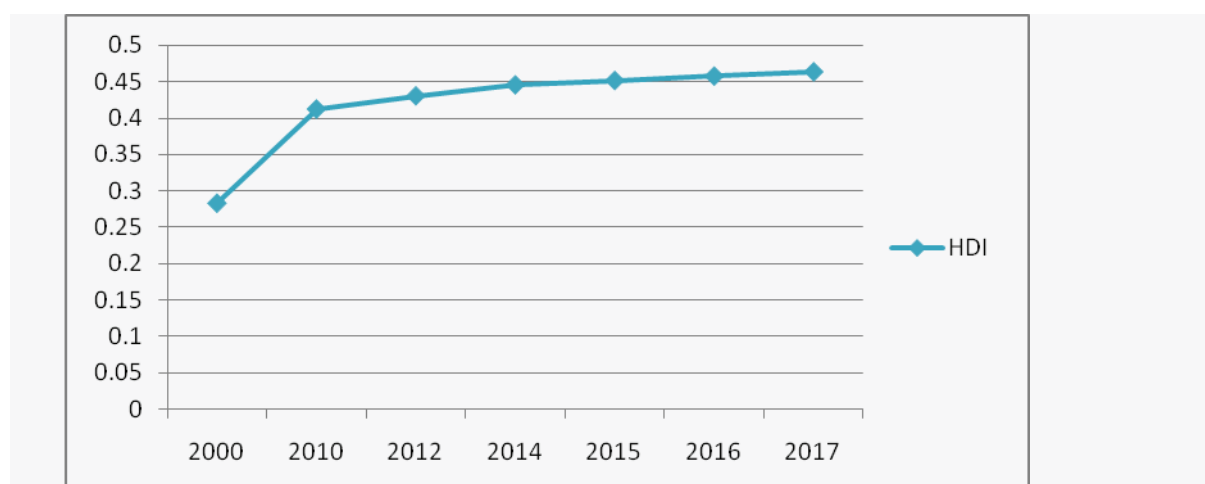
The real GDP growth rate of the country ranged from 11.8% in 2006/07, the highest growth rate to 7.7% in 2017/18, the lowest growth rate from 2006/07-2018/19. The trends of growth have no definite direction as it moved in ups and downs in different years though there was no large differences between the highest and lowest real GDP growth rates.

Figure 6.1 : Trends of Ethiopian Real GDP Growth Rate



Source: National Bank of Ethiopia, 2016

The UNDP (1990) indicated that the development of nations is measured in terms of health, education and economic composite indices. According to the UNDP’s report (2018), Ethiopia is ranked 173rd of the 189 countries with Human Development index value of 0.643. The general HDI trends of the country is shown in the figure below.

Figure 6.2 : Trends of Ethiopian HDI, 2000-2017

Source: UNDP, 2018

In Ethiopia, an estimated 45% of the population is under age 15 while 71% are under 30. 25% of the youth aged 15 to 29 find themselves unemployed, bringing Ethiopia's youth unemployment to 7%. Unemployment is reported to be more prevalent in urban areas (19% on the average in Addis Ababa), MoLSA, 2018. However, the lack of employment opportunities for young people still drives rural-to-urban migration and leads many to emigrate.

Table 6.2: Demographic and Employment Conditions of Ethiopia

S.N	Demographic Characteristics	%
1	Population under age 15	45
2	Population under age 30	71
3	Youth unemployment rate	7
4	Unemployed population age 15-29	25
5	Urban unemployment rate	19

Source: MoLSA Annual Report, 2018

The World Bank (2018) estimates that about 600,000 individuals enter the Ethiopian labour force every year. This is even more apparent with the large number of young people entering the market due to the youth bulge. This "imbalance between the increase in the supply and demand for workers" has created increasing and long-lasting unemployment for Ethiopian youth. Rising unemployment is especially true for university and TVET college graduates, and even more so for those with less skill.

Table 6.3 : Employed Population of Urban Areas by Region and Sex

S.N	Region	Total	Male	Female	%
1	Tigray	543,522	274,877	268,645	7.23
2	Afar	103,018	62,673	40,345	1.37
3	Amhara	1,522,913	856,736	666,177	20.25

S.N	Region	Total	Male	Female	%
4	Oromia	2,080,505	1,208,111	872,394	27.67
5	Somali	126,467	77,093	49,374	1.68
6	BenishagulGumuz	114,923	58,289	56,634	1.53
7	SNNP	1,194,285	683,154	511,131	15.88
8	Gambella	52,853	29,748	23,106	0.70
9	Harari	62,858	34,958	27,900	0.84
10	Addis Ababa	1,609,940	867,152	742,788	21.41
11	Dire Dawa	107,571	61,130	46,441	1.43
	Total	7,518,855	4,213,920	3,304,935	100

Source: CSA's Urban Employment and Unemployment Survey, 2018

As depicted in the above table, the Oromia, Amhara regional states and Addis Ababa are all characterized by high proportions of unemployment. On the other hand, the Gambella and Harari regional states have a less than 1% unemployment rate.

According to CSA (2015), among the economically active population of the urban area, 7 million people were employed and 1.4 million were unemployed. Unemployment in urban areas, in the same year, was 17.5%. Employment to population ratio aged 10 years and above was 52.9% in urban areas and in Addis Ababa it was 47.9%. In Addis Ababa city administration, among the economically active population, 1,362,069 were employed and 366,227 unemployed. The report further indicated that out of the total paid employees, 40.2% were employed by private organizations which indicated that the private sector played a significant role in labor employment in the country (CSA, 2015).

6.3. Ethiopian Labor Economy

In Ethiopia's rural areas, agriculture represents the largest share of employment (83.1%), with undifferentiated goods and services production coming in a distant second (7.3%) and wholesale and retail trade in third place (2.7%). In urban areas, wholesale and retail are the largest share of employment (20%) while agriculture comes in second place (13.5%). Among those in non-agricultural employment, the largest share is in sales (30.2%), while construction and mining are at 10.6%.

6.4. Employers' Demand and the Required Skills and Qualifications in Ethiopia

The following are the main economic sectors in the formal Ethiopian economy that offer the major opportunities for labor employment (CSA, 2013).

a) The Construction Sector

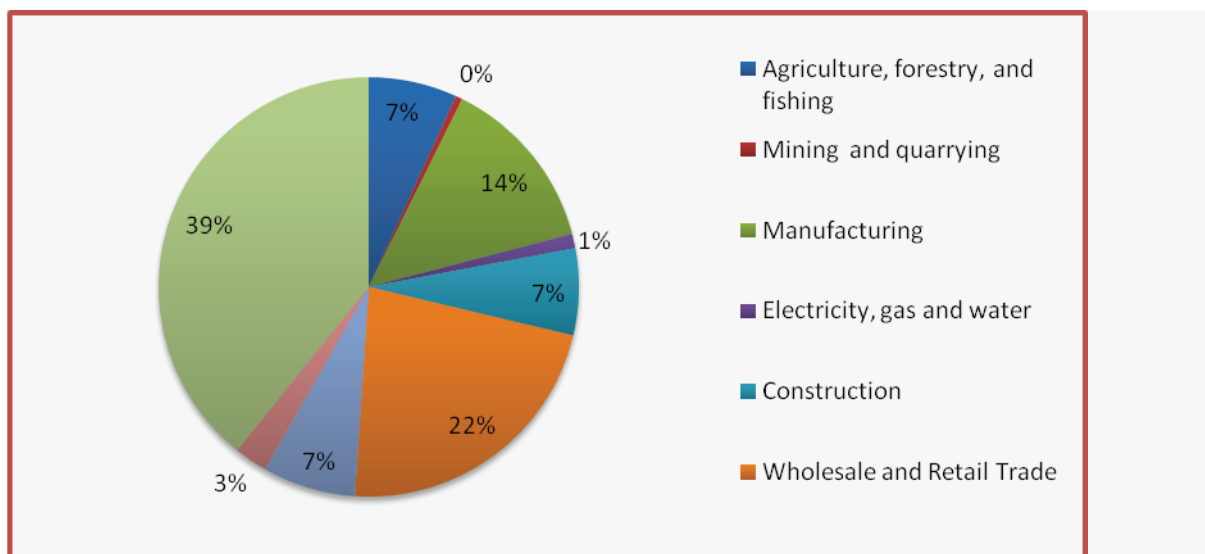
The construction sector has shown phenomenal growth in Ethiopia over the last ten years, even expanding by 37% annually in recent years. This is apparent in both the rapidly growing urban and rural areas. The government of Ethiopia is supporting infrastructure projects, new road projects and large-scale affordable housing projects. Work in this sector is dominated by micro, small and medium enterprises that act as sub-contractors of main building contractors. The construction of housing is a high priority in Ethiopia due to a growing shortage. There are opportunities in the construction of residential condominiums as well as the finishing sub-sector including plastering, tiling, painting, electrical installation, sanitary installation, masonry and carpentry. While most of these activities are being undertaken mainly in Addis Ababa, construction activities such as dam building, university expansions, road construction, government offices building construction, private building construction, laying cobblestone, and building gabions are also being undertaken in various parts of the country. The growth in the construction industry has had an impact on the linked value chains and sub-sectors such as cement industries, small scale enterprises in metal and woodwork production and stone crushing companies. Ethiopia is currently the third largest cement producer in Africa. There is also growth in construction materials like brick and roofing materials, paint, aluminium and electrical cable industries. Finally, there are huge job opportunities in areas such as the mining of sand, stone and other construction raw materials from quarry sites.

Most of the employees in the construction sector are young. A high percentage of labour is daily or informal, especially in the housing construction sub-sector. There are many entry level jobs for youth with sufficient skills. The TVET sector produces some semi-skills labourers that meet the growing demand, though they are not enough. There are likely to be many opportunities like this in different locations. It will require local implementing partners to be in touch with their local labour market and economic activity, and develop relationships and agreement with investors and local governments.

b) The Light Manufacturing Sector

Manufacturing in Ethiopia has grown at an 11% annual rate since 2004. The growth of the light manufacturing sector is dependent on increasingly good quality infrastructure (including energy) and accessible and affordable finance which, in turn, needs commitment and long-term vision from leaders in government and industry. The top five light manufacturing industries in Ethiopia now are textiles, leather, agribusiness, metal products and wood products. While it makes a lowly 5% of the GDP, it is still a significant contributor to the Ethiopian economy. The most significant growth is in the low-tech manufacturing industries; industries for which labour costs are very important and low. The agro-processing sector currently hires large numbers of daily labourers with the number tripling in season. These are entry level workers, mostly female, from local communities with limited skill. They receive basic skills training for the task they are required to do, once they start working. The soft skill requirements are simple - discipline, teamwork and commitment.

Figure 6.3 : Employment Share of Sectors in Ethiopia



Source: MoLSA, 2019

C) Service Sector

The major investment areas of the service sector that absorb large number of labour forces are hotel, tourism and transportation and education. The tourism and hospitality sector in Ethiopia continues to grow slowly. It will be important to take note of the high potential of employment opportunities in this sector. Preparing youth with appropriate soft skill or work readiness skill such as customer service, communications skills, punctuality, problem-solving skills, and teamwork will open opportunities for youth. Sub-sector opportunities for employment related growth include light manufacturing of equipment for new hotels and travel agencies, construction of modern tourist hotels and recreation facilities, hospitality services, provision of processed food and agricultural products for hotels, transport facilities and maintenance of transport vehicles, facility maintenance & security. The expansion of universities and TVET colleges results in short term opportunities in construction related employment. The transport sector is characterized by small and medium businesses that are reported to be continually needing casual wage employees. The opportunities are in car wash, loading/unloading, drivers, motorcycle renting, cart service, garage (motor repair), tyre repair, taxi conductor and parking.

d) Industrial Parks

To transform the Ethiopian economy from agriculture to industry, the government of Ethiopia is investing heavily in infrastructural zones to stimulate export-oriented light manufacturing industries as well as small and medium manufacturers. The industrial zones target labour intensive industries such as textile, garment, agro-processing and leather. Stakeholders in establishing industrial zones include the Ministry of Industry (MoI), Ethiopia Investment Commission (EIC) and Industrial Parks Development Corporation (IPDC). Of the 22 Industrial Zones the government plans to establish, 19 are currently under construction or in the final stages of planning.

6.5. Objectives of the Study

6.5.1. General Objective

The general objective of the study is to assess the strategic problems of better access to qualified and skilled labor, also to appraise the key performance indicators (KPI) and to develop policy proposal alternatives.

6.5.2. Specific Objectives

The specific objectives of the study are to:

- Conduct an in-depth review of literatures on the qualified and skilled labor access best experiences;
- Identify the strategic problem areas of qualified and skilled labor access with the support of evidences both qualitatively and quantitatively in a sounder approach;
- Appraise the key performance indicators (KPIs) of qualified and skilled labor access; and
- Provide policy proposal supported with evidence that target the year 2025.

6.6. Methods of the Study

6.6.1. Data Sources and Key Informants Selection

In this study, the three key issues investigated are the implementation status of the main provisions of the policy proposal, the status of skilled and qualified labor in the labor economy and the status of demands of the major employers in the labor economy of the country. Based on the general and specific objectives of the study, a purposive sampling technique was employed to obtain relevant sectors and individuals. Individuals selected from relevant sectors are working to produce skilled and qualified laborers, and employers. Accordingly, there are about 23 education and labor related sectors at the Federal and Addis Ababa City Administration levels; and major employers of the economic sectors (construction, manufacturing and service sectors) have been selected in consultation with the client. Key individuals were selected using similar methods from the selected sectors based on the relationship between their roles and responsibilities with the skills and qualifications of labor. In other words, key individuals were selected from both the main labor suppliers and recipients. In addition, best practiced countries like China and Nigeria were selected and scrutinized accordingly. China- a well experienced and successful country in the production skilled labor and in developing appropriate policy proposal and effective implementation was selected due to its best practices in the related field. Likewise, Nigeria was selected from sub-Saharan Africa countries as a matter of lesson learned as recommended by clients.

6.6.2. Data Collection Techniques

Comprehensive data was collected from both primary and secondary sources. Primary data collected through pre-designed, open ended checklists was prepared for the education and employer sections separately. The main economic sectors such as construction, manufacturing and service delivery served as the major data sources from the major labor consumers' perspective. From the policy proposal side, key documents related to population & economic growth, job opportunities & unemployment rate, education system and human resources development were considered as the main data sources for the study.

On the other hand, secondary data was collected both from qualitative and quantitative sources through desk review and identification of best practices. During the desk review, relevant policies, strategies, guidelines, rules, procedures, reports, project documents, recent research papers, publications, journals and other relevant documents were assessed and critically reviewed. Similarly, the identification of the best practices, from Chinese experiences, were carried out

through interview and comprehensive review of the key and latest literatures, publications and practices for each policy proposal. For Nigeria, we only used literary reviews. In addition, relevant data was also collected through email, telephone, verbal and other means of communications during the formal and informal contacts with the targeted sectors and key individuals.

6.6.3. Data Analyses Techniques

Both qualitative and quantitative data were organized and analyzed through narrations such as critical review, compare and contrast, writing up best practices, describing related processes and events, structuring and organizing important ideas and concepts using comprehensive frameworks/models, highlighting and outlining the key points from the findings. In addition, the index data analysis technique was used as one of the quantitative data analysis methods.

6.6.4. Strategic Problem Analysis

In this section, strategic problems of better access to qualified and skilled labor is presented. In the past five decades, a series of educational policies have come and gone following the political and social dynamics with remarkable achievements. With the relentless effort made in the sector since the imperial period (1930-1974) and the military regime (1974-1991), education is more accessible at all levels and for all citizens including remote pastoralist communities. However, this is not without a compromise as access to ensured education comes at the expense of quality. Recently, egalitarian policies such as the National Education and Training Policy (2004), the TVET strategy (2016), the GTP II (2016-2020), the TVET strategy - Proclamation No. 954/2016 (2016), the EERM (2018) have the supply of middle and higher level skilled manpower to sustain economic growth, rapid industrialization, agricultural productivity, and structural transformation by universities and TVETs.

Despite the impressive achievements, however, implementation has yielded mismatches in many aspects. The intensive Key Informants Interviews (KII) and desk reviews indicated that there were mismatches in the qualifications of graduates that ranged from the assignment of educational administration to placement of trainers or teachers; and the politically affiliated education system undermines merit-based assignments and administrations. For example, in a handful of TVET institutions, administrators and trainers were not assigned based on their experience and capacity. Another mismatch is deviation in the preparation of teaching; Training Learning Modules (TLM) and implementation thereof from the national qualification framework contradicts the standardized outcome-based assessment. Moreover, a dilemma persists on whether generalists or specialist train in TVETs to meet the demand of the labor market.

6.7. Supply Side Constraints for Access to Skilled and Qualified Labor

6.7.1. Education and Training

i. Quality of education and training

The education sector is given top priority in Ethiopia to eradicate poverty and ensure economic growth. To achieve the status of a lower middle-income country by 2030, GTP II is aimed at achieving an annual average real GDP growth rate of 11% by accelerating human capital development and technological capacity building. Here, the role of industry and manufacturing is highly emphasized with the consequent demands for middle and higher-level skilled manpower to be supplied by universities and TVETs. Accordingly, policy implementation gaps pertaining to the quality of education, youth unemployment and skills mismatch across educational levels is important.

Discussion with KIIs indicated that for the last two and half decades, access and equity to education have progressed at the expense of quality and efficiency. This is due to several factors like ill-conceived and poorly designed policies and strategies as well as education and training maladministration. Learners in their formative age (grade 1-8), are not well equipped with the basic skills for TVET, higher education and formal and informal trainings. The education and training governance system has been inefficient in terms of ensuring relevance (skills and value chain development) since the imperial regime.

During the military socialist regime (1974-1991), education and training were highly politicized due to the Marxist-Leninist influences. Education in the FDRE today is still highly politicized – students lack responsibility for their learning; students are transferred from class to class at lower primary level without reaching the required skill and knowledge competence. An informant says giving an “F” grade is forbidden this nowadays as agreed by the school committee (teachers, parents and representatives of students).

ii. Mismatch in qualifications of educational managers, administrators, and trainers

Usually, education and training managers and administrators, even those at TVET institutions, were assigned based on their leanings rather than their competence/merit and this politicization of education and training affected the supply of skilled labor force to the labor market.

iii. Inadequate participation of the private sector in an inclusive approach

The private sector is either misrepresented or less engaged in the implementation of the TVET skill development strategy. Particularly in areas like the preparation of occupational standards, dual training, apprenticeships and internships, outcome-based assessment, and certification; the participation of the industry in Ethiopia is insufficient. The lack of participation of the private sector in policy design hampers the skills development system and supply of skilled labor. Moreover, the absence of discussions and negotiations between the private sector and training institutions, on matters like modality (generalists versus specialists), affects the employability of the youth.

iv. Absence of academic qualification framework

The other gap observed in the implementation of the education policy was the absence of an **academic qualification framework**.

Proclamation No. 954/2016 stipulates that TVET aim to create a competent, motivated, employable, adaptable and innovative workforce through which the country’s socio-economic development shall be enhanced. The strategy has shown acceptable components of the TVET training system so far.

v. Inadequate government commitment

Proclamation No. 954/2016 stipulates on creating an integrated and participatory working system for all stakeholders in TVET system. EEDR (2018) emphasizes on support of the private sector in establishing more schools and in enhancing the quality of their services to overcome access and address quality related issues. However, the practice proves that the TVET training system fails to include the industry and the community. The discussion with KIIs indicated that the government always calls up the community when it concerns policy making processes, but they are left aside when the private sector forwards comments and recommendations to the government.

During the imperial period, TVET graduates were highly acknowledged for their proficiency; now most of them are managers of their own organizations, which means they already have both the technical and hard skill required in the world of work. The then graduates were/and still are qualified and skilled. They were qualified and skilled because candidates were drawn

from competent (usually 1-3 ranked) high schools, students were taught by competent teachers and the delivery was a modular approach which integrated diverse knowledge and skills. There was also a boarding service as well as a letter grading system (A, B, C & D) used for evaluation rather than level forms. During the military socialist government, evaluation and certification were good but boarding was prohibited - it was a political decision of course.

vi. Designed strategies

TVET in Ethiopia was without a full-fledged policy until 2016. However, discussions with relevant experts indicated that the current strategy still fails to consider the economic, social, and political objective realities of the country. That is because it is designed based on the experience of developed countries like Germany, Australia, and Finland and does not take into context Ethiopia's standing as a developing country. It seems that there is a mismatch in the strategy itself with respect to standardization of study units, preparation of TTLM and outcome-based assessment and certification. For example, automotive students took 22 courses, but the knowledge elements lack integration and wholeness. Such fragmented knowledge and skill components could not be mastered to satisfy the need of the market.

Concerning the curriculum, these are the gaps found in the preparation of TTLM: there is a lot of paperwork for the teachers and students as a teacher must prepare 22 handouts for each study unit or components of a single field, say automotive. The emphasis given to specialization of TVET training has less to do with Ethiopian objective reality. This decentralized component of TVET training was given no attention.

On the other hand, generalist modality could be preferable - for example, a small construction firm hires someone with multiple skills (plumbing, building, tiling, painting, gypsum, and other finishing works) rather than several graduates as that is cost effective. Hence, a dilemma persists on whether generalist or specialists are better suited to meeting the demand of the labor market.

Regarding occupational standard: Proclamation No. 954/2016, art 9 defines "occupational standard" as a standard defined by experts from the industry indicating the competences that a person shall possess to be able to productively perform in the world of work. However, data showed that the preparation of occupational standard not only lacks sense of ownership and full participation on the part of the industry, but the procedure escapes the whole input and process of the training and education while stressing the output.

To sum this section up, the assignment of principals, administrators, and trainers; academic qualification framework; increased participation of industry; policy design and preparation of teaching materials (TTLM in case of TVET); and choice of training modality were areas considered in policy revision in the effort towards accessing skilled labor in the era of rapid economic growth and structural transformation.

vii. The characteristics, perception and attitude of trainees:

Ample data collected confirms that candidates come to the institutions with unfavorable attitude towards TVET training and themselves. They take it as a last resort after exhausting other options. As a result, they do not have prior technical and analytical skills. Hence, they become poor at their skills development, as attitude and conviction are antecedents of actions and skills. The learners' poor academic background in terms of prior skills, numeracy, hinders skills development while they are being prepared in TVET and Universities for the world of work.

The other factor is aspiration and entrepreneurial intention of students which influences the supply of semi-skilled and skilled labor for the private sector and the public in general. Aspiration and entrepreneurial intention are also affected by the societal and parental attitude towards the vocation training, job creation and self-employment. Studies indicate that TVET students prefer white-collar jobs in Governmental Organizations (GOs) and Non-Governmental Organizations

(NGOs) rather than joining the labor market as an entrepreneur or self-employed. Overall, the characteristics, perception, and attitude of trainees contribute to skills mismatch in the labor market. With more graduates being unemployed, their future employability could be in their own hands or in that of the private sector.

viii. Assignment of TVET institutions leadership, management and trainers

The strategy envisages that work will be done to prepare a leadership that is well equipped with knowledge, skill, and attitude and which can integrate and lead human labor and technology. Yet, experience shows that some TVET leaders are randomly assigned without proper experience to lead the sector.

ix. Lack of cooperation between companies and training institutions

In the implementation of cooperative training, industry experts are expected to engage in both permanent employment and joint employment. That is, a TVET professional holding a certificate of occupational competence as a trainer may, in addition to his regular employment, be employed as a trainer by a training institution through a joint employment arrangement. The employer and the training institution come to an agreement on issues related to the status of employment, duration of employment, work hours and other related concerns. However, companies do not create conducive conditions in which their experienced and skilled workers can work as joint trainers. The skilled professionals on their part rarely give their consent. One KII explained that qualified professionals in industries have no interest working as trainers in institutions. This goes against the rule of thumb in policy that MoE (2018) skill development relies on an outcome-based system, which depends upon the cooperation, dedication and trust of its stakeholders. In general, the lack of cooperation between the private sector and the training institutions in cooperative training or dual training affects access to skilled and qualified labor – a factor that has been affecting Ethiopia's production capacity.

6.8. Summary of Supply Side Issues and Challenges

- Poor quality of education and training systems at all levels although broad availability of good-quality education is a foundation for future training;
- A mismatch in qualifications of educational managers, administrators, and trainers being assigned the crucial role of education leadership and training;
- Weak linkage between the private sector and TVET and universities. And it is manifested in misrepresentation and less participation of the private sector in the production and supply of labor;
- Lack of coordination and mutual cooperation between the industry and TVET/universities in the production of labor including competency-based training and outcome-based assessment ;
- Lack of communication between employers and trainers and a general disagreement over grooming generalists or specialists for the private sector;
- Recruitment of fewer aspirants, with no preliminary skill background, and less envisioned candidates which adversely affects access to qualified and skilled labor;
- Lack of employability skills and white-collar job preference on the part of new TVET and university graduates;
- Lack of cooperation between the private sector and training institutions in Addis Ababa and in the production of labour market through effecting joint employment arrangement, dual training, and industry expert's engagement during practical attachment.

6.9. Demand Side Issues and Challenges

6.9.1. Lack of Government Commitment

6.9.1.1. Weak or non-existent employment enforcement law:

Policy intends to dictate that GOs and NGOs, governed by employment enforcement frameworks and strategies, have policies, institutions, laws, access to resources and infrastructure.

Although the private sector plays a pivotal role in the multilevel governance, its role from production to employment is non-existent. This might be because of the political security and the market profitability (threat or shock on industries). So, where there is no conducive investment climate for the private sector, the private sector cannot create jobs or provide the goods and services needed to contribute to taxes which in turn creates jobs in the public sector. Hence, getting the private sector to use employment enforcement frameworks in cases their profitability and survival is not guaranteed, is impossible. Firms might even close before exporting a single product.

6.9.2. Mismatches in Skills and Unemployment

Unemployment is high on Ethiopia's agenda as the country has the largest youth population in Sub-Saharan Africa (15-24 years- 20%) and a youth dependency ratio of 77.2%. Hence, creating employment opportunities for youth is among the 8 pillars of the development goal of ending poverty. UNESCO-UIS (2018), under Target 4.4, indicates that technical and vocational skills substantially increase the number of youth and adults who have relevant skills. In the effort to create employment opportunities, the FDRE Ministry of Labor and Social Affairs (2019) distinguished three employment categories: wage and salaries, self-employment, and contributing family workers. The employed population is defined as persons above a specified age who perform some work for wages and salary, profit or family gain, in cash or in kind during the referenced period.

Information from interviews with KIIIs, along with information on official statistical bulletins, showed that there is a high unemployment rate in Ethiopia. And there are various factors for such a high unemployment rate in the country.

6.9.2.1. Incompatible economic growth

Despite the remarkable growth of the education sector, the economy is unable to absorb the outcome of the policy at its optimum. The economic and service sectors are limited in their capacity creating a mismatch between the quantity of labor produced and the expertise and the demand and skills requirement of the industry.

6.9.2.2. Employees' perceptions of employment

Employees have limited courage to work below their standard and look to climb up the work ladder as soon they are hired. They expect higher level of payment and a good position. They aspire to 'white collar' jobs and, hold self-employment and stay-in work in low regards.

6.9.2.3. Low quality of training

It has been observed that the theory-based academic education given during the university education hardly helps the graduates to perform well and be compatible in the practical working environment.

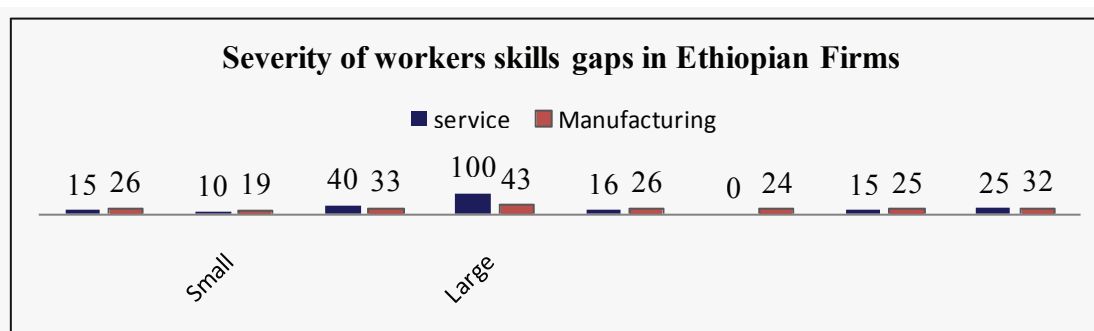
6.9.2.4. Lack of commitment of the private sector and other employers

Many employers in Ethiopia do not trust in the skills of newly recruited employees. As a result, the supply of new graduates surpasses their demand in the workplace. The paradox is that companies might face a shortage of skilled labor while there is a surplus of unskilled labor. Field observations proved that, apart from efforts like Ethiojobs/INFOMIND which train the potential workers prior to their appointment in the company, private employers do not want to invest huge amount of budget, energy and time to train the new graduates. They seek skilled ones. One of the KIs gave an example stating that if there are 10 to 20 vacancies, the company receives 500 applications; however less than 5% of those applicants are of the required skill level.

6.9.2.5. Lack of specific skills and absence of career advice

According to most TVET institutions interviewed, students choose their fields of study without proper orientation about their future. As a result, a significant number of university and TVET graduates are incompetent.

Figure 6.4 : Severity of Workers Skills Gaps in Ethiopian Firms



Source: World Bank, 2009

The data shows that a large proportion of medium and large firms in Ethiopia find worker skills level an important factor that impacts the success of their business. Holding a 60% share in the productivity of the private sector, these medium and large firms work in the service and manufacturing sectors and face difficulties finding skilled workers. The skill deficit of the youth and rise in the rate of unemployment in Ethiopia originates from the low quality of education and skill development system. With youth dependency ratio standing at 77.2%, creating employment opportunities for the youth is a critical pillar of the development in ending poverty.

6.9.2.6. Job seekers lack experience

From the supply side, graduate job seekers are new to the world of work and lack the experience demanded by employers. Even those qualified and skilled job seekers find it tough transitioning from academia to the professional world.

The status of unemployment varies with level and fields of training. Field observation and studies show that employment status decreases from III and IV to I and II levels. Whereas woodwork, business, garment and textile, leather, automotive, and electronics took the lion share of the employed labor in big cities like Addis Ababa. The status of unemployment hence aligns with level I and level II as they are not operators with the required skill.

From the above discussion, it is clear that the high unemployment rate in Ethiopia is attributed to two sources: The economy or labor market's inability to accommodate the surplus of new graduates and the graduates skill-levels being below par. This discrepancy is also exacerbated by the absence of well-functioning labor market management systems and rural-urban labor

migration. The task of linking employees and employers using modern communication system and to help the promotion of full, productive, and freely chosen decent employment in Ethiopia is still inefficient. Most of labor force is in fluxing from rural areas to urban centers seeking better job opportunity, which the industries could not absorb.

6.9.2.7. Macroeconomic skill mismatch

A central objective of GTP II is to accelerate structural transformation through enhanced productivity and production in several key sectors including industry (particularly manufacturing), physical infrastructure and human capital - the critical requirements to becoming a hub for light manufacturing.

As per the KIs, there is a mismatch between the job offer and qualification required in the labor market due to a deficiency in the university/college training systems. TVET is capital intensive so it requires more physical inputs – something that is not yet done at our institutions. The tracer studies conducted in Addis Ababa indicated that a significant number of graduates are unemployed due to lack of required skill by the relevant private and public entities. Finally, KI shows, the demand for vocational training is growing from time to time and most graduates are now employed in public and government and self-employment.

Table 6.4 : Employment Contribution by Foreign Companies Investment (1992-2016)

Sectors	Employment Status		
	Permanent	Temporary	Total Employment
Agricultural sector	123,592 (40)	183,512 (60)	307,104
Manufacturing sector	113,631 (66)	56,539 (34)	170,170
All sectors	278,275 (48)	302,076 (52)	580,351

Source, MoLSA, 2017

NB: Numbers in parenthesis are percentages

In the past two decades (1992-2016), the contribution of the private sector in permanent and temporary employment creation is significant. This is especially prevalent in the manufacturing sector. A study by the City Government of Addis Ababa Micro & Small Enterprises' Development Bureau (2017) showed that Employment opportunity, via hiring by government and private sectors in Addis Ababa, was only 34,405 - which is 17 times lower than jobs created by foreign companies' investment in that same period. The implication is that the future of employment expansion in Ethiopia rests in the private sector.

6.9.2.8. Specific skills shortage

Graduates' inability to find work affects employment status. The policy suggests 60% self-employment, 40% government employment, and 80% self-employment from private institutions. However, KIs and studies showed that in response to unemployment, there is a gap on the part of youth in pursuing self - employment and exercise informal livelihood activities (E.g. trade). Their inability is also exacerbated by stakeholders' inability to solve issues related to licensing and low wages, improve attitude of youths towards jobs as well as attitudes of societies, policy makers and politicians towards MSEs.

6.9.2.9. On the job skills mismatch

Studies on labor market showed graduates lack both soft and hard skills required by companies and companies are less satisfied with the skills of employees. For example, hotels and tourism

employees unable to communicate with foreign customers and use software like cynet opera, IDS, and hard skills like machine operation. The inadequate training means a lack of compatibility to modern technology, less practice engagement, and indiscipline of trainees.

In some cases, the private sector is not only of low capacity but unwilling to recruit more and pay more; they would rather train and maintain their workers than take a chance on TVET graduates. At times, companies trust foreign employees to handle newly imported machines. Companies hire and fire their employees for unacceptable skill and misconduct rather than giving on the job training.

The training institutions, on the other hand, argue that companies need cheaper unskilled labor over graduates to minimize cost. Trainees on their part attribute their unemployed status to low pay as there is no minimum wage rate. To sum up, graduates generally lack soft and hard skills required by companies. Companies on their end are less satisfied with employees and are reluctant to recruit more and pay more.

Just as the supply side has its challenges with respect to access to better access to quality and skilled labor, so does the demand side. They are as follows:

- the limited capacity of the private sector to absorb the available labor force in the market;
- lack of government commitment in leveraging bottlenecks of the private sector development including maintaining macroeconomic stability (which target on fiscal and monetary policies, inflation, innovation and technology diffusion);
- weak or nonexistent employment enforcement law; and
- narrow volume of internship, apprenticeships and certifications.

6.9.3. Volume of Internship, Apprenticeships and Certifications

The importance of practical attachment engagements including internships, apprenticeships, and cooperative training are highly emphasized in policies. As the volume of these attachments increases, so do the skills of graduates.

6.9.3.1. Volume of internships and apprenticeships

Internships are temporary work opportunities to learn general job responsibilities at a company. The positions are typically part-time and only last a few months to a year. Interns can do work in the field they are pursuing or light office duties, depending on where they intern. Data showed that the internships and apprenticeships are weakly provided among the TVET colleges and universities. There is no legal framework to emphasize the importance of internships and apprenticeships in students' development.

6.9.3.2. Cooperative training

As a response to poor quality education complaints, apprenticeships were replaced by cooperative training based on the Germany's experience after the year 2000. Yet, it was ineffective in its application. In principle, cooperative training is a specific training (say 10+3 Auto-electricity). After completing the theoretical and basic practical aspects of TVET, a student is sent to industry for a week or two, then back to TVET for another unit of competency, and so on. TVET institutions and companies signed a memorandum, set a program, and exchanged students.

This strategy enforces cooperative training (70%) and enhances both the competency of the trainee and the quality of training (TVET Agency, 2018). In principle, the institution, institution trainer, industry and industry trainer should plan and work together based on the occupational standard however, in Ethiopia's case, they hardly plan and work together. This is due to attitudinal problem on the part of the learner, company, and trainer.

Companies refrain from giving practical training, in their workshops, to skilled workers. These same companies lack the foresight that their competitiveness relies much on qualified labor (60%) and they could benefit as employees become skilled; rather they are taking graduates from government institutions who they train themselves (KII at Tegbared TVET college). Through dual training, a German system demands tight coordination and mutual cooperation between training institutions and industry; this rarely happens in Ethiopia which might be related to capacity, awareness and commitment to accomplish the mission of attachment.

The KIIs explained that companies sometimes engaged trainees in labor work overlooking their employees while TVET trainers took it as a leisure exercise. The strategy clearly shows the role the industry should play in mainstreaming apprenticeships by the preparation of occupational standards including work regulation, assigning skilled workers as trainers of apprentice and certification thereof.

Generally, the practical attachment of our education and training has no policy focus. Moreover, there is no policy and/or legal framework which specifies the roles and responsibilities of all stakeholders. For instance, in the practical attachment, some companies accept and engage students based on their memorandum of agreement while some others refuse the task. Therefore, there must be some sort of legal framework which binds HEs or TVETs and industry/companies together so that skilled and qualified human graduates could gain access to the market.

6.9.3.3. Designed and imitated outcome-based assessment and certification

Outcome based assessment and certification is based on occupational standards prepared based on the National TVET Qualification Framework level descriptors (NTQF). It needs also to be prepared by industry or experienced and qualified professionals. However, field observation and reports showed that the participation of the industry is not as expected; hence both the quality of assessment tools and occupational standard is questioned. Some TVET experts argue that because the occupational standard itself is directly taken from other countries without more deliberation, it should be reformed to fit the country's shortcomings. This ill designed and mere imitated outcome-based assessment and certification system affects a number of graduates, their employability and future skills acquisition.

6.10. Policy/ Legal, Administrative, and Institutional Issues and Challenges

- The absence of academic frameworks throughout TVET and Universities which produce labor for the market and can be slinked into the private sector.
- The absence of or weak employment enforcement. This is partly because the security and market profitability in the private sector is not yet fully guaranteed by the state.
- Partisanship or political leanings in the assignment and placement of leaders and TVET trainers;
- The absence of frameworks (policy focus) which clarify the roles and responsibilities of the companies and/or private sector and the labor production institutions. This also recognizes the role of skilled labor on their productivity and influences the practical attachment;
- An ill- designed TVET training strategy which lacked domestication.

In sum, both the supply and demand sides of the labor market, as well as the policy/legal and institutional factors, must be addressed by the government and the private sector in order to cope with the rapidly changing world of work. The private sector, particularly, must help in

developing the skills systems in Ethiopia/Addis Ababa for the opportunities offered by the most recent global drivers of change: globalisation, climate change, technological change, and migration.

6.11. Lesson Learned

6.11.1. Lessons Learned from Chinese Education and Employment System

Education in China is mainly a state-owned system led by the Ministry of Education and it is the largest education system in the world. In June 2019, there were 10.3 million students taking the National Higher Education Entrance Examination in the country. Investment in education accounts for about 4% of the total GDP. In 1986, the Chinese government passed a compulsory education law known as the nine-year compulsory education, funded by the government. Today, the Ministry of Education estimates that above 99% of the school-age children have received the universal nine-years basic education. In 1985, the government abolished tax-funded higher education requiring university applicants to compete for scholarships based on academic ability. In the early 1980s the government allowed the establishment of the first private institution of higher learning, increasing the number of undergraduates and people who hold third degrees, fivefold from 1995 to 2005.

In 2003, central and local governments in China supported 1,552 institutions of higher learning (colleges and universities), their 725,000 professors and 11 million students. There are over 100 National Key Universities, which are considered an elite group of Chinese universities. Chinese spending has grown by 20% annually since 1999, now reaching over \$100 billion, and as many as 1.5 million science and engineering students graduated from Chinese universities in 2016. China has also become a top destination for international students. As of 2013, China became the most popular country in Asia for international students and ranks third overall among countries. As of 2018, the country had the world's second highest number of world-renowned universities.

Laws regulating the system of education include the Regulation on Academic Degrees, the Compulsory Education Law, the Teachers Law, the Education Law, the Law on Vocational Education, and the Law on Higher Education. They all play significant roles in enhancing the quality of education at various levels.

6.11.2. Education System and Policy

The provision of modern education was critical to modernizing China. The devolution of educational management from the central to the local level was the means chosen to improve the education system. Centralized authority was not abandoned, however, as evidenced by the creation of the State Education Commission, the goals of reform were to enhance and universalize elementary and junior middle school education, to increase the number of schools and qualified teachers and to develop vocational and technical education. A uniform standard for curricula, textbooks, examinations, and teacher qualifications was established and considerable autonomy was allowed among regions, provinces, and special municipalities. Furthermore, the system of enrollment and job assignment in higher education was changed and excessive government control over colleges and universities was reduced. China's basic education involves pre-school, the nine-year compulsory education from elementary to junior high school, senior high school education, vocational school, special education for disabled children, and adult education.

A. Pre-School Education

Pre-school education is an important component of education in China. In urban areas, kindergarten can be for 3 years, two years or one year and it could be full time, part-time, boarding or hour reckoned. The pre-primary school curriculum consists of Chinese, mathematics, physical

education, music and drawing. In elementary, they focus on nature, history and geography, combined with practical work experiences around the school compound. A general knowledge of politics and moral training - which stresses love of the motherland, love of the party, and love of the people - is another part of the curriculum.

The government announced that it depended on individual organizations to sponsor their own preschool education and that preschool education was to become a part of the welfare services of various government organizations, institutes, and state and collectively operated enterprises. Costs for pre-school education varied according to services rendered. Officials also called for more pre-school teachers with more appropriate training.

B. Compulsory Education: Primary and Junior Secondary Education

The nine-year compulsory education policy in China enables students, six years or older, to have free education at both primary schools (grade 1 to 6) and junior secondary schools (grade 7 to 9) nationwide. As the policy is funded by the government, tuition is free though schools still charge miscellaneous fees for books, transportation and food. Senior secondary school (grade 10 to 12) and college education are neither compulsory nor free in China. Since the promulgation of the Compulsory Education Law of the People's Republic of China (1986), the nine-year compulsory education has been implemented by governments at various levels and it has resulted in insignificant progress in the country.

In 1986, the State Council drafted a bill passed at the 14th Session of the Standing Committee of the 6th National People's Congress, that made it illegal for any organization or individual to employ youths before they had completed their nine years of schooling. The bill also authorized free education and subsidies for students whose families had financial difficulties.

The Ministry of Education required that all primary schools offer courses on morality and Ethics in addition to language, natural and social sciences. From the fourth grade onwards, students usually had to perform productive labor two weeks per semester to relate class work; the labor tasks could be production experience in workshops or on farms and. Most schools had after-hour activities at least once a week to involve students in recreation and community service.

C. Senior Secondary Education

Chinese education planners followed a policy called "walking on two legs," which implicates both regular academic schools and separate technical schools .

The rapid expansion of secondary education during the cultural revolution (1949-1969) created serious problems because resources were spread too thin. That led to the decline of educational quality. Furthermore, this expansion was limited to regular secondary schools; technical schools were closed during the Cultural Revolution because they were viewed as an attempt to provide inferior education to the children of workers and peasants.

In the late 1970s, the government and party representatives criticized what they termed the "unitary" approach of the 1960s; arguing that it ignored the need for two kinds of graduates: those with an academic education (college preparatory) and those with specialized technical education or vocational training. Beginning in 1976, with the renewed emphasis on technical training, technical schools reopened, and their enrollments have been increasing till today.

In the drive to spread vocational and technical education, regular secondary-school enrollments fell. By 1986, the universal secondary education was part of the nine-year compulsory education law that made primary education (six years) and junior-middle-school education (three years) mandatory. The desire to consolidate existing schools and to improve the quality of key middle schools was, however, more important than expanding enrollment.

In China, a senior high school graduate will be considered as an educated person, although the most graduates will go on to universities or vocational colleges. Given that the competition for limited university places is extremely intense, high schools are evaluated by their academic performance.

D. Higher Education in China

Higher education in China has played an important role in the economic, scientific and social developments by bringing up large scales of advanced talents and experts for the construction of socialist modernization.

The education policy has been undergoing great transformation in China since the initiation of the economic reform and open-door policy in the late 1970s. The market-oriented reforms and pursuit of rapid economic growth in a globalized economy have had important impacts on China's education policy and development. The development of the market-oriented economy and its increasing integration with the global market, a more pragmatic perception of education, has gradually taken shape in the post-Mao era- resulting in the decentralization and privatization of China's education.

E. Special Education

The 1985 national conference on education also recognized the importance of special education by creating programs for gifted and for slower learners. Gifted children were could skip grades. Slow learners were encouraged to reach minimum standards, although those who did not maintain the pace seldom reached the next stage. For the most part, children with severe learning difficulties and disabilities stayed at home under the family's care. Extra provisions were made for the blind and severely hearing-impaired children, although in 1984 special schools enrolled fewer than 2% of all eligible children in those categories. The China Welfare Fund, established in 1984, received state funding and has the right to solicit donations within China and from abroad; however, special education has remained a low government priority.

China has over 1,540 schools for special education, with 375,000 students; more than 1,000 vocational training institutes for disabled people, nearly 3,000 standard vocational training and education institutes that also admit disabled people; more than 1,700 training organizations for rehabilitating hearing-impaired children, with over 100,000 trained and in-training children. In 2014, about 4,112 disabled students entered ordinary, higher learning schools. Of disabled children receiving special education, 63.6% of total recruitment numbers and 66.2% of enrollment were in ordinary schools or special classes.

F. Vocational and Technical Schools

The "Law on Vocational Education" was issued in 1996. It embraces higher vocational schools, secondary skill schools, vestibule schools, vocational high schools, job-finding centers and other adult skill and social training institutes. In recent years, the government has remodeled vocational education to better accommodate the demands of economic re-structuring and urbanization. The remodeling was oriented towards obtaining employment and focusing on two major vocational education projects to meet society's ever more acute demand for high quality and skilled workers. These are cultivating skilled workers urgently needed in modern manufacturing and service industries and training rural laborers moving to urban areas.

Both regular and vocational secondary schools sought to serve modernization needs. Several technical and "skilled-worker" training schools reopened after the Cultural Revolution, and an effort was made to provide exposure to vocational subjects in general secondary schools (by offering courses in industry, services, business, and agriculture).

Under the educational reform tenets, polytechnic colleges were to give priority to admitting secondary, vocational and technical school graduates and providing on-job training for qualified

workers. Education reformers continued to press for the conversion of about 50% of upper secondary education into vocational education, which traditionally had been weak in the rural areas. Regular senior middle schools were to be converted into vocational middle schools, and vocational training classes were to be established in some senior middle schools. The diversion of students from academic to technical education was intended to alleviate skill shortages and to reduce the competition for university enrollment.

Although enrollment in technical schools of various kinds had not yet increased enough to compensate for decreasing enrollments in regular senior middle schools, the proportion of vocational and technical students to total senior-middle-school students increased from time to time although development was uneven. Furthermore, to encourage greater numbers of junior-middle-school graduates to enter technical schools, vocational and technical school graduates were given priority in job assignments, while other job seekers had to take technical tests.

The technical schools have several hundred different programs. Their narrow specializations have advantages such as offering in-depth training and reducing the need for on-job training thereby lowering learning time and costs. Moreover, students were more motivated to study if there were links between training and future jobs. Much of the training could be done at existing enterprises where staff and equipment were available at little additional cost.

The state education commission decided that technical and vocational education in rural areas should accommodate local conditions and be conducted on a short-term basis. Where conditions permitted, emphasis would be placed on organizing technical schools and short-term training classes. To alleviate the shortage of teachers, vocational and technical teachers' colleges were to be reformed and other colleges and universities were to be mobilized for assistance. The State Council's decision to improve training for workers who had passed technical examinations (as opposed to unskilled workers) was intended to reinforce the development of vocational and technical schools.

Expanding and improving secondary vocational education has long been an objective of China's educational reformers; vocational schools are seen as those which are best placed to address (by providing trained workers) the rising needs of the nation's expanding economy, especially its manufacturing and industrial sectors. Without an educated and trained work force, China cannot sustain its booming economic development. Yet, given a finite, and often quite limited pot of money for secondary schools, an allocation competition/conflict exists between its two sub-sectors: general education and vocational/technical education. Yet, firms, that must seek workers from this graduate pool, have remained unimpressed with the quality of recruits and have had to rely on their own job-training programs that provide re-education for their newly hired workers. The public also, has not been very enthusiastic about vocational secondary education which, unlike general education, does not lead to the possibility of higher education. The public's perception is that these schools provide little more than a dead end for their children. Also, vocational institutions are more expensive to run than their counterparts in general education, and they have not had enough money to modernize their facilities. Academics and policymakers alike began to question the policy that pours funds into vocational schools but did not carry out their intended function.

G. Higher/University Education

By the end of 2014, China had more than 2,236 schools of Higher Education, with over 20 million students; the gross rate of enrollment in schools of higher learning reached 19%. Postgraduate education is the fastest growing sector, with 24.1% more students recruited and 25.9% more researchers than the year before. This enrollment growth indicates that China has entered the stage of popular education. The UNESCO world higher education report of 2015 pointed out that the student population of China's schools of higher learning had doubled in a very short period of time and was the world's largest.

A project for creating 100 world class universities began in 1993. It merged 708 schools of higher learning into 302 universities. Merging schools of higher learning has produced far-reaching reform of higher education management, educational resources are better allocated, and teaching standards have improved. Furthermore, over 30 universities have received help from a special national fund to help them reach world class stature.

The contribution to China's economic construction and social development made by research in the higher education sector is becoming more evident. By strengthening cooperation among their production, teaching and research, schools of higher learning are speeding up the process in turning sci-tech research results into products - giving rise to many new and hi-tech enterprises and important innovations. Forty-three national university sci-tech parks have been started or approved, some of which have become important bases for commercializing research.

H. Graduate Unemployment

In 2008, the Chinese government proposed expanding university enrollment of professional and specialized graduates and developing world class universities. Restructuring through consolidations, mergers and shifts among the authorities which supervise institutions, was aimed at addressing the problems of small size and low efficiency. Higher vocational education was also restructured, and there was a general emphasis on elite institutions. This rapid expansion of mass higher education has strained teaching resources and has raised the unemployment rate among graduates. The creation of private universities remains slow and its future uncertainty has not changed. The restructuring of higher education, has created a clearly escalating social stratification pattern among institutions, stratified by geography, source of funding, administrative unit, as well as by functional category (e.g., comprehensive, law, medical, etc.). So, although recent reform has arguably improved over-all educational quality, they have created new, different issues of equity and efficiency that will need to be addressed as the century proceeds.

I. Adult Education

Adult education is open to all ages and sexes. Through this educational process, the members of the society who are regarded as adults will be able to increase their abilities, enrich their knowledge, improve their skills and professional qualifications to change the situation of the life.

Between 1949 to 1966, the development of adult education in new China began. From 1966 to 1976, adult education could not be carried out normally due to the impact of the "cultural revolution" so from 1978 onwards, China entered the new era of modernization; adult education has since been restored and has developed rapidly.

The fundamental purpose of adult education is to expand educational opportunities, improve national quality and "implement lifelong education". In other words, the purpose of adult education is to provide a second chance for those who are poor in society or who have lost access to education for other reasons in order to achieve social justice and equal access to education. Adult education begins focusing on the cultivation of social responsibility to develop lifelong education theory.

With the development of the education system in China, the government has broken down adult education into four sub sections:

Adult College Entrance Examination: This is a regular form of adult education. There is only one exam every year, usually in the middle of October. Classes are usually held on weeknights or weekends.

Adult Self-Taught Examination: Adult self-taught exam faces all adults and does not need to provide a certificate of formal schooling to be able to sign up. It only requires an identification card to register in an institute of examination of education of each province. Candidates can take the exam by studying various subjects on their own or enroll in courses which are organized by universities or junior colleges.

Open Education: Compared with traditional academic education, it is a new teaching model that combines traditional face-to-face teaching, textbook autonomous learning, and online real-time courses and online classes.

Network Education: Network education is taught through network courses; the study style is convenient for adults whose jobs are tedious and do not have a fixed time to have a class. Enrollment time is relatively loose, divided into spring and autumn admissions. The examinations are frequent, every month has an entrance examination.

J. Teachers Development and Treatment

In 1985, the government designated September 10 as Teachers' Day; the first festival day for any profession and indicative of the government's efforts to raise the social status and living standards of teachers. The government started the Nationwide Program of Network for Education of Teachers to improve the quality of teaching. It aims to modernize teachers' education through educational information by providing support and services for lifelong learning through the teachers' education network, television satellite network, and the internet. This will also improve the teaching quality among elementary and high school faculty through large-scale, high-quality and high-efficiency training and continuous education.

As required by state law, local governments are implementing teacher qualification systems and promoting in-service training for large numbers of school principals to further improve school management standards. Currently, in schools of higher learning, professors and assistant professors account for 9.5% and 30%, respectively. Young and middle-aged teachers predominate; teachers under age 45 account for 79% of total faculty, and under age 35 for 46%.

The scarcity of teachers was a pressing problem facing education reformers. That scarcity has led to a serious stunting of educational development. In 1986 there were about 8 million primary- and middle-school teachers in China, but many lacked professional training.

To cope with the shortage of qualified teachers, the State Education Commission decreed that senior-middle-school teachers should be graduates with two years training in professional institutes and that primary-school teachers should be graduates of secondary schools. To improve teacher quality, the commission established full-time and part-time (the latter preferred because it was less costly) in-service training programs. Primary-school and preschool in-service teacher training programs devoted 84% of the time to subject teaching, 6% to pedagogy and psychology, and 10% to teaching methods.

In-service training for primary-school teachers was designed to raise them to a level of approximately two years postsecondary study, with the goal of qualifying most primary-school teachers. Secondary-school in-service teacher training was based on a unified model, tailored to meet local conditions and offered on a spare-time basis. 95% of its curricula was devoted to subject teaching, 2% to 3% to pedagogy and psychology, and 2% to 3% to teaching methods. There was no similar large-scale in-service effort for technical and vocational teachers - most of whom worked for enterprises and local authorities.

With urban teachers earning more than their rural counterparts and academic standards in the countryside had dropping, it was difficult to recruit teachers for rural areas. Teachers in rural

areas also had production responsibilities for their plots of land, which took time away from their teaching. Rural primary teachers needed to supplement their pay by farming because most were paid by the relatively poor local communities rather than by the state.

6.11.3. Nigerian Education and Labor Supply System

The 1969 Curriculum Conference in Nigeria paved the way to develop a national policy on education in which a cross-section of Nigerians, from various walks of life, met for the first time after political independence in 1960. The conference was held to discuss how the country would revamp its education system, which was formerly influenced by the colonizer, Great Britain. The various states and interest groups thereafter gave rise to the first National Policy for Education in Nigeria in 1977 (Federal Republic of Nigeria, 1977). The policy has since then been very dynamic with its fifth and most recent edition coming out in 2008. A retrospective view shows that there has been several policy attempts towards mass education in Nigeria.

The Federal Government introduced the Universal Free Primary Education (UPE) in 1976 and in 1999 introduced the Universal Basic Education (UBE), which provides nine years of free basic education. The aim of education for all is to offer every individual a relevant education and opportunity for development. The concept of education for all or UBE is based on the fact that all children, and young people, irrespective of their socio-economic and cultural background, should have equal educational opportunities (UNESCO, 2009). Education for all or Universal Basic Education can be useful in guiding the development of policies and strategies that address the causes and consequences of discrimination, inequality and exclusion within the holistic framework of education for all.

6.11.3.1. Education System in Nigeria

The Nigerian education system 6-3-3-4 model was introduced in 1998. According to the model, a child shall spend 6 years in primary school and 3 years in junior secondary school before moving to senior secondary, if he/she is sound academically. Senior secondary runs for three years before the student goes to a four-year university program. Those students who are not sound academically in the accomplishment of junior secondary school, can then go and learn a trade or proceed to a technical school.

A. Primary Education

Pre-primary education (nursery and pre-nursery education) where little children get acquainted with school is given prior to the beginning of primary education schooling. However, pre-primary education is neither compulsory nor even part of the education model though it recently became popular. It is unquestionable that pre-primary education helps prepare pupils for primary education.

Primary school education is the first recognized and compulsory stage of education going from grade 1 to grade 6. Students normally start at the age of 4 and spend the next six years in primary school where they are taught basic mathematics, English language, basic sciences, social studies, religious studies (Islamic Religious Knowledge or Christian Religious Knowledge) and one of the three (Hausa, Yoruba and Igbo) most popular Nigerian languages.

The Universal Basic Education Commission has tried to make primary education free, compulsory and a right for every child, by changing Universal Primary Education to Universal Basic Education. Nevertheless, primary education provided by Government primary schools are nothing special - this has led to many privately owned schools springing up and competing with the government owned establishments.

Generally, government owned primary schools have been likened to the school of the poor households' children. Students from better off families attend private schools with better facilities while the less privileged attend government schools with inadequate facilities. Upon completion, government school students receive certificates before being able to move to secondary school. The common entrance examination needed to admit students into secondary schools is not very effective as students get admitted into secondary schools without even taking entrance examinations.

B. Secondary Education

Secondary education in Nigeria is divided into junior and senior secondary education. The former is to provide junior secondary education to students from grade 7 - 9 for a period of three years. This forms part of the Universal Basic Education (UBE) which lasts for nine years. Students are required to take the Basic Education Certificate Examination before receiving a leaving certificate. Those with better academic performance are then admitted to Senior Secondary School that lasts for three years.

Before joining the senior secondary school, a student decides, based on his/her performance and career preference, to be in the science class, art class, commercials or any other that the school offers. This means classes are separated and students take elective subjects that suit their aims in life. However, some subjects are still core at this level and students must take them irrespective of the field they chose.

Though non-compulsory, students are expected to write a mock exam to prepare them for the Senior Secondary Certificate Examination. A minimum of 5 credit units, including Mathematics and English, is required before one can proceed to the university. Students, however, need to sit for the Joint Admission and Matriculation Board examination and obtain a minimum set score before they are admitted into the university. Students that could not make it or are not interested in secondary school education can proceed to technical and vocational college.

Some, not all the private secondary schools are well equipped; the inadequate level of teaching material results in a high rate of failure at the senior secondary certificate examination and subsequent failure at the tertiary institution. Another problem in Nigeria's educational system is the high rate of exam malpractice. Malpractices such as people passing exams illegally are at peak levels in the senior secondary certificate examination or equivalents.

C. Tertiary Education

Students are admitted to the university once they meet the necessary minimum requirement. Generally, university programs run for four years but that duration could vary depending on the fields of study and the challenges students face along the years. These four years at the university completes the 9-3-4 system of education. After a successful tertiary education, one is given a degree certificate and must serve in the nation's "national youth service corps" for one year. That ends the 9-3-4 educational model. Following graduation, students may go job hunting or pursue postgraduate studies. The problem associated with the new graduates' skills and knowledge is that Nigerian universities are not well equipped and do not pass the necessary knowledge needed by employers. This becomes a huge challenge to the graduates who had coined the idea that they would get a job after graduation.

D. College Education

Students who are not able to get admission into the university either go to a College of Education or Polytechnic. For those that go to polytechnics, they spend two years, get an ordinary national diploma certificate then partake in Industrial Training for a year. This could get them a direct entry into the university, or they can vertically pursue their education in polytechnic and get a higher national diploma certificate which is equivalent to a university degree.

For those that get admitted into the colleges of education, they are awarded a Nigerian Certificate of Education after three years of college. This will qualify them to teach in junior secondary and primary schools. To enable them to teach in a secondary school, most national certificate examination holders go for their bachelor's degree in Education.

E. Gaps in Nigerian Education

The government tertiary education institutions and schools are not well equipped and are dilapidated, lecturers and teachers are constantly going on strike as their demands are not been met. As the curriculums are theoretic in approach, graduates are not well prepared for life or to compete with other graduates.

The government's various tertiary education monitoring commission, like the Nigerian University Commission and other regulatory bodies, are constantly in a hunt for poor nourished tertiary institutions in the country to encourage them to enhance its facilities if possible or to cease otherwise. They are also in a hunt for schools running unaccredited programs, be it government or private owned schools.

To sum up, it is worth noting that the 6-3-3-4 or 9-3-4 system of education in Nigeria had remained undeveloped, stagnant and ineffective in solving the problems of education in Nigeria. This is because it was imposed by the British during the colonial rule and once gone, Nigeria was unable to reform it effectively to fit its own education model.

The government should make education a personal responsibility rather than a governmental one. This will reduce the financial burden of funding UBE as parents and the private sector will have their own part to play in the success of the programs. To ensure adequate skill acquisition of the products, there should be adequate monitoring and supervision of schools by officials from the Ministry of Education and inspectorate department. Head Teachers should be more alive to their responsibility of supervising teachers in their work. Special mathematics teachers should be trained for primary schools to stimulate pupils' interest in the learning of numbers.

6.12. Policy Proposals and Recommendations

Since the ratification of Education and Training Policy (1994), Ethiopia has exerted invaluable efforts to improve the quality, access and relevance of education in the country. However, it is unfortunate that the policy, strategy, framework and guidelines could not uphold quality education.

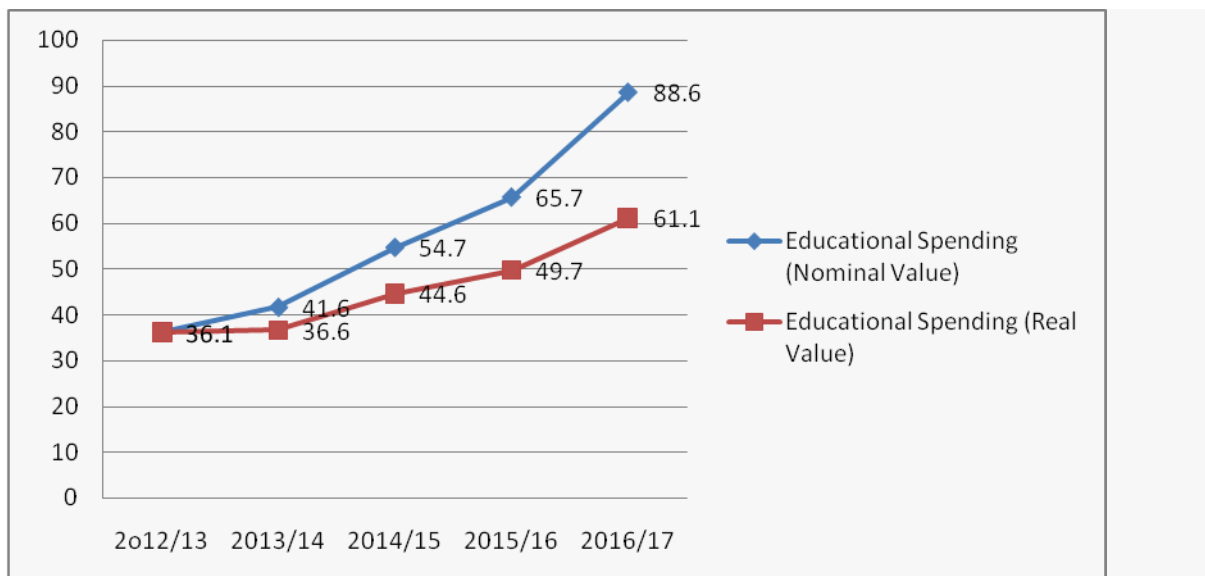
The 1994 Education and Training Policy was drawn up under a new political order which had radically structured the country into autonomous regional states. This new policy viewed education as a tool for development, for solving social, political and economic problems. Contrary to traditional views of education as an end itself, the policy proposal authors viewed education as a critical factor for skilled and qualified labour.

To implement the 1994 education and training policy, a series of rolling five-year strategic plans called Education Sector Development Plans (ESDP I-ESDPV) were designed and implemented. At present, Ethiopia is implementing the 5th plan, ESDP V which is aligned with GTP II and covering the period 2015/16-2019/20.

Government financing of education has been generous and equally as significant as transport and other infrastructures. Public spending on education has increased by 70% between 2003/04 and 2011/12. In this period, education accounted for roughly 20% of total government spending, yet, the secondary and preparatory education shares were only 10% compared to the higher education share of 42% and pre-primary and primary education share of 32%. The present state

of financing secondary and preparatory education suggests the need to diversify sources of funding including significant participation of the private sector; and introducing Public-Private-Partnerships (PPP).

Figure 6.5: Trends of Expenditure on Educational Spending in Ethiopia (Billion ETB)



Source: MoFED National Education Sector Budget Brief, 2016/17

To enhance the quality of education, the government hastaken a series of reforms such as the program supported by the World Bank (GEQIP) and USAID (IQPEP). The latter intervenes in primary education and the former, both in primary and secondary education. GEQIP was originally a two-phase ten-year program (2009-2018) when it started in 2009. GEQIP (Phase 1) was primarily intended to improve the quality of general education. GEQIP is a federal program implemented through decentralization modality involving 11 regions over 900 woredas, 21 universities, 36 colleges of teacher education, and about 40,000 schools and Alternative Basic Education (ABEs) centres.

GEQIP supports the following:

1. The implementation of revised curriculum and the procurement of learning materials and strengthening of assessments;
 - .) In-service and pre-service training of teachers;
 - .) School improvement planning and school grants;
 - .) Capacity building for planning and management and strengthening of Education Management Information System (EMIS).

The primary objective of GEQIP 2 is to improve learning conditions in primary and secondary schools and to strengthen institutions at different levels of educational administration (World Bank, 2013).

China has TVET from certificate level to university and PhD level –and this has proven to be successful. Likewise, the Ethiopian TVET sector should have a new paradigm in organizing TVET institutions and in admitting students to TVET programs. That could give them an alternative route to a better education.

Table 6.5: Major Policy Proposals on Better Access to Qualified and Skilled Labor

S.N	Policy Proposal	Areas of Change	Long- and Short-Term Changes		Major Responsible Actors for Change
			Short Term (1-3Years)	Long Term (4-5 Years)	
1	Reform education systems to produce quality and skillful laborers.	Promote reform at private and public educational institutions			Government and private sectors
2	Enhance industry and university linkages.	Internships, apprenticeships and certifications			Government and private sectors
3	Enhance in company training and internships	Internships, certifications			Government and private sectors
4	Provide pre-job trainings for new graduates	Pre-job training			Government and private sectors
5	Advocacy to provide incentives for entrepreneurs	Tax exemption and/or reduction to boost the number of company establishment			Government and private sectors
6	Promote pro-business labor laws	Supply study-based labor law amendment areas that are central to both the employee and employers.			Government and private sectors

6.13. Summary and Conclusion

This report integrates information from four sources; (1) primary field note data; (2) the previous research works (3) policy & strategy documents, proclamations, standards and work manuals (4), and performance evaluation reports, annual bulletins and abstracts and newspapers of governmental and non-governmental organizations. We also looked at institutions and systems that have an attachment either on the supply side or on the demand side of labor and steer the labor market which mediates the achievement of middle economy status.

Accordingly, issues related to the quality of education and the mismatch in qualifications, access to skilled labor, mismatch in skills, the prevalent high unemployment rate, and volume of internship and certifications, have been discussed in order to form sound policy proposal. After reviewing and evaluating the relevant literature and documents, as well as analyzing primary and secondary data, we selected a few of China's best practices in terms of quality of education, access to skilled labor, mismatches in skill, volume of internships and apprenticeships. Finally, key performance indicators were developed before the development of a policy proposal.

The strategic problems of better access to qualified and skilled labor in Ethiopia are related to quality of education and the mismatch in qualifications, skill mismatch, prevalence of high unemployment rate, and volume of attachments (like apprenticeships and internship). In specific terms, the quality of education in Ethiopia is still under question despite the positive steps made since the imperial period. Despite the formulation and implementation of egalitarian policies like NETP (2004), TVET strategy (2016), (GTP II (2015-2020), TVET strategy- Proclamation No. 954/2016 (2016), and EERM (2018), the supply of middle and higher level skilled manpower to sustain economic growth rapid industrialization, agricultural productivity, and structural transformation remained a common denominator for all sectors. Mismatches in skilled

manpower are manifested in many aspects. One is the assignment of educational administration and trainers or teachers. In many cases, political solidarity undermines merit or experience and capacity. Second, the industry is either misrepresented or little participate in the implementation of the technical and vocational training and education. Third, the strategy itself was copied and pasted from Germany rather than getting tailored to Ethiopia's needs. Alongside that, a dilemma persists on whether generalists or specialist should train in institutions to meet the demand of the labor market. Generally, the educational system in Ethiopia has been still challenged by questions of quality and mismatch in qualification though there are undeniable successes in terms of access and equity at all levels for all citizens. Thus, quality and qualification mismatch need relentless effort from all stakeholders to access skilled labor in the era of rapid economic growth and structural transformation.

Employment enforcement frameworks, qualification of leaders and trainers, and background and readiness of trainees are relevant factors in relation to access to skilled labor. Employment enforcement is too weak for it to have an impact on cost minimization and their profitability of industries. TVET trainers are inexperienced and have gaps at practical and/or theoretical aspect of the training; this goes against the strategy which stipulates the assignment of trained professionals having required competence, experience and ethics in the profession should be given priority in recruitment of a trainers or leaders. Trainers are inefficient means so they can hardly equip students with the required skills needed in the industry. Moreover, viewed from the general academic education to TVET and higher education, producing skilled and qualified human power based on the need of the labor market is questionable. And this evident from the relevance of the general education, the skill of trainees and trainer as well as training system implementation. Finally, trainers' engagement on action research and transfer of appropriate technology is inefficient and ineffective creating a nexus between permanent employment and joint employment.

The high unemployment rate in Ethiopia is attributed to two sources: the economy or labour market's inability to accommodate the high number of new graduates and the employability of graduates being below standard. Such discrepancies are also exacerbated by the absence of a well functioning labor market management system and a rural-urban labor migration framework.

Not only can the labor market not accommodate the high number of graduates, but it cannot accommodate the influx of workers migrating from rural areas to urban settings. Besides that, the industrial parks are built on the outskirts of the city where transport accessibility/affordability is very much limited especially for the poor; hence workers are discouraged from working in the park. Finally, as compared to university, the TVET sector has caters better to the needs of the job industry in the form of wage and salaries, self employment.

The macro-micro mismatch in skills is a strategic problem that has created a deficiency in the training system of institutions (colleges and universities), financial constraints (capital intensive) and prior background and competency of trainers and candidates among others. This indeed has contributed to mismatch in qualification and a high unemployment rate in the country. Graduates also lack specific job searching skills which goes against the policy direction (60% self-employment, 40% government employment). Along with the youths being uninterested in self-employment, the lack of coordination among stakeholders, issues related to licensing and low wages further worsens the youth unemployment rate. It does not help that young Ethiopian graduates lack soft and hard skills required by companies.

Although internships and apprenticeships are being practiced by TVET colleges and universities, the volume is weak. This can be related to the absence of a legal framework which specifies the roles and responsibilities of all stakeholders. Cooperative training (70%) with industries is ineffective because of a lack of planning and coordination between company (trainer) and institution (trainer) to help trainees. Companies neither assign qualified trainers nor follow the national occupational framework and prepare occupational standard out of fear of spending or over-spending. The experience of other countries shows that the mission of TVET training could be achieved by the active participation of the industry in the preparation of occupational standard and training. Participation of the industry is not as directed by the policy; hence both the quality of assessment tool and occupational standard is questioned. Therefore, outcome-based assessment and certification need due attention in order to access skilled labor.

As for lesson learned from Chinese education system, education in China is mainly state controlled. The government passed a compulsory education law known as the nine-year compulsory education where all citizens receive free, universal nine-year basic education. In China there are thousands of higher institutions, professors, and millions of students supported by the government. In 2016 alone, 1.5 million science and engineering students graduated from Chinese universities. As of 2013, China rose to first in Asia and third in the world in terms of international students. To help the process of modernization, the education system was reformed through decentralization management, minimizing central standardization, reducing government control, changing enrollment and job assignment, and local autonomy. Education in China involves pre-school, 9-year compulsory education, senior high school education, vocational school, special education for disabled children, and adult education. Basic education is given priority as it lays the foundation for infrastructure and education development. Chinese education policy allocates two weeks of practical learning per semester on farms or in workshops and students relate the practical experiences to their class studies. Recreational activities and community service were too implemented. After basic education (grade 9), technical vocational education is given parallel to senior secondary education. Institutions improve performance and special education for gifted and slow learners provided. TVET got high priority in job assignment and in the in-depth training of teachers. Firms got engaged in re-education or on job training. Sci-tech research increased productivity and development. Scientific technology parks expanded. Universities got restructured and linked with higher vocational education institutions. Universities and colleges intensified extracurricular educational training of students in clubs, volunteering activities, and internships and entrepreneurship resulted in minimized mismatch and joblessness. In addition, both general and specific policy recommendations are forwarded in line with the supply of skilled and qualified labor in the country.

However, Nigeria, as one of the developing economies, suffers from a shortage of qualified and skilled labor forces like Ethiopia. Therefore, the team recommends that the Chinese case, though the socio-economic and political context is different from Ethiopia, be used as a case study to improve Ethiopia's situation.

References

AACCSA(2018). Addis Bussines Newspaper (December,2018),Addis Ababa.

AACCSA(2019). Addis Bussines Newspaper (February,2019), Addis Ababa.Addis Ababa City Administration TVET Bureau, Addis Abeba

AACCSA(2010).Enabling the Private Sector toContribute to the Reduction ofUrban Youth Unemployment in Ethiopia,Addis Ababa, Ethiopia.

Addis Ababa City Government Labor and Social Affairs Bureau (2018). Labor Related Key Performance Indicators Bulletin, 2017/2018, Addis Ababa, Ethiopia.

Addis Ababa Micro & Small Enterprises Development Bureau(2017).Assessment of Alternative Employment Opportunities in Addis Ababa City Administration, Addis Ababa.

Central Statistical Agency (2013). Population Projection Report, Addis Ababa, Ethiopia.

Chinese Education Policy (1986). English Version.

Dereja.Com(2018).National career expo report (In collaboration with MoE),Addis Ababa,Ethiopia.

FDRE (2004). Technical and Vocational Education and Training Proclamation(Proclamation No.391 /2004),Federal Negarit Gazette1st March, Addis Ababa.

FDRE (1994). National Education and Training Policy,Addis Ababa.

FDRE (2004).Education and Training Policy, Addis Ababa, Ethiopia.

FDRE (2016). Technical and Vocational Education and Training Proclamation(Proclamation No. 954/2016), Federal Negarit Gazette27th May, Addis Ababa.

FDRE (2017). National Employment Policy and Strategy, Addis Ababa, Ethiopia.

FDRE Ministry of Labor and Social Affairs (2016-2019). Annual Labor Market Information.

FDRE Ministry of Labor and Social Affairs (2019). Annual Report (2017-2019).

FDRE(2016).Growth and Transformation Plan II (GTP II) (2015/16-2019/20),Volume I: Main Text,

Federal Negarit Gazette No 78, 27th May, 2016
Addis Ababa.

Federal TVET Agency(2014). Improving
Effectiveness and Efficiency in TVET,
Bishoftu,Adama.

Federal TVET Agency(2014).Improving
Effectiveness and Efficiency in TVET (manual),
Bishoftu,Adama.

Federal TVET Agency(2014).National TVET
Institutional Development Plan-IDP (manual),
Bishoftu,Adama.

International Labor Organization,
McGuinness, Pouliakas, & Paul Redmond
(2017).How Useful is the Concept of Skills
Mismatch? Geneva, Switzerland.

Ministry of Science and Higher Education-
MoSHE (2018). Education Policy Roadmap,
Addis Ababa, Ethiopia.

MOE(2016).Ethiopian Education Road Map,
Addis Ababa.

MoSH(2019).HigherEducation Statistics:
Annual Abstract, National Planning
Commission,Addis Ababa.

Federal Republic of Nigeria (1977). National
Education Policy of Nigeria.

Tegbare-Id Poly Technique College(2018).
Labor Market Survey incase of Ledeta sub
City,

UNESCO-UIS (UNESCO Institute for
Statistics (2018). Quick Guide to Education,
Proclamation No. 954/2, Addis Ababa,
Ethiopia.

UNESCO (2009): An Over View of Nigerian
Education System.

World Bank (2013). Annual Report on Social
Protection and Labor Programms.

City Government of Addis Ababa Micro
& Small Enterprises Development
Bureau(2017).Assessment of Alternative
Employment Opportunities in Addis Ababa
City Administration, Addis Ababa, Ethiopia.

Annexes

Annex 1: Secondary & Primary Data Sources & Collection Tools

Secondary Data Sources

- Global, African and Ethiopian Unemployment trends and best practices.
- Ethiopian policies, strategies, guidelines and protocols related to education and employment.
- Selected education and labor policies of Sub-Saharan Africa.
- National Reports - such as the last five years annual performances reports of:
 - Ministry of Labor and Social Affairs
 - Ministry of Education
 - Federal Technical and Vocational Education and Training Agency
- Research Works - publications (journals, articles and proceedings) and project documents related to education policy, strategy; and employment creation and unemployment rates.
- ILO, WB, UNECA, OECD and UNDP documents and reviews.

KII Interview for Education Sector Participants

1. Discuss the relevance of Ethiopian Education policy from the imperial regime up to date.
 - Imperial regime (1930-1966)
 - Military regime (1974-1991)
 - EPRDF (1991-up to date)
 - How do you see the relevance of the new Education Road Map?
 - Applications of apprenticeships and internships during each regime.
2. Identify the common denominators and differences of each policies.
3. Identify the major weaknesses/gaps and strengths of each policies.
4. What specific achievements and gaps would you identify from the current Ethiopian Education Policy and Strategy as part of a move towards educational reform?
5. What are the major causes of the constraints/gaps?
6. Discuss the actions taken or the interventions made by state and non-state actors to alleviate the faced constraints.
7. Do you think that the new graduates (TVET and BA/BSc) have acquired the required skills to begin with their job? If not, why?
8. The quality of education and the mismatch in qualifications (Quality and relevance of education policy; Education mismatch (TVET and bachelor degrees); and Over and under qualification/skills).
9. How do you evaluate the curricula of each tier of education levels (from pre-schooling to university) from the perspective of especially upgrading ethically versioned and skilled citizens?
10. How do you evaluate the importance of internship and apprenticeships?

11. Mention the volume of internships, apprenticeship and certifications if any.
12. What possible suggestions may you forward to improve the quality of education and provide the new graduates with all the required skills?

KIIs for Labor and Social Affairs, Jobs Creation, Employers and Related Sectors

1. Discuss the employment conditions of Ethiopia?
2. How do you evaluate the overall conditions related to job creation and unemployment in Ethiopia?
3. What are the major causes of unemployment in Ethiopia?
4. Are there employment creation policy and strategies in Ethiopia? Discuss the detail content and applications of each.
5. Are the private sectors involved in job creation programs/projects? Do they have comprehensive policy and strategy?
6. How much do employees or graduates possess the required skills and qualifications required by employers?
7. How do you see the education/qualification/field of study and skills/experiences mismatches?
8. What are the challenges frequently faced by the sectors related to youth employee skills and qualifications?
9. What are the possible solutions taken by such sectors so far in order to alleviate the challenges?
10. Discuss the labor supply and demand conditions in the country.
11. Does the rural-urban labor migration influence on the labor market situation? How? Discuss
12. How is the on-job training, promotion of entrepreneurship and practices of internship?
13. Discuss the job retention and security, job search and acquisition, access to job information, and technology and digital literacy.
14. Discuss the government and non-government organizations' employment enforcement frameworks & strategies? (Policies, institutions, laws, access to resources and infrastructure).
15. What do you suggest for the potential improvements of qualified and skilled labor supply to the private and public sectors of Ethiopia?

Annex 2: Sectors and KIIs Contacted

S.N	Potential Sectors	No. of KIIs
1	Ministry of Labor and Social Affairs	1
2	Ministry of Education	1
3	Ministry of Science and Higher Education	1
4	Federal Job Creation Commission	1
5	Federal Technical and Vocational Education and Training Agency	1
6	Higher Education Relevance and Quality Agency	1
7	Forum for Social Studies	1
8	Addis Ababa City Government Education Bureau	1
9	Addis Ababa Labor& Social Affairs Bureau	1
10	Addis Ababa City Government Job Creation Commission	1
11	Addis Ababa City Government Technical, Vocational Education and Training Agency	1
12	Industrial Parks Development Corporation	1
13	Bole -Lemi Industrial Park	1
14	Eastern Zone Industrial Parks(Garment, Shoe & Ceramic Factories)	3
15	St. Mary's University	1
16	INFOMIND	1
17	Tegbared Vocational College	1
18	General Wenget Vocational College	1
19	Addis College	1
20	Zamira Construction	1
21	Ethiopia Hotel	1
22	Total	23

Annex 3: Sectors and KIIs Contacted

S.N	Name	Sex	Organization	Responsibility/Position	Mobile No.
1	Hilina Legesse	F	INFOMIND	Country Manager	0911514849
2	Dr. Mesfin Sileshi	M	Addis College	Vice President	0911842278
3	Tamirat Worku	M	Ministry of Labor and Social Affairs	Employment Team Leader	0911892973
4	Abebe Gestie	M	AA City Gov't, Education Bureau	Teachers Development Expert	0913566893
5	Tilaye Alemayehu	M	AA City Gov't, Bureau of Labor and Social Affairs	Employment Work Process Owner	0913845682
6	Tekle Haile	M	St. Mary's University	Vice President	0911-642023
7	Meaza Beharu	F	Federal Job Creation Commission	Policy and Strategy Manager	0947324742
8	Tegegne Dagne	M	Ministry of Science and Higher Education	Higher Education Support and Follow up Expert	0911419278
9	Yonas Mekuria	M	Addis Ababa City Gov't Job Creation & Enterprises Development Bureau	Job Opportunity Creation Expert	0929312857
10	Habtamu	M	Industrial Parking Development Corporation	Expert	0116581789
11	Theobsta Wassie	F	Ethiopia Hotel	Human Resource Manager	0911-402-825
12	Demi Dou	F	Eastern Industrial Zone	Adviser (Represented 3 Factories)	0980-161-150
13	Biruk	M	Tegbared TVET College	Training and Work Coordinator	0915732489
14	Tsegabu Tadese	M	General Winget Poly technique College	Senior TVET trainer	0112799318
15	Dr. Dinquana Nigusa	M	HERQA	HERQA	0111236126
16	Timotowos Mocha	M	Ministry of Education	Teachers & Education Management Pre-service Training	0913268242
17	Engida Mulugeta	M	Federal TVET Agency	Project team leader	0944095786
18	Churnet Belachew	M	AA City Government TVET Agency	City Government TVET Agency V/director	0111564195
19	Birkit Mulu	F	Zamra construction	HR manager	0911663333
20	Tahir Hamdit	M	Bole Lemi Industrial Park	Operation Manger	0922264479

Chapter Seven: BETTER ACCESS TO LAND



Executive Summary

Ethiopia aspires to be a middle-income country by 2025. This ambition stands on the country's rapid economic growth registered during the last two decades. Though Ethiopia's development has been shaped under strong government control, recently with the view to increase national economic efficiency the government is undertaking some steps to increase the contribution of the private sector through shifting some economic activities from public to private sector. Apart from the privatization reform areas, land remains one of the key factors of production and economic resource for the achievements of Ethiopia's ambitious development goals. However, beyond its limited abundance, the growing population and business expansion has imposed increasing pressure on the land resources with high competing needs for acquiring land. The limited access to land is found to be very difficult for entry to business and its expansion. The 2020, ease of doing business ³⁷ report ranked Ethiopia 159th in many of its indicators among the 190 countries of the world with an average index of 48 with a slight decrease from the year 2019. The 2019 Ethiopian Macroeconomic Handbook also indicates that because of the limited supply of land, the government applies priority-based land allocations for development sectors namely infrastructure, urban expansion, industrial parks, mining projects, commercial farming allocations, and other projects deemed to be in the broader public interest through leasehold system.

Cognizant of the high value and economic importance of land to stimulate the local and national economy, the Addis Ababa Chamber of Commerce Sectoral Association (AACCSA) commissioned Kaya Research and Development to undertake a Study and Examination of Policy Recommendation on Better Access to Land in Ethiopia. Employing qualitative and quantitative data collection techniques the study assessed the strategic problems of access to land, by appraising key performance indicators and evaluating the existing land policies and came up with sound policy recommendation alternatives supported with evidence targeted up to 2025 through identifying best practices from Sub-Saharan Africa, Asia and South American countries.

Accordingly, the study found that Ethiopia has formulated and enacted land policies and legal frameworks to increase the contribution of the land sector to the national economy. The increasing population growth and urbanization demands to look for review the existing land policies and alternative approaches to use the limited land resource in efficient and effective manner. In terms of legal and policy framework land is a constitutional right and shaped by the political-economic ideology of the government. The study found the importance of integrating land right in the constitution, criticized by actors and researchers for its limitation in ensuring landholders tenure security and the resulting in efficient and in effective land related investments, to ensure the land rights of citizens in a sustainable manner, regardless of its rigidity to make revision and amendments. The major strategic problems that deters the land sector to play its catalyst role for the socio-economic and political development of the country are confined to the limited supply and availability of land due to gaps in policy and legal frameworks, ever increasing and un-affordable land price for low and middle income population, lack of tenure security, information asymmetry,

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 37 **Ease of doing business indicators:** Starting a business, construction permit, getting electricity, property registration and getting credit access, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and employing workers.

landlessness, high and increasing population growth, lack of good governance, prevalence of corruption, unfair and inappropriate compensation, dispute and conflict over the land resources, social inequality and shortage of basic infrastructures.

The amount of land prepared and supplied for development purpose by municipality cities in Addis Ababa and major regional cities has decreased in the GTP II period. There is high mismatch between supply and demand for residential, business, industry, urban agriculture, social sectors and other development projects and programs. The volatile political environment occurring in the country since the last four years is affecting the supply side for better access to land and investment and discouraged the private business sector 's engagement in the economy. Moreover, the low perceived tenure security on land holders due to gaps in the existing policy and legal frameworks leads to inefficient utilization of land and expansion of informal land market. On the contrary, inefficient land utilization has been observed by private sectors. This study recommended performance indicators on the roles of the private sector for better access to land by considering international and national standards with measurable indicators together with the desired outcomes and impacts focusing on the private sector.

Based on the review of policy documents and strategic problem analysis, the study recommended for business-friendly land allocation system, appropriate land use policy that fits with the structural plan of cities, avoiding unfair compensation, scaling up of best experiences that best suits to the context of Ethiopia for alternative and business friendly land policy and promoting legal bound agreement between land owners and investors. Taking in to account the existing policies and legal frameworks, the land sector has opportunities and challenges that need concerted engagement by all stakeholders. The recommendation comes to deter the major strategic problems identified by this study on access to land in Ethiopia including unaffordable land price, lack of good governance, limited coordination for infrastructural facilities, unfair compensation and tenure in security.

7.1. Background

7.1.1. Introduction

Ethiopia has envisioned becoming a middle-income country by 2025. To realize this, it has planned and implemented consecutive mid-term mega plans, known as Growth and Transformation Plans. In the Second Growth and Transformation Plan (GTP II) implementations phase (2015/16-2019/20) it has targeted to achieve 11% growth rate per year during the plan period. It has set priorities for industry and agriculture as drivers of sustained economic growth and job creation (WB, 2019). Despite the rapid and broad-based economic growth in the past decade with growth rate of 10.3 percent from fiscal years (FY)

2006–2016, growth rate of Ethiopia has declined to 7.7% in the fiscal year 2017/18 which is mainly attributed to the growing political tension occurring in the country for some extended years and the resulting decline in the export trade (NPC, 2018). Regardless of the recent development challenges, Ethiopia has generally made substantial progress on social and human development in the past decade.

Better access to land is at the center of Ethiopia's development plans and programs as it is one of the most important factors of production for the economy. The priority sectors namely; industry and agriculture require improved access to land. For this reason, the country has planned to ensure adequate supply of land for public and private development programs/projects as well as business entities to ensure broad based economic growth in the GTP II. The importance of land in achieving development goals have been also realized by the UN and sufficiently addressed in SDG 11 and 15.

Despite the fact that the value of land in speeding development has got greater attention, the supply of land for the growing population and economy of Ethiopia has also become a serious challenge. The

2020 ease of doing business confirmed this fact and access to land continues to be one of the major bottlenecks for entry in to and expansion of business and development programs. In this regards, Ethiopia has been ranked 159 among 190 countries in terms of ease of doing business criteria with an average index of 48. The ease of doing business rank remained constant in 2018 and 2019, but the average index has decreased from 49 to 48 in the year 2018 and 2019 (WB, 2018 and 2019). Moreover, based on the 2019, World Economic Forum Global Competitiveness Report, Ethiopia was ranked 126 among 141 countries with global competition score of 44.4. The global competitiveness trend of Ethiopia has decreased by four in rank and by 0.1 score from the 2018 result.

The national and international socio-economic dynamic mainly derived with high population growth put pressure for the effective and efficient utilization of land resource both in rural and urban areas. Besides to the high population increase, the expansion of trade and investment increased the market value of land in urban and rural areas and access to land for citizens and the private business sector become tight and the concern of all. In order to address emerging needs in the land sector, governed by the ideology of the time, land policies have been formulated and enacted since the imperial regime in Ethiopia. As being a critical economic resource, the issue of land is already integrated in the 1995 FDRE constitution. In accordance with the constitutional provisions, the country in general and regional states in particular formulated their own specific regulations and directives for the implementation of land rights. The urban and rural land policies, the expropriation and compensation, investment, urban land lease laws come to effect for the effective and efficient utilization of land resources in an equitable manner.

Apart from the existing legal and policy frameworks, projects and policies have been designed and implemented in Ethiopia in collaboration with its development partners. Based on the Land Governance Assessment Framework Implementation of Ethiopia Final Country Report which was undertake with the support of the World Bank in 2016, some of the projects and programs include Land Administration and Land Use Development Project (2009/10 - 2015/16), Community-Based Integrated Natural Resources Management Project in Lake Tana Watershed (2010 - 2017), Sustainable Land Management Project (Phase 2, 2014 - 2018/19), Responsible and Innovative Land Administration Project (2011 - 2016), Land Administration to Nurture Development Project (2013 - 2018), Land Investment for Transformation (LIFT) Project (2014 - 2019), Ethiopia's Agriculture Sector Policy and Investment Framework (2010 -

2020), Ethiopian Land Research and Development Network (Long-term) and Ethiopia's economic performance in a glance (till 2014/2015).

The formulation of legal and policy frameworks and implementation of land focused development projects and programs have brought encouraging result in improving access to land for the growing economy. However, still the legal, policy, administrative and institutional factors are posing challenges on the consistent supply of land for business and development activities in the country.

The Addis Ababa Chamber of Commerce and Sectoral Association (AACCSA) as a non-governmental voluntary business membership organization (BMO) aims to promote business and investment in Addis Ababa. It has been also working to facilitate enabling environment and promoting the contributions of the private business sector for the national development. As a business membership association, access

to land is one of the key priority strategic areas of AACCSA and its member business entities. Hence, AACCSA in collaboration with Kaya Research and Development conducted Study and Examination of Policy Recommendation on Better Access to Land in Ethiopia.

7.2. The Importance of Land in the Socio-Economic and Political Domains

Land is one of the most important economic resources and factors in the formation of individual and collective identity and in the day-to-day economic, social, cultural and religious life. It is an enormous political resource that defines power relations between and among individuals, families and communities under established systems of governance (Zerfu H., 2016). Land as one of the foundations of our lives and serves as source and foundation for natural resources from which human beings obtain goods and services to meet basic needs; services as sink in the course of waste disposal and recycling; and functions to meet our aesthetic needs (World Bank, 2015). In its first function, land is the foundation of business undertakings in relation to space, inputs and raw materials that are indispensable in all economic activities, particularly where the economy is factor-driven, a phase which countries undergo before their eventual transition to technology-driven and innovation driven phases of production of goods and services. Besides, from the livelihood point of view, land is one of the livelihood assets by which people can generate their livelihood out of it through interacting with other livelihood assets (DFID, 1999).

In Ethiopia, as elsewhere in the world, the socio-economic significance stems from the fact that land is a source of wealth, economic growth, employment and a source of basic survival of the majority of the population. Obviously, for rural residents of most developing countries, land is the primary means of production used to generate a livelihood for a family. It is also the main asset that farmers have to accumulate wealth which they can transfer to future generations. Accordingly, the size of the land that people own and the level of security they have in their holdings affect a household's income, and their incentive to work and invest. However, others argue that the significance of land in most developing countries is beyond economic affairs. It is very much intertwined with the people's culture and identity. For these reasons, land policy in developing countries is a crucial, albeit sensitive, part of the overall development policy that governments need to consider if rapid economic growth and poverty alleviation are to be achieved (Adnewe, B. et. al. 2003).

The level of access to urban land directly influences the operation of the business sector. Starting business, construction permit, availability of electricity, property registration procedures, time and cost, getting credit, trading across borders are directly related in easing doing business for the private sector. The 2020 ease of doing business result indicate that Ethiopia is lagging behind in improving these indicators for the smooth operation and entry to the business sector.

7.3. Brief History of Land Tenure System in Ethiopia

Historically, Ethiopia has experienced land tenure systems and based on the socio-economic significance of land for national development, land policies were in place in the country. The urban land and extra housing reform of 1975 abolished private ownership of urban land and nationalized extra houses without any compensation. Article 40 of the 1995 FDRE Constitution asserts that the right to ownership of rural and urban land, and of all rural resources is exclusively vested in the state and in the peoples, nations and nationalities of Ethiopia. However, the government has been criticized on the ground that the policy changes of the 1991 could not bring changes in landownership and land remains the property of the state.

Regardless of the debate on the land ownership issue of Ethiopia, the country has been undertaking policy measures that complement the gaps on the general land ownership policy. The Federal Rural Land Administration and Land Use Proclamation No. 456/2005 and Urban Lands Lease Proclamation No 721/2011, Ethiopian Investment Promotion Policy and the Associated Industrial Parks Development Programs come in to effect to fill policy gaps emanated from the purely state-owned land ownership system. In line with these policies, structural arrangements that are mandated to implement the policies have been made at all levels of the government structures and efforts have been done to register land through Geographic Information System and cadastral system and make readily available for individuals and investors. As stated in the Urban Lands Lease Holding Proclamation No. 721/2011, there has been a growing demand for urban land. The main challenges that restrict peoples' access to land are attributed to rising land prices and difficulty of affordability, high compound interest in lease tender debts and corruption in the land sector. This calls for addressing all the challenges that weaken the supply side of land use rights in the land market.

One of the favorable investment climates created in the country; according to the Ethiopian Investment Commission is the creation of improved access to affordable land for investors and the business sector in general to attract domestic and foreign investors. Therefore, the Ethiopian government has established a land bank to ease land access for the private sector. The investment policy also sets provisions and obligations for investors which facilitates the process of land acquisition.

Taking in to account the available policy environment as an opportunity, a number of private sectors have been engaged in large scale commercial farming activities in regions of the country since 2009. The federal and regional governments of Ethiopia transferred million hectares of land for domestic and foreign investors to increase agricultural productivity through large scale farming approach. However, the Oak Institute study conducted in 2011 clearly showed the critics and the action was considered as a land grab. The overall result indicated that because of reasons the provision of land for investment with lease modality could not bring the intended result. Instead, the land grab action had marginalized smallholder farmers and aggravated environmental degradation which left the land and the ecosystem exhausted. The study argued that these problems partly arise due to the hegemonic authority of the state over the land.

7.4. Current Debates on Land Ownership in Ethiopia

Despite the constitutional provision of land ownership and presence of other supporting policies and regulations, land policy in Ethiopia has remained debatable by politicians, academics and other stakeholders. The current constitutional provision advocates state ownership of land whereas experts, Western liberal economic advisors, and scholars in the field and many of the opposition political parties favor private land ownership. The supporters of these dichotomous views have their own justifications. Private ownership advocators justify that the multiple functions of the state landowner, regulator and manager in land matters are often a source of inefficiency, corruption and arbitrariness in the use and disposal of land that is at the disposal of the state. The vesting of radical title in the state has been widely abused through land grabbing and neglect of critical land resources (AU, 2010). Private land ownership increases tenure security of landholders and investments thereby reducing economic costs of litigation over land disputes. The supporters of this view suggest that the more the land is privately owned the higher the sense of ownership of the land holders over the land. This will increase the landholders' motives and determinations to use the land resources efficiently and effectively thereby enhancing its sustainability (Genenew B., 2016). State ownership advocators also justify that state ownership may lead to concentration of land in the hands of few people who have the ability to buy, resulting in the eviction of poor

farmers and thus aggravating landlessness and potentially leading to rural - urban migration of people. According to this block, the state ownership of the land is considered as an important factor to ensure equal distribution of wealth since land is one of the most important factor of production in the economy (Alebel H., 2015).

The land lease proclamation 721/2011 has come in to effect to fill the gaps of the state versus private ownership dilemma and to ensure the effective and efficient utilization of the limited land resources. From the outset, the lease proclamation is intending to enhance the transfer of land use rights, to encourage investment, serve as source of finance for infrastructure development and the provision of social services to the residents with principles of accountability and transparent lease tender and land delivery system. However, a study commissioned by AACCSA in 2016 on “the impact of the current land lease law on business and investment expansion” revealed that the law by itself did not ensure affordable and sufficient land access for business and investment activities. Because of these policy gaps in using land efficiently and promoting private investment, the Urban Land Development and Management Policy and Strategy was formulated in 2013 with proclamation No. 818/2014 that established the foundation for urban landholding registration, expropriation of land holdings for public purposes and payment of compensation.

As a response mechanism to the tenure insecurity of land holders and the resulting in efficiency of the land sector, the government of Ethiopia in collaboration with its international development partners has implemented rural land registration and certification programs with the intent to improve tenure security and thereby increase agricultural productivity through improved land rental market. The Land Investment for Transformation (LIFT) which has been funded by USAID and DFID are some of the typical programs implemented in rural Ethiopia on the land sector (USAID, 2011). In the second land registration program (2013-2020), it has been planned to register 14 million parcels with cadastral map in the country. Urban based programs like ULGDP has been also implemented in Ethiopia with the support of World Bank focusing on improving urban infrastructure and housing. With the first land registration and certification, 81.5% of the rural households were registered and certified from the total rural households (Zerfu H. 2016).

Thus, the policy and regulatory framework gaps, the arguments indicated in the existing land policies from the demand and supply side perspectives and the implementation drawbacks need to be assessed thoroughly in evidence-based manner to bring the issue of land related constraints for advocacy of executive bodies. For this reason, this study has been conducted to assess the situation of access to land with greater emphasis for the private sector to enhance the contributions of the sector for the national development.

7.5. Access to Land and Sustainable Development Goals (SDGs)

The UN Sustainable Development Goals takes in to account the significance of land tenure security, equal access to land, and good governance in land administration for the achievements of the goals. Some of the goals and targets are directly related to land and tenure security. The issues indicated under Goal 11 and 15 focus on land (UN, 2016). Realizing the importance of land for SDGs, the Global Land Tool Network (GLTN), UN-Habitat and Kadaster jointly developed the Fit for Purpose (FFP) approach which is basically about building countrywide land administration systems while at the same time providing tenure security for all within a short timeframe, in an incremental manner and at affordable costs by considering the national and local context of each country.

7.6. Objectives of the Study

7.6.1. General Objective

To assess the strategic problems of access to land, appraise key performance indicators and evaluate the existing land policies and come up with sound policy recommendations.

7.6.2. Specific Objectives

- To justify the strategic problem areas related to access to land with qualitative and quantitative evidences,
- To identify best practices from Sub-Saharan African countries through in-depth review of literature,
- To evaluate the existing policies and come up with sound policy proposal supported with evidence targeted up to 2025,
- To appraise the relevant key performance indicators and design alternative performance indicators if the need arises.

With the objectives set the study assessed the historical context, reviewed the existing policy, legal and regulatory frameworks, implementation of urban land lease and other land related policies through highlighting the successes as well as the subsequent challenges experienced in improving access to land for the business sector.

7.7. Methodology of the Study

7.7.1. Data Sources

Both qualitative and quantitative data in the form of primary and secondary sources were used. While the main documents reviewed include policies, directives, programs and strategies related to access to land.

7.7.2. Primary Data Sources

Key informants selected purposively from relevant private and public sectors in a representative way.

7.7.3. Secondary Data Sources

Desk and literature/document reviews from relevant published and unpublished materials such as federal and regional constitutions, policies, proclamations, directives, strategies, plans, implementation guidelines and sectoral office reports, and research papers on land and related policies. Quantitative data on land allocated and reserved for investors by the investment commission and the Ministry of Agriculture and Addis Ababa City Government Land Administration and Management Agency and Land Bank and Transfer Office were collected.

7.7.4. Study Design and Key Informant Interview Selection Procedures

7.7.4.1. Study Design

In an aim to develop policy proposal alternatives on access to land the study employed both quantitative and qualitative approaches through Key Informant Interviewees (KII) selected from concerned policy sectors as well as review of literatures, findings, best practices, journals and reports.

7.7.4.2. Key Informant Interviewee Selection Procedures

The key informants were selected from the relevant public and private business sectors purposively for in-depth interview. The KII participants selected for the study were those having relevant information on access to land for the operation of private business sector and the

proper functioning of the land market. These sectors were from concerned Federal Ministries/ Commissions/Agencies, Industrial Parks Development Corporation, firms operating in Eastern Industrial Zone, Forum for Social Studies, Civil Service University and sectors from Addis Ababa City Administration – Addis Ababa City Administration Municipality Office, City Administration Land Administration and Management Agency, City Administration Farmers and Urban Agriculture Commission, City Government Investment Commission. Representatives from government and private banks, real estate developers and potential private investor from agriculture, industries and services sectors have participated in the KII.

7.7.4.3. Data Collection Instruments

Primary data were collected from selected key informants from public and private business sectors using semi-structured questionnaires that focus on the challenges of access to land, current practices on land acquisition for business operation and the provisions and gaps of the existing policies related to land. The secondary data were obtained through reviewing literatures, policies, strategies, plans, programs and working manuals/procedures and regulations. Five data collection guiding questions were prepared for their respective five categories.

7.7.4.4. Data Analysis Techniques

The primary data obtained from key informants were carefully transcribed, cleaned and arranged into sub-themes. Then, the data collected from primary and secondary sources were analyzed and interpreted using descriptive data analysis technique. In order to identify the demand and supply side factors on access to land, the quantitative data obtained from secondary sources were also analyzed thoroughly to see the challenges of access to land for the business sector. The in-depth review and assessment of the policy documents and the data obtained from KII from policy proposal were systematically analyzed. Meaningful and insightful connections were drawn between materials by identifying common themes.

7.8. Results and Discussion

7.8.1. Access to Land

Access to land for business is highly depends on the availability of land with affordable costs. However, the issue is how land can be available for those who demand it as per their request. In this respect the interaction of demand and supply are very important for improved access to land for business and any economic activities. The supply and availability of land with a reasonable price is largely determined by the friendliness of the existing policy, legal, administrative and institutional frameworks. The legal and policy frameworks of Ethiopia left land under the state ownership for the benefit of the agricultural community in rural areas and the business sector mainly for urban residents. Hence, the interplay of the policy, legal, administrative and institutional frameworks can affect access to land and property.

DFID's 2015 Urban Infrastructure publication identified the demand side factors as economic development, population growth, ability to pay for land and property and access to finance. These factors can determine the capacities of individuals and firms to purchase/access land through the ongoing land market. On the other hand, the same source indicated land use patterns, ease of getting land use approval, degree of tenure security, ease of registering property/ownership, ease of doing business and access to banking determines the supply of land to citizens and business firms.

Access to land is highly related to the availability of land and it takes in to account the acquisition and the land development modalities apart from the price. The acquisition modality includes the duration, tenure security and ability to use the land for bank loans, despite it is not applicable in Ethiopian case. The land development modality which is usually considered after acquiring the

land encompasses the construction permits related activities and the associated costs. In general, access, security, use and consistency of treatments of competitors are the four key issues that the business sector faces in access to land.

7.8.2. Evaluation of Legal and Policy Frameworks

Land is one of the main issues of concern for governments and the public as it is one of the essential productive resources for the livelihoods of citizens and serves as an engine of growth and development. Taking this into account, countries have developed policies and laws on land so as to effectively and efficiently utilize the limited land resource. Accordingly, changes have been undertaken on policies and legal documents in the land sector in Ethiopia which was designed in line with the ideologies and economic development demands of the country. Since the imperial regime, Ethiopia has put in place land and land related policies, laws, regulations, directives and programs.

A. The FDRE Constitution

Land in Ethiopia is a constitutional right. Yet, Article 40 of the FDRE constitution states that the right to ownership of rural and urban land, as well as of all-natural resources, is exclusively vested in the state and in the nations, nationalities and peoples of Ethiopia. This implies that land is a common property of the Nations, Nationalities and Peoples of Ethiopia and shall not be subject to sale or to other means of exchange. In addition, under sub-article 6 of this article, the constitution also grants rights for the private investors to the use of land on the basis of payment arrangements established by law. Unlike the rural land, the constitution gives limited attention to urban land acquisition mechanisms as indicated only under sub-article 6. Five out of the eight sub-articles of Article 40 of the constitution describes about rural land acquisition mechanisms ly.

In principle, there are dynamic demographic, social, environmental and economic factors that can affect the demand and supply sides of the land market and any documents that are supposed to deal with land issues should be regularly reviewed and updated so as to accommodate the latest changes. For instance, the land rights enshrined in the constitutions are still debatable as there are two proponents on the issue of land ownership: pro and anti-state ownership of the land. However, though, the integration of land right in the constitution is appreciated in ensuring tenure security for citizens and to achieve social equity for vulnerable members of the community, the complex and time taking procedure to revise the existing constitution may hinder to accommodate new changes in the land sector. After the ratification of the FDRE Constitution in 1995, specific policies and programs on land such as the rural and urban land policies, the land lease policies and expropriation, valuation and compensation policies were put in place both at federal and regional levels so as to ensure social equity and tenure security.

B. The Urban Land Lease Policy

Ethiopia introduced leasehold system for the first time in 1997; then revised in 2002; and finally, again re-enacted in 2011. The lease proclamation was introduced for two main reasons: To satisfy the growing urban land demand resulted because of the fast-economic growth of the country and to ensure good governance for the development of efficient land market and a transparent and accountable land administration system, collect capital to finance the urban infrastructure and development. Secondly, to transfer land use rights from government ownership to individual citizens.

The 2011 land lease law states that urban land acquisition mechanisms for residents, public and private sectors are auction, negotiation, assignment, award and lot. Auction and negotiation are the two most important methods for cities to collect income with land lease agreement. In bigger cities auction is still the most utilized method to transfer land from municipalities to investors. Municipal offices used to transfer land through tender (auction) and allotment (land lease transfer without auction). Bidders use the minimum lease price as a base to offer bid price. However,

as exception, city municipalities may give land by allotment to selected areas of paramount importance to society and for persons displaced from their house as a result of urban renewal. The advantage of allotment for investors and displaced households is the privilege to get land with the lowest benchmark lease price set by the government without competition. However, when there is a competing need for land among investors, municipal office transfer land through auction for investors.

Although the timing of transferring all land which are outside of the transaction is not yet decided, the land lease system applies to all landholdings which were held during the Derg regime and before. In addition, land held through informal means and old possessions are also liable to the land lease which can be applied when transferred to third parties, when old possession and newly leased land are merged, and when informal settlement land is being legalized. Leasehold right is also subject to any form of transaction including sale, lease/rent, inheritance, donation, mortgage, and as a capital contribution to a company. The federal lease proclamation has set 99 years expiry date for residential houses, 60 years for business activities and down to 5 years for small enterprise development though the regional states also set their own expiry dates. The lease system is by its nature a market-oriented land administration system which can generate revenues for urban infrastructure development.

C. Rural Land Administration and Use Proclamation

In accordance with the FDRE's constitutional provisions, the Rural Land Administration and Land Use Proclamation came in to effect with proclamation No. 456/2005. It has detailed provisions that enable to maintain the rights of rural citizens to lead their livelihood in a sustainable manner. As part of the land use right, the land policy allows rural households to legally lease their land, engage in sharecropping and lending of land for limited periods; although, buying, selling, and mortgage of land is prohibited. The proclamation gives land holding and use rights for all citizens including farmers, pastoralists who want to be engaged in agriculture free of charge. It also provides similar land use privileges for children who lost their family and women. The issue of gender has been given due attention by the policy which is applied through joint titling and certification. Regardless of the provision of equal land holding and use rights for all those want to engage in agriculture, the scarcity of land resource left many youth and adults landless. With regard to duration, the rural land use rights of rural households have no time limit. However, the federal rural land use and administration proclamation left the duration of rural land use right of other holders like investors to be determined by the respective regions. The revised land proclamation-imposed limitation on investors not to expand or change the purpose of the landholding and transferring the use right to the third party without getting a written permission from a pertinent agency. The revised proclamation gives improved opportunity for the residents to actively participate and freely decide on the land required for public service and should get the majority support.

From the review of these urban and rural land policies, the study team identified that the land lease policy has limitations in ensuring social equity because low income households do not have the financial capacity to acquire land through lease system. In addition, it has been found that the current land polices (both rural and urban contexts) have gaps in giving equal attention to the private business sectors with level of financial capacity and business preference. It favors private investors with high financial capitals and disfavors those with low or medium financial capitals. The key informant interview from FDRE Policy Study Institute supported this argument and suggested the lease policy to take in to account the capacity of growing enterprises to access leased land with fair price.

A study conducted by the World Bank in 2018 on the role of Addis Ababa City Administration in enhancing economic development and job creation showed that land allotment for manufacturing and services by the City Administration was effectively stopped in March 2015, and manufacturing firms are excluded from government land tenders. The minimum land lease bench mark price

privilege is availed only for development programs having national significance and this working modality is expected to discourage private sectors who are interested to work in manufacturing and service sector.

The data obtained through KIIs indicate that tenure security is under treat for those who live in and around major cities including Addis Ababa. Due to the consistent fear of expropriation of land for public development purpose and urban expansion they have sense of tenure insecurity. The other point of criticism of the lease policy is the uncertainty and unclear fate of land tenure after the end of the lease period. This is because the land lease proclamation does not state the fate of the land and assets developed on it after the expiry date except mentioning the possibility of lease renewal if the land will not be needed by the government for other purposes.

Despite the fact that the rural land administration and utilization allowed free access to land for any Ethiopian citizen whose age is above 18 and want to be engaged in agriculture sector, there are large numbers of landless youth in the rural Ethiopia because of the limited land resource.

D. Expropriation, Valuation and Compensation Proclamation

The expropriation of landholdings for public purposes and expropriation payment of compensation proclamation was ratified in 2005 with proclamation NO. 455 /2005. As a constitutionally granted right, it has come in to effect to protect farmers and pastoralists against arbitrary state eviction from their holdings when the land is needed by the government for purposes like investment, development projects and during upgrading of old urban settlements. For these reasons, the land that needs to be prepared for developers should be free from any dispute before transfer. In this respect, the evacuated land owners should be adequately consulted about the benefits of the development work. In the valuation process, frequent compliances arise from land right holders in both rural and urban areas of the country and leading to dispute and delay of development projects. The expropriation, valuation and compensation legislation emphasize the need to provide a compensation for evicted land right holders based in the current market prices.

The other major area of critics of the expropriation, valuation and compensation proclamation is its failure to consider location factor in the valuation process. Due to the fact that land is the property of the state, location has no value in urban areas and owners are being compensated only the “replacement cost” of buildings. On other hand, in rural areas, the problem of compensation is its inadequacy and does not reflect the market value, though it takes in to account the loss of agricultural land for an equivalent of the value of ten years production. However, the recently revised land expropriation and compensation proclamation Number 1161/2019 takes lessons from the previous drawbacks and gives privileges for property owners who relocate from their land for investment purpose to the extent to have shares from the investment project. In order to protect the rights of evacuator in a sustainable manner, the revised proclamation calls for the establishment of rehabilitation fund for relocated persons. This will enable relocated people to get fair and proportional replacement of land (Fortune Vol. 20 No.1012 September 22/2019). Since it is recently revised and yet not fully implemented, it is too early to evaluate the effectiveness of this proclamation.

E. Industrial Parks Development Program

Expansion of industrial parks has been undertaken by the government of Ethiopia to address the major constraints of accessing well-developed working premises faced by both domestic and foreign investors to increase their productivity and competitiveness. Accessing well developed land for the private business sector has been a critical problem in promoting investment in the country, indicates GTP II. Thus, the government has designed an Industrial Park Development Program with proclamation No. 886/2014 that aims to increase access to land for the private

sector. For the realization of the objectives of the industrial sector, the IPDC planned to develop 100,000 ha of land between 2016 and 2025 (NPC, 2015). Consequently, the total land size allocated by existing and planned industrial zones across Ethiopia accounts 9,117 ha.

The government allowed private sectors to involve in industrial park development. The 2019 Macro- economic handbook of Ethiopia indicate that 22 industrial parks are under development for manufacturing sector. So far, 8 of them are operational. A 2017 study conducted by FDRE Policy Study Institute stated that developing industrial parks by the private business sectors enables them to obtain loan from financial institutions by using the developed land as collateral. The Park developer, IP operator and enterprises are entitled to mortgage their developed land; and can transfer developed land through sublease with the permission of the board. The proclamation also gives freedom to the land developers to sell shares for joint venture. Moreover, the constitutional right gives power to regional governments to formulate industrial park regulations within their jurisdiction and implement accordingly as far as the regulation complies with the federal regulation. However, currently, the regions may not have the technical capacity to run the program by themselves.

The investment policy issued in 2012 under proclamation number 769/2012 has been implemented with the objectives to accelerate the country’s economic development through enhancing the role of the private sector in the economic development, creating employment opportunities and accelerating technology transfer. Based on the investment proclamation, land is one of the incentive areas provided for the private sector. In this regards, the municipality offices identified land and reserved in the land bank office to give the incentive as per the need.

F. Second Growth and Transformation Pan (GTP II)

Ethiopia has formulated and implemented consecutive national development plans, known as GTP I and II since 2010/11. From the land perspective, GTP II gave emphasis for the transformation of the agricultural sector through supporting domestic and foreign investors, development of smallholder crop and pastoral agriculture (NPC, 2015). GTP II sets to supply adequate land for the private business sectors to be engaged into agriculture and manufacturing sectors.

Table 7.1 : Summary of Policy and Legal Frameworks

Dimensions	Gaps	Interventions
Policy/ regulatory	<ul style="list-style-type: none"> • Lack of alternative land tenure system • Imbalance between auction and allocation methods of land transfer by city/town administrations • Uniformity of the lease proclamation regardless of the contexts of the cities all over the country • Lack of regular update of the compensation payment based on the market price • Favor of the policy for high income and economic groups 	<ul style="list-style-type: none"> • Considering the socio-economic and demographic context. • Looking for alternative land tenure options

Dimensions	Gaps	Interventions
Institutional	<ul style="list-style-type: none"> • Weak coordination among land, investment and infrastructure commission/agencies for land development • Lack of regular monitoring and supportive supervision by sectors on investment projects to tackle problems faced by investors • Limited supply of land for caution in the last two years in • Addis Ababa City government. • In efficiency of public land-based development projects • Poor land related documentation • Expansion of illegal settlement and informal land market in urban peripheries • Lack of transparency and accountability • Limitation in availing serviced land for investors/developers • Lack of comprehensive policy evaluation • Lack of clearly demarcated roles and responsibilities among land sectors and the investment commission 	<ul style="list-style-type: none"> • Improve the coordination among land sectors and infrastructural/utility sectors. • In place joint monitoring among sectors and private sectors • Ensure transparency and accountability mechanisms in the land sector • Allocate reasonable budget for infrastructural facilities • Motivate best performing land developer investors
Administrative	<ul style="list-style-type: none"> • In adequate political will and commitment to solve land related challenges • Delayed action in reclaiming undeveloped land and making land free from third party • Lack of information asymmetry • Bureaucratic red tape in land allocation and transfer • Prevalence of corruption 	<ul style="list-style-type: none"> • Provide detailed land information through printed and electronics media to the public and the private sector. • Establish lessons sharing platforms to share experiences among the land sector and the private business sector.

7.8.3. Strategic Problem Analysis

A. Land Supply and Demand Mismatch

In free market economy, land is governed by the forces of supply and demand. However, in the case of Ethiopia, the government is the sole supplier of land use rights to citizens with a set of rules and regulations. The rapidly growing population and the economic activity of Ethiopia put high pressure on land demand for housing/residence, investment, social services, urban agriculture, small scale enterprises, religious institutions, replacement for evacuated households and manufacturing purposes. The analyzed data signify that there is a high mismatch between supply and demand for land in the country particularly in Addis Ababa. The KII from Addis Ababa City Government Land Administration and Management Bureau attributed the limited supply of land in urban areas to shortage of capital to reinvest on land and apply vertical expansion, shortage of land by itself, topographic barrier and limited expansion to adjacent semi-urban areas/peripheries. The increasing number of condominium housing and land lease auction bid applicants of Addis Ababa city is major examples for the mismatch between land supply and demand. Annual reports of the MoUDC show that the land preparation and transfer performance was under the plan signifying mismatch between supply and demand. In terms of the proportion of land supply, 94% of the land transferred by the Addis Ababa City Land Administration and Management Bureau was allocated directly at the base price for activities and development seen to be of strategic importance to the to the development of the city (DFID, 2015 as cited

in Kognova and Zenebe, 2014). The high percentage of land allocation for high level investors seems that the sector disregarded the demands of the middle and lower level private sectors and restricts their opportunity for land.

Table 7.2 : Land Size Prepared for Purposes in Ethiopia from 2012/13-2017/18

Land Use Type	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Total	%
Housing (Cooperatives, real estate, condominium & replacement)	1,699.89	4,948.6	2,266.88	3012.47	5538.20	4974.72	22,440.76	22.05
Small and Micro Enterprises	1,097.34	1537.6	382.67	1,458.63	1132.59	2464.23	8,073.06	7.93
Social Services	575.22	3121.1	584.6	2,357.33	2059.20	2303.23	11,000.68	10.80
Infrastructure development	-	7.5	37.24	-	-	-	44.74	0.04
Temporary use	-	-	57.97	-	-	-	57.97	0.06
Investment and business	1173.44	6647.4	444.78	14,162.33	777.22	1146.37	24,351.54	23.92
Unidentified purpose	8822.12	6.38	5453.26	5,525.68	1948.66	2583.46	24,339.56	23.91
Industry	-	-	-	2,086.16	3020.14	4433.70	9,540	9.37
Industrial Parks Development	-	-	-	1913.34	-	-	1913.34	1.92
Total	13,368.01	16,268.6	9,227.40	30,515.94	14,476.01	17,905.71	101,761.65	100

Source: Compiled from MoUDC's GTP I and Annual Reports

The country level data compiled from MoUDC for the years 2010/11-2017/18 vividly showed that except in 2015/2016, the supply of land by municipality offices in Ethiopia for purposes has been irregular and decreased from 2010/11 to 2014/15 in the GTP I period. The largest share of land prepared in the first GTP period was for unidentified purpose which implies the lack appropriate documentation and data management. The purpose of this huge sum of land size should have been clearly indicated under the existing critical shortage of land and implies to ensure transparency mechanisms in the land sector. The land prepared for unidentified purpose, investment & business, housing and SME is accounts 30.16%, 27%, 16.40% and 10.4% respectively. The highest amount of land size was prepared in the year 2015/2016.

Table 7.3: Land Size Transferred to Land Developers in Hectare in Ethiopia (2010/11-2017/18)

Year	Land Transfer through Open Bid	Land Transfer through Allocation	Total
2010/11-2014/15 (GTP I Period)	11,235.20	39,858.02	51,093.22
2015/16	2,285.42	17,855.14	20,140.56
2016/17	1,040.90	8,038.54	9,079.44

Year	Land Transfer through Open Bid	Land Transfer through Allocation	Total
2017/18	730.27	8,485.80	9,218.30
Total	15,291.79 (17%)	74,237.5 (82.9%)	) 89,531.52

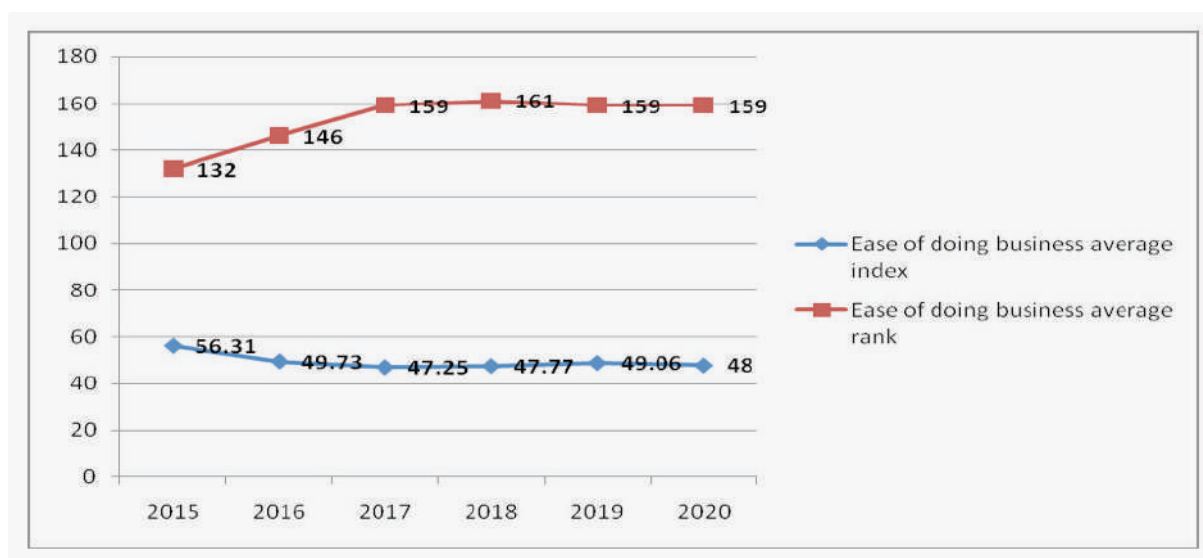
Source: Compiled from MoUDC's GTP I and Annual Reports

With regards to the land transferred through open bid, a total of 11,235.20 hectare of land was transferred for purposes during the GTP I period. The table above shows the size of land transferred for open bid in the mentioned periods has decreased and similar trend was observed with some variations on the land transferred through allocation. The overall performance indicates that the land transferred through open bid and allocation is 17% and 82.9%, respectively.

B. Access to land and Ease of Doing Business

Entry in to business and its expansion can be determined by access to land. The ease of doing business reports generated by the World Bank for countries affirmed this reality. Among the criteria that determine ease of doing business, three of them are directly related to access to land.

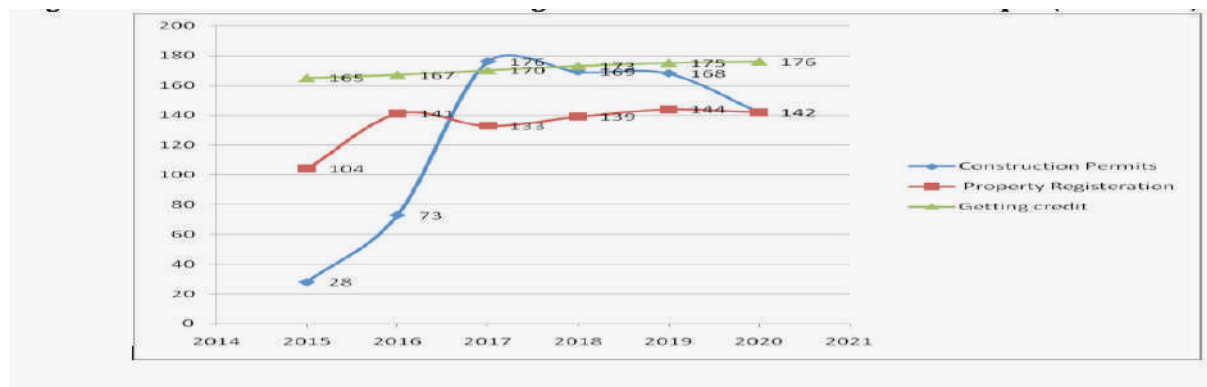
Figure 7.1 : Ease of Doing Business Index and Rank for Ethiopia (2015-2020)



Source: World Bank Ease of Doing Business Report for Ethiopia 2015-2020

As per the data compiled from the World Bank, ease of doing business becomes very difficult in Ethiopia. The trend of the average ease of doing business index showed that it has decreased over time and its rank going down.

Figure 7. 2: Land Related Ease of Doing Criteria Index and Rank for Ethiopia (2015-2020)



Source: World Bank Ease of doing business report for Ethiopia 2015-2020

With regards to the specific indicators directly related to access to land, the construction permit has shown improvement and the difficulty of registering property remains high and constant. On the other hand, getting loan by using land and property as a collateral become increasingly difficult in the years from 2016 to 2020 with the maximum rank of 176th among the 190 countries in 2020. Despite the overall auction-based land supply has shown a declining trend in many of urban centers during the GTP II implementation period; however, the government had planned to achieve the following land sector results.

- To survey, map and register 28.6 million parcels of land owned by 7.2 million rural households into the cadastral system.
- To transfer a total of 671,800 ha of a large tract of land national and foreign investors for agricultural investment purpose.
- To bring 1.6 million parcels into urban cadastral system and to transfer 62,000 ha of land to private sector through tender and allotment (NPC, 2015).

C. Affordability of Land Price

Socio-economic, geographic, demographic, legal, policy, administrative and institutional factors are contributing for high land price in major urban centers of the country. Compounded with these factors, the introduction of the lease system has created high competition for land and led to steady increase of land price to the extent that lower- and middle-income citizens as well as growing small and micro enterprises could not afford land for residential and business purposes. The policy review and existing literatures revealed that access to land is a function of many inter-related social, economic, demographic, legal, institutional and political factors which affect both the supply and demand side of access to land. From legal point of view, the existing land and related policies allow land use rights for both rural and urban residents. However, the implementation mechanism restricted the practicality of access to land for the private business sector. Based on the existing land policies, the main land acquisition mechanisms are free hold, lease hold, public allotment and rent from private sources. The supply of land from the government and the demand of the growing population and the economy are not balanced. This situation has created high land demand in rural and urban areas and hence the rising land price affecting access to land.

After the introduction of the 2011 revised lease policy, the main urban land acquisition mechanism is leasehold which can be transferred through allotment and auction. The information obtained from the MoUDC shows by end of 2018, a total of 1000 towns have implemented the lease policy. Addis Ababa City Administration is fully implementing the land lease policy; and freehold and

allotment are not allowed for the ordinary citizens. On the contrary, the city administration also provides lease land by allotment for investors labeled to have national development significance, real estate developers, five- star hotels, education and research institutions and manufacturing industries as per the investment directives of the country. As indicated in the land lease policy, the basic objective of land lease policy is to speed up the urban development and improving the social and economic transformation of the residents with improved transparency and accountability. It is intended to optimize urban development without affecting the development process. A key informant from FDRE Policy Study Institute indicated that the absence of clear land use plan is affecting the land supply and demand equilibrium in Ethiopia. Urban areas are expanding to the nearby agricultural lands haphazardly without sufficient study and road map. This has resulted failure for many of the investment programs. The agricultural investments were provided without sufficiently assessing which land is suitable for which type of agricultural production.

Table 7.4 : Average Land Lease Benchmark price in 2016

Regions/city Administrations	Land Use Type			
	Residential	Organization	Mixed	Urban Agriculture
Tigray	217.60	311.12	-	8.06
Amhara	132.50	343.81	275.00	15.00
Oromia	345.14	976.01	-	-
SNNP	92.50	324.33	-	-
Dire Dawa	211.32	1648.82	211.32	-
Addis Ababa	199.00	217.00	199.00	-

Source: MOUDC, 2016: Land Lease Benchmarking Price of Regions

Based on the benchmarking lease price put in place by regions and city administrations in 2016, the highest benchmark lease price for residential purpose was observed in Oromia regional state and Dire Dawa City Administration attained the highest price for organization focused land provisions, while Amhara region attained larger benchmark price for mixed use land purpose.

Table 7.5: Comparison of Benchmark Lease Price and Average Land Lease Bid Price

Regions	Land use type	Average land lease benchmark price per m2	Average land lease bid price per m2	Difference %
Tigray	Residential	217.6	835.53	283.97
	Organization	311.12	1292.68	315.49
	Urban Agriculture	8.06	26.94	234.24
SNNP	Residential	92.5	1545.15	1570.43
	Organization	324.33	3654.38	1026.74
Amhara	Residential	132.5	828.71	525.44
	Organization	343.81	3654.38	1026.74
	Mixed use	275	1242.5	351.81
	Urban Agriculture	15	15.10	0.66

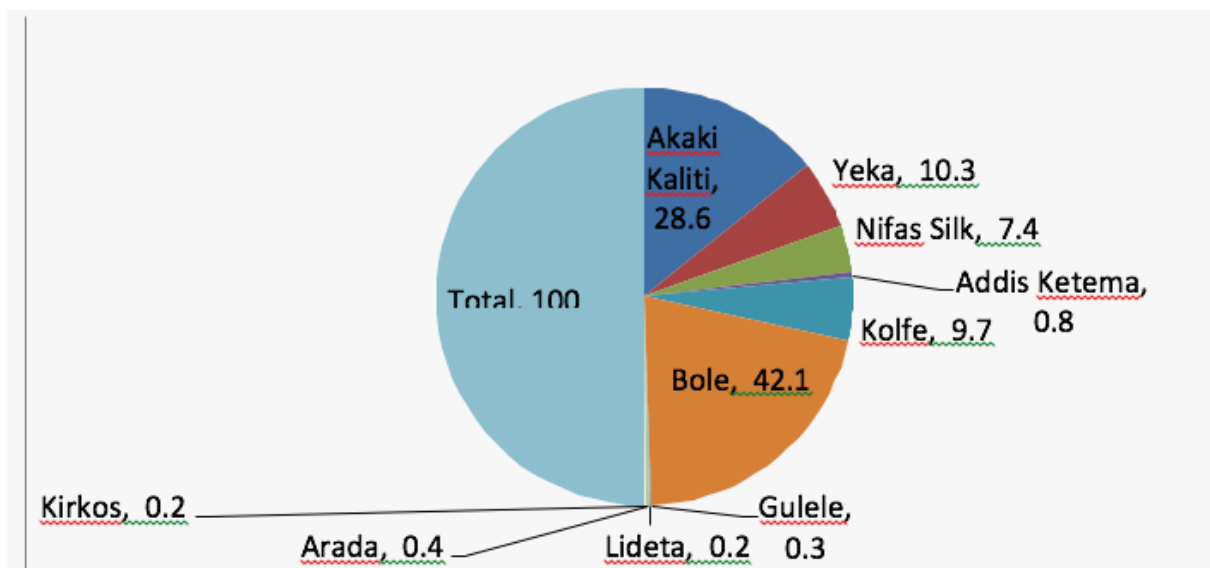
Regions	Land use type	Average land lease benchmark price per m2	Average land lease bid price per m2	Difference %
Oromia	Residential	345.14	2920.43	746.15
	Organization	976.01	5844.78	498.84
Dire Dawa	Residential	211.32	3788	1692.54
	Organization	1648.83	8110.61	391.90
	Mixed	211.32	2617.5	1138.64
Addis Ababa	Residential	199	20933	10419.09
	Organization	217	33326	15257.6
	Mixed	199	32250	16,106.03

Source: FDRE MoUDC, 2016 Annual Report

Within the existing policies of the country, access to land can be determined by land price and affordable capacity of citizens and institutions including the private sector. The land rental market may deter the involvement of the private sector in the economy and erode competitiveness, though, some key informants do not agree on this because of their stance that the main effect of escalating land price affects more the lower income people than the business sector. The key informant interviewee from FSS explained that affordability of land is a relative term which is subject to the financial capacity of those who demand land. The affordability of land for the private sector is controversial and subject to for whom it is affordable. As a factor of production, the increase in land price has impacts on the price of products and services which in turn impose escalating price and inflation on the final users that is the larger community. The KII from real estate developers revealed the financial capacities of domestic and private investors to afford for land. But, the key informant from FDRE Policy Study Institute stressed that the escalating land lease price is not a sign of healthy development as it may result in market failure and add business costs. The interviewee attributed to the presence of influential market brokers who want to monopolize the market behind the escalating price. The interviewee assumes this trend may hinder enterprises to invest.

This study also investigated the supply and affordability of land in Addis Ababa based on the land transferred data to bidders from 5 to 29 bid rounds. The price of land and the property developed on it can be determined by the location and infrastructural factors. The KII from the Addis Ababa City Administration and Yeka sub-city Land Administration and Management Bureaus indicated that location is one of the determinant factors for setting prices for bidders. Data was analyzed for a total of 3,593 plots of land which were transferred to winners for purposes through auction. The overall observation indicates that the bid year/round, land plot location, purpose of the plot and land grade determines the price of land. Addis Ababa's position as a social, economic, cultural and political center of the country puts it against the growing urban population and the growing economy resulting in high demand on land. Unlike other regional cities, land supply and demand mismatch remained to be high in the city with escalating land price.

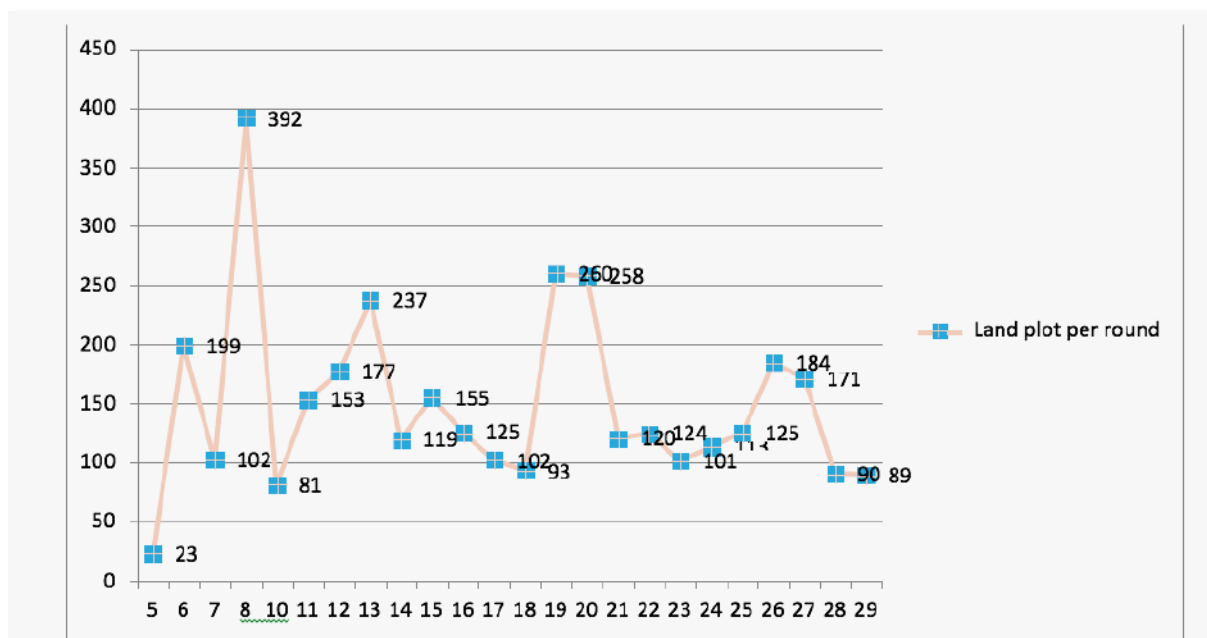
Figure 7.3 : Number of Leased Land Plots by Sub-City in Addis Ababa



Source: Addis Ababa City Government Land Administration and Management Bureau, 2019

The above figure shows the highest number of land were in Bole and Akaki Kality sub-cities which account 42.1% and 28.6%, respectively. On the contrary, few plots of land were auctioned for Kirkos, Lideta, Gulele, Arada and Addis Ketema sub-cities in the entire auction period.

Figure 7.4: Distribution of Plots over bid Round in Addis Ababa

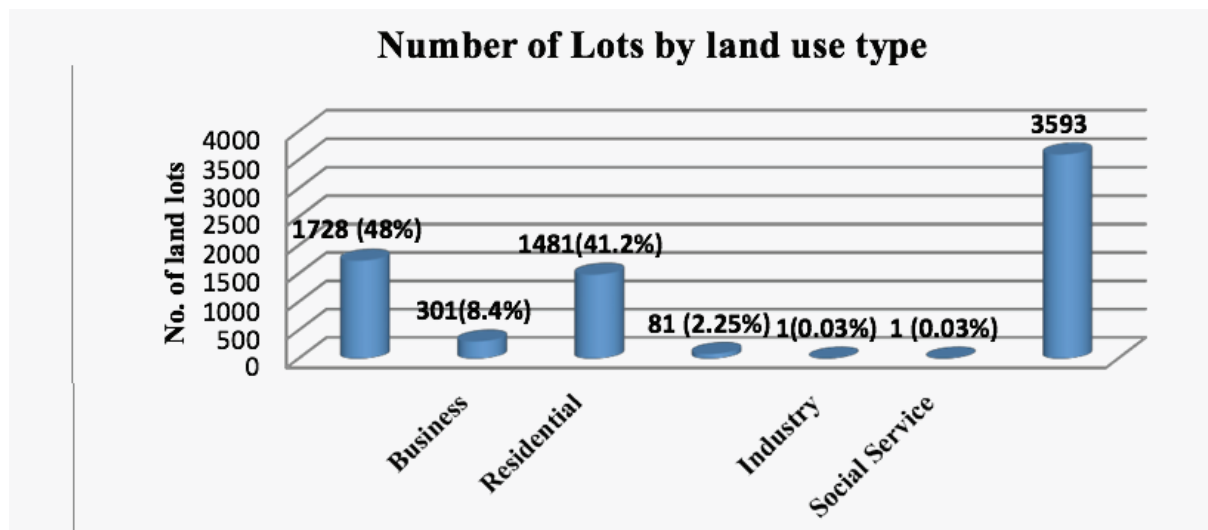


Source: Addis Ababa City Land Administration and Management Bureau, 2019

The figure which shows the number of plots auctioned in the 29 bid rounds indicates a greater number of land were auctioned by the Addis Ababa City Land Administration and Management Bureau in the 8th, 13th, 19th and the 20th rounds. The trend after bid 13 was highly irregular depicting inconsistent land supply over time and a declining trend after the 26-lease round. The

quantitative data was triangulated by the information obtained from the KII and confirmed that the land supply for auction has decreased while the land lease auction was stopped at the 29 round in 2016. According to the KII the move has been attributed to the issues of free land from third party and shortage of land in the expansion area surrounding Oromia region. Whereas the ceasing may have a potential challenge to escalate the price of land in the formal and informal land market.

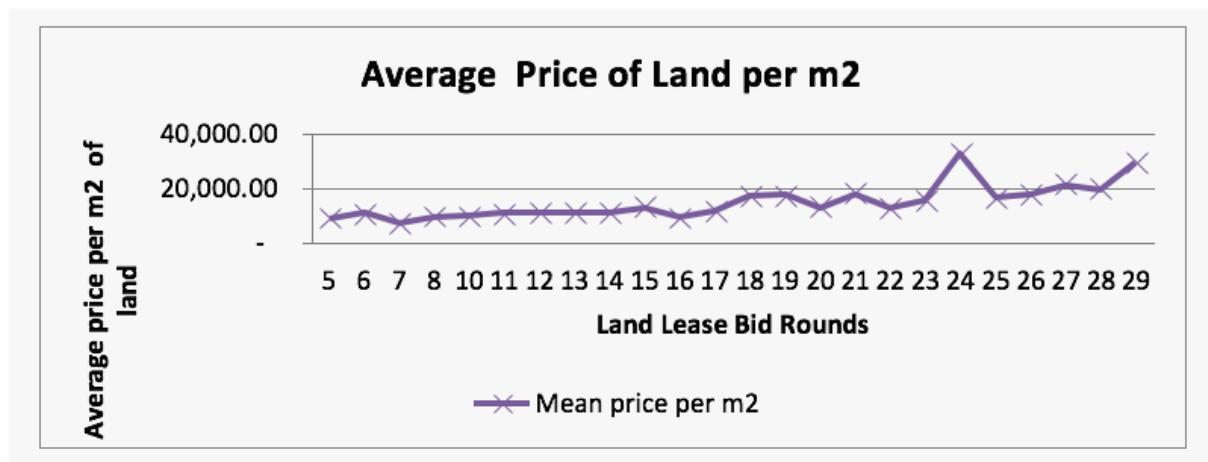
Figure 7. 5: Average Price per Plot Area by Land Use Type



Source: Addis Ababa City Land Administration and Management Bureau, 2019

The figure above shows the maximum land price per square meter area of land was offered for the land intended for business purpose. In this case, a maximum price of 355,500 birr was offered for 1-square meter land which is the highest in all bid rounds. The average lowest land price was offered for apartment land use which was 7072.29 birr per square meter. The highest numbers of land lots were auctioned for mixed purpose (49.25%) and on the other hand, plots of land auctioned for residential purpose accounts 42% which is the second next to mixed purpose.

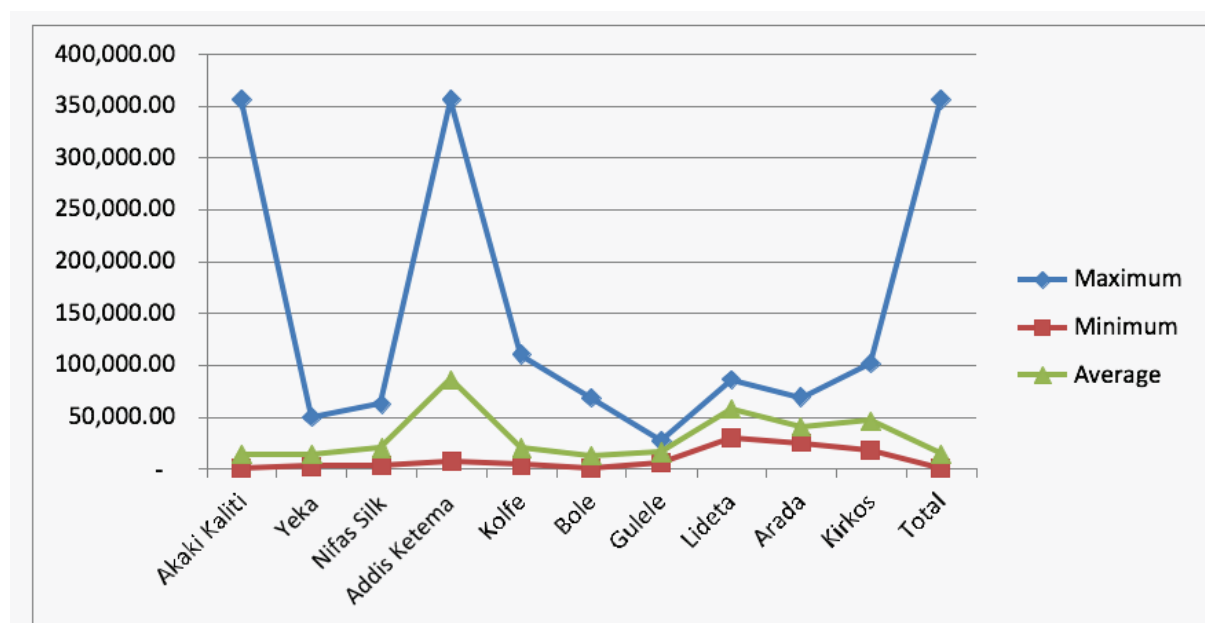
Figure 7.6 : Average Price of Land per m2 Over Bids in Addis Ababa



Source: Addis Ababa City Land Administration and Management Bureau, 2019

As evidenced from the graph above, the average price of land in the 29th round land lease auctions have shown increment over time though there have been some hurdles. The maximum price was recorded in the 24th round lease auction and after the down ward movement of price in the 25th round, the price rose again until the 29th round. This implies that the increasing price of land is expected to impose challenges on the purchasing power of the urban residents and affect the business operation. This is because of the fact that the rise in land price has direct implication on business transaction costs which should be reflected on the supply of goods and services.

Figure 7.7 : Average Price of Land per Plot by Sub-City



Source: Addis Ababa City Land Administration and Management Bureau, 2019

The price of land by location factor indicated that the highest average land price was offered for the land plots auctioned in Addis Ketema, Lideta, Kirkos and Arada inner sub-cities respectively. This might be due to the location of the sub-cities and their associated proximities to major social, economic and cultural services and infrastructures. The KII from the City Land Administration and Management Bureau also confirmed the high price increment per square meter of land have been observed in inner cities and growth corridor areas having potential to grow across the sub-cities. This implies that the demand for land is increasing from time to time. Hence, the city administration generated income from the sale of land in the form of down payment ranging from 10% to a maximum of 50% as per the lease regulation. Therefore, the high land lease price in Addis Ababa city administration leads to the emergence of artificial and sky rocketed land price per square meter.

In order to have efficient land preparation, the MoUDC prepared cost estimation index and analysis for land preparation every year. The land preparation cost estimation considers the CSA inflation rate indicated for non-food items. Therefore, the MoUDC takes in to account average expropriation, grid road, block road, water pipe line installation, and electricity and telecommunication infrastructures to determine the land cost estimation index during setting lease price benchmarks. Concerning to the revision of the land lease benchmark price, KII from concerned sectors explained that the benchmark land lease price was not revised for more than two years. The land lease policy ascribed the need to revise the benchmark lease price.

In terms of efficient and optimal utilization of land, from the total land area allocated for industrial zone development, only 26% of the land was fully developed and utilized for the intended purpose in the GTP I period. This implies that there were gaps by executive bodies in efficiently utilizing the limited land resource for national economic development (MoUDC, 2015). In 2017/2018 FY the performances of land preparation by municipality offices in the country was 59.7% from the planned target. The AACCSA study conducted in 2016 confirmed that access to land has been a serious challenge for the private business mainly due to soaring land lease cost. Nonetheless, the urban land lease price kept soaring over time due to limited supply of land that doesn't match the rising demand, unfair government policy in land allocation priority setting (gives more priority to those financially powerful, the Diaspora and foreigners), corruption in land sector, low financial capacity of the business community, the speculative role of illegal brokers, inordinate competition based on poor information and awareness as well as lack of clear strategy to regulate the rising prices.

D. Inefficient Land Utilization

In efficient land utilization has been observed both on the government and the private business sectors. The prevailing lack of good governance, corruption, lack of infrastructures, improper planning and allocation leads to inefficient utilization of land and reduce the economic contribution of land to the national economy. Land lessee has the full obligation to develop transferred land within the agreed time as set out in the 2011 Land Lease Proclamation. The lease policy clearly outlined the construction completion period of the transferred land which is a minimum of 24 months and a maximum of 48 months and failure of lessee to confirm this and misuse of the investment land result measures to the extent of re-claiming the land. Evidence showed that inefficient development of land has been observed in many parts of the country. Benishangul Gumuz regional state canceled the agricultural investment permit of 102 investors and reclaimed 56,000 hectares of land to the land bank from the total 350,000 hectare of land which was transferred for 651 investors. In the region, a total of 127 investors took 1.9- billion-birr loan from banks for agricultural investment after the investment land collateral (Addis Zemen Newspaper, 29 September 2019). Similarly, in 2018 the Addis Ababa City Administration cancelled the investment permit of 154 investors – some of these lands left idle for more than ten years were in the inner city.

The poor coordination among investment permit commission, the land administration and management bureaus and loan provider financial institutions is also one of the institutional and administrative problems of the sector. Financial institutions have been criticized for their sole concern on the return of the loan disregarding the efficient development of the land. In addition, KIIs from Addis Ababa City Administration Investment Bureau and FDRE Policy Study Institute indicated that the main reasons for under development of land transferred to the private business are poor screening procedure while assessing the feasibility of investment proposals, blazing demand for land, shortage of infrastructure in some areas, lack of experience, weak coordination and monitoring by the concerned government agency and lack of political commitment by the executive bodies, private sectors manner to get loan using land as collateral, renting for third party, policy gaps, delay of land evacuation, weak implementation capacity and shortage of capital by private business sectors.

E. Lack of Land Information Asymmetry

Access to reliable and timely land information for citizens and the private business sectors promotes transparency and accountability in land transactions and can also have potential contributions to ease the soaring land market. The shortage of land information could pave the way for brokers to increase the price of land which is being practically applied in the country. Communities including the business sector need to have sufficient access to information related to land for evidence-based decision. In this regards, Asian NGOs Coalition has good experience in promoting land related information to the community (ANGOC, 2012).

F. Demographic Dynamics and Landlessness

Landlessness is pervasive in rural Ethiopia and the number of landless youth is alarmingly increasing which is assumed to be partly contributed by the increasing population. Based on the population estimation of CSA, the population of Ethiopia in 2017 was projected to be 94.3 million. In the Northern part of the country, the last land distribution was conducted in 1997 and those youths below 18 year by then are now landless; unless they joined to the skilled labor force through education. Though, there is no reliable data about the number of landless people in the country, it is expected to be high; taking in to account the increasing population and the limited land resource. Landlessness has social and environmental problems (FSS, 2016). Efforts have been made by the government to engage landless youth in on farm activities on communal and rehabilitated lands. However, because of the magnitude of the problem, the issue of landlessness still continued as a critical social, economic and political problem felt at individual, household and national level.

G. Unfair Expropriation, Valuation and Compensation Practices

Stated in the FDRE Constitution Article 40, the state is responsible to protect arbitrary eviction of land use right holders from their land. In accordance with this constitutional provision, expropriation, valuation and compensation law was ratified for practical implementation when land is demanded for development purpose. Assessing the influence of unfair valuation and compensation on access to land for the private sector many development projects become either delayed or failed to be effective and sustainable because of the problem associated with compensations. The KIIs stated one of the main reasons for the shortage of land supply in Addis Ababa as disputes arising from compensation with land use right holders that followed by difficulty to make the land free from third party. In this aspect, all the contacted KIIs confirmed that the government compensation payments for land evacuator both in rural and urban areas were not fair and insufficient to sustain their livelihood. It has been perceived that the government is making profit on the evacuator's land while selling with competitive lease bid price. Under this condition, farmers living in the urban expansion areas were strongly incentivized to sell their land with the informal market because it offers substantially higher value than government compensation.

Lack of participation, inadequate and inappropriate valuation and compensation payments, lacks uniformity across regions/city administrations, exclusion of location factor, low integration of evicted households to the development programs, inordinate delays, arbitrary compensation without considering current market value and lack of certified and professional values and their corrupt practices, limited attention given to the livelihood recovery, rehabilitation and development, failure to recognize the difference between urban and rural livelihoods like the same size fits to all, lack of transparency and accountability, lack of independent judicial system and no attention given to social, psychological impacts of evacuation and lack of comprehensive data on evacuator are also some of the challenges in the expropriation, valuation and compensation process. As a result, compensation payment does not satisfy the interest of land holders and right users and has a long run negative impact on tenure security and economic development.

The horizontal urban expansion is affecting the livelihood of farmers on peri-urban area. In one way or the other, the redevelopment project in the inner city and resettlement in the urban outskirts has displaced farmers and exposed to critical socioeconomic problems, such as intensified poverty and problems by making people landless, homeless and jobless. Financial compensation alone may not change the lives of evicted farmers unless they transform to productive asset. A KII from Addis Ababa City Administration Farmers and Urban Agriculture Commission stated circumstances by which farmers were left without any asset for lacking knowledge and skills to generate sustainable income from the compensation.

H. Lack of Good Governance in the Land Sector

Governance in land is concerned about the rules, processes and structures through which decisions are made about access to land and its use, the manner in which the decisions are implemented and enforced, and the way that competing interests in land are managed. Transparency, participation, accountability, adherence of rule of law, decentralized system of governance, security of tenure, sustainability,

efficiency and effectiveness are the main principles of good governance (David P. et.al, 2009). Taking in to account the problem of governance in the urban centers for the growing population, Ethiopia has been implementing Urban Local Governance Development program since 2008 at phases with the financial support of the WB. The main objective of the development program was to support improved performance in the planning, delivery, and sustained provision of priority municipal services and infrastructure by urban local governments across the country. The program targeted 117 cities having a population over 20,000 residents. The evaluation result of the program revealed that its efficiency was rated as high in improving urban infrastructures and enhancing the planning and implementation capacities of municipality offices in the target cities (WB, 2018).

The strategic problems related to good governance in the land sector were identified by considering the level of application of the principles of good governance in the land sector so as to enhance the private business sectors' access to land resources. Consequently, the study assessed the problem at level of administration, urban versus rural dynamics, domestic and foreign investors, the financial capacity of the private investors and types of investments. Land allocation decisions have been taking a long time, with some firms waiting up to three years. The inconvenient bureaucracy at the Addis Ababa City Administration was identified as the major bottleneck for access to land and business operation. While this process had been devised to alleviate land mismanagement, it has caused long delays due to the cabinet's infrequent meetings. These delays in allotment were also blamed by firms for distorting land prices in the tender, rental, and purchase markets due to a more restricted supply, leading to the price hikes (WB, 2018).

In the case of rural versus urban context, the issue of good governance is more sensitive in urban than in the rural context. The land governance system is more ineffective and irresponsive in urban areas than the rural counterpart. Some KIIs reason out this challenge to the higher value of urban land than rural land.

It has been identified that domestic investors face more challenges of good governance in the land sector than foreign investors. KIIs from the private and public industrial parks at Eastern and Bole Lemi Industrial Parks revealed that the land governance is more ineffective and irresponsive for domestic investors than foreign investors. Both the technical staff and government officials operating in the land development and management system have the tendency to give less attention to the issues of domestic investors compared to foreigners. As per the information obtained from the KIIs contacted in the selected banks, institutions have a feeling of higher confidence on foreign investors which might be due to their financial and technological capacity in developing and investing the land they received from the government. Triggered by this perception, private business sectors with low or medium financial capacity suffer more from lack of good governance in the land sector. Similarly, the response of the land governance to the service and manufacturing and service sectors is not welcoming in Addis Ababa city because of the government priority for other sectors like industry (WB, 2018). For this reason, those investors planning to engage in service and manufacturing sectors could not have access to land in the city.

Generally, governance in the land sector is characterized by lack of secured, accurate, up-to date, modern and efficient land registration and information systems and its related data affecting mainly land and property transactions, collecting revenue and further consequences in delaying land and property transactions and distortion of urban land and property market.

I. Corruption in the Land Sector

In principle, urban land transaction and allocation should center transparency and accountability. However, the reality revealed rampant corruption in the land sector all over the country and a critical challenge to enter in to and operate business, despite the variation in its extent and approach from region to region and among large, medium and small cities and towns (WB, 2012). A study conducted by the WB in Addis Ababa on enhancing business and job creation in 2018 boldly marked as 55% of the sampled firms' representatives perceived giving bribe to official as mandatory to get construction permit. Most corrupt activities in the land sector occurs at the implementation stage and reflected with capture of assets by the elite and senior officials by taking advantage of weak policy and legal frameworks, institutionalization of informal fees and fraudulent actions of officials to allocate land to themselves in both urban and rural areas and to housing associations and developers in urban areas. The corruption practices in Addis Ababa have seriously undermined the enforcement of land use plans, lease conditions and building and construction codes in urban areas (WB, 2012).

This study observed that reducing corrupt practice is one of the main targets of the land sector reform. However, the existing systems and structures still could not address the issue. In this regards, some KIs believe that the restricted land access through government tender, private rental, or purchase and the resulting escalating cost and its influence on firms' profitability opens avenues for corruption. Other

KIs also explained that though the land sector officials, experts and brokers in the middle are the main actors of corruption in the land sector, private sector are also responsible for the rampant corruption practice in the sector.

The WB sponsored study in 2018 recommended to institutionalize more flexible system for accessing land in Addis Ababa to reduce corruption. Speculators then retain the land for some time and resell use rights at higher prices, further boosting land prices. Moreover, literature reviewed for this study suggested the necessity to overcome the major challenges related to corruption in the land sector through the application of transparent and stable land market system. The open bid process, the supply of land for auction with predictable time period and transparency as well as accountability ensuring working procedures in the bid and land transfer process are key issues to be considered to ensure consistent supply of land. The effect of corruption in the land sector is not only limited to the economy and revenue of the municipalities. Instead, it restricts the equitable access of citizens and private business sectors to land and in turn discourages entry in to and operation of business activities. This serious problem requires the joint actions of the government, the community and the private business sector with systematized manner.

J. Land Related Dispute

The disputes over land resource become an increasing tension in Ethiopia and elsewhere in developing countries. Zafu in 2016 indicated that overall scenario in the country showed that more than 50% (in some areas up to 70%) of civil cases in Woreda courts are associated to land dispute. A KI from Addis Ababa City Administration Evicted Urban Dwellers' and Framers' Resettlement and Rehabilitation Commission explained that the conflict over land became more severe and frequent than ever in Addis Ababa and its surrounding area due to the growing demand for land, lack of good governance, rampant corruption, complex relationship between government officials and private investors, lack of accountability and transparency and poor land development and management system. Unfair expropriation, valuation and compensation payment potentially leads to conflict and destruction of investments as it has been observed in many parts of the country since 2014. People have an emotional attachment with their land. A key informant from the FDRE Policy Study Institute supported this idea explained that behind a certain land there is someone who depends on the land resource, though the land seems vacant. Hence, losing the

economic and psychological benefits of land without fair compensation may cause conflict and dispute. Yet the rural land registration has believed to reduce land related disputes in the rural community.

K. Valuation Related Problems

Lease price and compensation determination is based on valuation of serviced land and properties. It requires a mix of expertise and required to take in to account the market price, the location factor and land development costs. However, the land valuation system in Ethiopia is not well developed and constrained with lack of valuation system and lack of well-trained professionals. In both the urban and rural land regulations, the valuation of property is carried out by a committee. Public land, an agricultural investment land, is transferred to investors with a predetermined rental payment per hectare, which is very small as compared to other countries. Urban land is transferred by government to investors based on advertised lease prices above the predetermined bench mark prices. This implies that bench mark price of urban land varies from location to location which in turn will vary during tender (Zafu, 2016).

L. Land related Social Inequality

Community members like orphans and vulnerable children, women, people living with HIV/AIDS and persons with disabilities have been widely excluded. The Rural Land Use and Administration Proclamation of Ethiopia and the respective regions target to ensure equity among community members with prior focus for women, orphans and vulnerable children. The right based development approach in land and property rights put pressure from the international community and countries have taken actions to integrate the rights of these community members to have full right on access to land. The joint titling actions have been undertaken to ensure women's equal right to land through the rural land registration and certification program. The inclusion of various sections of the society was considered as a key indicator to ensure the social equity in the land sector.

7.9. Best Practices in the Land Sector

To draw experiences and lessons on better access to land this study selected three case countries; Malawi, Thailand and Chile from Sub-Saharan Africa, Asia and South America, respectively. Thailand and Chile have been recognized by the UN Habitat and GIZ for their good practices in ensuring tenure security. The best experiences are assessed from legal/policy, land administration and management, inclusion of disadvantaged social groups as well as tenure security practices points of view.

A. Experiences of Malawi on Access to Land

Malawi's land legislation policy dates primarily from the post-independence era since 1965 and then policies were formulated. However, a comprehensive national land policy was formulated in 2002 with the goal of ensuring tenure security and equitable access to land and facilitating the attainment of social harmony and broad-based social and economic development through ensuring tenure security with modern land registration system and land use planning strategies; and equitable access to land to all citizens without any gender bias or discrimination. Under this policy non-citizens are no longer allowed to acquiring land title to any new freehold lands and non-citizens and foreign companies (excluding those already have possession of freehold) are permitted to lease land from the government or directly from private landowners for investment purposes. Foreign investors interested in freehold land for investment purposes are encouraged to form partnerships and/or joint ventures with Malawians. The national responsible government machinery for the implementation and monitoring of the national land policy is the

country's Ministry of Lands, Housing and Urban Development. Their district level decentralized administrations have the power to accomplish valuation, taxation, surveying and enforcement of leasehold contracts.

Malawi recognized three categories of land tenure such as public, private and customary land tenures with freehold, leasehold, and customary tenure types. The policy obliges all these tenure systems to be registered by the concerned government body and all the types of tenure are subject to lease for a period ranging from 22 to 99 year. Private and customary land can be held in freehold tenure with rights of exclusivity, use, and alienation. Formal leases of customary land result in the conversion of customary land to public land because by the end of lease period the land reverts back to the government. The national land policy also gives due emphasis for the application of land use planning and registration to all rural and urban land. With regards to the inclusiveness of the land policy, it strongly supports gender sensitive land access and calls for changes in inheritance law to allow the remaining spouse, children and especially orphans to inherit the property of their parents even when the deceased parent or parents die without a will. The other good experience is the implementation of the Community-Based Rural Land Development Project (CBRLDP), where land-poor people are to be resettled on land acquired from estate that are willing to sell the land and where land is poorly utilized. In the 2002 land policy, Malawi individualized customary land rights in response to the growing land pressures and the evolution of customary land ownership towards stronger individualized rights.

In general, land ownership is vested in the constitution and the national land policy gives all citizens the right to have access to land in equitable and gender sensitive manner for vulnerable members of the community including children and persons with disabilities. All types of tenures are subject to leasehold with lease period depending on the type of investments.

B. Experiences of Thailand on Access to Land

Thailand's land tenure system has never been under direct pressure from colonial powers and has developed largely endogenously. The country's land tenure systems are divided into private land and public land rights implying that land tenure in Thailand is both the state and privately owned. State or public land is controlled by the government and can also be titled. Private tenure is applicable in both rural and urban areas; the right holders within this system have title deeds. Within the private system, full individual or corporate ownership and possession rights can be granted. Ownership means exclusive rights; for land possession a person is only allowed to use and manage the land, but not to sell it. Within the private tenure system, kinds of title deeds exist. Foreigners in Thailand are prohibited from purchasing land by law, except for investment either independently or with joint ventures with domestic partners. Over the years, policy approaches have been launched to improve tenure security. The enabling policy environments have contributed for a relatively high level of tenure security in urban and rural areas despite some challenges with indigenous tenure (titling) and land administration. Several large-scale programs have been initiated through which land poor and landless rural dwellers received land and which emphasized gender issues; the Thailand titling Program increased land productivity; an urban-based collective housing program that tried to improve tenure security in former informal settlements and to provide basic land-related services for the poor.

Improved tenure security is one of the strengths of the land sector of Thailand. Formal land title deeds with cadastral map are available in both the private and public spheres, and there are several types of land title certificates for private land. In addition, the public land certificate has been issued in order to identify and preserve land for public and state purposes, but also to distinguish between public and private land. Since the 1980s, Thailand has developed a world-class land titling system with two procedures and a two-day turnaround. Providing certificates for public land is common in Thailand. The country is applying decentralized system of land administration which enhances the participation of the community in local

governance. A one stop service facilitates an easy land registration process that has only a few steps and offers fast and efficient services. There are fewer land disputes and land registration is recognized as being one of the most efficient in the world. Private land tenure and public land tenure are certified with formal documents. Thailand intensively applied modern cadastral and land registration system to ensure efficiency of land tenure registration and certification.

Community upgrading program has been undertaken in Thailand to access urban residents with low cost housing by using public land and to regularize their land rights under long term land lease contracts to their community cooperatives, as part of projects designed to upgrade their houses, infrastructure and living environments. This intervention has contributed for transforming informal squatting settlements into developed land and able to generate modest rental income. Despite the fact that an efficient land administration greatly facilitates land markets and access for business purposes, but this may further increase the gap between the poor and the rich if there is no active policy intervention. The open land market and the efficient land administration could therefore become a threat to social stability. However, in general, Thailand has good practice in improved tenure security through registration of both public and private lands. The implementation of agricultural development programs to access the unemployed youth is also the other lesson from Thailand.

C. Experiences of Chile on Access to Land

In Chile, the current land tenure is the result of the colonial history, the major political changes and agrarian reforms undergone in the country for centuries. The major tenure systems are private owners with which land holders enjoy superior rights according to the law. Agricultural land and productive forest privately owned. Lease holding is also part of the tenure system and is mainly based on fixed year re arrangements. A collective ownership system is also in place for the lands belonging to indigen communities. Collective indigenous land cannot be sold or rented and is only to be used by indigen people. Informal tenure systems are found mainly in peri-urban areas.

Gov ernment-owned land is classified as state land. This land can be leased out to individuals, corporati and organizations depending on the project and use of the land. In terms of tenure security, a lot has b achieved to improve tenure security in Chile and a modern/electronic based, secure land registration syste in place. However, a lot still needs to be done to recognize informal tenure systems and to get the participa of indigenous communities. Based on UN Habitat's assessment, compared with many other countr however, the level of tenure security is high. The efficient and effective land registration system results v secured land title registration. The internet and the integrated digital databases make a major contributio good land governance because they increase the transparency of the system substantially and enable it to w more efficiently. Financial resources for land legislation reforms and tenure issues are availed by government adequately.

On-going reforms, modernization or improvement projects are all currently being used to improve efficiency, effectiveness and coverage of the system. Examples include the registry reform project and property regularization campaign that were initiated by a strong willingness for change by the government the registrars; both parties have demonstrated their willingness to change and improve their systems methods. The registrars have adopted a leadership role in reform and improvement projects, which, fro land governance perspective, is crucial.

Table 7.6 : Summary of Best Practices

Criteria	Best Practices of the selected countries		
	Malawi	Chile	Thailand
Land Tenure system 4000	<ul style="list-style-type: none"> ○ Public, private and customary land tenures ○ The right to land for vulnerable community members (Gender, disability, HIV/AIDS and land less youth) is boldly indicated in the land reform 	<ul style="list-style-type: none"> • Public, private and customary land tenures • Modern and secure land registration system is in place 	<ul style="list-style-type: none"> • Land is under public and private ownership (40% of the land is owned privately) • Most efficient registration systems applied with cadastral maps • Implementing housing program for the poor since 2003 • Legalization of land titles for both private and public land • Regulation of community land titles • A land bank for low-income people and small-scale farmers established by the government
Land Acquisition Mechanisms 3500	<ul style="list-style-type: none"> • The government allocates land for landless youth and population from public lands. • The alternative land tenure system created better access to land for firms 	<ul style="list-style-type: none"> • Inheritance based on effective utilization 	<ul style="list-style-type: none"> • Lease system from 30 to 50 years is applicable for both public and privately-owned land. • Share cropping arrangement • Land allocation and re-distribution by the government
Land Administration 3000	<ul style="list-style-type: none"> • Village level decentralized land administration system 	<ul style="list-style-type: none"> • Though, Chile is a unitary state, regional governments and municipality offices have roles in land administration and management 	<ul style="list-style-type: none"> • Decentralized land administration system
Good Governance 2500 1728 (48%)	<ul style="list-style-type: none"> • ○ Land registrations and certification have been undertaken for both rural and urban lands 	<ul style="list-style-type: none"> • ○ Land registration and certification undertaken 	<ul style="list-style-type: none"> • Electronic based land registration system introduced to improve the documentation of land
2000			
1500			

7.10. Key Performance Indicators (KPI) on Access to Land

It is important to develop better targets and performance indicators and data collection systems on land to enhance land governance monitoring at all levels. Performance indicators provide a simple and reliable means to measure achievements, to reflect the changes in the land sector. Literatures in the land sector indicate that measuring the performances of access to land with standardized global indicators is not widely used. For this reason, key performance indicators on land vary across countries and organizations. For instance, the land monitoring handbook of International Land Coalition (2010) summarized land performance indicators in to adequacy of legal and policy frameworks, outputs of land programs and land administration systems on access to land, tenure security, land market functionality, gender and other vulnerable groups.

However, on the other hand, the AU in 2012 proposed to measure the performance of national objectives on land sector with four main economic, social, governance and environmental sustainability pillars using: protection of all land rights, transparency in land management; and improvements in land administration, land access, land management and conflict; and prioritization of land issues in national development planning. The key performance indicators developed by the AU also presupposes that appropriate land policy/legislation and land administration system would yield enhanced tenure security, improved access to land and reduced land related conflicts, leading to improved food security and investment in land, improved environmental protection and sustainable development. In measuring access to land, some organizations focused on impact level results such as volume of investment on land, improvement in food security, peace and stability and environmental sustainability; and other organizations focuses on lower level output results.

Based on these international experiences and the practical legal and policy frameworks of the country, this study developed key performances indicators on access to land with special focus on the private business sector. The key performance indicators were adapted from Addis Ababa City Land Administration and Management Bureau annual performance reports and literatures including SDGs, WB, USAID, UN Habitat, International Land Coalitions and the Global Land Tool Network (GLTN).

7.11. Conclusion and Policy Recommendations

7.11.1. Conclusion

The issue of land is very important from the development perspective of a country. Cognizant of this fact and by considering its role in promoting business opportunities for the private sector, AACCSA has commissioned Kaya Research and Development to undertake a research on better access to land in Ethiopia. Accordingly, the study assessed the strategic problems of access to land, appraise key performance indicators and evaluate the existing land policies and came up with sound policy recommendations. The study used qualitative and quantitative data collection tools through Key Informant Interview and document review and analyzed the data with descriptive analysis method to achieve the stated objectives.

Over the course of the study, the team reviewed major policies and legal frameworks such as the constitution, the urban and rural land policies, proclamations on lease, expropriation, valuation and compensation, investment and industrial parks development; and the Second Growth and Transformation Plan (2016-2020).

Key Findings: The major strategic problems that deters the land sector to play its catalyst role for the socio-economic and political development of the country are confined to the limited

supply and availability of land due to gaps in policy and legal frameworks, ever increasing and unaffordable land price for low and middle income population, lack of tenure security, information asymmetry, landlessness, high and increasing population growth, lack of good governance, prevalence of corruption, unfair and inappropriate compensation, dispute and conflict over the land resources, social inequality and shortage of basic infrastructures. The land supply in major cities including Addis Ababa has decreased because of multi-dimensional social, economic, demographic legal/ policy and political factors. The amount of land prepared and supplied for development purpose by municipalities in Addis Ababa and major regional cities has decreased in the GTP II period.

There is high miss-match between supply and demand for residential, business, industry, urban agriculture, social sectors and other development projects and programs. Land supply with tender has been stopped in Addis Ababa City Administration two years ago because of land shortage in the expansion areas. Hence, the only means of land supply available under the city administration is for projects labeled having national economic significance. The volatile political situation that have occurred in the country since the last four years is affecting the supply side for better access to land and investment and discouraged the private business sector's engagement in the economy. Moreover, the low perceived tenure security on land holders due to gaps in the existing policy and legal frameworks leads to inefficient utilization of land and expansion of informal land market. This situation is highly observed in urban expansion areas of major cities of the country. On the contrary, inefficient land utilization has been also observed by private sectors who received land from the government through allocated land acquisition mechanisms, though this is partly attributed to lack of infrastructure, corrupt practices, lack of coordination and monitoring among land and investment sectors, presence of third-party compliance on the land and weak land governance. Thus, the role of the invisible actors in the land market contributed very much in escalating the land price in Addis Ababa.

Lessons Learned on Access to Land: The study selected three case countries; Malawi from Sub Sahara Africa, Thailand from Asia and Chile from South America based on their experiences on multiple and flexible land tenure system and land administration practices. Similar to Ethiopia, these case countries have high population pressure on land for agriculture, residence and business. The lesson gained from these countries include: all these countries use mixed/multiple land tenure system whereby land is owned by the public, private and customary/community, use lease and freehold system though the price modality varies from country to country, registered public/state land with registration certificate to protect land grabbing and illegal settlement and the case countries designed alternative programs for landless youth and community members with flexible approaches than the normal land tenure system. Similar to Ethiopia, these countries have electronic based strong cadastral land registration system. In general, designing and formulating a land tenure system that reflects the contexts of countries is the lesson gained from these countries though the issue of ensuring social equity is still a challenge in all the case countries.

Key Performance Indicators: Indicators are highly important to measure the performances of the land sector though shortage of uniform performance indicators on land sector is still a challenge. The study team proposed performance indicators on the roles of the private sector for better access to land by considering international and national standards with measurable indicators together with the desired outcomes and impacts. Accordingly, the following private sector focused targets were identified with their corresponding indicators.

7.11.2. Policy Recommendations

Policy Recommendations: Based on the review of policy documents and strategic problem analysis, the following alternative policy proposals are recommended by the study team.

- The presence of business-friendly land allocation system is highly important to ease doing business in the country. The barriers for ease of doing business indicated in the World Bank ease of doing business report need to be addressed through improving land administration and institutional gaps.
- Appropriate land use policy that fits with the structural plan of cities is required to improve better access to land for business and development. Therefore, AACCSA in collaboration with concerned stakeholders should avail evidence-based land and transparent land allocation mechanism for lobbying and advocacy.
- Unfair compensation for land evacuator is found to have violation from rights perspective and affects the supply of land in urban expansion areas of major cities. The land evacuator compensation right should be respected to the extent of ensuring sustainable livelihood in the areas where they grow up. Therefore, AACCSA should play an active role in identifying the main draw backs of the policy implementation and provide inputs to the government for policy revision.
- The existing land related strategic problems to improve access to land for citizens and the business sector requires the active participation and involvement of all actors; the public and the private business sector. The private sector can play significant role in infrastructural development both in urban and rural areas whereas the public sector is responsible to ensure improved land administration and management for efficient land utilization. This can be realized by establishing strong public-private partnership with the active facilitation of AACCSA.
- The lessons from the three case countries indicate their multiple landholdings namely; private, public and customary. Taking note of the high importance of learning from other countries better experience in optimal utilization of land resources; Ethiopia needs to scale up best experiences that suits to the context to have alternative and business friendly land policy.
- Ethiopia has so far formulated policy and legal frameworks related to land. However, the practice of policy evaluation in evidence-based approach was not common. For this reason, it is advisable for the private sector to work closely with government and research institutions to participate in policy evaluations so as to assess the relevance, effectiveness, efficiency, impact and sustainability of the existing land policies.
- Taking note of the private sector's important role in ensuring land efficiency legally contracted joint venture investments among land and capital investors should be promoted in major urban centers. Encouraging exiting initiatives among private business land developers in Addis Ababa who are working with capital constrained landholders on vertical growth modality.

In general, the overall result of the study indicates the issue of better access to land is the result of inter related policy, legal, administrative and institutional challenges and gaps. Access to land becomes a major concern for landless youth/people and the private business sector. Considering the existing policies and legal frameworks, the land sector has opportunities as well as challenges that needs the active engagements and concerted effort among all stakeholders. The major strategic problems on access to land in Ethiopia are unaffordable land price, lack of good governance, limited coordination for infrastructural facilities, unfair compensation and tenure in security. The study identified best practices; in tenure security, role of the state in land administration, treatment of landless youth in alternative agricultural programs, improved and efficient land registration from three countries in Africa, Asia and South America. In addition, key performance indicators tailored to the private business sector were identified on access to land.

Table 7.7 : Policy Proposals for Better Access to Land

S. N	Policy Proposals	Areas of Change	When to Change		Major Responsible Actors for Change
			Short Term 5 Years)	Long Term (beyond 5 Years)	
1	Review the existing land management system by involving relevant stakeholders	Bring a business-friendly land allocation			Government
2	Introduce appropriate and transparent land zoning /allocation policy	Allocation/delineation of land as residential. Industrial and farm (commercial /private)			Government
3	Undertake market-based land compensation assessment for land evacuator	Fair compensation scheme and schedule introduced			Government and private business sector
4	Facilitate access to residential houses for land evacuator in nearby industrial zones	Revise and introduce appropriate expropriation, valuation and compensation law and mechanisms			Government and private business sector
5	Establish Public – Private Partnership for Infrastructure Development	Efficient Utilization of Land			Government and Private sectors
6	Introduce alternative policy to improve access to land	Flexible right to land owners'			Government and private business sector

References

AACCSA, (2016). A study on the Impact of the Current Land Lease Law on Business and Investment Expansion in Addis Ababa.

AACCSA, (2019). Policy, Legal and Administrative Barriers on Access to Land for Businesses in Ethiopia, Addis Ababa.

ANGOC, (2012). CSO Land Reform Monitoring in Asia. Quezon city, Philippines: Author

AU. (2012), Tracking Progress in Land Policy Formulation and Implementation in Africa. Background Document, June 2012 Addis Ababa, Ethiopia

AUC-ECA-AfDB Consortium, (2011). Land Policy in Africa: A Framework to Strengthen Land Rights, Enhance Productivity and Secure Livelihoods. Addis Ababa, Ethiopia, ECA Publications and Conference Management Section (PCMS)

Bereket K, (2017). Revised Edition on the Administrative Allocation, Lease Markets and Inequality in Land in Rural Ethiopia

Cepheus research & ANALYTICS, (2019). Ethiopia Macroeconomic Handbook 2019

Daniel W. (2012). Land Rights in Ethiopia: Ownership, equity, and liberty in land use rights, Ethiopia. David P., Szilard F., Babette W.,

(2009). Towards Improved Land Governance, Land Tenure Working Paper 11, ISBN 978-92-1-132210-1

DFID, 2015. Urban infrastructure in sub-Saharan Africa – harnessing land values, housing and transport, Final report on land-based financing for urban infrastructure in sub-Saharan African cities

Dickinson, A. et .al, (2017). Development of Key Performance Indicators for Housing Market Renewal New Build M. University of Salford, UKElevate East Lancashire, UK.

EDRI, (2017). Study on Industrial Park Development: Issues, Practices and Lessons for Ethiopia. 2017. EDRI Research Report 29. Addis Ababa.

FDRE NPC, (2015). The growth and Transformation Plan II of Ethiopia, Addis Ababa

FDRE, (1995). The Federal Democratic Republic of Ethiopia Constitution, Addis Ababa.

FDRE, (2011). FDRE Land Lease Proclamation, Addis Ababa.

FDRE, (2012). Investment Promotion Proclamation No.769/2012, Addis Ababa

Frank Byamugisha, 2016. Securing Land Tenure and Easing Access to Land, Background Paper for African Transformation Report 2016: Transforming Africa's Agriculture

ILC. (2015). Monitoring Secure Access to Land: Progress and Prospects by Tim Bending, Certification of the key Performance indicators Western Australian Land Information Authority 2 September, 2016

John P, Marcel F, (2002). Land Lease Markets and Agricultural Efficiency: Theory and Evidence from Ethiopia, Selected Paper presented at the American Agricultural Economics Association Annual Meeting Long Beach, California August Melaku T, and Eyasu K, 2016. A study on the impact of the current land lease law on business and investment expansion, Ethiopian Institute of Architecture building construction for city development (Eiabc), Addis Ababa University, urban policy chair.

MoA, (2016). Improving Access to Land and Tenure Security in Ethiopia, Addis Ababa.

MoUDC, (2011). Urban Development and Management Bureau 2017/2018 annual Statistical Data

MoUDC, (2016). Annual Land Development Estimation Cost, Addis Ababa

The World Bank, (2019). ETHIOPIA Urban Local Government Development Project, 1818 H Street Washington DC 20433

UN Habitat, (2016), Fit-For-Purpose Land Administration Guiding Principles for Country Implementation, Kenya, Nairobi.

UN, (2016). Sustainable Development Goals, New York

World Bank, (2015,2016,2017,2018,2019,2020). Ethiopia Doing Business Report

World Economic Forum, (2019). The Global Competitiveness Report of 2019. World Economic

Forum 91-93 route de la Capite CH-1223 Cologny/Geneva Switzerland

Zerfu H. 2016. Land Governance Assessment Framework Implementation in Ethiopia Final Country Report, Addis Ababa

ZIKRE HIG, ANRS. (2017). The Revised Rural Land Administration and Use Determination Proclamation of the Amhara National Regional State Proclamation No.252/2017.

Annexes

Annex 1 : Key Informant Interview Questions

A. Key Informant Interview Questions for representatives of Ministries (Ministry of Urban Development & Construction and Construction, Industrial Parks Development Corporation, Federal Investment Commissions)

1. How do you evaluate the land tenure system of Ethiopia since the imperial regime?
2. Explain the land acquisition mechanisms for the private sector's business operation in Ethiopia?
What are the experiences and trends of the government in supplying land for the private sector and private operators?
3. To what extent land is affordable in terms of cost in the current land market transaction for the business sector?
4. Would you explain the level of effectiveness and efficiency of the current land policies in improving access to land for the private business sectors?
5. Explain the demand and supply of land for business operation in Ethiopia?
6. Do you think that sufficient reserve of land is available in the land bank to meet the demand of the private sector?
7. What is the policy and implementation gaps in land expropriation, compensation and valuation for evacuees? What rights they are entitled and what is missing? what major problems that the land holders/farmers are facing during eviction?
8. What are the roles of the public –private partnership for infrastructure development around industrial zones for evacuees?
9. What transparency and accountability strategies in place by your sector/ministry /commission/ agency to ensure efficiency in land administration and management?
10. To what extent the land transferred to the private business sector effectively developed by the business sector as per the agreement?
11. What constraints do private sectors have in effectively developing the land provided by the government for investment activities?
12. How do you explain the contributions of access to land for the national development in general and GDP in particular?
13. What are the main challenges (gaps/limitations) and opportunities of the existing land policies/land administration and management including the urban land lease policy of Ethiopia?
14. What do you suggest to improve the legal frameworks and the land acquisition process for the business sector?

B. Key Informant Interview Questions for representatives of the private sector

1. How do you evaluate the land policy of Ethiopia?
2. How your firm acquired land for the operation of its business?

3. What conditions/infrastructures and other factors do your firm consider while requesting land for investment/business operation?
4. How do you explain the affordability of land by the business sector in terms of cost?
5. What practical challenges your firm faced while acquiring land for the operation of your business?
6. How do you evaluate the transparency and accountability mechanisms of the land sector in ensuring efficient land administration and management?
7. How do you explain the feasibility and affordability of the industrial parks for the private business sector? Do you think that the industrial parks are appropriate for all business sectors?
8. What challenges do land developers face while acquiring land from the government through evicting farmers/ urban residents?
9. Why the private sectors failed to develop the land acquired from the government as per the contract agreement?
10. What are the main challenges of the existing land policies/ land administration and management procedures of Ethiopia?
11. What do you suggest to improve the legal frameworks and land acquisition process for the business sector?

C. Key Informant Interview Questions for representatives of Commissions/Agencies (Addis Ababa City Government Municipality Office, Land Administration and Management Agency, Farmers and Urban Agriculture Commission and Investment Commission)

1. From policy point of view, to what extent the existing and policies are creating enabling environments for accessing the private business sector to land?
2. How do you evaluate the demand and supply equilibrium of access to land for the business sector?
3. What are the trends of value and market price of land looks like in Addis Ababa?
4. To what extent land is efficiently and effectively managed and administered by the concerned government sectors?
5. How do you address the land demands of the private business sector/investors in Addis Ababa city government? How do you explain the coordination with the investment commission and land administration and management agencies?
6. To what extent the business sector/investors are using land for the intended purpose? Are they properly developing the land that they have received from the government? If not, what are the reasons for the failure of the private sector in timely and effectively developing the land as per the agreement?
7. What are the mechanisms and challenges of land transfer to the private business sector?
8. What were the major gaps of the land valuation and compensation policy of Ethiopia and to what extent the recently revised policy addressed these gaps?
9. What transparency and accountability strategies are in place by your sector/ministry/ commission/agency to ensure efficiency in land administration and management?

10. How do you explain the contributions of access to land for the economic development/GDP of the country?
11. What are the key performance indicators that your organization is currently using in monitoring and measuring access to land for the private business sectors? Would you propose alternative key performance indicators to be employed for measuring access to land?
12. What policy and implementation gaps do you observe in the land sector in Ethiopia/Addis Ababa?

D. Key Informant Interview Questions for representatives of Research Centers-Think Thanks (Ethiopian Civil Service University, Forum for Social Studies, Ethiopian Policy Research Institute and Ethiopian Economic Association)

1. What have been the major land policy changes in Ethiopia since the imperial regime?
2. What were the major drivers for policy changes on access to land in Ethiopia?
3. How do you argue on the private versus public ownership of land in Ethiopia?
4. To what extent the land lease policy of Ethiopia addressed the access to land for the business sector and to what extent it has achieved its objectives? What its implementation looks like?
5. What challenges have been identified in the land sector both for rural and urban residents? And how research institutions responded to the emerging challenges?
6. What instruments do you suggest to make the existing land policies functional in addressing the bottlenecks of access to land?
7. What has to be done to maintain the supply and demand side equilibrium of access to land?
8. How far land is effectively utilized to speed up national development?
9. To what extent the land management and administration practices of government sectors are effective and efficient in using the limited land resources?
10. How much and in what way access to land is contributing for the national development of the country?
11. What policy/implementation gaps you have identified on the existing land policies of Ethiopia (Lease, rural and urban and valuation and compensation policy)?
12. What needs to be done ly to address the current challenges of access to land for the business sector?

E. Key Informant Interview Questions for representatives of Real Estate Developers

1. When did you start your real estate business?
2. What initiated your firm to start the real estate business?
3. How do you access land for the operation of your business and from whom did you get land for your business operation?
4. How do you explain the affordability/ the cost of land for your business?
5. How the demand of the house looks like after developing the land?
6. Who are the main clients for your business?
7. How do you explain the transparency and accountability of the land management and administration of municipality offices/investment commission?
8. What major challenges have you faced in accessing land for your business operation?
9. Do you think that real estate developers are effective and efficient in using land for the intended purpose?

10. What do you suggest (for the government, financial sector and real estate developers) to improve access to land for the business sector/ to manage the limited land resource effectively?
11. How do you explain the adequacy of the land size that your firm acquired for the operation of your business?

F. Key Informant Interview Questions for representatives of Banks

1. Would you explain the practices of the bank in using land as collateral for lending money to the private business sectors in recent times?
2. What are the criteria and pre-conditions set by Banks to lend money for the private business sectors using land as collateral?
3. What is the trend of lending money to the private sector using land as collateral?
4. How do you evaluate the land policy environment for accessing land to the private business sector?
5. To what extent the banks are effective in collecting loans which were dispersed to the private sector by using land as collateral?
6. How do you evaluate the effect of land tenure security on lending and collecting money to the private business sector?
7. Are there any challenges experienced or considered to be experienced by your bank in lending money to the private business sectors so as to improve their access to land?
8. What do you suggest to solve the land collateral bottlenecks for the private business sector?

Annex 2: Lists of Sectors Participated in the KII

No	Sectors/private sectors	# of participants
1	Ministry of Agriculture (Land Investment for Transformation Project)	1
2	Ministry of Urban Development and Construction	1
3	Federal Investment Commission	1
4	Industrial Parks Development Corporation	1
5	Firms Operating in Eastern Industrial Zone (1 from private and 1 fr government/	2
6	Ethiopian Civil Service University	1
7	Forum for Social Studies/Desalegn Rahmato/	1
8	Ethiopian Policy Research Institute	1
9	Ethiopian Economic Association	1
10	Addis Ababa City Government Municipality Office	1
11	Addis Ababa City Government Land Administration and Managem Agency	1
12	Addis Ababa City Government Farmers and Urban Agricult Commission	1
13	Addis Ababa City Government Investment Commission	1
14	Banks from Government and Private (Commercial Bank of Ethiopia Awash Bank)	2
15	Real Estate Developers	2
16	Private investor from Agriculture, industries & services sector	3
	Total	21

Annex 3 : Lists of Sectors Participated in the KII

S. N	Key Persons Contacte	Sex	Organization's Name	Telephone No.	Position
1	Asnake Abate	M	Ministry of Agriculture (Land Investment for Transformation Project)	0955459550	Senior Experts of Land Development
2	Lekelish Abay	F	Industrial Parks Development Corporation	01116581789	Industrial Parks promotion Directorate Director
3	Demi Dou	F	Eastern Industrial Zone	0980-161-150	Adviser
4	Tahir Hamden	M	Bole Lemi Industrial zone	0922264479	Operation Manger
5	Yeraswork Admasie (PhD)	M	Forum for Social Studies	0111545608	Executive Director
6	Tadesse Kuma (PhD)	M	Ethiopian Policy Research Institute	0911402976	Coordinator of Agricultural Transformation and Rural Development Policy

TOWARDS THE CREATION OF A ROBUST PRIVATE SECTOR

7	Demirew Getachew	M	Ethiopian Economic Association	0116453200	Director
8	Abebe Alemu	M	Addis Ababa City Government Land Administration and Management Agency	0923244162	Developed Land Lease Transfer officer
9	Mesfin Tesema	M	Yeka Sub City Urban Land Development Office	0944083245	Panning Expert
10	Befekadu Solomon	M	Addis Ababa City Government Farmers and Urban Agriculture Commission	0911108110	Livelihood Expert
11	Mikias Tadesse	M	Addis Ababa City Government Investment Commission	0913078274	Research and Investment promotion Officer
12	Efrem Bogale	M	Awash Bank	0911699649	Manager
13	Tekeste Endale	M	Commercial Bank of Ethiopia	0911722245	Monitoring and Evaluation officer
14	Tsion	F	Ayat Real Estate	0911305306	Site Coordinator
15	Beza Abinet	F	Tsehay Real Estate	0937365410	Site Coordinator
16	Theobsta Wassie	F	Private investor from Agriculture, industries & services sector	0911-402-825	Manager

Chapter Eight: DIGITAL ECONOMY AND INVESTMENT



Executive Summary

Digital technologies are spreading throughout the world at an unparalleled pace and are thus re-shaping consumer behavior, social interaction, business models and governments. For developing countries like Ethiopia, digitalization has important implications on growth prospects and productivity as it exploits economies of scale and network effects, it raises the productivity of labor and capital and it facilitates access to global value chains. The digital economy also contributes to greater inclusion by lowering transaction costs and addressing information asymmetries associated with certain activities like access to finance.

However, there are requirements to guide the digital economy development through policy instruments, in order to reap its fundamental benefits. This study's aim is to identify the policy instruments and actions that need to be implemented in this regard. The study entails a survey result conducted on sampled respondents. Furthermore, it includes a modeled econometric analysis on identified variables such as Cellular mobile penetration rate, fixed telephone penetration rate, population of internet users, fixed broadband penetration rate, internet security, wireless subscription and internet servers. The study also identifies several key performance indicators of digital economy that are suitable for developing economies like Ethiopia. Finally, it entails policy recommendations in the major areas of:

Digital Infrastructure: to ensure a pervasive and effective infrastructure for the digital economy;

Digital Ecosystem: to ensure an effective digital ecosystem and an open, stable and enabling environment for the digital economy;

Digital Economy Dis-benefits: to reduce the emergent dis-benefits associated with the digital economy;

Governance of Digital Economy: to maximize effectiveness of digital economy, policy structures and processes.

8.1. Introduction of the Study

8.1.1. Background

In contemporary business, digital technology provides industries with unparalleled opportunities for value creation and productivity. Today's digital start-ups are passing the Billion Dollars valuation mark in just four years while Fortune 500 companies took an average of 20 years to achieve the same valuation mark. Due to these digital technologies, industries are creating novel profit pools by

- Transforming customer expectations and how companies can address them;
- Transforming the contemporary business models and methods of business transactions;
- Altering manufacturing techniques.

While the internet is the fundamental catalyst for digital development, Rumana and Richard say "gadgets (mobile phones, smart phones, tablets, notebooks, laptops, 3D printers); new digital models (cloud computing, digital platforms, digital services); growing intensity of data

usage through spread of big data, data analytics and algorithmic decision-making; and new automation and robotics technologies” are other technological innovations that have played a critical role in how industries conduct their businesses. (Rumana and Richard, 2017). As a result, “emerging markets are exhibiting digital economy growth of 15-25% per year.” (Dahlman et al. 2016)

What is worth highlighting is that the gadgets that Rumana and Richard spoke about – smart phones, tablets etc. – are portable, allowing transactions to be done at any place and time. “Digital technologies are ubiquitous enablers of digital economy- a life-changing economic upheaval that exerts profound regional impacts on businesses, jobs and people (Brynjolfsson Erik and Brian Kahin, 2016). The benefits of these remote transactions (Digital economy) are: it boosts economic growth, it raises productivity of capital and labor, it lowers transaction costs; and it facilitates access to global markets in all economies including developing ones like Ethiopia.

New economic opportunities are now blooming due to the ever-increasing access to digital data (machine-readable data) in all socio-economic sub sectors of any economy. These new opportunities are visible in the production sector where higher quality goods and services are provided at reduced costs. Furthermore, the global value chains are being transformed with various structural changes (UNCTAD, 2019). Studies suggest that the “combined value” – to society and industry – of digital transformation across industries globally will be upwards of \$100 trillion in 2025, impacting the Media, Health, Logistics, Automotive, Electricity, and Consumer sectors significantly (WEF, 2016). Studies further predict that technology-related productivity gains in crucial sectors (e.g. financial services, education, health, retail, agriculture, and government) in Africa alone are predicted to reach between USD 148bn and USD 318bn by 2025 (Nambisan, 2017).

Based on the studies, digital economy in Africa not only provides opportunities for increased job creation and data for actionable insights, but it is also the basis for underpinning human rights (e.g. through more reliable birth registration), accelerating access to quality basic services, improving transparency and accountability of governments and enhancing democracy. eServices can underpin an improvement in all areas of public service delivery, eHealth can increase revenues and provide quality care through telemedicine, hospital information management systems, etc.; eEducation and eLearning can provide collective digital educational resources, virtual reality for VET, etc.; family agriculture can benefit from market information and early warning systems, etc.; and governance can be improved through the use of digital civic registries, civic tech, etc. (Nambisan, 2017)

In Ethiopia, digital technologies implemented on appropriate digital infrastructure could greatly stimulate e-trade and e-commerce, which in turn could create new marketplaces. Such innovations will give Medium, Small and Macro Enterprises (MSMEs) access to larger and more competitive markets thus attracting new investments, and creating jobs. Nevertheless, the insufficiency of non-digital infrastructure such as poor trade logistics and underdeveloped access to internationally operable payment methods means the country cannot reap the benefits of e-trade & e-commerce. For example, basic information infrastructure for postal and logistical services is not yet digitized making it more difficult to deliver packages on time, at the correct location. As a result, the absence of e-commerce law increases the price of operations and makes it very difficult to stimulate cross-border digital trade.

The absence of e-commerce law increases the price of operations and makes it very difficult to stimulate cross-border digital trade. Correspondingly, a lack of trust and confidence in the market leads to a propensity to pay cash on delivery, further adding costs and slowing the take up of e-commerce in Ethiopia. Capacity building support for the digital start-up eco-system at the policy, funding and skills level is another impending challenge for digital economy development in Ethiopia.

Enlightened by potential economic gains, countries are embedding a policy framework that promotes the socio-economic benefits of digital economy. As it is the case in most of the developing economies, Ethiopia's competitiveness in the global market and the development of its private sector are heavily influenced by the digital economy outcomes. For instance, the country's rank in the global metrics of ease of doing business is linked significantly to how the digital economy is rooted and extensively exercised in the national economy of the country (UNCTAD, 2019). Therefore, it is imperative that AACCSA plans to initiate this brief review of policy proposal on digital economy and investment of the country.

8.1.2. Objective of the Study

The purpose of this research is to review existing policies, strategies, directives, implementation, and developments of the digital economy and investment in Ethiopia. Furthermore, this research will develop a policy document with concert policy recommendations portraying trends in digital technology adoptions, digital technology utilization, digital competencies, digital investment and digital innovation. It will identify, review, and analyze relevant policy issues to extrapolate their implications on the prospective digital economy of Ethiopia with the prime objective of identifying digital gaps impeding the efficacy of existing policies. Finally, this paper will recommend policy proposals entailing key performance indicators (KPIs) to safeguard harmonized policy, legal and regulatory frameworks at the national level.

8.1.3. Scope of the Study

The scope of this study is largely to produce feasible policy recommendations which will be presented to AACCSA for comments and feedback. Following approval from the AACCSA, a final document will be drafted within a six-week period which will include comments and further inputs provided by the AACCSA. Finally, the document will be presented at the digital economy growth and Investment forum to be organized by AACCSA.

8.2. Methodology of the Study

To affect the outcome of policy issues pertinent to digital economy, and to recommend feasible policy instruments, we worked with a consultant from Ronabit Consults. The consultant conducted desk review of documents, interviewed key informants from the public sector, private sector and NGOs. Moreover, to accurately estimate the impact of digital technology on economic growth, the consultant applied an econometric model in the context of digitization as depicted briefly in the subsequent subtopics.

8.2.1. Data Source and Data Collection Methods

8.2.1.1. Review of Related Literature

The consultant undertook an exhaustive review of pertinent documents on digital technology, policies, strategies, plans, and researches as a fundamental source of data for analysis. The major clusters of reviewed documents include but are not limited to:

- National ICT Policies and Strategies;
- National Science and Technology & Innovation Policy (2019)
- Growth and Transformation Plan II (GTP II) (2015/16-2019/20);
- Ethiopian digital economy policy and strategic plan (2013-2025);
- National Science, Technology and Innovation Policy;
- Investment and Innovation Policy Review;
- Theoretical and empirical researches undertaken by AACCSA and other relevant institutions.

The appropriate particulars of literatures are depicted hereunder

8.2.1.2. The national ICT policy of Ethiopia

The national ICT policy of the country was approved in 2009. The scope of ICT policy covers knowledge and information as a tool for development, and ICT as a sector or industry. The policy entails:

- ICT **vision** of *“Every aspect of Ethiopian life is ICT assisted”*;
- ICT **mission** *“To develop, deploy and use information and communication technology to improve the livelihood of every Ethiopian, and optimize its contribution to the development of the country”*;
- ICT **goal** *“To vigorously promote the ICT sector and enhance its contribution in political, social and economic transformation to make the country beneficial from the rapid development and progress”*.

The focus areas or broad objectives of the ICT policy are as follows:

- Build ICT Infrastructure throughout the country and make it accessible.
- Create the necessary skilled human resources required for the proper development and application of ICT and expand the society’s basic knowledge and usage of it.
- Develop the necessary legal framework for the application of ICT and design and implement appropriate security systems for the prevention of unlawful practices.
- Promote the use of ICT for modernizing the civil and public services to enhance its efficiency and effectiveness for service delivery;
- To promote good governance and reduce wastage of resources.
- Expand and strengthen the role of the private sector ensuring the rapid development of ICT.

As part of its implementation strategies of the ICT policy, Ethiopia established its first information technology park in June 2015. It was established with a view of building an Information Technology (IT) village based on close linkages between research, industry and business in IT and IT enabled services. The IT Park has several functional zones like business, assembly and warehouse, commercial, administrative and Knowledge Park. The primary focus of the park is to attract IT manufacturing, development of the IT services industry and Business Process Outsourcing (BPO) and it is expected to attract foreign investors as well as local ones.

8.2.1.3. National Science and Technology Policy

The National Science and Technology Policy, reviewed on November 22, 2019, identified the following six key issues that require special attention:

1. The industrial policy and STI policy are not well aligned

Tapping into the international knowledge market and joining the global value chain are some of the major sources of technology for developing countries like Ethiopia.

Unfortunately, not many domestic companies have shown interest in joining the global export supply chain. Rather, they seem to enjoy the protected domestic market as it generates larger margin of profit and less hassle of standard requirements in comparison to the export market.

To reverse this trend, the STI policy should be aligned with the industrial policy and the latter should incorporate incentives to learn new technologies and innovate.

2. Maximizing Industrial parks potential for linkages

Generally, domestic firms tend to supply domestic markets therefore, they are reluctant to operate within parks that are export oriented.

- The absence of domestic firms makes the park an enclave of foreign firms.
- As a result, foreign firms do not have much linkage with domestic firms outside the park which in turn means less linkage with the rest of the economy.

3. Weak supply chain and backward linkage

- The lack of high quality and quantity inputs in the domestic market, is one of the critical challenges for the industrial development.
- Continuously relying on imports means the local linkage, particularly with the agriculture sector, remains weak; resulting in lost potential for effective domestic supply and value chains.
- Moreover, high import intensity of the manufacturing sector aggravates the shortage of foreign exchange, which has emerged as one of the binding constraints in the manufacturing sector.

4. Weak quality infrastructure

- Laboratories are not well-equipped to test all kinds of conformity assessment. Some tests are done outside of the country making them more expensive.
- There is a big gap between maintenance and installation services in the country.
- There is a lack of enforcement of standards and implementation due to limited capacity and poor awareness of stakeholders.
- The private sector's involvement as both a customer and a supplier of quality infrastructure is very limited.

5. Lack of support and finance for innovators and technology startups

- The current supply of credit by the public banks is geared towards investment (purchase of machinery and construction) and working capital for established firms.
- Unfortunately, the economy lacks any scheme to support innovators and technology-based startups. In this respect, the recent initiative by the Ministry of Innovation and Technology to establish an **innovation fund** is a welcome development.

6. Weak university – industry linkage

- While efforts to strengthen University-industry linkages look good on paper, our interview results show that University-Industry linkages in Ethiopia are limited and currently consist of placing university students in industries for a short apprentice program and on the job training.
- This method has been ineffective, and it has not generated the positive results.

8.2.2. Data Analysis

The study conducted a data analysis with the goal of discovering groundbreaking information and recommending methods of improving the current system. The data analysis included the process of triangulation which is often used to address the validity of the data. An appropriate macroeconomic model shall be designed to test the data and forecast results.

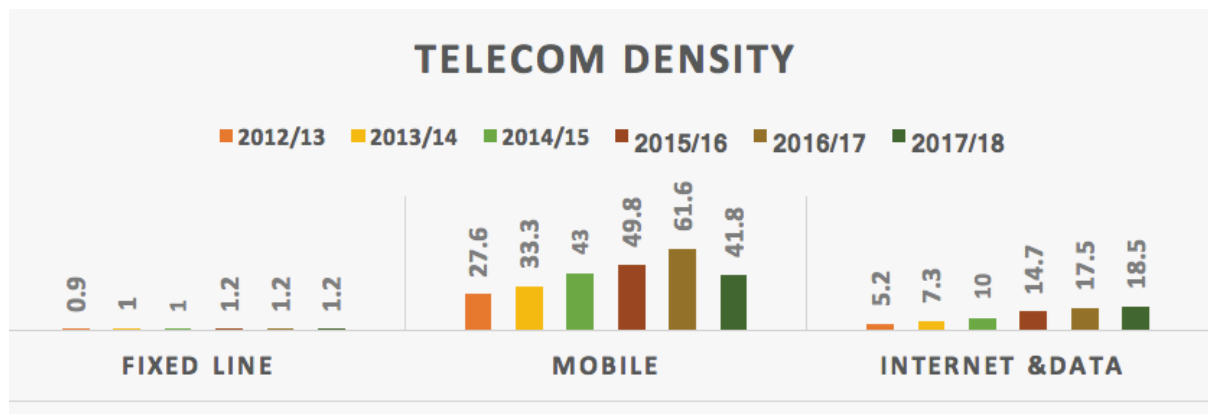
AACCSA research experts on application of macro-economic models spoke of the persistent need to forecast the amount of investments on digital economies in order to assess what the digital economy would look like under the recommended policies. Such an empirical forecasting model is important as it helps policy makers in their decision making.

8.2.2.1. Descriptive Analysis

Access to Fundamental digital economy infrastructure – The internet Ethiopia's mobile subscription has been growing progressively for five consecutive years between 2012 and 2017 but has since seen a decline.

The increased access to digital infrastructure in general & the internet in particular, paves the way for potential economic growth and development in Ethiopia. The growing online population could increase the demand for digital goods and services. The econometric model down below shows the correlation between subscription to telecom infrastructure and the economic growth of a country.

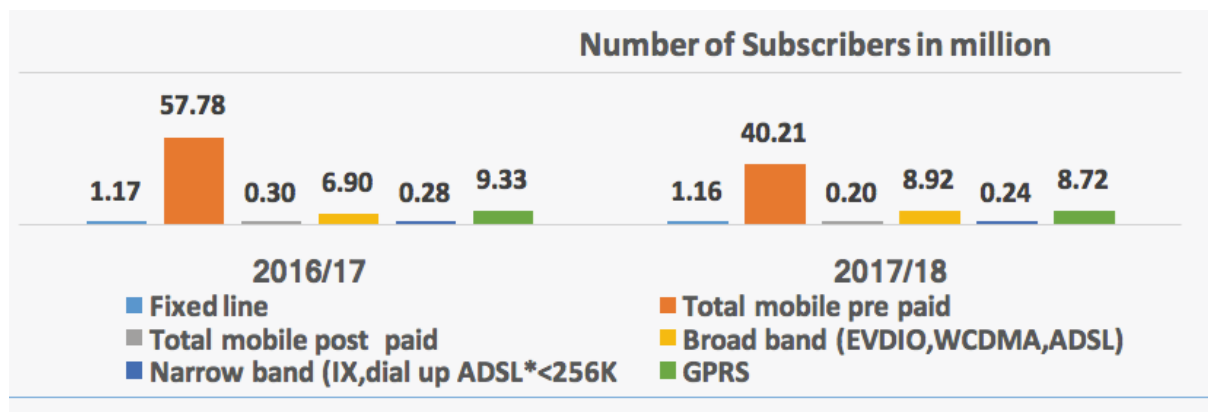
Figure 8.1: Correlation between Telecom Subscription and Economic growth.



Source: Ethio-telecom annual report, 2018

The broadband subscription & mobile subscriptions, which are the variables used in the economic model employed to assess the economic impact of digitalization (see modelled Econometric analysis sections), has grown from 6.90 Million to 8.72 million from 2016/17 to 2017/18, despite the decline in mobile prepaid subscription from 57.78 million to 40.21 million.

Figure 8.2: Telecom service Subscribers (in Million)



Source: Ethio-telecom annual report, 2018

i. Connectivity and Bandwidth

Initially, we held a survey with several organizations and while they use ICT for their day to day activities, they are highly affected by internet interruptions as well as power cuts. As a result, respondents of the survey (organizations) are aggressively seeking access to digital infrastructure like broadband internet to boost their business and customer services.

ii. Affordability

60% of the respondents believe that digital infrastructure is affordable while the remaining 40% believe that the cost of telecom services is exaggerated. Regarding quality of digital

infrastructure, 15% of the respondents are satisfied as 10 to 25% of their expectations have been met, 25% of the respondents have had 25 to 50 % of their expectations met while the remaining 60% of the respondents have had 50 to 75 % of their expectation met, leaving them very satisfied. The key factor for their dissatisfaction is unscheduled outages of internet at the times of national exams and political unrests.

iii. Electronic Government Services

The general service delivery channel in Ethiopia is non-electronic and paperbased. This conclusion is drawn from the responses of 95 % of the respondents who believe they did not get any end-to-end digital services from any government organization. The remaining 5% believe that there is an electronic government service like e-tax (vat declaration system of large taxpayers) by Ministry of revenue (MoR) However, in terms of reliability and quality of those services the respondents rated them as low /poor indicating room for improvement of the quality of the services.

iv. ICT Skilled Manpower

65% of the respondents believe that skilled manpower (Diploma and B.Sc.) is adequately available in the market but requires at least six months of training and internship to reach full productivity level. 35% of the respondents on the other hand, believe that the graduates from many universities are inadequate for any job at all. Regarding certified and highly skilled manpower, however, 78% of them responded as very difficult and expensive to recruit while the remaining 22% of them responded as easy. The application of digital technologies by their respective organizations was rated as very good by 55%, good by 35% and fair by 10% of the respondents.

v. Investment in Digital Technology and digital innovation

Forty five percent of the respondents spent less than 10% of their Capital expense (CapEx) on integrated digital infrastructure (including power, broad band, technologies and others), 40% spent greater than 10 but less than 25% of their expenses, while 15% of the respondents spend greater than 25 but less than 50 % for integrated digital infrastructure. However, most of the respondents report only their procurement and remunerations for services. Only insignificant respondents consider investment in digital economy. Though the data collected in investment is insignificant and any further implications are annulled on the basis of inconclusive data, ICT investment in Ethiopian digital economy sector is low.

About 75% of the organizations have a rough plan to invest in the digitalization of their business process within five years while the remaining 25% have a clear plan including implementations strategy.

Of all the organizations, 10% invested less than ETB 100,000 on digitalization, 50% invested less than ETB 10 million and the remaining 40% of the organization have invested more than ETB 10 million (most of which are government organizations). In the coming five years, however, 15% of the organizations have a plan to invest up to ETB 1 million and 45% of the organizations have a plan to invest up to ETB 10 million. But the consultant has learned that digital investment generally is confused with procurement and consumption of IT goods and services. Research and development into new digital technology, nevertheless, is at an infant stage. 10% of the organizations responded as having a research and development strategy.

8.3. Concepts of Digital Economy

This sub-section provides brief insight into the relationship between digital economy and investment.

8.3.1. Defining Digital Economy

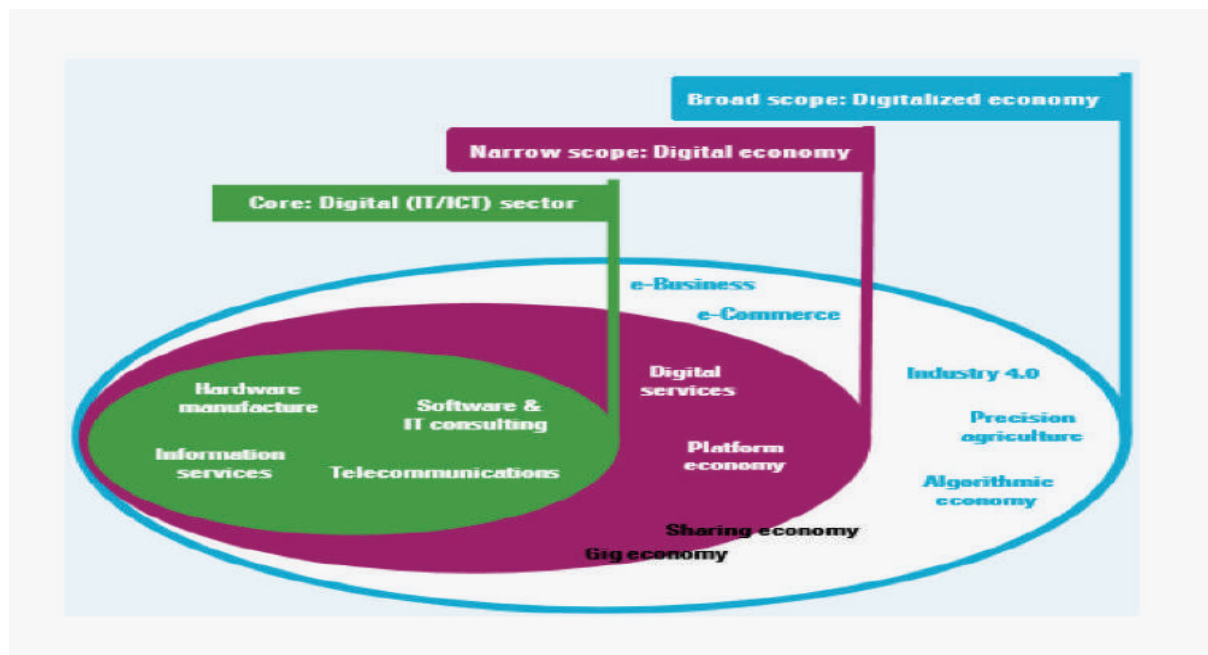
Defining Digital Economy can cause confusion at times. In most cases the term “digitalization” is confused with another term “digitization” which refers to encoding of information or data in terms of binary bits – these bits can only be manipulated through computers or similar machines. On the other hand, digitalization comes onboard when digitized outputs can be used as applications, systems and platforms that directly impact the socio-economic transactions (Nadim and Jennifer, 2018).

8.3.2. Development of Digital Economy

The digitalization of economic transactions can help alleviate transactional barriers. For example, one can easily identify the correlation between e-commerce, accessibility of services and entrepreneur developments. Such technological advancements in the digital economy require great attention from policy makers; business sectors; and other stakeholders (Kevin, Becky, Pedro and Ben 2016).

Digital economy heavily relies on the availability and access to the internet world. Hence, the term Digital Economy refers to an economy significantly based on digital technologies. On the other hand, Rumana and Richard also refer to “digitalized economy as the broader scope of digital economy gives rise to the “use of ICTs in all economic fields.”. Bukut and Heeks (2017) depicted the conceptual scope of digital economy in the following figure.

Figure 8.3: Conceptual Scope of Digital Economy



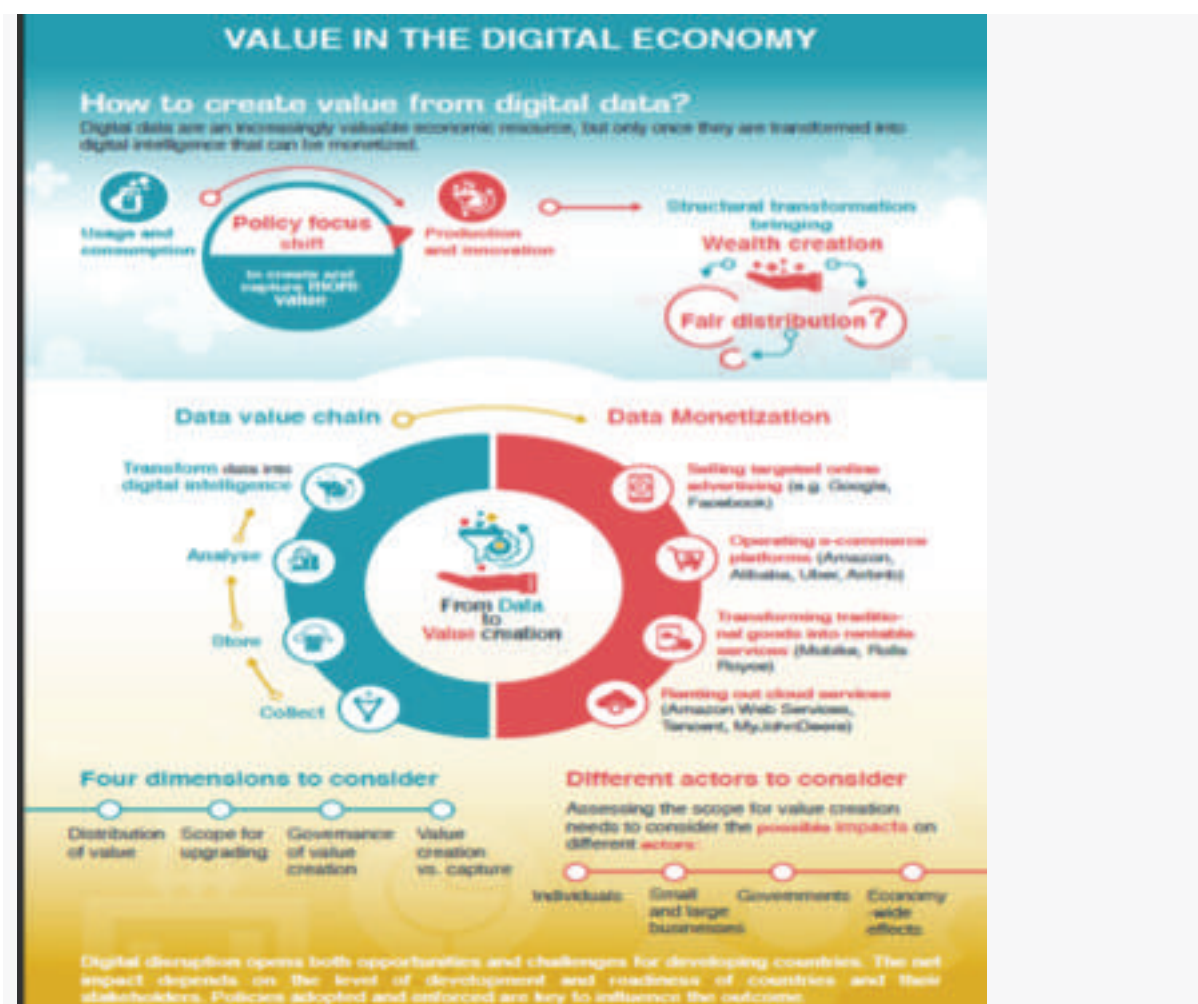
Source: Bukut and Heeks (2017)

The evolution of digital economy started in the mid-1980 where personal computers were marketed vastly. In the 1990s, robot-based manufacturing systems handled the necessary production processes. Outsourcing and offshoring boomed in the 2000s accompanied by a

greater capacity of multi-national companies to work effectively across the globe. Today's digital revolution stemmed from internet of things where digital data is easily and vastly accessible in almost all kinds of interactions (Bukut and Keeks, 2017).

8.3.3. Value in the Digital Economy

Figure 8.4: new value creation model (adopted from UNCTAD, 2019)



Traditionally, economic value has been created through the productive transformation of raw materials into goods and services using resources such as labour, physical capital, and human capital (UNCTAD, 2019). In the digital economy, however, digital platforms are becoming central actors, and digital data has become a key resource in the economic processes, which can lead to value creation.

The digital economy continues to evolve at breakneck speed, driven by the ability to collect, use and analyze massive amounts of machine-readable information (digital data). This digital data arises from the digital footprints of personal, social and business activities taking place on various digital platforms. Global Internet Protocol (IP) traffic, a proxy for data flows, grew from about 100 gigabytes (GB) per day in 1992 to more than 45,000 GB per second in 2017. And yet the world is only in the early days of the data-driven economy; by 2022 global IP traffic is projected to reach 150,700 GB per second, fueled by more people gaining online presences and by the expansion of the Internet of Things (IoT). Ethiopia, like any other country, has a good opportunity to become a middle- or high-income country if it can tap into new technology such as advanced robotics, AI, IOT, cloud, Data analytics, and digital payment systems.

8.3.4. Key Technologies Underpinning Digital Economy

In this section, key technological advancements are identified as basics of the evolving digital economy. In developing countries like Ethiopia, where the current advancements are at infant stages, it is of great importance to understand how these technologies impact the digital economy.

1. Advanced Robotics

Today's industrial robotics are designed to have 'relatively simple algorithms' that can handle changes in production methods (UNCTAD, 2017). When industrial robots are well agile and flexible, the digital automation of production and service provision is enhanced. Though robots are replacing people, they guarantee greater production efficiency thus, better service (Gestrin, and Julia, 2018).

2. Artificial Intelligence

Artificial intelligence is having computers/robots perform tasks that humans would normally perform. This might include sensing, processing oral language, reasoning, learning, making decisions and demonstrating the ability to manipulate objects. In fact, intelligent systems are a combination of various technologies such as big data analytics, cloud computing, machine-to-machine (M2M) communication and IoT (Internet of Things) in order to have the learning feature. Developing countries might have the opportunity to operate these technologies in sectors of agriculture, health care, education, energy and water (ibid).

3. Internet of Things

The internet of things is an extension of connectivity between people, organizations, objects and devices. The cost of manufacturing, installing and operating these technologies are low due to the existence of wireless transmission and global positioning systems (GPS). This in turn, calls for other technologies such as cloud computing and big data analysis which deal with data management because real time data can be accumulated from multiple sources and in multiple points in the system (UNCTAD, 2016).

4. Cloud Computing

It refers to advancements in the relationship between telecommunications, businesses and society as a result of massively enhanced processing power, data storage and higher transmission speeds, accompanied by sharp price reductions (UNCTAD, 2017). Cloud Computing involves transferring data and computing to a server controlled by a third party which allows data to be pooled and analyzed in vast quantities. It also reduces the costs for small businesses to access IT hardware and software. It precludes the need for developing IT skills in-house.

5. Big Data Analytics

Access to and analyses of data are becoming crucial for the competitiveness and expansion of companies across sectors. Big data is a radically new resource that is opening new doors for analysis and value creation. There are different ways in which big data can support sustainable development, especially when combined with mobile technologies (Kshetri et al., 2017).

6. Digital Payment Systems

It entails the use of debit and credit cards, online and mobile payments, and systems based on distributed ledger technologies, such as block chain. In general, digital payments make transactions faster, reduce frictions and lower transaction costs, offer productivity gains and enable firms to engage. Digital payment systems also frees banks and merchants from the financial and non-financial costs of manual acceptance of payments, record keeping, counting, storage, security, delays, transparency of payment tracking, the risk of non-payment at cash-

on-delivery, recipient security and transportation of physical currency. Furthermore, they can also help developing governments address critical challenges such as black markets and tax avoidance, as well as supporting the financial inclusion of under-banked populations (ibid).

7. Interoperability of Platforms and Systems

As the tip of technological advancement in the digital economy, interoperable technology systems and platforms are the central feature of the evolving digital economy. Over time, ICTs, including electronic control of mechanical systems, have developed as a set of nested modules and platforms upon which developers can create a variety of higher-level goods and services for end users (product platforms). These goods range from discrete functional elements (modules) to high-level tools and hardware systems, to software environments (technology systems), (ibid).

8.3.5. Benefits of the Digital Economy

A better understanding of the enabling conditions and implications of digitalization for the economy and society is urgently needed in order to maximize potential benefits and opportunities, as well as cope with various challenges and costs. Effects from digitally induced transformations will differ between countries at different levels of development, as well as between different stakeholders. For example, it is estimated that as much as two fifths of the economic value from IoT (Internet of Things) will accrue to developing countries, and that the greatest benefits will be reaped in cities, worksites, factories and shipping services, where there are concentrations of large populations and greater economic growth (Richard, James and Jonathan, 2016). Other organizations expect that the development impacts of IoT will be the greatest in health care, water and sanitation, agriculture, livelihoods, climate change and pollution mitigation, natural resource management and energy (ibid).

Companies that engage in digitalization can reap several benefits such as reaching and serving customers more efficiently, speeding up product development, and inventing products and services at lower cost. From a developing-country perspective, small firms and start-ups with adequate connectivity may be able to access various cloud services to build products and obtain crowd finance in online platforms. With AI (Artificial Intelligence) built into design software analytical tools for subsequent integrations, business development or customer service, business opportunities could multiply. As a whole, such tools can lower the cost of market entry and potential benefits for economic development may increase (Jonas, Arne and Bruce, 2018)

On the other hand, there are concerns that the widespread use of new technologies will result in greater job losses, it will widen existing income inequalities and it will lead to a further concentration of power and wealth. Hence, the effects of the digital economy may disrupt entire industries despite the benefits of greater outputs and even greater returns (ibid).

Below is a study of five industries in South-East Asia. The following illustrates critical areas of the economy where digital technologies can alter the overall interactions and this can be used for most national economies.

Table 8.1: Used digital technologies in some business sectors

Sector	Main Digital Technologies	Sector	Main Digital Technologies
Automotive and auto parts	<ul style="list-style-type: none"> • Electrification of vehicles and vehicular components • Advancements in lightweight materials • Autonomous driving • Robotic automation 	Retail	<ul style="list-style-type: none"> • Mobile and e-commerce platforms • Internet of Things • Cloud technology • Big data analytics

Sector	Main Digital Technologies	Sector	Main Digital Technologies
Textiles, clothing and footwear	<ul style="list-style-type: none"> • 3D printing Body scanning technology • Computer-aided design (CAD) • Wearable technology 	<ul style="list-style-type: none"> • Business process outsourcing 	<ul style="list-style-type: none"> • Cloud computing • Software automation • Knowledge process outsourcing
	<ul style="list-style-type: none"> • Nanotechnology • Environmentally friendly manufacturing techniques • Robotic automation 	<ul style="list-style-type: none"> • Electrical and electronics 	<ul style="list-style-type: none"> • Robotic automation • Internet of Things

Source: UNCTAD, 2019

Digital economy significantly influences the development of electronic government in several ways. Some of these are:

- Online services: through improved connectivity, consumer-business relationship, and the overall business environment development, government services can be provided on-line to citizens;
- Telecom Infrastructure: digital economy provides opportunity for extensive types of communication platforms that vastly use telecom infrastructure;
- Human Capital: digital economy enhances the citizen’s and service provider’s capability to use information technologies and related instruments.
- E-education: through improved connectivity, educational services can be accessible to various segments of society which improves the overall educational status of citizens;
- E-health: with improved access, medical services can be more accessible to the society;

Impactful technology paradigms in six sectors: (The three groups color coded as blue is Revenue generating (growth); Gray is internally facing profit generation (efficiency); and both efficiency & growth)

Table 8.2: Digital Technologies for Growth & Efficiency

Media	Health	Logistics	Automotive	Electricity	Consumer
Personalized Advertising	Patient Engagement at Scale	Logistics Control Towers	Infotainment	Energy Storage Integration	Data as an Asset
Personalized Content		Analytics as a Service	Digital Customer Model Usage-based Insurance		Data Privacy and Transparency
Data Privacy and Transparency Reform		Multimodal Integration	Energy Solution Integration Energy Management	Data to Improve Experience	
Phygital: Digital Media becomes Physical	Precision Medicine	Drones			
'Advicetising': Advertising as Advice	Robotics	Autonomous Trucks	Connected Supply Chain		Physical Store
	Medical Printing	3D Printing	Digital Manufacturing	Asset Performance Management	E-commerce
	Accessible Intelligence	Crowdsourcing	Disrupted Retail	Digital Field Worker	Sharing Economy
Engage, Co-Create and Crowd source	Connected Worker	Circular Economy	Connected Service and Maintenance	Smart Asset Planning	Smart Supply Chains
The Digital Organization	Intelligent Devices	Shared Transport	Transformed Digital	Energy Aggregation	Talent Management
Flexible, Predictive, Precise		Capacity	Aftermarket	Platforms	
Content		Shared Warehouse	Automotive Data	Real-time Supply and Demand Platform	Smart Factories
		Capacity	Marketplace	Real-time Network Controls	
			Connected Infrastructure		

Media	Health	Logistics	Automotive	Electricity	Consumer
OTT and OTT 2.0				Connected and Interoperable Devices	
	Virtual Care	Digitally Enhanced Cross-Border Platforms			Hyper-personalization in Goods
Communities of Content	Connected Home	City Logistics	Assisted Driving		Products to services and experiences
IP Frameworks for the Digital Age	Same-day Delivery	Self-driving	Living Services		Health and Well-being goods and services

Key:

Growth through digitalization customer facing revenue generation	Efficiency through digitalization internally facing profit generation	Digital experience combination of growth and efficiency
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8.3.6. Digital Economy and Investment

The behaviors in consumption, production and trade are now largely influenced and fashioned by the rapid expansion of digital economy where internet-based technologies are applied vastly. This in turn has transformed the global investment trends, the creation of new markets and the efforts to tackle the persistent development problems.

On the other hand, the pervasive changes in the political economies of developing nations pose remarkable challenges. According to the ITU (International Telecommunication Union), some 3.8 billion people, have never been online – and they are concentrated in Asia-Pacific and Africa. Such a digital divide is caused by a lack of investment and capacity or structural problems (Raul and Fernando, 2018).

Hence, the journey to digitalization is a complex one, calling for in-depth and strategic interventions. This section provides insights into how the investment and digital economy interact with each other. Identifying this issue can be a foundation to innovating policy measures for developing nations like Ethiopia.

We could not find any relevant data specific to investment in digital infrastructure, digital services, or digital human capital in this study. Therefore, the key – informant interview alone is inconclusive and could not be used for reliable forecasting of investment in Ethiopia over the coming years.

8.3.7. Foreign Direct Investment in a Digital Economy

Foreign Direct Investment (FDI) can be considered as a vehicle by which firms achieve their strategic objectives. A company must possess some assets such as product and process technology or management and marketing skills that can be used beneficially in the foreign affiliate in order to invest in production in foreign markets.

MNEs locate production or market activities abroad where they can benefit from market power expansion and location specific advantages. So, market expansion and cost reduction are the two advantages that MNEs pursue through FDI. Foreign direct investors’ advantage stems from their special experience and know-how in a particular industry by outbidding other investors for

the top productivity firms. Foreign investment may benefit host countries through transfers of technology, stimulation of technology diffusion from new competition, and provision by foreign firms of worker training and management skill development (GeoriosZekos, 2016).

8.3.8. Relationship between Digital Economy and Development

While the 2016 World Development Report is not about specific technologies, it generally covers the impacts of digital technologies and services that facilitate the creation, storage, analysis, and sharing of data and information. The Report uses the terms “digital technologies,” “internet,” and “information and communication technologies (ICTs),” interchangeably. The “Internet” emphasizes the central importance of connectivity (World Development Report, 2016).

As per the report, even though economics considers the market the most efficient way of organizing economic activity, large companies tend to operate in a self-contained, command-and-control environment. The internet promotes inclusion, efficiency, and innovation. The vast existence of internet throughout the world has resulted in a far lower cost of acquiring and using information, which in turn has lowered transaction costs—and consequently, production costs (ibid).

By lowering the cost of these transactions, the internet affects economic development in three major, interrelated ways.

- Firstly, the internet can help overcome information problems. The emergence of e-commerce platforms has made it much easier for small producers to find customers, and even for individuals who cannot use traditional marketing tools like advertising or trade shows. The internet, by vastly lowering search and information costs, creates additional markets.
- Secondly, lower transaction costs can raise the productivity of existing factors of production. Most transactions were already taking place before the digital revolution, but the internet has made them faster, cheaper, and more convenient. The internet has brought numerous improvements to businesses that, while individually not often spectacular, add up to enormous aggregate benefits. Better communication and information processing improve supply chain management and enterprise resource planning.
- The third one is raising innovation—this is typically associated with the “new economy.” For many internet-based businesses or services, fixed up-front costs can be high, but once the online platform is in place, each additional customer, user, or transaction incurs very little extra cost. The marginal transaction cost essentially drops to zero because what previously involved routine human labor can now be fully automated.

In addition, scale economies also exist on the demand side. For many services, the more people use it, the more valuable it becomes to its users and the more users it attracts. With demand-side scale economies, the average revenue or utility rises with scale (ibid).

8.3.9. Measuring Digital Economy

Given the increase in digitally enabled economic activity and - its growing economic importance, - measuring the digital economy is an essential process. In this section, the challenges faced by scholars to measure digital economy is briefed and basic indicators of the digital economy are recommended.

Challenges of Measuring Digital Economy

Measuring the digital economy is subject to critical challenges such as:

- **Definition/boundaries:**the definitions of “digital economy” vary making it tough to measure and compare. The boundary-related definition problem of digital economy vis-à-vis the rest of economy poses its own difficulty in terms of measuring it (OECD, 2019).

- **Data Quality Problems:**the lack of or poor existence of quality data, especially in developing nations, is a profound problem in this case (ibid).
- **Problems with Price:**prices are ever-increasing for the same amount of low-quality ICT power, storage, etc. (ibid).
- **Invisibility of Digital Economy:** in many cases, ICT-enabled economic activities are not visible which makes it difficult to calculate the value addition between the production lines (ibid).

International initiatives for measuring the digital economy

A wide range of international organizations and other groups are involved in statistical work related to different aspects of the digital economy. This partly reflects the cross-cutting nature of digitalization and its impact on many policy areas and spheres of economic activity. However, few organizations have tried to measure the digital economy in a holistic manner (UNCTAD, 2019).

- The International Telecommunication Union (ITU) is responsible for the measurement of telecommunication and ICT topics such as ICT infrastructure, ICT access and use by households and individuals, as well as some indicators related to e-commerce and ICT skills (Barefoot, 2018).
- The International Labor Organization (ILO) undertakes methodological work through the International Conference of Labor Statisticians, which deals with employment aspects of the digital economy. This includes employment in the ICT sector or in ICT-related occupations, as well as areas of informal employment and work-related aspects of digital platforms (UNCTAD, 2017).
- UNCTAD provides methodological guidance and technical assistance for its member States in areas such as ICT and the trading of ICT goods and services. It collects relevant data for both developing and transitional economies. It is also an active participant in international initiatives aimed at improving the availability of statistics on e-commerce and trade in the digital economy. In addition, it has developed methodologies for measuring exports of digitally delivered services (UNCTAD, 2017).
- The recently established Intergovernmental Group of Experts (IGE) on E-commerce and the Digital Economy convened by UNCTAD, aims to build international consensus on issues dealing with relevant statistics. As per IGE's advice, UNCTAD is establishing a new Working Group on Measuring E-commerce and the Digital Economy; this group will support dialogue and policy development, and will help improve the availability of relevant statistics, particularly in developing countries. It will also seek to identify specific measurement opportunities and challenges for developing countries (UNCTAD, 2019).
- The Inter-agency Task Force on International Trade Statistics (TFITS) works to foster international cooperation on trade statistics. It has considered several topics of relevance to the digital economy, including trade in ICT goods and services, and, more recently, digital trade (ibid).

8.4. Countries' Experiences on Digital Economy

Digitalization poses particular challenges for developing countries. Maximizing the benefits of the digital economy requires a basic level of ICT infrastructure that many emerging economies still lack. Moreover, digitalization is far more advanced in developed countries making them "takers" of technological and regulatory developments in the rest of the world. Emerging economies have the most to gain but also the most to lose from digitalization because they are often further from the technological frontier than their developed counterparts. Countries that fail to go digital run the risk of falling behind in their international competitiveness and may find it increasingly difficult to improve the wellbeing of their populations (Carl, Sam & Martin, 2016).

The pace of technological change is accelerating, and technological change often outpaces regulation. One key challenge for policy makers then is how to craft policies to exploit the digital economy rather than merely reacting to its effects. Failing to proactively harness the digital

revolution will have deleterious consequences across a range of domains like countries' growth prospects, regional competitiveness, incorporation into high-value global production chains and attractiveness as a destination for high-skilled labor (Carl et al., 2016).

The diffusion of digital technologies within developing countries presents a significant challenge for both cross-national income convergence and accessibility. Whilst developing countries have become more adept at adopting new technologies in terms of reducing the initial adoption lag, they are falling behind in terms of widespread technological diffusion within-country. Slowing technological penetration within developing countries is problematic because it exacerbates the digital divide between urban and rural communities, educated and less educated people, younger and older people. Rectifying this situation means everything from investing in ICT infrastructure in remote areas to up-skilling workers or providing IT illiterate people with the skills needed to flourish in the digital economy (Carl et al., 2016).

The digital economy could exacerbate income inequality. Much of this can be explained by skill-based technological change (SBTC), which increases the demand for educated workers. The structural shift in the labor market has reallocated workers to low-skill jobs less susceptible to automation and increased the demand for high-skill jobs, thus heightening income inequality (Frey and Osborne, 2013).

Furthermore, digitalization poses potentially severe implications for developing countries. Digitalization and automation in advanced economies may reduce the need for migrant labor to supplement ageing labor forces. This could deprive emerging economies of a significant means of financing in the form of remittances. It could also deprive these economies of up-skilling as migrants, with enhanced skills developed in their host countries, will stay on rather than return home. (Carl et al. 2016).

8.4.1. Mauritius

The ICT sector has become the third pillar of the economy in less than 15 years and is currently contributing to 5.6% of the country's GDP annually. Around 23,000 people are employed in the ICT sector with a value-added contribution of Rs22 Billion to the economy, out of which, Rs9.6 Billion constitutes exports of ICT goods and services. The sector is growing at the rate of 4.4%. It is expected that the ICT sector would contribute up to 10% of GDP annually and would create around 50,000 jobs by 2030 with the objective of Mauritius consolidating its leadership in Africa and improving its global rankings on major ICT Indices. The country designed five Strategic Waves to achieve by 2030. They are ICT Infrastructure and Broadcasting; E-Government and Business Facilitation; Talent Management; Cyber Security and Cyber Crime; and Innovation and Emerging Technologies (Mauritius, 2019)

8.4.2. Kenya

The Kenyan ICT sector, dubbed as the "*Silicon Savannah*," has grown by an average of 10.8% annually since 2016, becoming a significant source of economic development and job creation with spillover effects in almost every sector of the economy. Kenya is currently providing Digital Learning Program for 93.4% of its public primary schools (World Bank, 2019). The government is providing basic infrastructure and supporting policy and regulatory frameworks, leaving it to private investors to build and operate the industrial development. Construction began in 2013 and is expected to take 20 years, by which time it is predicted to have created 200,000 jobs in the information technology sector.

Kenya, in line with its ambition of being Africa's digital economy leader, launched a digital economy blueprint for Africa aimed at guiding African countries towards the adoption of digital technologies in order to participate and thrive in the digital global economy. (Kenya, 2019).

8.4.3. Senegal

Services constitute an essential and growing part of the Senegalese economy—domestically in terms of contribution to GDP (59% in 2014), employment (38% of the working population in 2011), and in terms of cross-border exports (commercial services exports grew 7.2% yearly from 2010 to 2013, on average). Several factors have helped shape Senegal’s success in exporting information and communications technology (ICT) and business process outsourcing (BPO) services. Factors such as Senegal’s specific commitments to basic and value-added telecommunications under the General Agreement on Trade in Services (GATS), Senegal’s additional commitments to the World Trade Organization’s (WTO’s) Telecommunications Reference Paper, the inclusion of teleservices (i.e., BPO) in the list of sectors to benefit from preferences under the investment code and the targeting of telecommunications in the list of infrastructure services constraining enterprise growth under the Action Matrix of the Enhanced Integrated Framework. According to a 2011 stakeholder mapping of the ICT sector, the distribution of firms by main activity was the following: sales, rental, and repair of equipment (31%); creative activities (radio, television, music) (8%), integration of information systems (8%), software development (7%), computer consulting (5%), internet service providers (4%), provision of web services (4%), Tele related services(3%), provision of mobile services (4%), telecommunication consulting (4%), and other (16%). It can be estimated on the basis of this exercise that BPO providers represent 3% of the profession and that information technology services (ITS) providers represent 28% of the profession. The structure of the ITS market is highly competitive. In contrast, the market structure of the BPO industry is similar to that of an oligopoly, where three firms (PCCI, IBEX, and Call Me) occupy more than 70% of market share. The Evolution of BPO and ICT Services in Senegal targeted the domestic ICT ecosystem and played a significant role in underpinning the export success of BPO and ITS providers. Key factors characterizing the development of the layer of end users in the ecosystem include: (I) the 9th Orientation Plan for Economic and Social Development (1996–2001), which identified the need to eliminate or reduce tariffs and taxes on ICT; (II) the establishment of two associations to lobby the government to promote enhanced access to the Internet and its scope of applications: the Observatory on Information Systems, Networks and Information Highways (OSIRIS) in March 1998 and the Senegalese Section of the Internet Society (ISOC-Senegal) in February 1999; (III) the final decision in 1999 to lower tariffs on computer imports from 26% to 5%; and (IV) a complete liberalization of the sale of terminals. Factors influencing the development of the layer of telecommunication network operators and Internet service providers (ISPs) can be linked to the introduction of a new telecommunication code in 1996, the privatization of the incumbent provider (Sonatel) in 1997, and the 1997 pre-commitments undertaken by Senegal at the WTO regarding telecommunication services. On the layer of providers of value-added services (VAS), Senegal undertook initial commitments in 1995 and deepened these with further GATS commitments in 1997. VAS providers are also subject to the legal regime of the statement of intent in the new telecommunication code (2011), which provides greater scope for innovation in the development and delivery of VAS. While disaggregated data for BPO and ICT services are not effectively captured in most services statistics, commercial services exports that can be approximated as related to ICT grew an average of 11.5% annually from 2009 to 2013 and constituted 46.6% of total service exports in 2013. These exports are primarily composed of computer, information and telecommunications services (averaging 22.9% annual growth per year during 2009–13) and ‘other business services’ (2.0%).

The growth of trade in business services, particularly information technology services (ITS) and business process outsourcing (BPO), is now one of the fastest areas of growth in international trade. In 2013, the export of these services was estimated at US\$ 648 billion for ICT and US\$ 304 billion for BPO services. In Senegal, trade in services related to information and communications technology (ICT) was worth US\$ 520 million in 2013 (most recent data). This represented

approximately 47% of cross-border services trade in Senegal in 2013, having experienced strong annual growth of 11.5% over the period 2009–13. ITS and BPO thus constitute important and growing sectors in Senegal.

The value of Senegalese services exports in 2012 (based on balance of payments data) reached US\$ 941 million against US\$ 2,532 billion for goods (see Table 2). The share of services in cross border trade would therefore represent 27% of exports.

8.4.4. Morocco

Morocco has developed a digital transformation strategy that aims to accelerate innovative digital solutions through e-government services, private sector digitalization, and the use of digital financial services to promote inclusion of individuals and MSMEs. In Morocco, 17.3 percent of citizens in urban areas make online purchases. Morocco's technoparks host start-ups and small and medium-sized enterprises (SMEs) specializing in ICTs (World Bank, 2019),

8.5. Opportunities and Challenges of Digital Economy in Ethiopia

8.5.1. Challenges in ICT Legal and Regulatory Environment of Ethiopia

Creating an appropriate legal and regulatory environment is the key strategic decision variable for countries to harness the full possibilities presented by ICT. Regulation must be fair, neutral, and nimble and such that it will not impose unnecessary (regulatory) burden on providers, stifle innovation and fetter the sector's contribution to economic growth³⁸.

The government of Ethiopia re-organized its federal ministerial organizations in 2018 by a proclamation titled 'Definition of Powers and Duties of the Executive Organs of the Federal Democratic Republic of Ethiopia Proclamation No. 1097/2018'. As a result of this reorganization, the Ministry of Information Communication Technology has been dissolved and the regulator has been re-established. As one of the ministries responsible for the ICT sector, the Ministry of Innovation and Technology is tasked with the purpose of setting standards to ensure the provision of quality, reliable and secure information technology services, and oversee implementation. That will include:

- Preparing national innovation and technology research and development programs based on the country's development priorities; planning institutional capacity and human resources development for effective implementation of the programs;
- Supporting capacity building of institutions and professionals involved in innovation and technology activities - essentially encouraging professional associations and academies; etc.

On top of that, the country has initiated the process of de-monopolizing the telecom-sector. The initiative is focused on securing the quality, affordability, accessibility and advancement of telecom infrastructure and services. In line with the liberalization processes, the Ethiopian Communications Authority was established with the following objectives:

- Promoting the development of high quality, efficient, reliable and affordable Communications services throughout the nation;
- Promoting a competitive market for the achievement of these goals; and
- Promoting the interests of consumers.

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 38 *Review of the legal and regulatory frameworks in the information and communications technology sector in a subset of African countries; United Nations Economic Commission for Africa, 2017*

This study identified the core legal and regulatory gaps in ICT and general interventions as summarized in the following table (AACCSA, 2018)³⁹.

Table 8.3: Major legal and regulatory gaps in establishing digital economy and investment are briefly discussed.

Modules of Legal And Regulatory gap	General Intervention areas	
Roadmaps, Strategies, and laws	SR01	Develop Digital Economy Roadmap; Industrial Revolution 4.0 Vision;
	SR02	Develop a clear regulation regarding digital platforms and shared services
	SR03	Develop a targeted strategy in local cloud-based services
	SR 04	Develop a targeted strategy for developing a local IT-based services and BPO (Business Process Outsourcing) industry;
	SR 05	Set-up clear procedures for joint-venture (JV) partnership of local and foreign ICT companies;
	SR 06	Establish adequate legal Strategy; for IPR (Intellectual Property Right) to remove pirated software and promote regulatory frameworks for developing the IT-BPO sector and for implementing innovative micro-work programs;
	SR 07	Establish a legal framework and regulatory systems for e-commerce and electronic payment systems
	SR 08	Develop a clear Data protection and a Cyber-security framework;
	SR 09	Develop a defined strategic policy towards Electronic identification, digitization, and digitalization;
	SR 10	Develop and enforce legal framework regarding Digital signature;
	SR 11	Establish a data driven government policy that automates government Services end-to-end
	SR 12	Setup a regulatory framework that addresses the gap in ICT regularly issues in Mobile and electronic payment
	SR 13	Develop a clear strategic framework on digital start-ups
	SR 14	Review tax & Custom laws so as they align with digital economy
	SR15	Develop a policy framework to develop a home-grown digital technology & Service
	SR 16	Provide protection of micro and small enterprises from unfair competition with MNEs

³⁹ The major legal and regulatory gaps in establishing digital economy in Ethiopia is adopted from a study by Ronabit Consults.

Modules of Legal And Regulatory gap	General Intervention areas	
Institutionalization	IA 01	Encourage the establishment of multilateral partnership among Universities; Research & Development centers; Venture Capitalists; and Industries in the digital sector;
	IA 02	Build the capacity of the regulator in defining quality benchmarks, auditing QoS reports that are submitted by the operator; applying appropriate measures when the operator fails to meet those standards
	IA 03	Establish diversification of the Ethiopian Economy through prioritizing the ICT sector in federal and regional government structures
Stimulants, Incentives and Promotion	IP 01	Stimulate Digital Sector investment through impactful and competitive incentive structures
	IP 02	Promote start-ups through a focused, competitive, and effective incentives structure
	IP 03	Ensure access to finance for start-ups through targeted policy framework
	IP 04	Promote Research and Development in the digital sector
	IP 05	Promote the digital sector through global events;
Digital Infrastructure	DI 01	Develop a clear roadmap and strategy (including investment budget) to provide a world class network capability (Internet gateway, national backbone infrastructure; broadband; etc.) to meet the demand of 2Tbps to 10 Tbps in 2025
	DI 02	Promote investment in world class Data Centers capable of large-scale data storage and cloud service provision
	DI 03	Ensure access to uninterrupted and adequate electric power supply required to power the digital infrastructure
	DI 04	Ensure the availability of legal and regulatory environment to fight against cybercrime
	DI 05	Review and align the legal and regulatory frameworks on software/Applications, systems, Interoperability, and APIs with the digital technology
	DI 06	Develop laws governing disruptive technologies like Internet of Things; 3D printing and Invest on such technologies
	DI 07	Rollout of digital high-speed broadband infrastructure;
	DI 08	Take rigorous steps to unleash the benefits of competitive telecom market and services through liberalizing the telecom sector;
	DI 09	Promote the development of ICT parks and special IT zones incubating digital startups
	DI 10	Stimulate the use of digital technology & emerging technologies like Robotics, cloud, Artificial Intelligence, 3D printing, etc. in manufacturing and precision agriculture

Modules of Legal And Regulatory gap	General Intervention areas	
Digital Services	DS 01	Develop a strategy for fostering end-to-end data – driven government service
	DS 02	Establish a policy framework to force all public organizations to provide all their services digitally only (Only Digital Services)
	DS 03	Enhance the awareness of the business community and the general public about digital services
	DS04	Sustain various electronic government services upgrading them to digital Government initiatives
	DS 04	Revise the public procurement procedures to align to new trends in digital technology.
	DS 05	and support business innovation and productivity across the economy
	DS 06	Since the country has vast domestic market, it is most significant to enhance the role of electronic services (B2B, B2C) provision by which companies and individuals can handle their purchases and sales on-line.
Digital Human Capital, Talent & Competency	DT 01	Prepare a strategy for systematically developing skills and addressing skill gaps/deficiencies that could be taken up in close partnership with the private sector
	DT 02	Build digital talent in all priority through training the existing workforce and making sure that schools, universities, and polytechnics provide digital human capital development
	DT 03	Frequently update the higher education curriculum and short training course in the ICT sector in collaboration with the private sector and research institutes
	DT 04	Establish nationwide ICT skill Assessment Certification, and Grading program in collaboration with higher education centers;
	DT 05	Collaborate with global venture and incubating firms and link aspiring entrepreneurs in Ethiopia to global Startups
	DT 06	Expand the practice of hosting apprenticeship and graduate projects of ICT students in private companies in order to facilitate the knowledge transfer and local innovations

8.5.2. Low ICT usage in Businesses

Businesses in Ethiopia are mainly characterized by low adoption of Information Communication technology for productivity and value addition. The following table summarizes a study conducted by AACCSA in 2018 on Use of ICT in Businesses in Ethiopia. (AACCSA, 2018).

Module	Core Indicator	Current Status
Connectivity	Computer and broadband users	<ul style="list-style-type: none"> • Most Managers & employees of businesses computers & mobiles • Most businesses use broadband at their workplaces
Digital decisions	Businesses using data analytics	<ul style="list-style-type: none"> • Less than 10% of businesses understand data value chain
Platforms	Businesses using platforms & monetized data	<ul style="list-style-type: none"> • Taxi hailing services (Ride, Zay Ride, ...) started using platforms for services • Most banks use mobile based payment services (Amole, Hibre, CBE-Birr, M-Birr ...) • Entertainment & Information platforms (Dire Tube, Minew-Shoa, • Talent & VCs (Gebeya, Bluemoon) • Logistics and delivery (Balderas, Deliver Addis, etc.)
Digital Competencies	ICT skills	<ul style="list-style-type: none"> • Most companies have IT support staff
Web presence	Businesses having Website	<ul style="list-style-type: none"> • Many the business have website for their businesses.
Data Interchange	Internal/External Electronic Data Interchange	<ul style="list-style-type: none"> • 75% of business enterprises are using intranet for their internal communication and data exchange. • Less than 30% of business enterprises are currently using extranet to communicate with their business partners.
E-commerce	Making Sales or Purchase via Internet	<ul style="list-style-type: none"> • Less than 30% of business enterprises sales or purchases via the internet
Security and Privacy	IT security measures in place	<ul style="list-style-type: none"> • Only less than 30% of business enterprises have developed IT security policy for their business
Digital government	Data driven policy making and service provision	<ul style="list-style-type: none"> • The digital transformation strategy is under development • Less than 25% of businesses download formats and send completed formats to authorities to declare taxes etc.

8.5.3. E-Commerce

Digital technologies and digital connectivity have made business possible over digital platforms. New terms like e-business, e-commerce, and e-tailing are now ubiquitous in every language. E-business (electronic business) is the conduct of business processes on the Internet while e-commerce (electronic commerce) is the buying and selling of goods and services and the transmitting of funds or data, over an electronic network. Electronic retailing (E-tailing), on the other hand, is the sale of goods and services through the Internet which include business-to-business (B2B) and business-to-consumer (B2C) sales of products and services. E-tailing requires companies to tailor their business models to capture Internet sales, which can include building out distribution channels such as warehouses, Internet webpages, and product shipping centers.

In 2017, global e-Commerce sales were USD 2.3 trillion accounting for 10.2% of all retail sales. This figure is expected to reach 17.5 % in 2021 where Shared economy alone will grow 22-fold to 335 billion USD in 2025. There were at least 21 million online shoppers in Africa in 2017, with an annual surge of 18% since 2014, as compared with the world average of 12%. Mobile money continues to rise, and Africa boasts the largest share of adults with mobile money accounts in the world.

Innovations are emerging in different stages of the e-commerce lifecycle. New technologies have already disrupted traditional businesses, created new sales channels, generated new hybrid companies, brought new customer experience; and have essentially forced brands and traditional retailers to reconsider their business models. New companies which are hybrid of IT, logistics, and marketing companies are operating on a global scale.

Currently, e-Commerce platforms like Alibaba, with around 576 million active users in 2018, and Amazon with around 310 million active users in 2016, can impact the e-commerce because of their big active user base. Due to the dominance of e-retailers, around 8,950 traditional retail stores got closed in USA in 2017 alone. New developments like e-commerce enablers, retail 4.0, image/video driven interactive e-commerce, mobile retail shop, are in the horizon promising more disruptions and challenging the survival of traditional retailers (BayCurrent, 2017).

UNCTAD estimates that the B2C e-commerce market in Africa was worth about \$5.7 billion in 2017, which corresponds to less than 0.5% of GDP - far below the world average of over 4%. According to the 2018 version of UNCTAD's B2C E-commerce Index, the African region lags the rest of the world in terms of e-commerce readiness. Mauritius, ranking 55th globally, is the highest ranked African country, while nine of the ten least prepared countries are in Africa.

Although African countries have made significant progress over the past few years to enhance their e-Commerce readiness, persistent gaps remain as countries are at different stages of e-commerce development. The major challenges remain broadband infrastructure, Internet penetration and affordability, trust, trade logistics, fragmentation of markets and payment systems, lack of basic literacy and e-Skills, and lower demand for non-food and luxury products. E-commerce, the fundamental component of digital economy, will unfold its full potential only with a significant market size and regional market integration as domestic markets will not be of enough size for all goods. Thus, creating a bigger demand pool is significant for African e-Commerce trade. Hence why the African Continental Free Trade Area (AfCFTA), from a market size perspective, is entirely relevant. (BayCurrent, 2017)

8.5.4. African Continental Free Trade Area/ACFTA/

The African Continental Free Trade area– the largest global free trade agreement among the 55 African countries, with an estimated market size of almost USD 3.0 Trillion – provides a significant demand for e-commerce & e-businesses. This is sure to galvanize the continent's digital economy & investment. Benefits of the ACFTA include: facilitating package delivery and trade logistics for

customers in other member countries with lower or no tariff, providing free access to the market and market information, and eliminating trade barriers. With tariff restrictions lifted on foreign investment, investors and capital may flock to Ethiopia stimulating more economic growth.

As a result, Ethiopia and other African countries can benefit from expanded markets for Ethiopian goods and services. African nations will benefit from the free movement of factors of production, more efficient allocations of resources which can promote economic diversification, technological progress and human capital development. In contrast to the opportunities, policy makers and regulators of Ethiopia may also be challenged by increased competitive pressure on local producers forcing them to lose huge sales to foreign suppliers. It is worth noting that the latter can lower the cost of their products by leveraging the reduced tariffs imposed on imported goods. Protecting the Intellectual property rights of inventors and entrepreneurs might be another major challenge regulators might face because failure to do so could result in small, micro, and medium Enterprises reducing investments in research and development. Other challenges, according to the World Bank include an underdeveloped private sector. This, could limit the country's trade competitiveness and resilience (World Bank, 2019).

The Ethiopian government plans on expanding the role of the private sector through foreign investment and industrial parks. The aim is to make Ethiopia's growth momentum more sustainable through the new Homegrown Economic Reform Agenda.

To sustain the development momentum Ethiopia, under AfCFTA, should introduce policies that address the concerns of chambers of commerce and unions. It must encourage healthy competition without undermining local businesses and suffocating Small, Micro, and Medium Enterprises (World Economic Forum, 2018).

8.5.5. Trade Logistics

Trade logistics are among the fundamental components of e-commerce, making them equally critical for digital economy. Digitalizing the basic information infrastructure for postal and logistical services in countries will be a good basis for accelerating e-commerce on the continent. With a relatively poor geographical home address structure in place, it is difficult for packages to be delivered at the right place at the right time. This is a key issue as Ethiopia works with post office boxes and not with a postal address system; and while solutions could be drawn up, this would require establishing a harmonized system underpinned by National Spatial Data Infrastructure policies and strategies.

In this context, the introduction of new logistics will also play a vital role. Services such as drone delivery, ride sharing, ride-hailing (ride, zay ride ...) and car rental with goods delivery (Baldaras ...) will improve in-country logistics especially short to medium distance logistics.

There is also significant gap between readiness skills and data to adopt and enforce relevant policies as well as a gap between laws and regulations to harness e-commerce and the digital economy for development. Other challenges include taxation, cross-border trade challenges, Digital infrastructure, physical infrastructure and digital skill that Ethiopia should address (World Economic Forum, 2018)

8.5.6. Integrated Cross Border Customs Clearing

To foster e-Commerce and to harvest the continental markets (ACFTA), e-Commerce requires selling and buying goods and services in various countries, not just in the domestic market. However, the time and cost associated with cross border logistical processes – documentary compliance, border compliance, and domestic transport- are very high.

8.5.7. Digital Financial Services

Digital Financial Services are one of the main enablers of the digital economy in Africa, providing a solution to the low bank services penetration. It is worth noting that Africa is a global leader in mobile payments. Digital Financial Services can be leveraged to provide insurance, savings, remittances, payments and credit solutions for greater financial inclusion, and technical financial services can be leveraged on a business-to-business basis to improve innovation, efficiency and growth of incumbent financial institutions (for example, through the development of new mobile banking apps or credit scoring methodologies).

Though 70% of jurisdictions in Sub-Saharan Africa claim to have a regulatory framework for non-bank e-money issuers—including mobile network operators, and financial consumer - there is still space for improvement especially in the digital financial services within ACFTA.

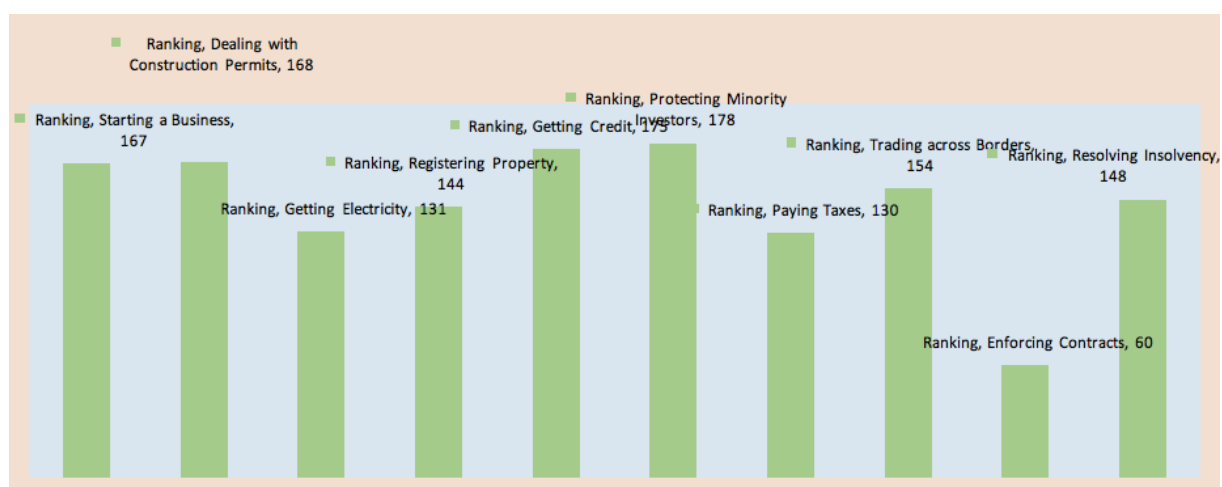
8.5.8. Digital skills

Digital skills and competencies are critical because failing to update skills sets to cope with industrial revolution 4.0 will reduce employment and subsequently, the income of workers. This could lead to a potential increase of tension between workers and employers. Since ICTs are entrenched in our daily lives, we are all forced to possess at least rudimentary knowledge of ICTs to solve ordinary problems, engage in community activities, and protect ourselves from abuse, fraud, and cyber-attacks. Public service providers as well as private businesses require lifelong learning schemes in addition to incessant short-term trainings on Information Communication technology disciplines.

Ethiopia, in its ICT labor forecast of 2020, needs to recruit from 46,000 to 50,000 ICT professionals with an annual skill gap of -135 in PhD, -254 in Masters, and 626 in bachelor’s degrees. Ethiopia, therefore, is required to build digital competencies through education by incorporating digital skills in the curriculum of all public primary schools. The new education policy now includes courses on future technology trends *The Business Environment of Ethiopia*

The World Bank ranked Ethiopia 159th out of 190 countries for “ease of doing business” in its Doing Business 2019 report (World Bank, 2019). According to this report, Rwanda, Kenya and Egypt are 29, 61 and 120 respectively. The following graph presents Ethiopia’s rank in “Ease of Doing Business” in terms of 11 indicators.

Figure 8.5: Ranking of Doing Business – Ethiopia (by each Sub-indicator)



Source: A World Bank Group Flagship Report, 2019

8.5.9. Accounting for Digital Spillover Effects

Ethiopia wants to capture potential positive spillover effects from digital investment of companies, which would multiply the impact on the overall economy. One modeled the issue in direct and indirect effects. The direct one is mainly related to the rise in productivity while the indirect effect is explained through three fundamental channels:

1. **Internal Channel: through learning by doing (i.e. how companies can amplify their initial gains as they learn more about how to leverage technology across departments);**
2. **Horizontal Channel: also known as r competition effects where with innovations by one company are being emulated by others, leading to productivity gains across the sector;**
3. **Vertical Channel: or supply chain effects but productivity gains achieved in the delivery of digital goods and services are passed down the supply chain from primary producers to end users) (ibid).**

8.6. Impact of digitalization on Ethiopian Economy: Modeled Analysis

Digitalization in this context refers to the transformation of the techno-economic environment and socio-institutional operations through digital communications and applications while Digitization per se, is the process of converting analogue information to a digital format. Unlike other technological innovations, digitalization emanates from the evolution of digital Infrastructure (basically wireless broadband, fixed broadband networks, and Internet servers), mobile and fixed telephone technology (used to access government services, electronic commerce, social networks), and internet (for making availability of online information in fora, blogs and portals). In order to measure the economic impact of digitalization, it is necessary to develop metrics that determine the country's level of digital technology development (ITU, 2018).

8.6.1. Theoretical framework

The country's regional stage of development in the adoption of ICT has been progressing over the last twenty years. While the original focus was to assess the deployment and adoption of telecommunication and information technology infrastructure, research has been gradually expanding its focus to include the use of digital technologies (electronic commerce, electronic government, social networks), and the development of industries within the full digital value chain (Internet platforms, collaborative Internet services, etc.). The research was carried out using indices such as the International Telecommunications Union ICT Development Index, the World Bank Knowledge Economy Index, the World Economic Forum Network Readiness Index, and the Inter-American Development Bank Broadband Development Index. Such indices address aspects of the digital ecosystem, such as broadband penetration, or include a limited number of indicators. (ITU, 2018).

Figure 8.6: Model Structure of Digitalization



While this research shows the impact of digitalization on the economic growth of Ethiopia, the following table shows the components and subcomponents of major proxy variables and data used to test the hypothesis.

Table 8.4: Proxy variables and data used to test the hypothesis

Component	Subcomponent	Data
Digital Connectivity	Internet servers	Internet servers (per 1 million people)
	Fixed broadband	Fixed broadband subscriptions (per 100 people)
	Mobile Broadband	Mobile broadband subscriptions (per 100 people)
Digital Technology	Cellular mobile penetration rate	Mobile cellular subscriptions (per 100 people)
	Fixed telephone penetration rate	Fixed telephone subscription (Per 100 people)
Digital Platform	Internet security	Secure Internet servers (per 1 million people)
	Population of Internet users	Individuals using the Internet (% of population)

Therefore, the impact of digitalization (as an interaction of digital connectivity, Digital technology use; and Digital platform utilization) on economic growth is tested. We applied a growth model, stemming from the simple Cobb – Douglas form, relating GDP to the fixed stock of capital, labor force, and the digitalization

$$Y = A(t) K^{1-b} L^b$$

as a proxy of technology progress.

Where A(t) represents the level of technology progress (in our case the digitalization),

K corresponds to the fixed capital formation, and

L to the labor force.

By converting all terms to logarithms, the coefficients can be estimated through an econometric model.

Where

GDP is gross domestic product,

K is capital accumulation of the country,

L is labor force which can access digital platforms,

Di is weighted average of proxies for digitalization and product

is error term.

8.6.2. Data

A list of the data series between 1980 and 2018 used to construct the digitalization with economic development is included in Annex 3.

8.6.3. Results and Discussion

The economic impact of digitization is higher than that of broadband (first hypothesis)

The model was run between 1980-2018, which results in 38 observations

Table 8.5: Economic Impact of Digitalization : General Model

Variables, 1980-2018	General model
Previous GDP	0.7443482 *
	(0.0472213)
Digitization	0.1170343*
	(0.0178062)
Capital	0.1043 *
	(0.0199)*
Labor	0.0093
	(0.0380)
Constant	8.71543 *
	(0.1089671)
Observations	38

*. Significant at 1 per cent critical value

Source: Ronabit Research

According to the model, an increase of 1 per cent in the digital ecosystem development index results in a 0.12 per cent growth in GDP per capita.

Table 8.7: Regression Result from Stat output

Source	SS	df	MS			
Model	2.79093568	3	.930311894	Number of obs =	38	
Residual	.138083862	34	.00406129	F(3, 34) =	229.07	
				Prob > F	= 0.0000	
				R-squared	= 0.9529	
				Adj R-squared	= 0.9487	
				Root MSE	= .06373	
Total	2.92901954	37	.07916269			

logGDP	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
logGDPPC	.7443482	.0472213	15.76	0.000	.6483831	.8403134
logDI1	.1170343	.0178062	6.57	0.000	.0808477	.1532208
logINT	.0956476	.0069257	13.81	0.000	.0815728	.1097225
_cons	8.71543	.1089671	79.98	0.000	8.493982	8.936877

Test for hetero-skedasticity shows that there is no hetero-skedasticity problem in the data.

Table 8.8: Test for heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance
Variables: fitted values of logGDP

chi2(1) = 10.47
Prob > chi2 = 0.0012

And multi-co-linearity test shows that there is no multi-co-linearity problem in the data

As it is seen from variance inflation factor (VIF) there is no multi-co-linearity problem.

Table 8.9: Multi Co-linearity test

Variable	VIF	1/VIF
logDI1	3.84	0.260201
logINT	3.48	0.287380
logGDPPC	1.26	0.796662
Mean VIF	2.86	

The relation between DI with GDP, GDPPC and INT is positive and even it is strong with GDP / r = 0.624 and INT/ r = 0.843

Correlation table

	logGDP	logGDPPC	logINT	logDI
logGDP	1.0000			
logGDPPC	0.7702* 0.0000	1.0000		
logINT	0.7780* 0.0000	0.3391 0.0373	1.0000	
logDI	0.6240* 0.0000	0.4461* 0.0050	0.8431* 0.0000	1.0000

8.7. Key Performance Indicators of the Digital Economy

Notwithstanding challenges, the following are proposed key performance indicators of digital economy which call for data availability. To assess how enterprises can maximize the value of digitalization for industry and society, four cross-industry themes were also analyzed: digital consumption, digital enterprise, societal implications and platform governance. Individually and collectively, these themes represent dramatic shifts in the way demand is met by suppliers.

8.7.1. 6.7.1 Value Addition in the ICT Sector

The ICT sector is well-defined, with international classifications comprising ICT manufacturing, ICT wholesale trade and ICT services.

- 1. Overall Trend of Value Added in the ICT Sector** - it implies the share of the ICT sector’s value added in the national GDP (Gross Domestic Product) of a given economy.
- 2. Value Added in ICT Manufacturing** – in this case, developing countries might not need to use the indicator as a measurement for their digital economy because ten economies (especially sub-Sahara African countries) account for as much as 93 per cent of this subsector’s global value. Of the ten leading digital economies, eight of them are in East Asia in 2017 (UNCTAD, 2019).
- 3. Value Added in Telecommunications and Computer Services** – this entails a few sub-groups in the telecom infrastructure and appliances sector. These are:
 - Value added in telecommunications as a share of GDP;
 - Value added in communications services as a share of GDP;
 - Value added in computer services as a share of GDP;

8.7.2. 6.7.2 Employment in the ICT Sector

This is an important part of ICT sector measurement which can be categorized into two:

- *Employment in the ICT sector* – which follows the narrow scope definition of the digital economy;
- *Employment in ICT occupations in the economy* – which is linked to the broad, digitalized economy;

As for many other variables related to the digital economy, challenges to measuring employment in least developed countries are particularly acute in terms of data availability.

8.7.3. 6.7.3 Trade Related to the Digital Economy

Some economies have been successful at leveraging trade in ICT goods and services for value creation. This may lead to significant employment opportunities, add value to GDP and generate earnings in foreign exchange. This indicator can be further sub-divided into three.

- *Trade in ICT Goods* – here only few countries are significant players. The top 10 exporters of ICT goods accounted for 99.6 percent of the total value of ICT goods exports (UNCTAD, 2019).
- *Trades in ICT Services* – countries such as Finland, India, Ireland and Israel also very successful in this regard with their share of ICT service export exceeding 25% of their overall exports (ibid).
- *Trade in Digitally Delivered Services* – defined as services delivered remotely over ICT networks (UNCTAD, 2016). With telecommunications and computer services becoming more available and affordable, more services are increasingly tradable and possible to deliver remotely. This has given rise to an expansion of the outsourcing and offshoring of a range of business services and has lowered barriers and entry costs for businesses in developing countries to produce and export such services (UNCTAD, 2019).

8.8. Policy Recommendations (Summary)

Table 8.6: Policy Recommendations

Policy issues	Policy Instruments
1.Ensure a pervasive and effective infrastructure for the digital economy.	1.1. Improving the supply of technical infrastructure through encouraging the private sector and international financial institutions to invest in the telecommunication sector.
	1.2. Ensure independent regulation for Telecommunication infrastructure.
	1.3. Enhance data infrastructure by incentivizing development of local data (Server) Cloud computing centers.
	1.4. Accelerate rollout of high-speed broadband infrastructure to attract foreign firms and support business innovation and productivity across the economy.
2.Creating an enabling environment for digital ecosystem.	2.1. Enhance industry and university linkages.
	2.2. Provide specific support for building higher-level capacities among digital entrepreneurs.
	2.3. Creating special access to finance to encourage ICT investment.
	2.4. Encourage private sector participation for the digital economy by way of PPP and foreign direct investment.

Policy issues	Policy Instruments
	<p>2.5. Establish an online payment platform through which:</p> <ul style="list-style-type: none"> • Companies can buy/sell software, infrastructure and platforms as a service over the cloud • Payments are made in legal and efficient way.
<p>3. Strengthening institutional Capacity for the digital economy.</p>	
	<p>3.1. Establish legal framework for e- commerce, digital transactions and platforms.</p>
	<p>3.2. Develop effective public private partnerships across digital economy in financing, innovation, capacity building, etc.</p>
	<p>3.3. Raise awareness and understanding of digital economy.</p>
<p>4. Promoting use of ICT to enhance business efficiency.</p>	
	<p>4.1. Provide financial support (subsidy, tax exemption, etc.) for ICT goods and services to help accelerate access and affordability.</p>
	<p>4.2. Create or expand ICT hubs, incubators and accelerators that support and boost digital entrepreneurship.</p>
	<p>4.3. Enhance the role of electronic services (B2B, B2C) provision by which companies and individuals can handle their purchase and sales online.</p>
<p>5. Putting in place the appropriate safety measures/ regulations to reduce the emergent dis-benefits/harms associated with the digital economy.</p>	
	<p>5.1. Establish competition policies to mandate operators to expand coverage into marginalized (low-income / rural) regions</p>
	<p>5.2. Develop or update cyber security practices and regulations;</p>
	<p>5.3. Enhance cyber security agencies and capabilities</p>
	<p>5.4. Extend conventional crime legislation to cover online activity</p>
	<p>5.5. Introduce measures for sharing and reporting information related to cyber attacks</p>
	<p>5.6. Legislate right to online privacy as part of data protection</p>

References

Barefoot K, Curtis D, Jolliff W, Nicholson JR, and Omohundro R (2018). Defining and measure the digital economy. Working paper. Bureau of Economic Analysis, United States Department of Commerce, Washington, DC;

AACCSA (2018). Enhancing the Role of ICT for Business Efficiency and Competitiveness: Addis Ababa

MCIT (2014). Assessment and Prediction of ICT labor market demand for ICT professionals. Addis Ababa

Carl Dahlman, Sam Mealy and Martin Wermelinger (2016). Harnessing the Digital Economy for Developing Countries. Organization for Economic Co-operation and Development. Working Paper No. 334

Frey, C.B. and M.A. Osborne (2013). The Future of Employment: How susceptible are jobs to computerization? Oxford University, Oxford, www.oxfordmartin.ox.ac.uk/publications/view/1314

GeorgiosZekos (2019). Foreign direct investment in a digital economy. European Business Review. Vol. 17 No. 1, Athens, Greece

Gestrin, Michael V. and Julia Staudt (2018), The digital economy, multinational enterprises and international investment policy, OECD, Paris, France

Jonas Prising, Arne Sorenson and Bruce Weinelt (2018). World Economic Forum. Digital Transformation Initiative: Maximizing the Return on Digital Investments.

Kevin Hernandez, Becky Faith, Pedro Prieto Martín and Ben Ramalingam (2016). The Impact of Digital Technology on Economic Growth and Productivity, and Its Implications for Employment and Equality: An Evidence Review. Institute of Development Studies, UK

Kshetri N, Fredriksson T and Torres DCR (2017). Big Data and Cloud Computing for Development: Lessons from Key Industries and Economies in the Global South. Routledge, Oxford.

Nadim Ahmad and Jennifer Ribarsky (2018). Towards a Framework for Measuring the Digital Economy. OECD Publication, Paris France

OECD (2019). ICT investments in OECD Countries and Partner Economies. Trends, Policies and Evaluation. OECD Digital Economy Papers No. 280

Raul Katz and Fernando Callorda (2018). The economic contribution of broadband, digitization and ICT regulation. Experts Report, ITU Publications. ISBN: 978-92-61-27731-4

Richard Dobbs, James Manyika and Jonathan Woetzel (2016). Digital Globalization: The New Era of Global Flows. McKinsey Global Institute, London, UK

RumanaBukht and Richard Heeks (2018). Defining, Conceptualizing and Measuring the Digital Economy. Center for Development Informatics, University of Manchester, UK

UNCTAD (United Nations Conference on Trade and Development) (2017). Digitalization, Trade and Development. United Nations Publications, United States of America

UNCTAD (United Nations Conference on Trade and Development) (2018). Trade and Development Report of 2018: Economic Development in the Digital World: Prospects Pitfalls and Policy Options. United Nations Publications, United States of America

UNCTAD (United Nations Conference on Trade and Development) (2019). Digital Economy Report of 2019. Value Creation and Capture: Implications for Developing Countries. United Nations Publications, United States of America

World Development Report (2016). Enabling Digital Development. How the Internet Promotes Development

ANNEX

Annex – 001: Policy Recommendations (Detailed)**Table 01: Recommended Policy Interventions**

Policy Issue	Desired Outcome	Recommended Policy Instruments
Digital Infrastructure Policy Objective: to ensure a pervasive and effective infrastructure for the digital economy		
Unreliable/unavailable supply of electrical power	Improve electrical infrastructure	<ul style="list-style-type: none"> • Peruse for the completion of mega-projects of electrical power infrastructure • Encourage private sector investment in telecom infrastructure accessibility and service provision; • Encourage 'smart grid' innovation
Inadequate supply of technical infrastructure	Establish a pervasive, high capacity, interoperable technical infrastructure	<ul style="list-style-type: none"> • Encourage private sector and international finance institution investment in telecommunications infrastructure • Ensure independent regulation of telecommunications infrastructure; • Review cost-benefit of taxation, pricing or other barriers that restrict access to infrastructure, networks and devices; • Set minimum, universal access speed and quality requirements
Insufficient data infrastructure	Create a pervasive, high quality, interoperable data infrastructure	<ul style="list-style-type: none"> • Promote or mandate the use of interoperable data standards • Invest in capacity for data capture, analytics and visualization • Introduce regulations on data integrity, retention, consent, usage and administration • Incentivize development of local data / server / cloud computing centers
Digital Ecosystem Policy Objective: to ensure an effective digital ecosystem and an open, stable and enabling environment for the digital economy.		
Lack of digital economy capabilities	A pervasive, full spectrum set of digital economy production capabilities	<ul style="list-style-type: none"> • Embed ICT-related curricula into primary, secondary and tertiary education including higher-level entrepreneur and innovator competencies; • Audit specific, local digital economy capability requirements • Provide specific support for building higher-level capacities among digital entrepreneurs • Provide subsidies or tax breaks for in-service digital economy training • Encourage return of digitally trained citizens residing overseas
Limited access to finance	A high performance and attractive investment environment	<ul style="list-style-type: none"> • Steer development financing, including crowdfunding, into digital economy investments; • Provide direct (public) funding for digital economy investments • Support digital economy innovation through direct funding, subsidy and tax breaks • Encourage private sector funding of the digital economy including use of public-private partnerships and investment by foreign entrepreneurs and companies • Establish mechanisms conducive to venture capital funding • Make available specific financial support for digital start-ups and SMEs • Make available risk capital including consideration of scaling and growth capital and foreign direct investment • Support digital economy enterprises through other investments and incentives e.g. around R&D

Policy Issue	Desired Outcome	Recommended Policy Instruments
Low levels of digital economy demand	Build digital economy consumption	<ul style="list-style-type: none"> • Support general programs to improve basic, English and digital literacy • Support interventions to promote ICT application in all development sectors (health, education, agriculture, small enterprise, public administration, etc.) • Run competitions, for development of apps relevant to local development needs
Absent and outdated digital economy policies	The necessary legal framework to enable the digital economy	<ul style="list-style-type: none"> • Analyze and legislate for the specific requirements arising from digital platforms • Update taxation policy to address emerging digital economy • Update labor policy to address emerging digital economy • Establish legal recognition for digital signatures, identities, contracts and transactions
Poor institutional infrastructure for the digital economy	A supportive institutional infrastructure for the digital economy	<ul style="list-style-type: none"> • Identify and develop localized digital economy champions • Raise understanding and awareness of digital economy impacts • Develop effective public-private partnerships across digital economy financing, innovation, capacity-building, etc. • Support for other bipartite (NGO-private; community-private) digital economy partnerships • Review and streamline digital economy regulations including digital enterprise start-up, operation, closure
Lack of specific support for digital economy startups and SMEs	Targeted digital economy support	<ul style="list-style-type: none"> • Provide business development services specifically for digital economy enterprises; • Provide incentive-based mechanisms to encourage digital economy start-up and growth; • Create or expand hubs, incubators and accelerators that support and boost digital entrepreneurship; • Develop digital economy techno-parks that foster enterprise clustering
Digital Economy Dis-benefits Policy Objective: to reduce the emergent dis-benefits/harms associated with the digital economy		
Limited infrastructure in peripheral regions	Targeted financing for inclusive digital infrastructure initiative	<ul style="list-style-type: none"> • Develop universal service funds (USFs) or obligations for mobile, Internet and other ICT infrastructure; • Develop USFs or obligations for power infrastructure • Consider potential for other public funding or subsidy for remotest regions
Absence of inclusive digital content	Development of inclusive local content	<ul style="list-style-type: none"> • Support local data content generation by capacity-building of data producer roles; • Facilitate collaborative development of data content between local developers and broader actors including content distributors
Lack of ICT access in marginalized groups	Effective uptake of ICTs by marginalized groups	<ul style="list-style-type: none"> • Embed ICTs into government and NGO information and service delivery programs; • Establish competition policies to mandate operators to expand coverage into marginalized (low-income / rural) regions • Provide financial support (subsidy, tax exemption, etc.) for ICT goods and services to help accelerate access and affordability; • Encourage inclusive innovation of low-cost devices and services for low-income users; • Provide ICT capacity-building programs and financial support for marginalized groups

Policy Issue	Desired Outcome	Recommended Policy Instruments
Lack of digital economy participation by marginalized groups	Inclusive participation in digital economy	<ul style="list-style-type: none"> Financial support for ICT incubators / hubs / clusters in marginalized communities; Promote role models of digital entrepreneurship from marginalized groups (women, Youth, disabled, etc.) Target digital economy capacity-building for marginalized groups
Threats of malicious software, spam, phishing, identity theft, piracy, etc.	Reduced levels of cybercrime	<ul style="list-style-type: none"> Develop or update cyber security practices and regulations; Raise awareness of cybercrime and cyber security through engagement programs Train and enhance practicing cyber security professionals Enhance cyber security agencies and capabilities Extend conventional crime legislation to cover online activity
Vulnerable digital infrastructure	A secure digital environment	<ul style="list-style-type: none"> Strengthen defenses in cyberspace and improve ability to detect threats in cyberspace Develop the capacity of government institutes working on anti-cyber terrorism and anti-cyber warfare and capacity at national and international level Improve the structural arrangements for digital forensics, as well as the sophistication of the systems to monitor the Internet and detect cyber-attacks Introduce measures for sharing and reporting information related to cyber attacks
Lack of protection for data and privacy	Protected digital rights	<ul style="list-style-type: none"> Legislate right to online privacy as part of data protection Create reporting instruments within ombudsman, agencies and associations to easily monitor and report activities Balance cross-border vs. localization concerns in relation to data flow and cloud legislation Develop "loose and limited IPR" legislation, balancing rights of digital economy producers and consumers Extend labor legislation to cover the online domain
Governance of Digital Economy Policy Objective: to maximize effectiveness of digital economy policy structures and processes		
Problems with capacity, policy structures, policymaking and implementation processes	Strengthen governance of digital economy policy	<ul style="list-style-type: none"> Identify clear digital economy leadership; Implement capacity-building on digital economy within the public service; Strengthen and broaden gathering of digital economy statistics; Develop multi-country cooperation and best practices
Government bureaucracy	Reduce bureaucratic overhead	<ul style="list-style-type: none"> Simplify customs regulations for digital goods; Simplify digital trade regulations Implement broader "regulatory simplification" and institutional reforms for digital economy policy Adopt agility as criterion for design of digital economy policy structures

Annex-002: Interview Questionnaire Guideline

Digital Economy & Investment: Interview Topics & Owners

Non-Digital Foundations of Digital Economy

Topic: National Digital Transformation strategy & Planning

Owner: Ministry of Innovation and Technology + Ethiopian Plan Commission

1. Do the national economic plans and programs recognize and include digital Economy as a sector? How would Ethiopia define Digital Economy? What are the major strategic approaches to digital Economy in Ethiopia?
2. Does the Ministry of Innovation and Technology have a digital transformation strategy?
3. If the answer for the above question is Yes, did Ethiopia develop a clear and realistic implementation plan for the strategy? Why? Please list the major challenges and gaps.
4. Does it have a roadmap? Please provide major milestones on the roadmap
5. How do you evaluate the Digital transformation strategy?

Criteria	Very low(0)	Low(1)	Medium(2)	High (3)	Very high (4)	Excellent (5)
clear						
simple						
Workable						
Roadmap						
action plan						
M&E tools to assess effectiveness (KPIs)						
Mechanism for ongoing coordination of Federal, Regional, and City admin						

Topic: Human Capital for Digital Economy

Owner: Ministry of Innovation and Technology

1. How do you evaluate the Human Capital index of Ethiopia? Do you have a strategy to develop the human capital for the digital economy of Ethiopia? What are the major pillars of Human capital strategy?
2. Do you believe that the current educational system is aligned well to benefit digital economy?
3. How often are educational programs evaluated and updated with regard to the digital economy?
4. What is the overall share of the Ethiopian economy spent on Digital economy R&D?

Topic: National Programs Incentives & Federal Funds

Owner: Plan Commission

1. Do national programs include digital economy? What is Digital economy in the Ethiopian Context?
2. Does Ethiopia allocate any federal funding for digital economy? For digital economy skill development, digital economy education, and digital economy research and development?
3. Is digital economy among the national priority economic sector in Ethiopia? Which decree or proclamation states so?

4. What incentives are provided for the public sector and business sector to stimulate adoption of digital economy at Federal, Regional , and city administration level?
5. Does the education system include digital economy? Like Agricultural - Economics, etc.... Do universities have digital economics programs?

Topic: Regulations & Legislation

Owner: MINT + Ethiopian Telecommunication Agency + INSA

1. Which of the following have their own regulations?
 - a. Digital payment systems
 - b. digital infrastructures
 - c. Cyber-security
 - d. e-commerce
 - e. Internet of Things
 - f. Cloud Computing & related services
 - g. Artificial Intelligence
2. Do the Technical committees for standards in Ethiopia have the necessary skill set and mandate to handle matters related to contemporary digital technology?
 - a. IOT
 - b. Smart cities
 - c. Big data
 - d. Smart manufacturing
 - e. Artificial Intelligence
 - f. Gaming
 - g. Virtual
 - h. Comics

Topic: Investment, Taxation & Incentives

Owner: MINT + EIC + INSA

1. What is the overall taxation rate of Ethiopia relative to the leaders in digital Economy (US, UK, & Others)?
2. What incentives are there to motivate the adoption of digital technologies in public and private sectors?

Digital Economy & Investment: Interview Topics & Owners
Digital Foundations of Digital Economy

Topic: Digital Transformation of Public Sector

Owner: Ministry of Innovation and Technology

1. What is the strategy of Ethiopia to develop a digital government?
2. What is the current e-government strategy? What is the current e-government architecture?
3. How many digital services are using e-government infrastructure? How many are Federal services? How many are Regional Services? And how many are city administration services?
4. Is there a functional digital service portal? How many registered users are there at the Federal level? How many users are corporate users? How many are citizen users?
5. Does Ethiopia know its digital transformation requirement?
6. What is the digitization plan of Ethiopia?
7. What national databases are currently available?

8. How many public ministries have standardized administration processes (Business process Re-Engineered)?
9. How is Ethiopia performing with respect to global Cybersecurity index? How do we see the Cybercrime rate in Ethiopia?
10. How digitized is the e-health sector in Ethiopia? What digital infrastructures are available for e-health? What electronic medical records and databases are available?
11. How do you evaluate the e-education system in Ethiopia? What digital infrastructure and platforms are available? What online digital education contents are available?
12. Is the contribution of internet to the economy of Ethiopia studied? If so, how much? If not why not?
13. Have user satisfaction surveys on public services been studied? Do you believe that it would be transformed by digital transformation of the public sector?
14. What is the percentage of the workforce employed in ICT overall in Ethiopia?

Annex 003: Estimating a Cobb Douglas Production Function

1. The Cobb Douglas Production Function

Suppose the Cobb-Douglas production function describes how an economy's output level Y is determined from the inputs L and K :

$$Y(L, K) = AL^{a_1} K^{a_2}, \quad A > 0, \quad 0 < a_1 < 1, \quad 0 < a_2 < 1$$

The variables A , a_1 , and a_2 describe the economy's technology. The variable A can be thought of as the general level of technology. The production function indicates that an increase in the parameter A —a technological improvement—will increase output. The technological parameters a_1 and a_2 measure the respective contributions of L and K to the production process, as will now be shown more carefully.

For this Cobb-Douglas production function, the marginal product of labor can be calculated as

$$Y_L = \frac{\partial Y}{\partial L} = \frac{\partial}{\partial L} [Y(L, K)] \equiv a_1 AL^{a_1-1} K^{a_2}.$$

$$= \frac{L}{L} a_1 AL^{a_1-1} K^{a_2}$$

$$= a_1 \frac{ALL^{a_1-1} K^{a_2}}{L},$$

$$= a_1 \frac{AL^{a_1} K^{a_2}}{L}$$

which means

$$\frac{\partial Y}{\partial L} = a_1 \frac{Y}{L}$$

The quantity Y/L is the average product of labor. Thus, we see that the marginal product of labor $\partial Y/\partial L$ and the average product of labor Y/L are each measures of labor productivity, and the last equation indicates the two are related. In fact, rearranging the last equation, we find that the parameter a_1 is given by the ratio of the marginal product to the average product:

$$a_1 = \frac{\frac{\partial Y}{\partial L}}{\frac{Y}{L}}$$

The ratio of the marginal product to the average product defines the *elasticity* of output with respect to labor input. An elasticity always gives the percentage change in one variable divided by the percentage change in another variable. By rearranging the right side of the last equation, we see this more clearly:

$$\frac{\frac{\partial Y^s}{\partial L}}{\frac{Y^s}{L}} = \frac{\frac{\partial Y^s}{\partial L}}{\frac{Y^s}{L}} = \frac{\% \Delta \text{OUTPUT}}{\% \Delta \text{LABOR}}$$

If $a_1 > 1$, then a given percentage change in labor would generate a larger percentage change in output. The term *elastic* is used to describe the responsiveness of output to labor input in this case. If $a_1 < 1$, then a given percentage change in labor would generate a smaller percentage change in output. The term *inelastic* is used to describe the lack responsiveness of output to labor input in this case. If the production process exhibits diminishing returns relative to labor, then $a_1 < 1$ must hold.

The marginal product of labor decreases and the employment level increases whenever diminishing returns are present. Mathematically, the rate of change in the marginal product is found by taking the derivative of the marginal product function with respect to the employment level L . For the Cobb-Douglas production function the rate of change in the marginal product is:

$$\begin{aligned}\frac{\partial[Y_L]}{\partial L} &= \frac{\partial}{\partial L} [a_1 AL^{a_1-1} K^{a_2}] \\ &= a_1[a_1 - 1]AL^{a_1-2} K^{a_2}.\end{aligned}$$

As long as $a_1 < 1$ in the Cobb-Douglas production function, the derivative (6) is negative. This is equivalent to assuming diminishing returns. That is, $a_1 < 1$ indicates that the marginal product of labor decreases as the employment level increases.

Annex 004: Data used for analysis

logGDP	logDI	logINT
9.92	3.99	0
9.92	4.03	0
9.95	4.08	0
9.94	4.11	0
9.89	4.14	0
9.93	4.17	0
9.99	4.18	0
9.99	4.18	0
9.99	4.22	0
10	4.25	0
9.97	4.28	0
9.93	4.26	0
9.98	4.28	0
9.99	4.29	0
10.02	4.31	1
10.07	4.33	3
10.08	4.36	3.48
10.07	4.39	3.78
10.09	4.48	3.91
10.12	4.57	4
10.15	4.68	4.4
10.16	4.81	4.71
10.15	4.88	4.88
10.2	5.03	5.06
10.25	5.23	5.22
10.3	5.42	5.39
10.34	5.53	5.47
10.39	5.66	5.57
10.42	5.89	5.66
10.48	6.08	5.82
10.52	6.36	6
10.56	6.54	6.43
10.6	6.65	6.64
10.64	6.75	6.88
10.69	6.92	7.15
10.73	6.99	7.2
10.77	6.94	7.3
10.79	1.36	0

