THE IMPACT OF PRIVATIZATION ON ECONOMIC GROWTH IN ETHIOPIA

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A THESIS SUBMITTED TO COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF ECONOMICS IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR AWARD OF MASTER OF SCIENCE IN ECONOMIC POLICY ANALYSIS.

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JUNE, 2025

ADDIS ABABA, ETHIOPIA

DECLARATION

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This thesis has been submitted to Addis Ababa University College of business and economics, economics department for examination with my approval as a university advisor.

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This is to certify that the thesis prepared by Melese Fenta Alemayehu entitled: the Impact of privatization on economic growth in Ethiopia and submitted to in partial fulfillment of the requirements Degree of Master of Science in Economics (Economic Policy Analysis) complies with the regulation of the University and meets the accepted standards with respect to originality and quality.

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ACKNOWLEDGEMENTS

My greatest thank goes to my advisor Girma Estifanos(PhD) for his overall support to come up with this study. Throughout the study period he provided me constructive comments on my progress and he gave me guidance on how to do the study. I am also grateful for all of my family, colleagues and friends who supported me during the time I was doing this research.

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List of acronyms

ADF - Augmented dickey fuller

AIC - Akaike information criteria

AEDL - Auto regressive distributive lag

ECM - Error correlation model

EPRDF- Ethiopian People's Revolutionary Democratic Front

CLPRIV- Claim on the private sector

GDP- Gross domestic product

GTP – Growth and Transformation Plan

MOFED – Ministry of Finance and Economic Development

SDPRP – Sustainable Development and Poverty Reduction Program

PASDEP – Plan for Accelerated and Sustained Development to End Poverty

SDG – Sustainable Development Goals

CSA – Central Statistical Agency

GDP – Gross Domestic Product

UN – United Nations

UNDP – United Nations Development Program

MoF – Ministry of Finance

NBE- National Bank of Ethiopia

OLS- Ordinary least square

SoE- State owned enterprises

SPSS – Statistical Package for the Social Sciences

STATA – statistical software package

Abstract

This study examines the impact of privatization on Ethiopia's economic growth using annual time series data from 1991 to 2023, distinguishing between short-run and long-run effects. While real GDP per capita growth is used as a proxy for economic growth, claims on the private sector are used as a proxy for the extent of privatization. The study also includes important macroeconomic control elements like inflation, public debt, government spending, domestic investment, and foreign direct investment. The short-term changes and long-term relationships between these variables were represented using the Autoregressive Distributed Lag (ARDL) model. The empirical findings demonstrate that privatization has a positive and statistically significant effect on economic growth over the long and short terms. Inflation was found significantly and negatively affecting economic growth in the short run while it has no significant impact in the long run. Domestic investment has a positive and statistically significant long-term impact. Public debt has statistically significant negative effects on long-term economic growth, suggesting overtime debt burden undermines long-term economic performance. Government spending has a negative significant impact in the short run and a statistically insignificant impact on economic growth in the long term, while foreign direct investment had no apparent influence. These results suggest that if privatization is coupled with favorable structural reforms and macroeconomic stability, it can increase economic growth. The findings demonstrate how crucial it is to develop policies that encourage private sector involvement while upholding prudent budgetary and inflationary control. Additionally, focusing more on monitoring the success of public investments and ensuring consistency in government spending will help prevent resource misallocation and improve economic results.

Keywords: Ethiopia, Privatization, Economic growth, ARDL

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Privatization remains one of the central policies that have persisted since the era of adjustment programs supported by international financial institutions. Emerging prominently in the 1980s under neoliberal regimes such as those of Margaret Thatcher in the UK and Ronald Reagan in the U.S., privatization was touted as a solution to inefficiencies in public sectors, fiscal deficits, and stagnant economic growth (Megginson & Netter, 2001). The IFIs are advocating for privatization by making financial support a prerequisite for reforms. This policy impact has been occurring for an extended period due to the reasons that privatization may assist the private sector and enhance market competition in developing nations, leading to increased economic growth. Proponents argue that private ownership incentivizes efficiency, innovation, and competition, thereby driving productivity and economic expansion. However, critics contend that privatization can exacerbate inequality, reduce public accountability, and fail to deliver promised benefits in contexts with weak regulatory frameworks (Stiglitz, 2008).

A sustained increase in the real gross domestic product over a long period of time is referred to as economic growth. The requirement that the nation's output include commodities and services that satisfy the greatest needs of the greatest number of people is another indicator of economic growth. Human resources, natural resources, capital accumulation, and technological breakthroughs can all have an impact on economic growth. Privatization can have an impact on this economic component since a country's privatization approach can either encourage or discourage private domestic investment and foreign direct investment (Ogbonna and Ebimobowei, 2012).

In transitional countries, conversion processes lay the institutional underpinnings for the privatization of public capital during the early phases of the transition from social ownership to a market economy. According to Kalogjera (1993), all of these processes are linked to tendencies toward current economic trends, where privatization is a fundamental tenet for the transition from a socialist to a contemporary market economy, boosting its efficiency and competitiveness.

In a similar vein, Gregurek (2001) claims that quick privatization of the public sector helps companies become more efficient faster, that the state has proven to be a bad entrepreneur, and that privatization is necessary to normalize companies that are still state-owned. Nonetheless, that reasoning can only be partially acceptable and comes with considerable limitations when taking into account all the operational factors of current transitional nations, contemporary market economies, and developing countries that are rapidly boosting their economy and achieving record high growth rates.

Many development economists hope that the privatization of infrastructure services will have a positive impact on economic development. Activities such as energy generation and distribution, water sanitation, transportation, and telecommunications help shape the investment climate and determine business opportunities in the rest of the economy. Developing country governments recognized the need for such infrastructure services early on, and typically attempted to provide them by creating SOEs. In most cases, however, these enterprises became highly inefficient. Lack of investment and failure to upgrade facilities often transformed these sectors into bottlenecks instead of producers of multiplier effects with positive externalities.

Ethiopia is ongoing liberalization and privatization reforms. The government is taking more steps to sell off the current fully state-owned businesses, such as Ethiopian Airlines and Ethiopian Telecom, to both domestic and foreign investors, assuming that the economy will expand as a result of these privatization plans. The idea that privatization is the best course of action is not shared by everyone.

This study will answer the question whether the privatization initiatives done before contributed to the economic growth and what the long term impact of privatization on the Ethiopian economic growth using a time serious data since 1991 where privatization begins till 2023 where the recent impacts of privatization could be analyzed.

1.2. Statement of the Problem

Although numerous empirical studies have been conducted to evaluate the financial implications of privatization on recently privatized firms worldwide, few have sought to quantify the impact of privatization on Ethiopia's economic growth. Few studies have been conducted to examine how privatization affects economic expansion. The fact that privatization has been a relatively

recent event, especially in Ethiopia, may be the primary cause of the dearth of such studies. Furthermore, privatization is still a prevalent economic strategy, particularly in relation to the recent economic changes implemented by the government. It is necessary to conduct additional research to determine how this phenomenon has lately aided in the expansion of the national economy.

The most lucrative SOEs are typically the first to undergo privatization in order to foster an atmosphere that encourages investment and gives investors assurance that the businesses being privatized are profitable. This appears to give the public the wrong idea and could result in the government losing money. If not managed appropriately, job losses brought on by transfers or changes in ownership of organizations may also spark dissatisfaction in the state.

There are different empirical results regarding how privatization affected Ethiopia's economic expansion. For instance, the empirical results of Dr. Venkata et al. (2018) showed that privatization and the resulting foreign direct investment had a favorable effect on Ethiopia's economic growth over the study period. However, an empirical research by Samuel Adams (2007) demonstrates that the privatization initiative had no appreciable impact on economic development or wealth inequality in emerging nations between 1991 and 2002. It is crucial to keep in mind that a key element in the success of privatization is the government's dedication to legislative and regulatory reforms.

According to Cook and Uchida's research, privatization and economic growth may be negatively correlated if appropriate governmental changes are not implemented. According to empirical research by Alen Jugovič et al. (2010), countries that choose to privatize public ownership gradually outperform those that choose to privatize it quickly and extensively. But they added that countries that prioritized slow privatization of public firms recovered their output at a faster rate than those that promoted quick and extensive privatization. Consequently, their research comes to the conclusion that privatization is not a key component of economic success.

This paper attempts to address whether privatization in Ethiopia improves the economy’s performance to produce more goods and services that have impacts on per capita economic growth, including the most recent privatization schemes. It does this by bridging the gap left by the inconsistency of the empirical studies mentioned above.

1.3. Research Question

The research will address the following main research questions;

- What are the short-run and long-run impacts of privatization on Ethiopian economic growth?
- What is the contribution of the private sector for the economic growth in Ethiopia?

1.4. Objective of the Study

The general objective of this research is to examine the effect of privatization on economic growth in Ethiopia;

- To assess the effect of privatization on economic growth in Ethiopia.
- To assess the contribution of the private sector for the economic growth in Ethiopia.

1.5. Research Hypothesis

Ho: privatization has no impact on Ethiopian economic growth

Ha: privatization has impacts on Ethiopian economic growth.

1.6. Significance of the Study

Any type of government ownership is less efficient than private ownership. The presence of non-competitive sectors in the economy and the distribution of public monies through subsidies are two further problems that are thought to be caused by inefficient SoEs. Transferring public assets to the private sector through a variety of means, including the sale or lease of government land, infrastructure, and other businesses, is known as privatization (Starr, 1988).

By transferring authority and reducing barriers to entry, privatization can occur in some industries or pursuits that were previously regarded as public monopolies. Better services for the community and business sector can be provided in other ways than by the government producing goods and services. Privatization proponents argue that by boosting productivity and lowering public sector debt, it can enhance overall economic performance. The primary barrier to privatization as a policy, however, has been the inadequate institutional and legal framework. Through the sale of public properties, it did give the Ethiopian government the money it required, but in these instances, it hardly seems to have enhanced the country's economic performance.

Therefore, the purpose of this article is to examine how privatization has affected Ethiopia's overall economic performance. Our primary goal is to estimate utilizing the auto regressive distributive (ARDL) model and time series data.

1.7. Scope and limitation of the Study

This study examines the effects of privatization on Ethiopia's economic growth using GDP per capita growth as a stand-in for economic growth and asserts that the private sector's share of GDP serves as a gauge of the extent of privatization. The availability of data and the inconsistency of data from many sources present the biggest challenges when developing an empirical study that assesses the impact of privatization on economic growth. This essay will make an effort to pinpoint a wide range of variables that may affect growth. However, temporal constraints have an impact on how privatization actually affects economic growth..

1.8. Organization of the Study

There are five chapters in this thesis. The introduction, study background, problem statement, research questions, study objective, and study significance are all covered in the first chapter. The theoretical and empirical reviews, definitions, and trends of the variables in the study framework are all included in the second chapter, which deals with related literature. The study design, research approach, data type and sources, data collection techniques, data analysis and presentation methods, econometric models, alternative tests, and data presentation were all covered in the third chapter on research methodology. Results and debate are presented in chapter four, while the research's summary, conclusion, and policy implications are covered in chapter five.

CHAPTER TWO

2. LITERATURE REVIEW

The theoretical basis of privatization is more akin to the microeconomic advantages of the policy that facilitates other inputs to growth and development through economic efficiency and the allocation of limited resources from ineffective public to effective private use. This principle is typically conceptualized in three main theories; the agency theory, theory of property rights, and public choice theory. Now let's examine the definition closely. The Ethiopian government defined privatization in the 1998 proclamation as "Privatization refers to the transfer, via sale, of an enterprise or its unit or asset, or government equity in a share company to private possession, which encompasses making an enterprise a government stake in a share company established with input from private investors and privatization of enterprise management." Thus, privatization involves the transfer of partial or complete ownership from the public sector to the private sector. Therefore, the definition provided by the Ethiopian government aligns with those of other international and regional organizations.

According to the OECD, privatization is "any significant transaction through which the state's direct ownership of corporate entities is diminished." In a nutshell, Filipovi (2005) described it as "a process of transferring assets and responsibilities from the public sector to the private sector." Its definition in the Merriam Webster dictionary is "to shift from public to private control or ownership," and it was first used in this sense in 1948. Overall, the transfer of assets or functions from the public to the private sector, either fully or partially, is a commonality with all classifications.

A fundamental premise of the property rights theory of privatization is that private and public ownership of assets or some type of activity differs. The theory's main thesis is that assets may be handled, improved, managed, and transacted more easily privately than they can in public. This viewpoint suggests that ownership is more important. On the other hand, public servants neglect to allocate resources in a way that promotes the prosperity and well-being of the populace as a whole. In other words, management enjoys the lives of those who give up, and the public is ineffectual. In terms of the use of business resources, property rights are essential to

achieving both allocative and productive efficiency (Vickers & Yarrow, 1988a cited in Redda, 2007).

According to the property rights theory, (1) private production is more economical than output in publicly owned and run businesses. (2) The differences in unit costs, however, are insignificant provided there is sufficient competition between public and private producers (as well as no unjust rules and subsidies). This leads one to conclude that the frequently seen and less efficient output within state firms is caused more by the lack of competition than by differences in ownership transferability.

The core idea of corporate governance is at the heart of the principal-agent theory. While conflicting interests are a problem in both the public and private sectors, they are much less important in private businesses (Schneider, 2003). Divergent interests are the prism through which agency theory examines privatization. A manager disregards the owners' concerns in favor of their own interests.

"Politicians, bureaucrats, and managers of public enterprises act as selfish utility maximizers who are influenced by constraints" is the premise of the third public-choice theory (Schneider and Frey, 1988, cited in Schneider, 2003). According to public choice theory, the collective actions of the general public, legislators, bureaucrats, and management affect how effective public enterprises are. Without consistent information, each of these groups seeks to achieve their own objectives, which are frequently at conflict with efficiency, which eventually results in internal inefficiencies inside the company (Andic, 1992 cited in Chole, 1993). However, in a difficult environment, information is almost equally accessible, which results in increased productivity.

The fundamental tenet of privatization theory is that the process improves the relationship between managers and business owners, which in turn improves performance. There are two main theoretical stances that give rise to more in-depth debates. First, according to the notion of property rights, a private owner who is entitled to profit or residual income will watch the situation more closely than a public sector counterpart who does not have those direct rights. Second, the New Political Economy's public choice theory suggests that privatization reduces the possibility of an organization being influenced for political (and ineffective) ends. Privatization

simplifies the relationship between the principal (a government-owned company or a shareholder in a private company) and the agent (an enterprise manager, for example) (Cramer, 1999).

The State in the Economy

The return to the private sector or market-driven capitalism system through privatization in emerging countries can be better understood by looking at the state's economic situation. Privatization is the antithesis of past nationalization, or the reduction of the eternally present, according to a number of studies. In the 1980s, developing countries saw a change from the previous two decades, when the public sector was seen as the main authority, in the common goal of reducing poverty and fostering economic progress (Friesel et al 1991). The African economy was predominantly state-driven after the colonial era. However, the continent was forced to rely on Westerners and international financial institutions as a result of the global crises and debt pressures of the 1980s and 1990s.

In contrast to Latin America, where the main forces behind privatization were the overburden of state-owned firms and the quick growth of the private sector, which was ready to assume responsibility, the reasons for privatization in Africa are very different. On the other hand, foreign forces frequently forced African nations to privatize before they were ready (Ramamurti, 1991).

Regarding the state's function and share in the economy, there is no set limit; it changes depending on the period and circumstance. Again, there is a hazy global trend toward less government control of companies, but in the twenty-first century, this trend has either been slowed down or reversed (Megginson, 2017). Megginson examines government ownership of firms and privatization, identifying seven major themes. The issue of whether state authority has been increasing or decreasing throughout time is made less definite by these themes.

The first subject centers on China's rise as a major player in the world economy and a different approach to corporate ownership and organization. China's GDP grew from US $1.22 trillion in 2000, or 3.6% of the global GDP, to US $11.06 trillion in 2015, or 17.52% of the global GDP at market value. China is currently becoming the world's largest manufacturer, the largest exporter, and the economy with the highest purchasing power parity.

Another feature of the Chinese economy that has caused critics to label it "state capitalism" is its reliance on and support for the main state-owned businesses. Through state-owned or significantly impacted businesses, countries like Brazil, India, Russia, and Singapore have become more significant on a global scale. This reflects the reversal of free-market capitalism practices or privatization, as well as the increase in state power.

The second theme raised by Megginson is that, outside of China and Russia, government and state-owned investment funds have increasingly favored portfolio equity investments in business assets, rather than directly owning or operating state-owned enterprises. Megginson asserts that the state asset is growing rather than shrinking in numerous aspects. However, it appears that Megginson is referring to developed nations. Amid this, the government's purchase of equity from the private sector has increased more than the proceeds from privatization. He backed this up with data, showing that from 2001 to 2012, governments acquired $1.52 trillion more assets through stock purchases than they sold via share issue privatizations. Meanwhile, direct sales total just $1.48 trillion. Thus, nationalization and privatization—two diametrically opposed processes—are occurring simultaneously in this globe. This is another reason why developing countries should take privatization seriously since it could result in a colonial-era influx of Westerners.

Thirdly, the (mostly) non-democratic oil-exporting nations and their fully state-owned national oil companies gained wealth and influence as a result of the rising global oil prices between 2005 and 2014. Bloomberg reported on April 1, 2018, that Saudi Arabia's state-owned oil company, Aramco, has revealed the financial details of the most lucrative company in the world, surpassing US firms such as Apple Inc. and Exxon Mobil Corp. Given the average output of 90 barrels per day throughout this time, a group of countries benefited from the sharp rise in oil prices, which went from $25 per barrel to $147 per barrel in 2008 and averaged $100 per barrel from 2010 to 2014. Controlled by state-owned enterprises, these rentier economies had unmatched power over the world's most vital resource. But the collapse in oil prices in the third quarter of 2014 and the current decline seem to be changing the dynamics of the global economy and will probably cause more formerly untouchable NOCs to be privatized, beginning with Saudi Aramco in 2018. As a result, the global trend in the state-private ratio or acquisition is changing quickly and fluctuating.

Megginson's fourth subject is the global financial crises of 2008–2009, which caused governments to reverse the norm of state intervention, even if only momentarily, through their subsequent policy measures. Over time, this tendency continued with less government ownership and involvement in corporations. Following the US financial crisis that resulted from Lehman Brothers' failure, numerous governments took action to save banks and other financial institutions, which ultimately led to at least partial nationalization.

While other countries seek to buck this tendency over time, the US was the leading privatizer from 2009 to 2012 as a result of its nationalization era brought on by the large acquisition. According to Megginson, the world's top central banks flooded the markets with liquidity and drastically lowered interest rates in their hasty response to the crisis. They then launched a series of increasingly unorthodox policies, particularly quantitative easing, to boost economic expansion and avert deflation. Despite the fact that several of the world's major central banks began gradually tightening in 2017, the financial imbalances and record low interest rates brought about by these policies still exist today.

The enormous increase in European political and economic coherence which intensified after the introduction of the euro in 1999 and the European Union's expansion by ten member states in 2004 is another trend of the twenty-first century. But beginning in 2011, Europe experienced a protracted era of crises and upheaval. The most often mentioned crisis for the union and the area is the Brexit referendum in June 2016. Megginson's sixth theme is that privatization has continued and even increased, moving from secondary share offerings in Western nations to a variety of techniques in emerging economies, especially China. The rising economies of Turkey, Brazil, India, and Russia were establishing themselves as the leading privatizers in the second decade of the century. The final aspect is the alteration in the asset privatization on the global policy agenda. Since 2004, privatization has greatly increased divestment in infrastructures and reduced state-owned assets.

World Privatization Trends

Since the sale of the bulk of Volkswagen's shares to private investors during the Republic of Germany, the economic policy of privatization seems to have evolved. The privatization of British telecommunications by Margaret Thatcher in the 1980s was the next significant policy shift that changed the paradigm. Another significant change in policy at that time was the privatization of France Chirac's bank. Since then, it has been sporadically expanded to other parts of the world, such as Mexico and Japan, where significant communication services have been privatized (Megginson et al, 1996). The mid-1990s saw the height of privatization, which then declined as a result of the East Asian financial crisis in 1997 and the Russian debt crisis in 1998 before reviving in 2002. China (additional share offering of China Telecom), the Czech Republic (partial sale of Transgas), Slovakia (partial sale of the electricity firm), India (telecoms), Pakistan (United Bank), and Saudi Arabia (telecoms) are among the countries that have sold shares in the telecom, power, and banking sectors, which is why the profits have increased (Kikeri and Kolo 2005).

The major ideological shift of the time and the global increase in privatization revenue were also influenced by the fall of the communist governments in the Soviet Union and Western Europe. Cuba and China have recently surfaced as extra players with the main objective of fostering economic expansion (Filipovic, 2005). The African continent was informed of this, with Ghana and Togo serving as the original participants. Uganda and Zambia joined later (Bhatia et al, 1998). These days, privatization is widely accepted as one of the key strategies for moving from public to private ownership.

Kikeri and Nellis (2004) found in their examination of global trends that newly founded and privatized enterprises are contributing to the growing percentage of the private sector worldwide. As a result, the non-state sector accounted for over 60% of GDP by the late 1990s, while the state's share in industrial output decreased from 78% in 1978 to 28% in 1999. Widespread privatization in Latin America, especially in infrastructure, which Chile started in 1974, raised the regions that peaked in the 1990s. According to Estrin and Pelletier (2018), Latin America generated USD 220 billion in total privatization revenues between 1988 and 2008, which accounted for 28% of worldwide privatization revenues.

Both domestically and globally, profits have increased significantly. Kikeri and Kolo (2005) conducted a trend study and found that between 1990 and 2003, 7860 transactions took place in 120 poor countries, producing approximately USD 410 billion, or 0.5 percent of these countries' GDP. The OECD research, which included 24 countries in its sample, states that the proceeds from privatization reached USD 103 billion in 2005 and USD 487 billion over the course of eight years, from 2000 to 2007. Together, France, Germany, and Italy brought in around USD 233 billion, or about 50% of the total revenue (OECD, 2009).

The privatization barometer report (2016) states that global privatization revenues surpassed the previous record of USD 265.2 billion established in 2009 to reach an all-time high of USD 319.9 billion in 2015. With a total of USD 266.4 billion, the 2016 privatization was regarded as the second-largest of its time. Global privatization revenues for stocks were USD 998.8 billion, or about one trillion, between 2013 and 2016. China and Britain came in first and second, respectively, with China holding more than half of the global market at 54.1% ($173.2) in 2015 and 55.6% ($148.0) in 2016. According to Glen et al. (1996), private investment is increasing globally while public investment is declining at the same time. The countries with the greatest increases in private investment between 1990 and 1995 were Malawi, Mauritania, Benin, Papua New Guinea, and Bolivia. This demonstrates how developing countries have interacted with and responded to the economy's supply side. Revenues from privatization exceeded $1.189 trillion between January 2012 and December 2016 (Megginson, 2017).

Privatization Trend in Africa

Domestic politics and outside forces drive the privatization agenda in emerging nations like those in Africa (see Adam et al., 1992; Ramanadhan, 1989; Cook, 1986). Most African nations embraced a publicly controlled, government-directed developmental economy in the post-colonial era. Countries like Ghana implemented developmental state economic strategies. There were developmental states in terms of goals and economic results, despite the widespread belief that developmental state ideology exist in Africa (Mkandawire, 2001). Neoliberal ideas promoted the advantages of market-oriented growth in the 1980s and highlighted the negative effects of government intervention. Mkandawire claims that the Berg report, which functioned as the adjustment document, offered the first analysis of the Asian growth experience with a robust state. The Berg report's central thesis—market trust and a restricted role for the state—was

inextricably linked to the World Bank. Africa was then ruled by Western nations and the institutions that carried them out.

For the reasons stated, African governments have not always supported privatization. Numerous times, the program has been started as a result of various economic causes and made possible by political changes. The selection of companies for privatization suggests that the primary motivation has been the need for support from the World Bank, IMF, and donor financial institutions, as well as the necessity to raise funds and divest some struggling state enterprises while limiting political repercussions, even though lowering fiscal deficits is frequently mentioned as a goal of privatization in Africa (Bhatia et al., 1998). Africa was forced to debate what to privatize and how to do it in the 1990s, rather than whether privatization should take place at all.

State-owned businesses fell by one-third between 1990 and 1995 as a result of the region's increasing privatization, despite the many obstacles faced by African governments and implementing agencies (Bhatia et al, 1998). They found in their case studies that it is ineffective and opaque, and that employment significantly declined after the privatization stage.

The rationale behind privatization differs from nation to nation, despite the fact that it is usually contentious and intricate. Most scholars think that in Africa, privatization usually occurs as part of larger adjustment plans backed by foreign development organizations or donors (Ghebreyesus and Suliman, 2001). International institutions like the World Bank and IMF place a high priority on macroeconomic stability, which includes fiscal constraint and privatization. However, Africa's stance implies that the motivations behind privatization are political rather than efficacious or economic.

Oliver Campbell and Anita Bhatia's (1998) World Bank study on privatization in Africa is the biggest and most thorough, covering a wide range of nations, strategies, domains, and performance evaluations. According to Bhatia and White's analysis, the main strategies for privatization were substantial staff reductions and liquidation, which were later overtaken by competitive share sales. Another interesting conclusion is that the government's opaque actions and the dearth of grassroots initiatives related to the program are the main causes of the lack of public agreement.

Privatization was implemented in Sub-Saharan Africa in phases, with some countries starting earlier and others later (Bennell, 1997). In the late 1970s and early 1980s, the first group consisted of the Francophone West African countries of Benin, Guinea, Niger, Senegal, and Togo. In the late 1980s, the second group, which included both Francophone and Anglophone countries, Ghana, Nigeria, Ivory Coast, Mali, Kenya, Malawi, Mozambique, Madagascar, and Uganda, started the privatization process. Bennell noted that until the 1990s, Nigeria was the only country making significant improvement. The influence of international financial institutions often has an impact on the program (Nellis, 2012). Late entrants, or the last organizations, have shown differing political commitments to the privatization of state-owned businesses. Tanzania, Burkina Faso, and Zambia are the first set of countries showing a significant commitment to privatization. Furthermore, Cameroon, Ethiopia, and Sierra Leone are the other subgroups that exhibit a lack of political commitment to privatization.

According to Nellis (2008), sub-Saharan Africa's privatization process proceeded at a somewhat slow rate, with about 40% of state-owned businesses being sold between 1990 and 2001. Compared to countries in Latin America, this was significantly smaller. During that time, South Africa, Ghana, Nigeria, Zambia, and Côte d'Ivoire were among the leading privateers. The industries that experienced the most privatization were cement, textiles, food processing, alcoholic beverages, and various metal and non-metallic products. According to Bennell (1997), the program's slow progress in the 1990s was caused by a lack of political commitment and strong opposition from public sector workers who were impacted by the policy, especially senior bureaucrats. For instance, by the end of 1995, only one of the thirty state-owned enterprises (SOEs) in Cameroon that were scheduled to be privatized had been sold. The privatization drive started off well in nations like Nigeria but eventually stalled.

Even though Nigeria's initiative was among the most successful in SSA during the 1990s, it was halted in early 1995 in favor of a widespread program of "commercialization." In Madagascar, the privatization initiative was halted in mid-1993 because of significant mismanagement and its resulting unpopularity (Estrin et al 2018). Furthermore, Bennell (1997) mentions that there were nationalist worries regarding the potential political and economic effects of heightened foreign ownership stemming from privatization.

However, in the 1990s and later, ideological changes relieved the government of some political responsibilities, and the poor financial and operational performance of state-owned businesses increased the region's call for privatization. During the 1990s fiscal crisis, the World Bank and IMF had a significant foreign effect. By selling off state-owned businesses, the government was able to reduce expenses and raise revenue. In spite of the aforementioned slow privatization pace in SSA between 1988 and 1999, manufacturing and services accounted for 36% of the total USD 9.8 billion. Of the overall revenue in the region, 28% came from the infrastructure sector, 17% from the energy sector, 14% from the primary sector, and 6% from the financial and other sectors (Estrin and Pelletier, 2018). Then, between 2000 and 2008, privatization made great strides, increasing total revenues to USD 12.654 billion.

The previously noted sectoral distribution also changed, with the largest proportion going to infrastructure (73% of the total deal share). Only 17 percent came from the manufacturing and service sectors, 6 percent from the financial sector, 4 percent from the energy sector, and 1 percent from the primary sector. According to Estrin and Pelletier, the privatization of SSA has slowed back in the years since 2008. Despite the lack of World Bank data on privatization after 2008, the agreements and contracts seem to show a decline in privatization. During this period, some noteworthy examples were the privatization of Benin's cotton industry, the transfer of the majority stake in the cement company to a strategic private investor in March 2010, and the privatization of the public utility sectors. Nigeria made headlines in 2013 when it sold 15 energy producing and distribution companies, bringing in $2.50 billion (see Megginson 2014). Chad reintroduced 80% of SociÈtÈ des Telecommunications du Tchad (Sotel-Tchad) to the market in 2015 after the 2010 trial ended in failure.

In terms of methodological presentation, Makalou (1999) noted that BERG (1994) was the first to mention liquidation as the main privatization strategy based on the World Bank's 1990s African development indices. Makalou ranked liquidation as the second most desired option after share sales through competitive tender, despite the fact that there are other privatization techniques.

2.2 Empirical Literature Review

Similar to findings in poor countries, the evidence collected thus far on the effects of privatization in developed countries is still inconclusive. Through management buy-out techniques, Wright et al. (1993) show that privatization has improved business performance in a number of cases. On the other hand, more evidence indicates that privatization policies have caused a sizable portion of public assets to be transferred into private hands. For example, study on the privatization of the water system by Shaoul (1997) shows that no efficiency gains were achieved, despite official hopes. In fact, consumer prices rose, the infrastructure deteriorated, and some workers lost their jobs. In 1999, Arnold & Cooper found that the sale of a port brought in only £13.1 million for the UK government, and that the port was sold again 18 months later for £103.7 million. The banks that provided the buy-out funding and the managing directors were the main winners of this endeavor.

Nellis (1999) concludes his analysis of privatization in transitional economies by noting that, instead of leading to better financial results and more efficiency, privatization has caused stagnation and company recapitalization in institutionally weak countries. However, he stresses that there is little chance that restoring national control over services or postponing any privatization will have any meaningful positive effects. Mismanagement of state-owned enterprises is equally likely to occur under governments that mishandle privatization. In Central and Eastern Europe, privatization frequently failed to meet expectations, according to Nellis.

However, there is now no proof that their substitutes would have resulted in more favorable economic consequences. Frydman et al. (1999) examined the performance of both state-owned and privately held companies in the Central European transition economies. An overestimation of the potential job losses from post-privatization reorganization results from ignoring the revenue impact for outsiders. For external parties (foreigners), privatization outperforms insiders in terms of revenue but not in terms of expenses.

The transfer of ownership from the public sector to the private sector through privatization has been extensively studied in developing countries, however the findings have been equivocal (Cook and Kirkpatrick, 1995). According to a study by Abdulkadir (2016), which covered 142 nations between 1960 and 2014 under different circumstances, privatization and GDP per capita

growth were positively correlated. The study finds that privatization has a positive effect on developing countries, although it regularly deviates from other studies in the regional context. Africa suffers from it, albeit insignificantly, whereas wealthy countries in Oceania, Europe, and North America have seen slight increases in GDP per capita due to privatization, as well as modest increases in Asia and Latin America and the Caribbean. In example, the study found a threshold level for effect volume among middle-income countries with substantial debt and growth that is higher than that of the least developed countries, despite the fact that they did not face violence. According to the report, the widespread privatization of the financial and competitive sectors has a positive impact. In contrast, the manufacturing and energy sectors have greater success rates. With more widespread privatization, the effects are even more pronounced in the infrastructure sector. In the end, he found a tenuous link between IMF loans and privatization.

In another study, Rahbar et al. (2012) looked at 41 developing countries between 2000 and 2008 and came to the conclusion that different regions are affected by privatization in different ways. After adjusting for additional institutional and quality characteristics, privatization was found in the OLS regression. had a notable and positive influence on development in South Asia, while Asia, the Pacific region, and central and western Europe had no significant connection to growth in Latin America, the Caribbean, sub-Saharan Africa, or the Middle East and North Africa (MENA) region. In addition to the regional variance, they illustrated how the policy's efficacy depended on the privatization strategy.

In their 2007 study, Bennet et al. looked at 23 transitional countries between 1990 and 2003. Only voucher privatization exhibits a statistically significant and positive link with growth, according to their analysis of the effects of privatization techniques on growth. There is disagreement on how privatization affects growth in terms of management and ownership capabilities. The growth of the capital market is essential for matching the right entrepreneur with the company and making the bidding process easier. They argued that in the early stages of transition economies, when capital markets are still developing, the privatization process has a big impact on whether or not businesses have the skills needed to run effectively. If a financial market is well established, entrepreneurs can compete and place bids to acquire the business or a portion of it by taking out loans.

Although the theory suggests that privatization improves the operations of multinational corporations, researchers often show little interest in finding empirical support for this assertion. There is currently insufficient evidence to support the claim that privatization significantly improved company performance. Privatization did not boost production or profitability in Sri Lanka (Wickramasinghe, 1996), while consumers in Mexico did not benefit from it (Martin, 1995). Furthermore, Uddin and Hopper's (2003) study of 13 privatized companies shows that employment and state income decreased but returns remained unchanged.

Furthermore, there was a lack of openness in external reporting, and illegal activities affected a number of creditors, shareholders, and tax-collecting organizations. Boubakri and Cosset (2002) used a sample of 16 African companies that were sold off through public share offerings between 1989 and 1996 to investigate the continent's experience with privatization. Although they find very slight changes in profitability, efficiency, output, and leverage, they do note noticeably larger capital expenditures by privatized businesses. Given that the study includes the time period of actual implementation, this is an intriguing result pertaining to Africa that emphasizes the Structural Adjustment Program's flaws.

According to Asechemie (1997), concepts such as owner profit or wages are not very important in Nigerian society, particularly in the informal sector. This problem is also brought to light by Perera (1989), who points out that current accounting methods are inappropriate for LDCs because of variations in business settings, ownership arrangements, accounting information use, and disclosure viewpoints that date back to the colonial era. Therefore, it is reasonable to be skeptical of the assumptions made by those who support privatization (Burchell et al., 1980). It can be concluded that different socio-economic, cultural, and political circumstances cause problems when LDCs adopt strategies from Western multinational corporations (Hopper et al., 2004).

The crucial question about privatization's consequences is whether, even though it promotes growth, the type of growth that a country experiences as a result of privatization. In their 1999 study of Mexican divested companies, La Porta and de-Salines found that while employment decreased, output grew by 50%, and pay for current employees rose. After privatization, there may be a discernible improvement in firm-level productivity, profitability, efficiency, and financial and economic performance. But doing so means disregarding social welfare and having

a detrimental effect on the distribution of money. Privatization may result in unemployment and unequal wealth distribution in a country like Ethiopia, where over 2 million new workers join the labor force annually and governmental firms are overburdened. In an empirical study, Gebeyehu (2000) reported a 12 percent reduction in employment among privatized firms in Ethiopia.

Although privatization improves government liquidity in the near term, its long-term effects are still unknown. Fiscal crises may trigger privatization (Yarrow, 1999: Dos-Santos, 2007). In addition to generating one-time income, privatization reduces the government's need to support unsuccessful businesses and further investments in the businesses that have been privatized. Therefore, Dos-Santos (2007) examined the long-term net wealth impact of privatization on the Brazilian government and found that the lack of competition during bidding and the costs of the privatization process led to a long-term decline in the Brazilian government's net wealth.

This will be recovered, though, if the benefits that the private sector will provide in the future significantly outweigh the money that the government would have gotten from the privatized companies. Santos empirically showed that neither the government's projected future tax collections nor the financial performance of ordinary privatized companies in Brazil have improved. In addition to the possibility of mergers and the development of oligopolistic power, the privatized firms' lack of performance increases is ascribed to their reliance on the state for investment finance and the fact that some of them are highly controlled with government-set prices. concluded that, because the Brazilian government is the ultimate owner of the state-run businesses, the privatization approach ultimately caused a net loss for the government and, by extension, for the general public. For Santos, the aforementioned problems might be resolved by developing a privatization plan that promotes competition and increases efficiency.

Due to differing local circumstances and privatization preferences, the factors influencing privatization remain a topic of controversy among researchers and policymakers despite the abundance of existing studies. The variables influencing development in industrialized and developing countries are very different. In this context, Breen and Doyle (2013) looked at 41 developing countries between 2000 and 2008 and 77 developing countries between 1988 and 1999. The study looked closely at the variables that affected the choice to privatize or not in a particular nation, as well as the extent and scope of policy execution.

They used a completely new metric for the privatization variable and applied the panel cross-section probit model specification. Both labor and value added percentages are used to represent the privatization variable. Doyle and Breen's two-stage research revealed that the degree of capital mobility, the desire to emulate nearby privatizations, and IMF conditionality are external factors that impact privatization for the first time. When privatization started, domestic political and economic factors influenced the choices about what to privatize and how much. One of the research's interesting conclusions is that countries with higher levels of international trade are less likely than others to privatize, but those that did so extensively did so. They contended that nations postpone initiating privatization because of the Örmsí demand for robust safeguarding and rules from the initiated competition.

Both relative and absolute welfare effects are found in a study by Bonnet et al. (2009) that used the Latinobarometro survey data for 17 Latin American countries from 1995 to 2005 to investigate the factors influencing public displeasure with privatization. They noted that absolute unhappiness or dissatisfaction emanates from public sector employees and the unemployed, whereas relative discontent is caused by the unequal distribution of wealth from efficiency improvements throughout the populace. The public's dissatisfaction is rebelliously influenced by personal expectations and ideas. According to the research, there are two ways in which beliefs affect how satisfied the public is with privatization policies.

A study by Bonnet et al. (2009) examined the factors driving public dissatisfaction with privatization using data from the Latinobarometro survey for 17 Latin American nations from 1995 to 2005. The study identified both relative and absolute welfare effects. They pointed out that while the unemployed and public sector workers are the source of absolute unhappiness or dissatisfaction, the unequal distribution of money from efficiency improvements among the general population is the source of relative discontent. Personal expectations and views rebelliously impact the public's discontent. The study found that public satisfaction with privatization strategies is influenced by views in two ways.

Benerjee et al. (2002) evaluated 35 developing nations with low and intermediate incomes in their investigation of policy privatization by examining time, tempo, and intensity independently. Although the political advantage eventually explains the three components, different results were

found when analyzing the decision to privatize, as assessed by the net political advantage, which is represented by multiple macroeconomic, political, and institutional aspects.

Its effects vary depending on the variable. According to the research, the decision to begin privatization (time) is fundamentally different from the decisions to begin asset sales (intensity) and select particular units for privatization (pace). Additionally, the study concluded that privatization is a crisis-driven, last-ditch effort to return the economy to normal and is not the best course of action with long-term goals. Conflicting power dynamics in big public sectors throughout the policy's implementation are blamed for the privatization policy's failure. They accomplished this by identifying two significant institutions: the development of the property rights system and the foreign aid regime.

Determining which businesses are given priority at any particular time and where the government starts privatization are major concerns. Gupta et al. (2004) point out that there are a number of reasons why privatization cannot be carried out only once. The government may give privatization top priority within it in order to reduce traffic, transaction costs, and the expenses associated with disclosing information to potential investors. In the end, the government may decide to minimize any welfare losses associated with the reforms, such as job losses or salary reductions, and avoid any political opposition to major reforms. Gupta et al. (2004) examined the strategic decision-making of the state in determining priorities by analyzing Czech Republic Örm data. The outcome backed the idea that the government initiates privatization with the most profitable companies and that has extensive.

Shahraki et al. (2011) discovered that privatization and the foreign direct investment it brought about had a positive effect on Ethiopian economic growth during the study period. They did this by using the Autoregressive Distributed Lag (ARDL) method to characterize the long-term and short-term relationships between real GDP growth and independent variables. Cook and Uchida (2003) used the extreme limits analysis in a cross-country growth regression analysis. Using data from 63 developing nations between 1988 and 1997, they discovered that privatization had a detrimental impact on economic expansion. Because there was no competition, they explained the outcome.

According to Shukurove et al. (2016), who used time series analysis to study the effects of Uzbekistan's privatization strategy during the transition period on economic growth from 1994 to 2014, privatization has a favorable and significant impact on the country's economy. This is consistent with additional individual-country studies carried out by Desalegn et al. (2018). In their time series study, Desalegn and Reddy used semi-annual data from 1994 to 2016 to investigate how privatization affected Ethiopia's growth. In a different study that concentrated on a single nation and looked at the macroeconomic impacts of privatization, Ozata (2014) analyzed data from Turkey from 1986 to 2012 and used a time series technique to analyze the growth impact of privatization. The findings from the error correction model indicate a significant negative effect of privatization on economic growth.

Most of the growing body of studies comparing performance in developing countries before and after privatization concludes that privatization improves business performance. La Porta and López-de-Silanes (1997) examined 218 nonfinancial companies that were privatized in Mexico between 1983 and 1991 and discovered that state enterprises turned a profit following the privatization process, which decreased the performance gap with control groups of similar private sector companies (The World Bank Research Observer, vol. 19, no. 1 (Spring 2004)).

In 2006, 249 privatization deals in 48 developing countries totaled a record US$104.9 billion. This result was primarily caused by two Chinese mega minority initial public offerings (IPOs): the US$13.7 billion IPO of the Bank of China and the US$22 billion IPO of the Industrial and Commercial Bank of China. These two offers, the greatest and fifth largest ever, accounted for thirty percent of the total. 1. Excluding these two deals, transaction values were about US$70 billion, which is 17 percent less than the high in 1997 in real terms and a record in nominal terms but commensurate with late 1990s outcomes (figure 1). About 80 percent of the total was comprised of ten countries.

China regained its lead with US$14.6 billion, primarily from 17 other large initial public offerings (IPOs) in different industries. Second place went to the Russian Federation with US$10.8 billion, mostly from the IPO of the oil and gas firm Rosneft. Turkey's US$8 billion was mostly from sales of oil refineries and steel. In the Arab Republic of Egypt, three banking and telecoms transactions amounted for over half of the $7.6 billion. The main cause of Romania's fifth-place result was the US$4.7 billion sale of Banca Comerciala Romana (BCR). The Republic

of Serbia, Kazakhstan, Tunisia, Hungary, and Nigeria rounded out the top 10 with notable transactions in banking, telecommunications, and oil and gas.

World Bank, 2006 trend toward privatization Despite the fact that 120 countries have privatized in the past 14 years, the profits are concentrated in a small number of countries: just ten countries, or 8% of all privatizing countries, made more than two-thirds of the total profits from developing countries during this time period, with the top five countries alone accounting for more than half of all proceeds. The composition of the group changed throughout time, even though 10 countries consistently generated the majority of the income.

Together, Brazil, Argentina, and Mexico accounted for about half of all revenues in the 1990s. Argentina and Mexico were taken off the list in recent years since a large portion of the privatization plan was almost finished. But Brazil persisted, and since 2000, it, China, Poland, and the Czech Republic have contributed over 60% of total revenues. Two countries from the Middle East and North Africa region made it to the group of 10 for the first time as a result of the partial sale of Saudi Telecom and the sale of Regie de Tabac, a tobacco manufacturing company in Morocco. Five nations—Brazil, China, India, Poland, and Russia—were on the list for both times, accounting for 41.3 percent of total revenues between 1990 and 2003 (World Bank Policy Research Working Paper 3765, November 2005)..

To evaluate the economic impact of privatization on recently privatized companies worldwide, a large number of empirical studies have been conducted. Among other research, a few recent ones have attempted to evaluate how privatization affects economic growth in developing countries. Below is a list of a few of these studies: Javadshahraki (2006) investigated the relationship between privatization and economic growth in Iran by defining the relationship between GDP and independent variables using the Auto Regressive Distributed Lag method. The findings indicated that privatization and economic growth in Iran are positively correlated, but that there is no meaningful correlation between privatization and economic growth and that the competitiveness or openness of the economy has not aided in economic growth.

Telecommunications and water are the two most investigated industries in the emerging world. Less than 2% of telecom businesses in 167 countries were privatized in 1980; nevertheless, by the 1990s, that number had increased to roughly 42% (Li and Xu, 2002). Furthermore, because it

generates positive externalities for other sectors, the telecom industry is growing at the fastest rate in most countries; claim Li and Xu (2002). The decline in the cost of commercial transactions is the primary reason behind this. Nonetheless, the privatization of the telecom sector has had contradictory results. In contrast to Ros's (1999) assertion that network development and the privatization of telecommunications infrastructure are positively correlated, Wallsten found the opposite in a 2001 study.

In his study, Privatization & Economic Performance, Alotaibi (2006) used panel data analyses with four panel types—None, Common, Fixed effect, and Random effect—as well as a cross-section model (OLS estimation) to investigate the effects of privatization on economic growth in fifteen (15) developing-nation countries. According to the results of the OLS regression, privatization had a substantial impact on GDP levels in Saudi Arabia, Kuwait, Bahrain, Jordan, Iran, Morocco, Pakistan, India, Indonesia, Malaysia, Venezuela, Mexico, and Argentina at the 5% significance level. The results for Egypt and Turkey indicated a negative relationship between economic growth and privatization indices at the 5% significance level.

The findings of the four-panel tests demonstrated that privatization has a significant and favorable influence at the 5% significance level. This backs up the study's assertion that privatization influences the productivity of all economic sectors and enhances the investment climate in emerging countries. Foreign direct investment (FDI) will increase and economic growth will improve as a result. These results are consistent with the effect of the privatization program on the economic growth of each country independently as assessed using OLS regression, with the exception of Egypt and Turkey. While privatization may be a successful growth strategy, it must be utilized in conjunction with other economic developments, according to Filipovic's (2005) analysis of the effects of privatization on economic growth using Extreme Bound Analysis.

Boubakri et al. (2009) examined the dynamics of privatization and economic growth using a sizable panel data set of fifty-six (56) developed and developing countries from 1980 to 2004. Using GMM estimating techniques, they investigated the potential impact of privatization on economic growth. Additionally, they described privatization along two dimensions: the extent of privatization efforts (proceeds), which proxies program scale, and the mechanism of privatization, which proxies government commitment.

To address any endogeneity concerns and take into consideration the dynamics of privatization, they used a dynamic panel technique. They found that the process of privatization, which entails issuing shares on the stock market, is positively connected with economic growth and that privatization has a significant, consistent beneficial influence on economic growth. This implies that one potential source of profit is the sale of State-Owned Enterprises (SOEs) on the stock exchange. Katsoulakos and Likoyanni investigated the relationship between macroeconomic variables and privatization using country-level panel data from OECD countries. They also examined how the budget deficit, public debt, output growth, unemployment rate, and privatization receipts relate to each other. Their estimation results show no statistically significant correlation between GDP growth rates and earnings from the previous period's privatization. The country-level panel data used by Barnett (2000) comprised ten (10) developing nations and the remaining eighteen (18) transition economies. This study looked into the effects of privatization on fiscal variables, investment, unemployment, and growth.

The empirical evidences indicated a positive relationship between privatization and real GDP growth rates. The calculation shows that a 1% GDP privatization would increase real GDP growth by 0.5% in the year of privatization and by 0.4% the following year.

2.3 Conceptual Frame Work

According to the study, state-owned firm privatization can have a favorable impact on economic growth and attract foreign direct investment (FDI), which in turn can raise GDP per capita growth. It should be noted that this study includes seven variables related to inflation, economic growth, government spending, foreign direct investment (FDI), domestic investment, external debt (DEBT), and private sector claims (PRIV).

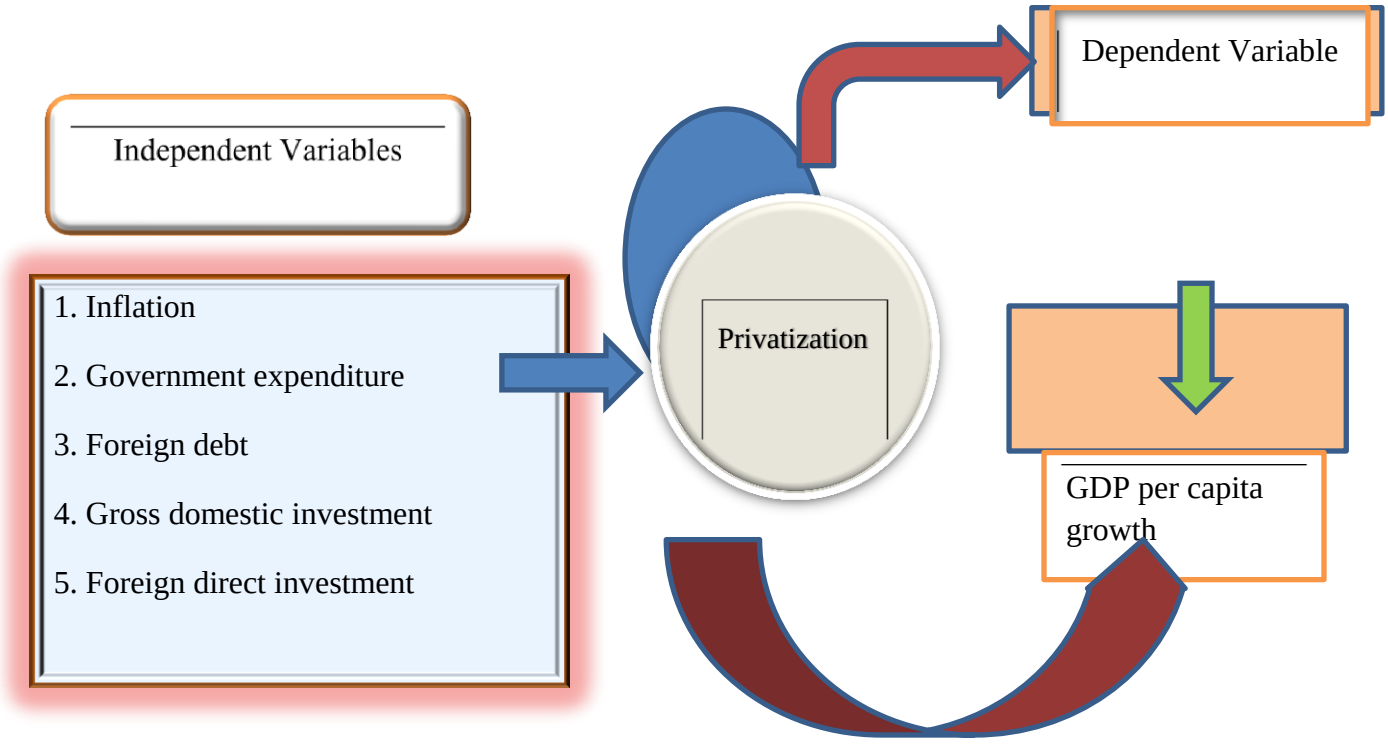


Figure 2.1; conceptual framework

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Research Design

Examining the effects of privatization as a strategy to support economic growth in Ethiopia is the aim of the study. Since quantitative research is the most suitable method for analyzing the variables that can be quantified, including foreign direct investment and economic growth, it is used in this study. Research and description of economic issues and processes that are not readily observable are made possible by quantitative design (Bayai et al 2013). For quantitative descriptions and comparisons of groups, regions, or variables, a quantitative approach to research is convenient. Thus, a quantitative design is employed for this study.

3.2. Data Type and Source

This study, which spans the years 1991–2023, will mostly rely on secondary data sources that are quantitative in nature. The timeframe was chosen because Ethiopia began privatization in the early 1990s and the government has continued to do so to this day. GDP (GDP per capita (annual%)), claims on the private sector, FDI (foreign direct investment), government expenditure, inflation, foreign debt (external debt), and gross domestic investment are all necessary annual secondary data that were gathered from the World Development Indicator (WDI), and the National Bank of Ethiopia websites.

Definition of Variables

In this study the variables are defined as follows;

GDP Per capita growth: is the basic metric used to measure economic growth in the research on economic growth (Barro, 1991). The data of GDP per capita growth rates since 1991 to 2023 was taken from the Development Indicators published by the World Bank.

Claims on the private sector: this study adopted claims on the private sector as percentage of GDP as a measure of privatization. According to the World Bank, Claims on the private sector is a proxy measurement of privatization which is also measured by gross domestic credit given by the financial system to individuals, firms and institutions.

Inflation: inflation is the general and consistent increase in the price of goods and service. In this study, the consumer price index measurement was used.

External debt: is the amount of national debt as a percentage of GDP which is expected to affect the aggregate economy.

Government expenditure: The overall costs incurred by a government during a given time period, usually a fiscal year, are referred to as government expenditures or government spending.

Gross Domestic Investment: gross domestic investment is the total government and private spending on capital assets like manufacturing and construction which is part of the total domestic gross product.

Foreign Direct Investment: foreign direct investment is the total value of cross border transactions among nations related with direct investment from abroad into the nation's domestic economy.

3.3. Method of Data Analysis

Reviewing all of the aforementioned sources will be a major part of the data collecting process because secondary data will be used primarily. The original data may be restructured in some way to better suit the information available for this study. Graphs and percentages are employed in descriptive statistics to examine the effects of privatization on economic growth and the trends of the variables, such as the importance of foreign direct investment inflow on the privatization process.

3.4. Econometric Model Specification

This study uses exogenous economic growth model of Barro (1991) to estimate the relationship between dependent and independent variables. Based on the theoretical framework developed by Javad et al. (2011) as cited on Chinnapareddy et al (2018), The following empirically estimated model is specified.

$$GRGDPt = \beta 0 + \beta 1(PRIVt) + \beta 2I\ NFt + \beta 3(DEBTt\ ) + \beta 4(LNGEt\ ) + \beta 5(GDIt) + \beta 6(\ FDIt) + \varepsilon t \text{--------} (1)$$

Where:

GDPPGt = Growth of real per capita GDP

PRIVt = claims on the private sector as a percentage of GDP

FLt = Inflation of consumer prices

LNGEt = Natural logarithm of government expenditure.

DEBTt = foreign debt

GDIt = gross domestic investment due to privatization.

FDIt = foreign direct investment due to privatization.

Et= error term

3.5. Estimation Procedure

Co-integration test, lag orders election test, and stationary test (unit root test) will be used because the data is time series in nature. Other diagnostic tests, such as serial correlation, functional form, residual normality distribution, and heteroscedasticity tests, will be examined in accordance with this. The study uses a stata software and the auto regressive distributive lag model (ARDL) to analyze the short- and long-term effects of privatization on economic growth.

3.6. Autoregressive Distributed Lag (ARDL) Model

The short- and long-term effects of privatization on Ethiopia's economic growth are examined using the ARDL estimating approach. First, Pesaran et al. (2001) pointed out that the ARDL can be applied to time series data regardless of whether the series are stationary at first difference I(1) or at levels I(0), or a combination of both, which demonstrated this study's independent variables. This is one of the many reasons why the ARDL is chosen over other models for this study. Additionally, because it may be applied even in situations where the order of integration of the variables is unknown prior to the cointegration test, it is more flexible and appropriate for analyses with small sample sizes. And also used when different variables can be assigned different lag-lengths as they enter the model.

Examining the time series data to confirm the findings of the stationarity and co-integration tests is essential to selecting the best time series model. Therefore, the autoregressive distributed lag

(ARDL) limits testing approach to co-integration, which was recently established by Pesaran and Shin (1995), is used in this study paper. Compared to other estimation methods like Johansen (1991) and Engle and Granger (1987), the technique offers a number of benefits. It is a more statistically significant method for analyzing correlation when dealing with small data sizes because other methods require big data sizes for validity to hold. Firstly, it can be used independently of the order of the regressors' integration (I(1) and/or I(0)).

Additionally, unlike previous methods, it permits the variables to have distinct optimal delays. Additionally, the method determines the long-term and short-term relationships between variables using a single reduced form equation (Babajide and Lawal, 2016; Babajide et al., 2015; Bahmani-Oskooee and Ng, 2002, 2010; Pesaran and Shin, 1999).

The ARDL approach involves four principal steps, as well as including pre-estimation tests that must be performed. The first step is to ensure that all time series data are purely stationary. For this purpose, unit root tests are conducted that examine the time series characteristics of the selected variables to overcome the problems of spurious correlation often caused by non-stationary time series data. The present study applies two unit root tests to ensure none of the variables is of I(2) or higher order: the Augmented Dickey-Fuller test (ADF) and the Phillips-Perron test (PP). Once the data are confirmed as stationary or found to be either I(0) or I(1), the second step is to test for cointegration among the variables in accordance with the ARDL approach. The third step is to test for the existence of long run relationships among the variables; and the final step is to test for short run relationships among the variables.

3.7 Estimation Technique

Pre-estimation tests on the variables are crucial when using time series data for analysis in order to ensure that the estimated parameters from the given model are consistent. In order to make sure that the estimated results are not erroneous, the study first looked at the stationarity test of each variable. The Autoregressive Distributed Lag (ARDL) Bounds testing method is then used to determine whether there is a long-term link between the variables. The short- and long-term parameters are estimated using the ARDL estimation approach.

3.7.1 Stationarity Test

The stationarity test of the variables must be examined because most time series data typically rise or fall and are more likely to be trended. In order to prevent the likelihood of erroneous correlations in the analysis, it is very helpful to test the order of integration of the variables when defining the model. This study used the Augmented Dickey-Fuller (ADF) model, despite the fact that there are other models to assess the stationarity of time series test variables data.

Augmented Dickey- Fuller (ADF) Test

American statisticians David Dickey and Wayne Fuller created the popular statistical test known as the Augmented Dickey Fuller test (ADF Test) in 1979. It is used to determine whether or not a particular time series is stationary. It is among the most widely used statistical tests for determining whether a series is stationary. The ADF was created for scenarios where the error terms may be correlated, in accordance with the notion that the majority of macroeconomic variables may be correlated and typically trended (Asteriou and Hall, 2011), as stated in Mahmud (2016). This is because the DF test assumed that the error terms should be uncorrelated and white noise.

The ADF test eliminates the autocorrelation issue by including additional lag terms of the dependent variable in the equation. Augmented Dickey-Fuller (ADF) can be expressed generally as follows:

$$\Delta X_t = \alpha_1 + \alpha_2 + \alpha_3 X_{t-1} \sum_{i-1}^{p} \beta 1 \Delta X_{t-i} + \Sigma_1$$

The time series variable is denoted by X, the time/trend variable by t, the estimated parameters by α_1, α_1, and α_3, the first difference operator by Δ, the various estimated parameters of the differenced values of the lagged variables by β1, and the white noise error term by ¸_1. The study compares the alternative hypothesis that there is no unit root with the null hypothesis that there is one (α_3 = 0) using the equation above. If the investigation rejects the null hypothesis, then the series is stationary. The series has a unit root and is therefore nonstationary if the study is unable to reject the null hypothesis.

3.7.2 ARDL Bounds Testing Approach

The overall test of significance of the lag of all the variables in their levels form is used to develop the ARDL bounds test for cointegration (long run equilibrium relationship). In order to test the hypothesis that there is no long-term equilibrium relationship between the variables and the alternative hypothesis that there is a long-term equilibrium relationship between them, the study uses the ARDL bound test to determine the significance of the F-statistic.

Accordingly, the tests of the hypotheses were: -

H0: $\beta 1 = \beta 2 = \beta 3 = \beta 4 = \beta 5 = \beta 6$ (there is no long-run relationship)

H1: $\beta 1 \neq \beta 2 \neq \beta 3 \neq \beta 4 \neq \beta 5 \neq \beta 6$ (there is long-run relationship).

The lower bound values are generated under the assumption that all the variables are integrated of order zero, or I~ (0), and the upper bound is generated under the assumption that all the variables are integrated of order one, or I~ (1), following the tests conducted based on the estimated F-Statistic and the lower and upper bounds critical values generated by Pesaran et al. (2001). If the F-statistic is higher than the upper bound, the null hypothesis is rejected; this suggests that there is a long-term equilibrium relationship between the variables. There is no long-term link between the variables if the study is unable to reject the null hypothesis when the F-statistic is below the low bound. Once more, an inconclusive model will result from an F-Statistic value that falls between lower and upper boundaries; it is preferable to find another model that fits the study.

3.8 The Short run and Long run Estimates from the ARDL Model

Both the long-run and short-run ARDL model estimate tests were conducted based on the results of the ARDL bound test. Additionally, the study model outlines the short-term and long-term effects of the independent variables on the dependent variables, which can then be used to estimate the long-term coefficients if a long-term relationship between the variables has been established.

Last but not least, the two econometrics model equations used in this investigation are the short run and long run ARDL model approaches, which are based on Pesaran and Pesaran (1997).

The short run is

$$\Delta GDPPG_t = \alpha_0 + \sum_{i-1}^{m} \alpha_1 \Delta GDPPG_{t-1} + \sum_{i-0}^{n} \alpha_2 \Delta PRI_{t-i} + \sum_{i-0}^{p} \alpha_3 \Delta INF_{t-i} + \sum_{i-1}^{q} \alpha_4 \Delta lnGE_{t-i} + \sum_{i-0}^{r} \alpha_5 \Delta DEBT_{t-i} + \sum_{i-0}^{s} \alpha_6 \Delta INV_{t-i} + \sum_{i-0}^{t} \alpha_7 \Delta FDI_{t-i} + \theta ECM_{t-1} + e_t$$

and

The long run equation model is

$$lnGDPPG_t = \alpha_0 + \sum_{i-1}^{m} \alpha_1 GDPPG_{t-1} + \sum_{i-0}^{n} \alpha_2 PRI_{t-i} + \sum_{i-0}^{p} \alpha_3 INF_{t-i} + \sum_{i-0}^{q} \alpha_4 lnGE_{t-i} + \sum_{i-0}^{r} \alpha_5 DEBT_{t-i} + \sum_{i-0}^{s} \alpha_6 DINV_{t-i} + \sum_{i-0}^{t} \alpha_7 FDI_{t-i} + e_t$$

CHAPTER FOUR

RESULT AND DISCUSSION

4. Introduction

The findings and analysis are presented in this chapter. It focused on discussing the descriptive statistics, trend analysis, and stationarity features of the variables used in the model. The discussion of the analysis's long- and short-term estimates is also presented.

4.1 Descriptive Statistics

The variables included in this study model are briefly and succinctly described in Table 4.1. This impacts the reliability and context of the variables' data.

Table 4.1: Descriptive summary

Variable	Obs	Mean	Std. dev.	Min	Max
gdppcgr	33	3.69733	5.65072	-12.43548	10.22182
priv	33	9.425059	5.087823	-.5086675	19.61874
inf	33	12.72099	12.4157	-8.484249	44.35669
ge	33	163.7887	240.2082	4.205	943.881
debt	33	13.00133	9.645467	2.141206	31.91403
dinv	33	24.57524	8.627037	10.594	39.417
fdi	33	1.165635	1.461017	0	4.259446

Source: own calculation from stata 17

Ethiopia's macroeconomic indicators' summary figures from 1991 to 2023 show significant patterns and fluctuations in the nation's investment and growth profiles. The average real GDP per capita growth (gdppcgr) for the last three decades was 3.70%, indicating slow economic development. Its wide range of –12.44% to 10.22% and relatively large standard deviation of 5.65 percentage points, however, suggest considerable macroeconomic instability, which may be brought on by external shocks, policy instability, or political instability.

The private sector's share of GDP (priv) claims ranged from a high of 19.62% to a low of -0.51%, with an average of 9.43%. The lowest claims on the private sector or exceptionally subpar privatization achievement in specific years may be shown by the negative minimum. The comparatively mild variability (SD = 5.09%) points to shifts in the private sector's sensitivity to the policy environment and level of confidence. The patterns indicate that in order to fully utilize the private sector's ability to spur growth, a stable and welcoming investment environment must be established.

Inflation (inf) as measured by the consumer price index not only remained high but also fluctuated, averaging 12.72%, peaking at 44.36%, and even experiencing deflationary spells as low as –8.48%. The high standard deviation of 12.42% indicates erratic pricing patterns, which could be brought on by external factors including currency rate volatility, supply-side constraints, and fiscal imbalances. Real incomes and investment planning may be undermined by such inflationary volatility.

A very high mean of 163.79 billion ETB, a very high standard deviation of 240.21 billion, and a high of 943.88 billion ETB were reported for government expenditure (ge). This indicates a significant increase in government spending over time, which may be related to state-led development initiatives, infrastructure development, and an expansion of public services. The excessive volatility could also be a result of shifting donor support or adjustments to fiscal policy.

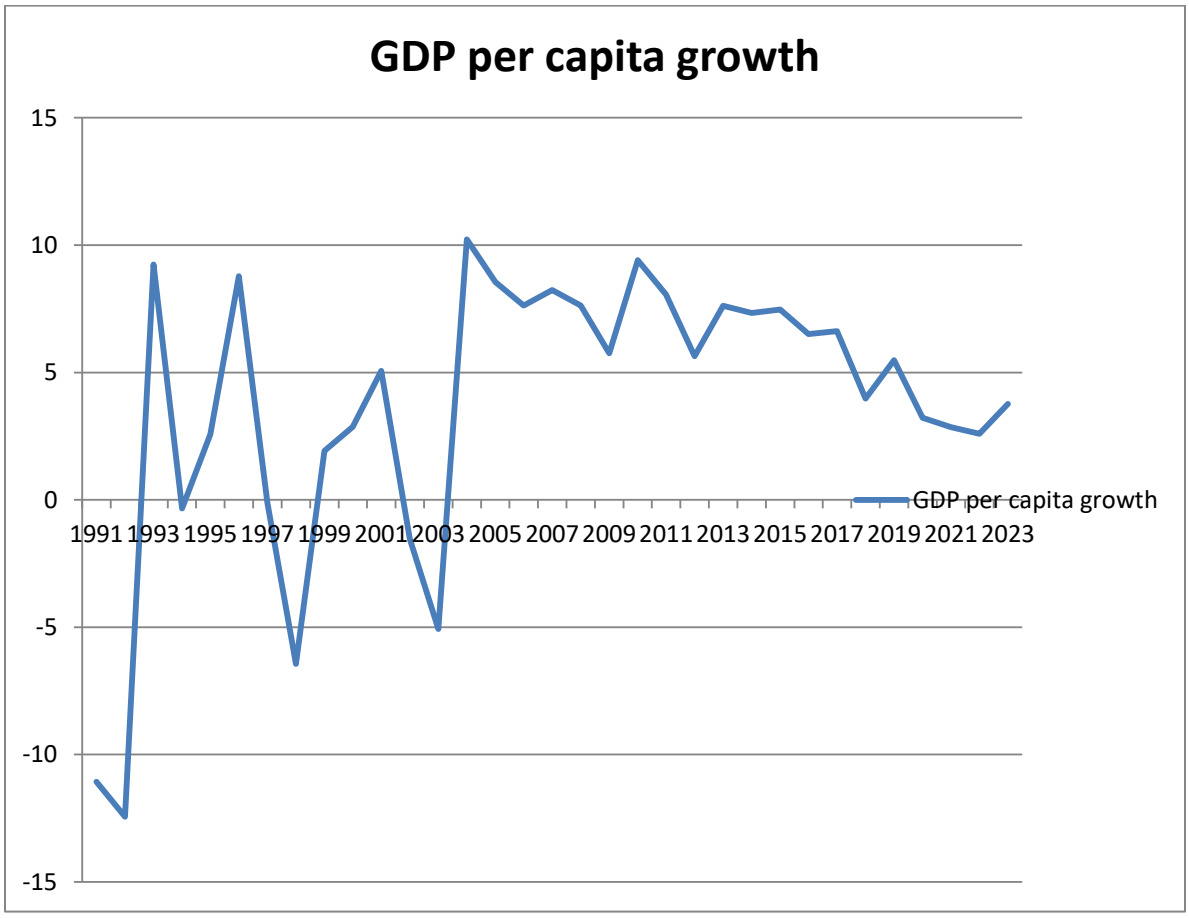
With a range of 2.14% to 31.91%, the average debt-to-GDP ratio (debt) was 13.00%, suggesting that the amount of debt has increased in recent years. Despite being small on average, the upward trend and increased variability point to less fiscal headroom and underlying worries about debt sustainability.

On average, domestic investment (dinv) performed well as well, accounting for 24.58% of GDP with comparatively little fluctuation (SD = 8.63%). It demonstrates a commendable domestic capital formation effort, which could be due as much to domestic savings mobilization as to public investment thrusts. The crucial question, though, is how effective this investment has been in terms of productivity improvements.

By contrast, foreign direct investment (fdi) was quite low, averaging only 1.17% of GDP, with years without inflow and a peak of 4.26%. This demonstrates Ethiopia's inadequate integration with global capital markets and may be a sign of issues like lack of infrastructure, political risk, or regulatory barriers. Increased foreign direct investment would be necessary for export diversification, job creation, and technology transfer.

4.2 Trend of Ethiopian Economic growth: Real GDP and Selected Variables

Graph 4.1; per capita real economic growth



Source; own competition

Ethiopia's GDP PCGR (gross per capita growth rate) from 1991 to 2023 tells a tale of economic upheaval, reform, and recent stagnation. As seen in the graph, the early 1990s were characterized by extreme economic volatility. The fall of the Derg government, the disruption brought on by conflict, and the ensuing transitional period caused the GDP per capita growth rate to drop as low as -12.4% in 1991, the lowest in the sample. However, a sharp recovery was noted in 1993, when expansion jumped to nearly 10%, indicating the initial impacts of post-war comeback and macroeconomic stabilization.

However, instability with alternating periods of contraction and expansion characterized the remainder of the decade. This volatility is consistent with years of high inflation and budgetary strain, as evidenced by the inflation rate (INF), which averaged 12.7% but reached 44.4% with a high standard deviation of 12.4, an indication of price volatility and economic fragility.

A period of sustained growth began in the 2000s. Ethiopia saw robust and comparatively steady GDP per capita growth of around 5% per year between about 2004 and 2015, occasionally hitting almost 10% in a single year. This is a feature of the state-driven growth paradigm, which is distinguished by significant public investment in public capital and government spending. The comparatively high average of domestic investment as a proportion of GDP (DINV) at 24.6%, with a peak of 39.4%, serves as evidence of this. As a result of the administration's aggressive fiscal push, government spending (GE) rose concurrently, averaging 163.8 billion birr and peaking at about 944 billion. Although it fluctuated greatly from year to year, private investment (PRIV) also supported overall growth, averaging 9.4%.

However, as the graph and numbers indicate, GDP per capita growth slowed off after 2016. Growth has further slowed to 3% by 2022–2023, much below previous highs. This tendency can be explained by a few macroeconomic indicators. First off, the public debt load is increasing significantly, averaging 13% of GDP and reaching a peak of 31.9%. This may have been limiting macroeconomic flexibility and fiscal space. Furthermore, FDI was comparatively low, averaging only 1.17% of GDP, suggesting that there was little external capital input to support projects that would increase productivity. Even though it fluctuated, inflation continued to put downward pressure on real incomes and economic sentiment, with double-digit inflation episodes undermining both macroeconomic stability and buying power.

4.3 Stationarity Tests

Before beginning any kind of analysis, it is crucial to test the stationarity qualities of time series variables. This is because most time series variables have a tendency to fluctuate over time, which could lead to erroneous conclusions if the stationarity properties are unknown. Finding the maximum order of integration of the variables is necessary in this study even though the ARDL approach to cointegration does not require unit roots pre testing. This is because a variable that is stationary at second difference, I(2), cannot fit in the bounds testing, and it is crucial to perform the stationarity test. Only a maximum of I(1) variables are eligible for the crucial values.

To identify the order of integration of our variables, the employed the Augmented-dickey Fuller (ADF) test approach. The ADF in table 4.2 shows the integration of all the variables at first difference. The ADF null hypothesis of non-stationary is rejected for all the variables at 5% significance level, all at constant, drift and trend.

Table 4.2: ADF Unit Root Test Result

Variable	ADF Test Statistic	0.05 critical value for ADF statistic	Order of Integration
gdppcgr	-4.466	-2.980	At level
priv	-3.561	-2.980	At level
inf	-3.534	-2.980	At level
lnge	-5.426	-2.983	At difference
debt	-3.078	-2.983	At difference
dinv	-6.286	-2.983	At difference
fdi	-5.055	-2.983	At difference

Source; own computation

The test's findings indicate that while some variables have stationarity at level, others have initial differences and are non-stationary in their levels. For example, certain variables are stationary at first difference, while others, such as inflation, private sector claims, and per capita economic

growth, are stationary at level. Following the results of such a stationarity test, we will use the Johansen method of co-integration. This is one of the primary arguments in favor of the Autoregressive Distributed Lag (ARDL) strategy, which, in contrast to other approaches, does not call for pretests for unit roots. Consequently, ARDL cointegration technique is preferable when dealing with variables that are integrated of different order, I(0), I(1) or combination of the both and, robust when there is a single long run relationship between the underlying variables in a small sample size.

Furthermore, according to Pesaran and Shin (1999) and Pesaran et al. (2001), the ARDL/Bounds Testing methodology has certain characteristics that many scholars believe offer it some advantages over traditional cointegration testing, like the OLS model.
The Autoregressive Distributed Lag (ARDL) model outperforms other time series econometric models in variable settings like; It can be applied to both I(0) and I(1) data, it just uses one equation, it is easy to implement and understand and various variables can be given varying lag-lengths.

4.4 Optimum Lag Selection Criteria

Lag selection is extremely important and sensitive when using time series data for economic modeling. As a result, choosing the right criterion for lag selection is crucial. Finding the ideal lag for the cointegrating equation under the presumption of a serially uncorrelated residual is necessary for the ARDL bound testing method to long-term level relationships between the variables. The Akaike Information Criterion (AIC), a widely used model selection criterion, was applied in this work for this purpose. The model's optimal lag, as determined by the lag selection criterion, is 4, as shown in table 4.2 below.

Table 4.3: Optimum lag selection on the basis of AIC criterion

Lag	LL	LR	Df	P	FPE	AIC	HQIC	SBIC
0	-500.925				3.9e+06	35.0293	35.1326	35.3593
1	-329.621	342.61	49	0.000	927.14	26.5945	27.4215	29.2348
2	-248.405	162.43	49	0.000	196.799	24.3728	25.9232	29.3233
3	-55.2615	386.29	49	0.000	.116182*	14.4318	16.7058	21.6926
4	5577.03	11265*	49	0.000	.	-370.623*	-367.625*	-361.052*

4.5 Bound testing

After being first differentiated, the mixed-order data used in the investigation became stationary. The study can only use the ARDL bound testing model when the data are I (0) and I (1). Bound testing can be used to confirm if the variables under investigation have co-integration. The following criteria were developed by Pesaran et al. (2001) and were proposed as decision criteria.

- It can be verified if there is a co-integration if the computed value of the F statistics is higher than the upper bound of the critical values.
- The investigation came to the conclusion that there is no co-integration between the variables if the computed value of the F statistics is smaller than the lower bound of the critical values.
- It might be said that there is inconclusive co-integration or that the existence of co-integration is not verified if the computed value of the F statistics falls between the upper and lower bound of the critical values.

Table 4.4: Bound test result

							F = 24.548	
							t = -11.037	
	10%		5%		1%		p value	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
F	2.474	3.897	3.035	4.687	4.459	6.677	0.000	0.000
T	-2.487	-3.957	-2.880	-4.449	-3.703	-5.486	0.000	0.000

Source; own computation

At the 1%, 2.5%, 5%, and 10% levels of significance, the results of the limits test with a maximum lag length of 2 (based on the Akaike info criteria) produced from the ARDL model ((2,0,2,1,0,0,0)) showed that there is a long-term equilibrium relationship among the variables. Therefore, the F-statistic in the above table is 24.548, which is higher than the upper bound I (1) for all significance levels, and the t-statistic is -11.037, which is significantly lower than the 1% critical value (-5.486), which forces us to reject the null hypothesis, which states that there is no level relationship, and accept the alternative hypothesis, which states that there is a long-term relationship between the dependent and independent variables. Thus, we may use ARDL to run ECM, long run, and short run.

4.6 Long Run ARDL Model Estimation Result

To investigate the impact of privatization on Ethiopian per capita economic growth, the study tests long run impact of inflation, government expenditure, external debt, total domestic investment and foreign direct investment which is taken as proxy variable Ethiopian economic growth. The results are presented in table below

Table:4. 5 Estimated long run coefficients using the Autoregressive Distributed Lag Approach: ARDL (2,0,2,1,2,0,0), selected based on Akaike Information Criterion.

Variables	Coefficient	Std. err.	t	P>t	[95% conf.	interval]
Priv	.4968159	.0757648	6.56	0.000	.3369661	.6566657
Inf	.1585395	.0762227	2.08	0.053	-.0022763	.3193552
ln_ge	-.7721378	1.03184	-0.75	0.465	-2.949131	1.404855
Debt	-.2946717	.0846138	-3.48	0.003	-.4731912	-.1161523
Dinv	.3890958	.1210598	3.21	0.005	.133682	.6445096
Fdi	.9471095	.5555082	1.70	0.106	-.2249104	2.119129

Source; own computation

Key macroeconomic variables were used to evaluate the long-term and short-term dynamics of GDP per capita growth in Ethiopia, based on the ARDL(2,0,2,1,2,0,0) regression spanning the years 1993 to 2023. The findings, which were examined at the 5% significance level, provide crucial information about the structural issues and economic performance of the nation.

Private investment (priv) has a substantial and statistically significant beneficial impact on GDP per capita growth over the long term. With a coefficient of roughly 0.50, economic growth rises by 0.50 percentage points for every percentage point increase in private investment. Given Ethiopia's progressive policy move toward market-friendly reforms and growing private sector involvement since the early 2000s, this study emphasizes the crucial role that private sector investment plays in the country's long-term development.

However, over time, there is a statistically significant inverse link between public debt (debt) and economic development. With a value of -0.29, the outcome implies that growing debt levels impede economic expansion. This is especially pertinent to Ethiopia, which has accrued

substantial state debt in order to fund expansive industrial parks and infrastructure projects. The finding suggests that these investments may not have produced sufficient returns or that growing debt servicing requirements are displacing productive public and private spending, even if their goal was to promote development.

Furthermore, domestic investment (dinvdp) has a positive and significant long-term effect on GDP, underscoring the need of mobilizing internal resources. The computed coefficient (0.39) indicates that increasing domestic investment significantly affects economic growth. According to Ethiopia's Growth and Transformation Plans (GTP I and II) strategy, raising domestic savings to finance investments in infrastructure, industry, and agriculture was a top priority.

At the 5% level, other long-term factors like foreign direct investment (fdidp), government spending (ln_ge), and inflation (inf) were not statistically significant. Although the effect of inflation was marginal ($p = 0.053$), its low long-term significance raises the possibility that inflation may not have a consistent or linear influence on growth. Additionally, government spending and foreign direct investment did not provide significant long-term contributions to GDP per capita growth. This could be the result of inefficient governmental spending or a lack of FDI spillover effects, as FDI has historically been concentrated in low-wage manufacturing and enclave industries with poor connections to the rest of the economy in Ethiopia.

4.7 Short run ARDL Model: Error Correction Estimation Result

The ARDL framework is used to estimate the short run analysis with an error correction model (ECM) term included. It illustrates how independent variables affect dependent variables right away. When there is a deviation, the ECM calculates how quickly the system will adjust to return to equilibrium. For the variables to converge to equilibrium, the ECM's coefficient must be negative and statistically significant from the outset.

Table 4.6: Error Correction Estimation Result

Variables	Coefficient	Std. err.	T	P>t	[95% conf.	
Gdppcgrt LD.	.1931347	.1067443	1.81	0.088	-.0320762	.4183456
Inft D1.	-.181822	.0653594	-2.78	0.013	-.3197183	-.0439257
Get D1.	-19.18427	5.500788	-3.49	0.003	-30.78991	-7.578616
debttD1.	.2963649	.340247	0.87	0.396	-.4214935	1.014223

Source : own computation

According to the ARDL short run ECM regression analysis above, the coefficient of the ECM is substantial and negative, confirming the long-term equilibrium relationship between the variables in the cointegration test and demonstrating the stability of the estimated model. The output section ADJ reports the negative speed-of-adjustment coefficient $-\alpha$. It gauges how quickly an equilibrium distortion is corrected, or how strongly the dependent variable responds to a departure from the equilibrium relationship in a certain period.

The table shows that the inflation rate has a statistically significant negative impact on economic growth in the short term. This suggests that macroeconomic instability has a short-term negative impact on economic growth. Government spending has the largest and most detrimental short-term effect on economic growth of all the independent factors. External debt has no discernible effect on economic growth in the short term, suggesting that the burden of debt has a greater long-term effect on economic growth than it does in the short term. However, the results of the ARDL estimation show that the effects of foreign direct investment, gross domestic investment,

and privatization are obscured in the short term, suggesting that privatization plans require more time to have a significant effect on economic growth.

4.8 Diagnostic Tests

It is essential to conduct post-estimation testing to guarantee the results' robustness. The correct functional form of the model was established by the post-estimation test among clue points, stability, and the avoidance of serial correlation and heteroscedasticity. Since the model is appropriate for this investigation, it is anticipated that the test statistics for the various tests will be statistically significant. As a result, the following are some chosen post estimation tests from this study that correspond with time series ARDL model debates.

Test for Autocorrelation: Breusch-Godfrey LM Test for Autocorrelation

Compared to the traditional Durbin Watson D test, the Breusch-Godfrey LM test has an advantage. While the Breusch-Godfrey LM test is less susceptible to this assumption, the Durbin Watson test depends on the assumption that the residual distribution is normal. This test's ability to test for serial correlation using multiple lags in addition to one lag—a correlation between the residuals between time t and t-k, where k is the number of lags—is another benefit. The Durbin Watson test, on the other hand, simply permits testing for correlation between t and t-1. Consequently, the Durbin Watson test and the Breusch-Godfrey test will yield identical results if k equals 1.

Table: 4.7 Autocorrelation Test

Breusch–Godfrey LM test for autocorrelation

lags(p)	chi2	Df	Prob > chi2
1	0.759	1	0.3838

From Table 4.6, the test of correlation based on the Durbin's alternative test for autocorrelation test among the residuals confirms the absence of serial correlation since the F-Statistic was statistically insignificant.

Heteroscedasticity Test: Cameron & Trivedi's decomposition of IM-test

When the standard deviations of a predicted variable, observed over varying values of an independent variable or as compared to previous time periods, are non-constant, this phenomenon is known as heteroskedasticity (or heteroscedasticity) in statistics. When looking at the residual errors, the telltale hallmark of heteroskedasticity is that they will tend to fan out with time, as shown in the image below. The two types of heteroskedasticity that frequently occur are conditional and unconditional. Conditional heteroskedasticity detects no consistent volatility associated with the volatility of the previous period (e.g., daily). General structural changes in volatility that are unrelated to volatility in previous periods are referred to as unconditional heteroskedasticity. When it is possible to identify future periods of high and low volatility, unconditional heteroskedasticity is employed. The test's outcome is shown in the table below.

Table: 4.8 Heteroscedasticity Test

White's test for Ho: homoscedasticity

Against Ha: unrestricted heteroscedasticity

chi2(30) = 31.00

Prob > chi2 = 0.4154

Source	chi2	df	P
Heteroskedasticity	31.00	30	0.4154
Skewness	11.20	13	0.5941
Kurtosis	1.97	1	0.1603
Total	44.17	44	0.4644

The absence of heteroscedasticity among the error terms was shown by the statistically negligible F-statistics produced by the test of heteroscedasticity based on Cameron & Trivedi's decomposition of IM-test.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND POLICY IMPLICATION

5. Introduction

By summarizing the key findings, this chapter offers the study's conclusion. Additionally, based on the findings, it offers some policy recommendations for the relevant body.

5.1 Summary

This study examines the impact of privatization on Ethiopia's economic growth as measured by GDP per capita growth using annual time series data from 1991 to 2023 along with other selected macroeconomic variables. Using the Autoregressive Distributed Lag (ARDL) bounds testing approach, the analysis looks at the short- and long-term dynamics of growth determinants as private sector credit, inflation, government spending, public debt, domestic investment, and foreign direct investment.

According to long-term projections, privatization positively and statistically significantly affects economic growth. This suggests that increasing lending to the private sector boosts economic output and promotes Ethiopia's long-term growth. Even while it is only somewhat significant at the 5% level, inflation also has a long-term positive impact, indicating that moderate inflation may be linked to higher economic activity, albeit this relationship should be interpreted cautiously. On the other hand, it has been discovered that public debt has a statistically significant and detrimental long-term effect on economic growth. This suggests that larger debt levels could either reflect macroeconomic instability or displace private investment. According to theories that stress the importance of capital formation in maintaining economic performance, domestic investment (as a percentage of GDP) also has a positive and considerable impact on long-term growth. However, the long-term effects of government spending and foreign direct investment (FDI) are not statistically significant, indicating that their impact may be more pronounced in the short term or dependent on the type and composition of investment and spending.

A steady long-term link between the variables is confirmed by the statistically significant negative error correction term in the short-run dynamics. According to short-term estimations,

inflation significantly and negatively affects economic growth, underscoring the short-term contractionary impacts of inflationary pressures. Similarly, inflation that lags by one period still has a detrimental impact on growth. In the short term, government spending has a strong and statistically significant negative effect, which could be a symptom of inefficiency or inefficient public expenditures. While lagged GDP growth has a weakly significant positive effect, suggesting some persistence in economic performance, other variables, such public debt and foreign direct investment, are not significant in the short term.

Overall, the empirical results point to the importance of financial development in fostering long-term economic growth in Ethiopia through the extension of credit and domestic investment. However, maintaining macroeconomic stability is still crucial for maintaining both short-term and long-term growth, especially through managing public debt and containing inflation. The contradictory findings on government spending and foreign direct investment highlight the necessity of enhancing the effectiveness and focus of public and foreign investment programs.

5.2 Conclusions

Several important conclusions were drawn from the empirical results of the ARDL estimation. Long-term economic growth was positively and statistically significantly impacted by claims on the private sector. When all other factors are held constant, a one-unit increase in private sector credit corresponds to a gain in GDP per capita of about 0.50 percentage points. This emphasizes how crucial loan availability and the growth of the financial sector are to long-term economic growth.

Despite being marginally significant at the 10% level, inflation had a positive coefficient over the long term, which may indicate that moderate inflation was an indication of rising demand in Ethiopia. Inflation, however, was found to have a considerable negative impact in the short term, suggesting that price instability may impede growth in the near future.

Government spending, as measured by the logarithm of total public spending, has a significant and adverse short-term impact but no statistically significant long-term impact. These points to inefficiencies or delays in converting public investment into productive production which could be brought on by misallocation or structural constraints.

It was discovered that foreign debt had a long-term detrimental impact on economic growth, with growth declining by roughly 0.29 percentage points for every unit rise in the debt ratio. Concerns regarding the sustainability of debt and its effects on Ethiopia's long-term economic performance are supported by this finding.

Long-term economic growth was positively and significantly impacted by domestic investment, underscoring the importance that capital formation plays in boosting productive capacity. Similarly, FDI's positive long-run coefficient indicates that it could promote growth if it is properly utilized, even though it was not statistically significant in the short or long term at the 5% threshold. With an R-squared of 0.94, the model fit was generally good, suggesting that the factors included account for a significant amount of the variation in GDP per capita growth. Diagnostic tests revealed no significant deviations from the traditional regression assumptions: the residuals passed the heteroskedasticity (White's test), and there was no indication of serial correlation (Breusch-Godfrey test).

To sum up, the analysis shows that boosting Ethiopia's economic growth requires expanding privatization, promoting domestic investment, and keeping inflation under control. For these resources to have a meaningful impact on development outcomes, however, debt management and public spending efficiency must be enhanced. These results align with endogenous growth theories that emphasize the role of financial development, macroeconomic stability, and capital accumulation in maintaining growth.

5.3 Policy Implications

The study's findings have several important policy implications for Ethiopia's economic development strategy:

- **Increase in privatization**: The significant long-term positive impact of the private sector on GDP per capita growth underscores the need for policies that expand the private sector. The government and financial authorities should provide an enabling environment so that banks and microfinance institutions may offer targeted and affordable financing, especially to productive industries like manufacturing and agriculture.

- **Encourage Domestic Investment**: Policies should work to increase domestic savings, boost investor confidence, and eliminate barriers that deter private investment, as domestic investment has been shown to propel economic growth in both the short and long term. This entails streamlining investment processes, guaranteeing political stability, and enhancing infrastructure.

- **Enhance Public Debt Management:** The necessity of careful debt management is underscored by the long-term detrimental impact of public debt. Concessional borrowing should be given top priority by the government, which should also make sure that borrowed money is used for capital projects that will boost growth and yield measurable economic returns. Enhancing debt responsibility and transparency is also essential.

- **Manage Inflation:** The necessity to preserve macroeconomic stability is indicated by the negative short-term effects of inflation. In order to avoid inflationary pressures that reduce investment returns and purchasing power, policymakers should cooperate with fiscal authorities and implement credible monetary policies**.**
- **Reform Public Expenditure:** Given the short-term negative effects of government spending, it is possible that existing spending is ineffective or poorly focused. The government should prioritize capital over ongoing expenses, increase the efficiency of public spending, and guarantee accountability and openness in the execution of the budget.
- **Reevaluate FDI Strategy:** Despite FDI's statistical insignificance over the long and short terms, its potential contribution to economic growth should not be discounted. To draw in high-quality investments that promote knowledge transfer, jobs, and connections with domestic businesses, policymakers might need to update the FDI structure.

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