



**Mekelle University**  
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# **The Role of Institutions in Economic Growth in Ethiopia: An Empirical Analysis Using the Autoregressive Distributed Lag (ARDL) Model**

A thesis submitted in Partial fulfillment of the requirement for the Award of  
Master of Science in Economics (Development Policy Analysis)

By

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## Declaration

I, Giday Gebrekidan Teklemikael, do hereby declare that the thesis entitled *The Role of Institutions in Economic Growth in Ethiopia: An Empirical Analysis Using the Autoregressive Distributed Lag (ARDL) Model*, submitted by me in partial fulfillment of the requirements for the award of Master of Science in Economics (Development Policy Analysis) of Mekelle University, Tigray, is original work and it has not been presented for the award of any other degree, diploma, fellowship or other similar titles, of any other University or Institution.

Giday Gebrekidan

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## Certification

I, certify that, this Thesis entitled *The Role of Institutions in Economic Growth in Ethiopia: An Empirical Analysis Using the Autoregressive Distributed Lag (ARDL) Model* is a work of Giday Gebrekidan who carried out the research under my guidance. Certified further, that to the best of my knowledge the work reported here in does not form part of any project report or thesis on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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## **Abstract**

*The main goal of this research was to look at institution's role in the performance of Ethiopian economy which is considered an underdeveloped economy. For this purpose the ARDL bounds testing approach to cointegration proposed by Pesaran et al. (2001) and updated with Kripfganz and Schneider (2020) critical values and approximate p-values was used. The short-run and long-run correlations between institutional and other macroeconomic and control variables over the period 1982-2022 were investigated. It made use of secondary data obtained from the World Bank's World Development Indicators (WDI) for the macroeconomic and control variables and it used Freedom House's Political Freedom Index for the institutional variable. In case of variables where the WDI has gaps other supplementary sources were used such as the YCharts, Federal Reserve Bank of St. Louis and the National Bank of Ethiopia. The empirical result obtained for the Ethiopian economy suggests the institutional variable takes the lion's share in its impact on the economy and implies that once the institutional dynamics is introduced in the model the other macroeconomic variables loss their predictive powers.*

*Key words: Economic Growth, Institutions, Ethiopia, ARDL cointegration.*

*Dedicated with love to:*

*Aman  
Rahwa  
Gebrekidan*

**"I sustain myself with the love of my family."**

**- Maya Angelou**

## **Acknowledgement**

Life is difficult as it is and when one tries to fix it a pandemic and a war starts to make life even more difficult. The psychological and existential burden I had to carry was not any larger, or even closer to what the people of Tigray had to carry since the start of the Covid-19 pandemic and the Tigray war that followed it within a few months. But still it was an extreme challenge to finish something I started before my world was turned upside down.

None of this work would have existed if I wasn't given unconditional support and love by my families who have never given up on me even though I have no right to be blessed with such love. I am grateful to God for giving me such a family. This work is humbly dedicated to them in the name of their kindness and honor.

Finally, I would also like to thank my advisor, Dr. Fredu Nega, for his valuable comments and corrections that greatly improved the work.

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# 1. Introduction

## 1.1. Background of the Study

The topic of economic development in Ethiopia, by large, is shaped by ideological debate, mainly the role of the government in the economic life of the country. This debate is mainly raised by politicians and it mostly reaches the public at large during voting seasons while candidates who are asking for the public's votes are aired debating public issues. This is understandable in the context of the poverty that's rampant in the country with the government in control of the main source of capital, whether in terms of revenues collected by the government or policies such as the public ownership of land. But this ideological angle, as relevant and as important as it is, misses the forest for the trees.

That is, what the ideological expressions seem to miss is the larger and important picture of the rule of law, or a fair society, or a society of equal opportunity, a society that helps its members reach their full potential and thereby help their society at large. This is where ideologies become relevant, with each ideology claiming to be the sole way to such a society.

And so whatever is the ideological bend, a fair society is the goal. A fair society expressed by the rule of law and the equality of opportunity it offers to its members. In Economics this is identified as the institutions a society owns. As North (1990, p. 3) briefly puts it, "institutions are the rules of the game in a society". What the ideological debate in Ethiopia implies is the traditional view of growth which primarily considers physical capital accumulation, as in Solow's (1956) Neoclassical model. But on the other hand the world has transcended this view and has moved to consider technology, human capital and institutions.

Ethiopia's economic performance measured in terms of GDP per capita growth has never been smooth. There have been years of negative growth rates as well as high rates of growth.

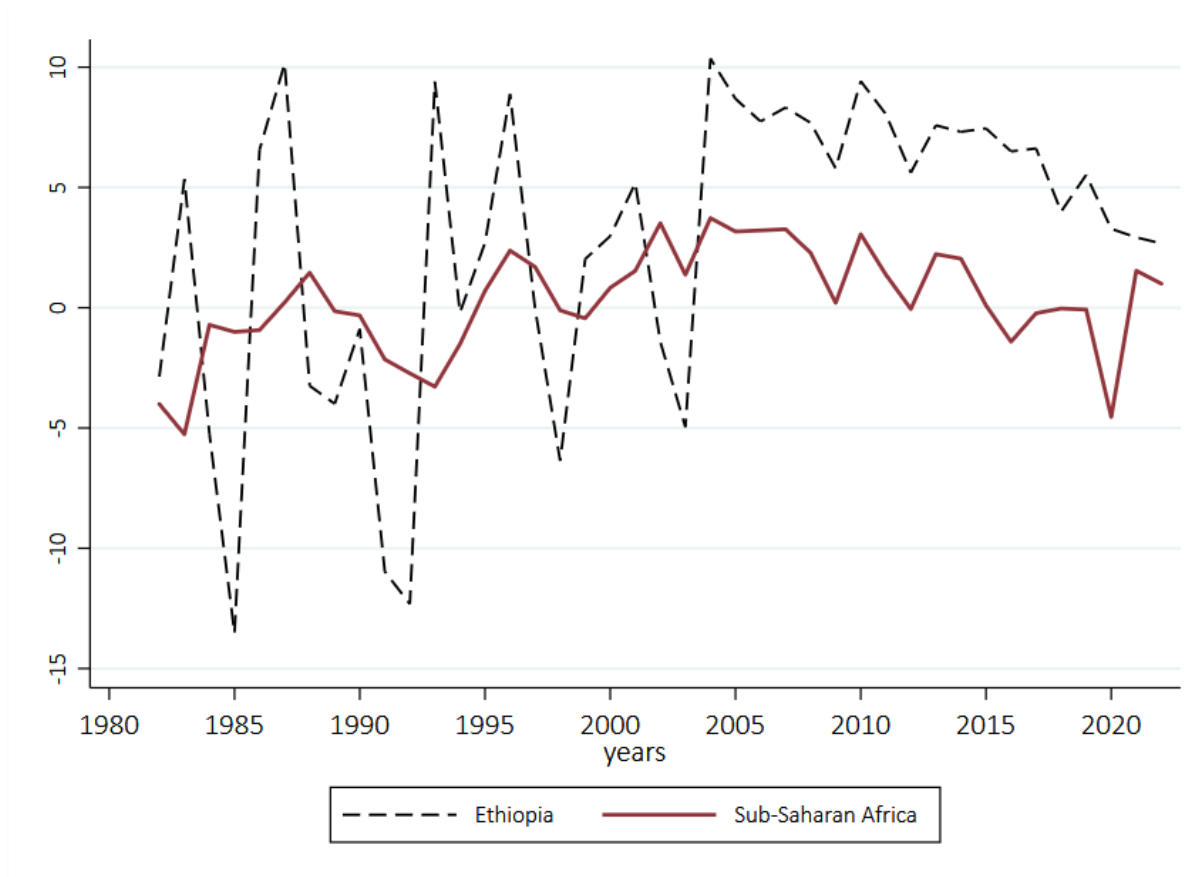


Figure 1.1: GDP per capita growth in Ethiopia and Sub-Saharan Africa

Source: World Bank, 2023

We can see here in this graph that Ethiopia’s GDP per capita growth to be much more varied, as low as -13 (in 1985) and as high as +10 (in 2004) percent. This is much different from the Sub Saharan experiences. In this paper we will try to see if there is a connection between institutional quality and this volatility of growth rate. The highly developed economies such as North America’s have been able to maintain relatively constant growth rates or sustainable development.

Recently the interest on the role of institutions as an explanatory factor has been growing. North (1990, p. 3) defines institutions as “the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic”. This is to say institutions are the means that encourage or discourage individuals within a society. As Ferrini (2012, p. 1) summarizes it, “protection of property rights, effective law enforcement, and efficient bureaucracies, together with a broad range of norms and civic mores, are found to be strongly correlated to better economic performance over time.” This is to say countries

with better institutions will be able to achieve sustainable development and have high levels of income (Hall and Jones, 1999; Acemoglu, Johnson and Robinson, 2005).

In spite of the recent rise of interest in institutions, their significance did not escape the attention of Adam Smith, the founder of the study of Economics, centuries earlier. In his *The Wealth of Nations* he gives importance to the justice system, private property right and the rule of law.

In more details North (1990, pp. 36-37) sees institutions as informal constraints as in “code of conduct, norms of behaviour, and conventions ... which come from socially transmitted information and are a part of the heritage that we call culture” and formal rules as in “political (and judicial) rules, economic rules, and contracts. The hierarchy of such rules, from constitutions, to statute and common laws, to specific bylaw, and finally to individual contracts defines constraints, from general rules to particular specifications” (North (1990, p. 47).

The better institutions are, the more they reduce transaction costs. These transaction costs are part of the economic life of the society, such as search and information costs, bargaining and decision costs and enforcement costs (Coase, 1992, p 197; Dahlman, 1979, p. 149).

Even though many studies have found positive impact of institutions on economic development, (Acemoglu and Robinson, 2010; Iqbal and Daly, 2014; Mauro, 1995; Nawaz, 2015; Heshmati and Kim, 2017; Rodrik et al., 2004) many others have reached the opposite conclusions (Abeyasinghe, 2004; Aisen and José, 2013; Kurzman et al., 2002; Tavares and Wacziarg, 2001).

In view of this, it will be interesting to see the extent of relations between institutions and economic performance within the Ethiopian context.

Ethiopia took its present shape with agreements made among European colonizers and Emperor Minilik II at the down of the twentieth century. Following this the empire was ruled by absolute monarchy until the 1974 coup d'état of the Derg, a committee of military junta that turned itself in to a communist party and the empire into a socialist republic (Clapham, 1988). Following the fall of the Derg regime in 1991 the socialist republic was turned into federation of the nations by the EPRDF, who were a united front of those who toppled the

regime. This new regime professed to be revolutionary democrat politically and development statist in terms of economic policy (Habtmu, 2010). And now following the rise of Prosperity Party, nothing seems to be set straight in terms of political leanings.

Even though these different regimes, from the monarch to the socialists and developmentalists, profess to adhere to different systems and claim to answer popular demands, they all have one thing in common, patrimonialism (Davis, 2008; Brown, 2020). None of these regimes have empowered the people or assured the rule of law. This means none of them have laid a sound foundation for quality institutions. This has left Ethiopia without good institutions that would have enabled it to avoid crises that lead to instability. This begs the question if Ethiopia is systematically unsuited for quality institutions.

In this regard it would be interesting to check the part played by institutions (or more precisely the lack of institutions) in Ethiopia's economic life. In this work we will be tracing the quality of institutions and economic performance of Ethiopia over the past forty years and analyze their correlations.

## **1.2. Statement of the Problem**

Economic growth has remained a great challenge to Ethiopia. It is as if Ethiopia was doomed to staying underdeveloped, prone to conflict (genocidal in extent), patronage and totalitarianism. This image is something Ethiopia shares with the rest of poverty stricken Sub Saharan African states.

The gap between rich and poor countries in the world is widening by the day. The international community who sees this bleak picture as a threat to the future of civilization at large has chosen to engage in aid works. In this regard Shirley (2008, p. 48) mentions that over the past five decades, i.e. 1960-2008, official development aid has totaled \$2.3 trillion in nominal dollars. That simply is a mind blowing number to say the least. But the gap and the poverty are all still there. The picture is still bleak. A more recent study proves the same trend, even stating foreign aid encouraging corruption, prolonging economic crisis and creating the wrong incentives (Finckenstein, 2021).

This makes our interest in institutions all the more important. Considering how little studies have been made on the role of institutions in Ethiopia, it becomes significant to study the matter. This study will consider institutional quality variables, policy variables and control variables to capture a better measure of institutions. The institutional quality variable will be the political freedom index; the policy variables will be inflation, government spending (%GDP), supply of broad money, life expectancy (as indicator of social policy in terms of health care) and trade openness (%GDP); and the control variables will be, population growth, domestic investment (%GDP), military spending (%GDP) and natural resource rents (%GDP).

### **1.3. Objectives of the Study**

The main objective of the study is to analyze the role of institutions in economic growth in the Ethiopian context using empirical analysis.

The specific objectives are:

- To identify and analyze institutions that affect economic performance.
- To analyze which and how outcomes are directly affected by institutions.

### **1.4. Significance and Scope of the Study**

Since achieving sustainable development had become a major challenge to Ethiopia, identifying the institutional hurdle seems to be crucial in this regard. We must assess the role institutions play so that we can bring the issue to center of the debate. In addition to this, the research will contribute to the growing interest in the study of the relationship between institutions and economic growth, in this context as measured by GDP per capita growth rate.

This study will focus on Ethiopia and will be using institutional quality variables along with other control variables and it will employ the ARDL method to cointegration. In terms of time, it will use a time series data taken annually over the period spanning 1982-2022.

## **1.5. Hypothesis**

There is a significant positive relationship between institutions and economic growth. That is to say the better the institutions are, the more favorable is the environment for economic growth.

## **1.6. Limitations of the Study**

Time limits and the current situation of national tragedy we are passing through in Tigray is having a toll on the researcher.

Availability of data is also a challenge in integrating the specific variables in mind, instead one will be forced to settle with the alternatives that are available.

## **1.7. Organization of the Paper**

The research is organized in the following format:

Chapter One consists of the introduction, background of the study, problem statement, research objectives, research hypothesis, significance and scope of the study, and limitations of the study.

Chapter two reviews literatures related to the subject under study. Different theoretical and empirical concepts pertaining to the issue of institutions and growth are discussed.

Chapter three consists of the research methodology, data analysis, study variables and sources, with model specification. Chapter four presents the results and discussions consisting of descriptive statistics and econometric analysis.

Finally, chapter five summarizes the findings of the research, conclusion and recommendation.

## 2. Literature Review

*Economic development is much too serious a topic to be left to economists.*

Meier and Baldwin, 1957, p. 119.

### 2.1. The Beginnings: Mercantilists and Physiocrats

As Europe was starting to take its modern shape in the middle ages, economic thoughts start to develop and take the center stage. In this regard, Mercantilist and Physiocrats could be taken as pioneers.

Brenner (1966, pp. 11-20) identifies the basic elements of Mercantilists thoughts. The aim of mercantilists was for the growth of state power. As a result they cared only for the aggregates. Additionally, since they believed in universal egoism, they didn't see the need to encourage private initiative. Individuals will be served well when they are left alone; the government's role is to make sure private benefits are in line with the advantage of the state. Economic growth is best served by the entrepreneur that is seeking profit and the worker that is in fear of starvation. At first their interventionism was focused on accumulation of specie, but later they become more directed towards encouraging a labor intensive export industries, since they believed the employment of the working population was the source of national strength. They thought of agriculture as source of cheap food so that costs of production in manufacture would remain low. In short a gain in national wealth is to be achieved by rising population, protectionist policies, low wages, favorable balance of trade, colonial system, accumulation of capital with the resulting low rate of interest and a reform of the revenue system. Their thoughts are centered on political strength, not welfare.

Contrary to the Mercantilists, the Physiocrats' focus was on productive work. The Physiocrats were the first to identify labor as the source of value, but only agricultural labor; manufacture and commerce were not considered as productive (Steiner, 2003, pp. 61–62). Just as the Mercantilists' interest was the state power, the Physiocrats were interested in achieving a natural order of a society with as much as possible freedoms for its members (Rist & Gide, 1915). Quesnay, the most famous Physiocrat, created a table in which he shows

the economic relation of the three classes of society, productive class (agriculture), landlords, and sterile class (artisans) (Steiner, 2003, pp. 68). “The words "*laissez faire, laissez passer*" (let me work, let me go ahead), spoken at one of the meetings of Physiocrats, gave birth to economic liberalism” (Piętak, 2014, p. 47).

Just like Mercantilists, they believe in universal egoism, meaning they understood individuals are the best judges of their desires and their self-interests will supplement each other's. For this reason they think trade restrictions will be unnatural limits and advocate Laissez-faire policies. It was also the physiocrat Turgot who first identified growth to have diminishing returns, he also raises the issue of opportunity cost of capital and the role interest has in the economy (Spiengel, 1983, pp. 189, 195-196). As can be seen the Physiocrats have huge influence on the classical economists.

As Magnusson (2003, p. 57) states it, “Mercantilism has often been regarded as an ideology for economic protection in order to achieve domestic growth”. But since this kind of generalization will encompass broad concepts, he suggests defining Mercantilism, “as a discussion that emphasized the role of trade and manufacture in economic growth and modernization”. Ibid (p. 59). Physiocracy on the other hand, “had created a new political vision, grounded on self-interest,” Steiner (2003, p. 75).

## **2.2. Classical Theory of Growth**

Classical theory of economic growth is most famously represented by authors such as Smith, Ricardo, Mill, Malthus and Marx. For the classical economists economic growth comes from capital accumulation. *The Wealth of Nations* by Adam Smith is taken as the first pioneer work of classical economics.

O'Brien (2003, p. 122) says, “*The Wealth of Nations* established that economics is about economic growth.” And then adds that Smith has taken into account the “institutional framework and the mechanics that operate within that framework.” O'Brien further expands on what he means by this as follows:

The framework included well-defined and secure property rights, diffusion of agricultural property through control over the concentration of inheritance, and the

provision of an infrastructure. (Here government had a key role to play.) Within this framework, individuals pursued their self-interest, as limited by law, religion, and custom ... , allocating capital to where the return was greatest. Capital employed labor, and the output per head from a given population determined national income. The determinants of output per head were the proportion of the labor force employed productively, and its productivity when employed. (Ibid)

Along this line of thought, Smith's attention was focused on what determines the productivity of labor. The key to the growth of labor productivity, according to Smith, is division of labor. This in turn is determined by the size of the market and thus by the capital accumulation (Kurz & Salvadori, n.d.). The accumulation of capital itself creates new markets and expands existing ones, increasing the demand; this encourages production and thus competition among producers, which leads to more division of labor and technical progress (ibid).

The base of the investment that leads to capital accumulation and market expansion is saving. All the classical economists took saving to be a virtue and the key to growth, except for Malthus. He feared saving may mean "under-consumption and hence under-utilisation of capital, which would be inimical to growth" (Akhtar, 1963, p. 55).

Thus Smith firmly set the agenda for subsequent economists' discussions of growth.

The other famous classical economist is David Ricardo. He is famous for bringing up the issue of comparative advantage in trade for the first time, although the term was coined by J. S. Mill. What sets Ricardo apart from the other classical economists is that he believed that technological advances or the introduction of new machines will result in unemployment (Hollander, 2019). But economic history has shown that that won't be the case and in reality employment has risen along technological advances (O'Brien, 2003, p. 123).

Ricardo was also concerned with the law of diminishing returns. The economic growth is going to lead to growth in population, which is going to result in higher demand for food, which due to diminishing returns leads to higher costs and prices. This will depress profit and damage the motive for accumulation, resulting in stationary state and growth ceases (Akhtar, 1963, p. 56). The same is true in Adam Smith, but for him the fall in profit is going to result from the large stock of capital in relation to the market that depresses the profit and there by discourage accumulation and growth ceases (ibid).

J. S. Mill, the other prominent classical economist, has a very wide variety of contributions. He was called by the Stanford Encyclopedia of Philosophy, "the most influential English-speaking philosopher of the nineteenth century" (Macleod, 2017). On economic growth, he thought that diminishing returns in agriculture was inevitable, just like Ricardo did, but unlike Ricardo, he didn't think the resulting stationary state will be as miserable as Ricardo thought it will be (O'Brien, 2003, p. 123).

Another author in this tradition famously known for his "Malthusian Trap" is Thomas Robert Malthus. Malthus believed whenever conditions improved, population will rise. As a result it will be impossible to maintain high living standards. Malthus has this pessimistic view at a time when the general believe was more optimistic (Gilbert, 1798). He puts it in short, "the power of population is indefinitely greater than the power in the earth to produce subsistence for man" (Malthus, 1798, p. 13). When it comes to the issue of growth he "stressed security of property, capital accumulation, natural resources, and trade; and, given the technical explosion of the Industrial Revolution, he added invention" (O'Brien, 2003, p. 123).

All in all, the classical authors were more concerned with "demand-deficient unemployment" (ibid). For this reason Malthus considered "unproductive consumption" to maintain demand and to pull some part of the resources away from production, he also thought a role for public works in this regard (ibid, pp. 123-124).

What is great about the classical economics is that, the schools of thought that came after it were more focused on mathematical abstraction in complete abandonment of the social and political elements, while the classical economics was concerned with the common interest as defined by the political institutions (Lefeber, 2000).

Furthermore, especially Mill was concerned with the institutional changes. He "struggled with the problem of transition from one set of institutions to another: How are new habits formed as institutions change?" (Peart and Levy, 2003, p. 131). Classical economics was formed precisely to deal with the issue of self-motivated human development in the background of institutional change. This nonmaterial concern was called "sympathy" and the desire for approbation by Adam Smith. In the nineteenth century the scope of the study of economics was continuously narrowed (Winch, 1972).

Karl Marx was the other author who adopted much of the classical economic thoughts but used it in a different vein. He did share that technical progress was source of growth and that

this was subject to declining returns (Kaboul, 2020). He predicted that declining returns to scale in industry, not agriculture, will lead to a decline in growth. Although, this decline was the result of a fall in the “surplus value”, not diminishing returns (Akhtar, 1963, p. 56). This did not materialize as technological progress proved to give increasing returns to scale both in industry and agriculture. The capitalist need not exploit the labor to increase the surplus value, as technology has kept increasing productivity of capital and labor. As a result it seems so far instead of class conflict, living standard has risen for all. What separates Marx’s take from the other classical economists even though he adopted many of their economic theories is his “focus on the sources, appropriation and uses of the surplus. Furthermore, while Smith and Ricardo thought in terms of a competitive market organization, in Marx's world competition degenerated into rivalry and monopoly” (Lefebvre, 2000, p. 527). Marx was more interested in the overthrow of the capitalist system than maintaining growth.

Walter Eltis sums it up well when he mentions the wide influence these authors still have as follows:

Smith for the radical Right which has achieved office in Britain and in North America in the 1980s, that of Malthus for those who are increasingly concerned by the prospect of ecological disaster, that of Ricardo as the inspirer of the flourishing neo-Ricardian school, and of Marx for the radical Left. Their continuing influence is a testimonial to the richness of their thought. Each generation of scholars manages to bring out the elements of their work which modern economics has managed to develop. (Eltis, 2000, p. 310).

### **2.3. Neoclassical Theory of Growth**

The term neoclassical suggests continuity from the classical authors, but there are those who claim this to be far from the truth. This dispute is critical to our narration of growth theories, because it is here where the institutional or the political economic side of economics starts to be neglected.

The name neoclassical was first used in 1900 by Thorstein Veblen, who was himself a critique, to identify Marshall and his followers (Veblen, 1961, p. 171). Veblen sees the neoclassicals fundamentally the same as the classicals in two ways: “a strict adherence to

hedonistic conception of man as economic agent, and an exclusive focus on an equilibrium-centered frame of analysis” (Özveren, 1998, p. 471). This may have helped achieve a better clarity of economic analysis, but this “meant the narrowing of the scope of the discipline in terms of both space and time” (ibid). By space, it means a reduction in scope of the discipline, and in terms of time the concern was more with the short term than the long run.

According to Colander (2000), what gave rise to neoclassical thought is the rise in importance of utilitarianism and marginalism which saw “deductive models with utilitarian foundations became more fashionable” (p. 131). This made economics seem to be primarily about the problem of constrained maximization.

What the neoclassical authors did is sacrifice the scope of economics for the sake of transparency. As Özveren (1998, p. 470) puts it, when it came to Marshall the issue of distribution as determined by historical institutions became less important:

According to Mill, the subject matter of political economy consisted of the study of Laws of Production and Laws of Distribution, the former being technical as refined by David Ricardo, and the latter being shaped by existing social institutions which themselves were subject to change over time (ibid.).

Marshall by focusing on production and neglecting institutions set the study of economics on a different direction.

The classical authors were primarily focused on the organization of the state, and then within this institutional totality they considered the roles of individuals. The neoclassicals went in the opposite direction, starting with the individuals and then “moved from there by means of aggregation to a stateless, apolitical and institution-free macro-economy” (Lefebvre, 2000, p. 528). But no economic activity is free from institutions. Even if we negate all the institutions to other fields of study, we will still remain with the firm, which is central to the neoclassicals. Firms cannot be simply taken as similar to individuals, because they always outperform individuals; and they cannot be ignored as institutions, because they have “strategic importance to the economy” (Özveren, 1998, p. 474).

What this gave rise to is a micro orientation of economists, influenced by the so called marginal revolution, in a sense of making efficient allocation of resources the main issues of concern (Snowdon and Vane, 2005, pp. 585-586).

It was after this when macroeconomics began as a new discipline, the Harrod-Domar model extended the static and short term structure of Keynesian model to dynamic and long-term structure (Ucak, 2015, p. 664). This model was developed independently by Harrod (1939) and Domar (1946). It explains economic growth with saving and capital. They do not accept balanced growth and like Keynes they proposed that the capitalist system is inherently unstable, but they added that this is to be true even for the long-run (Ucak, 2015, p. 664).

This model was largely criticized for its assumptions. The neoclassicals did not accept this model's proposals and this led to the development of the Solow-Swan model or the exogenous growth model. One restrictive assumption is that as long as there is enough labor to utilize all the available capital, it is only capital that contributes to growth. Other assumptions that were rejected are constant saving rate and constant marginal returns to capital. The main problem was in thinking that unless full employment was achieved, the growth wouldn't be sufficient. This is based on the belief that the relative price of labor and capital is fixed, and that they are used in equal proportions. Solow (1956) criticized this assumption of fixed proportions (p. 65).

The Solow-Swan model was independently developed by Solow (1956) and Swan (1956). Solow's model accepts all the assumptions of the Harrod-Domar model except that of fixed proportions (Ucak, 2015, p. 664). According to Solow (1956), it is this fixed proportions assumption that gives instability result in the Harrod-Domar model. Alternatively Solow tried the Cobb-Douglas function and the more general constant elasticity of substitution. But to Harrod's credit he did not explicitly use a fixed proportions production function and the model was first used to analyze business cycle not economic growth (Besomi, 2001; Halsmayer & Hoover, 2016).

The production function of Solow's growth model is as follows:

$$Y = A e^{\mu t} K^{\alpha} L^{1-\alpha}$$

Where  $Y$  is the gross domestic product,  $K$  is the stock of human and physical capital,  $L$  is unskilled labor,  $A$  is a constant reflecting the technological starting position of society,  $e^{\mu}$  represents the exogenous rate at which that technology evolves, and  $\alpha$  indicates the percentage increase in gross domestic product resulting from a one percent increase in capital.  $\alpha$  is obtained from the share of capital in the national income accounts of individual countries. It assumes capital earns its marginal product and confers no external economies.

Here as long as  $\alpha$  is less than one, there will be diminishing returns to capital and labor (Solow, 1956).

The model shows by inducing people to save more via economic policies, growth rate could be raised. But this is only limited to the short-run, because for a given level of technology, there will be a limit to the rise in a productivity of a person simply by increasing the amount of capital input. So, in the long run growth rate will be determined by the technological progress (Aghion and Howitt, 2009, p. 21).

As Acemoglu (2007) says, what distinguishes the Solow model from the Harrod-Domar model is “the *neoclassical* aggregate production function” which enabled the “model to make contact with microeconomics” (p. 38). What this aggregate production function implies is that there are diminishing returns to the accumulation of capital. But growth doesn’t depend on capital only, so if labor and capital were to rise equally, output will also rise by the same amount (Aghion and Howitt, 2009, p. 25).

Ultimately, all the saving used for investment that was compensating for the depreciation of capital and increasing labor (population) will be fully used up. This is called steady state equilibrium. At this point output and capital will grow only at the rate of population growth, making increase in output per person ceases in the long run (Aghion and Howitt, 2009, p. 27). The only thing that will explain long run growth in output per person is technology.

The Solow model is also known as exogenous growth model. This is because technological progress is taken as exogenous variable, a variable outside the model, which makes growth a result of independent forces (Gupta, 2015, p. 122).

Technology offsets the effect of diminishing returns, the only force affecting the growth rate. What this implies is that poor countries that have low level of capital utilization will be able to grow faster and catch-up to rich countries. This is due to diffusion of knowledge and international capital flows. As the rate of return in capital should be higher in poorer countries they will keep flowing to the poorer countries until convergence with the richer countries (Romer, 2006, pp. 31-35).

Even though this is what the model stipulates, in reality the gap between poor and rich countries is only widening, not converging. This is because the model did not consider the countries’ characteristics such as their culture, ideologies, institutions, policies and other defining circumstances. The model presents conditional convergence, i.e. it will happen on

the condition that poor countries have similar savings rates for both physical and human capital as a share of output. Savings rates are not the same for all countries due to the above mentioned differences in characteristics (Breton, 2013).

But when different areas share similar characteristics, according to the study by Barro and Sala-i-Martin on the Northern and Southern states of the USA, conditional convergence does hold as the later has been able to catch-up with the former (2004, pp. 37-51). This is not true only for areas within a single country. As Acemoglu describes it, even among nations that are members of the Organization for Economic Cooperation and Development (OECD), mostly western states that share similar characteristics and initial conditions, we observe convergence; while there is no sign of convergence when we consider the entire world (2007, pp. 21-22).

Hence, the Solow growth model is silent on the fundamental cause of differences in output across countries or through time. The explanation given is differences in the technological driven Total Factor Productivity, but what causes these differences? This is where endogenous growth models came as explanations.

## **2.4. Endogenous Theory of Growth**

Leaving the source of growth as unexplained external force and the lack of absolute convergence led to the development of endogenous growth theory. As Paul Romer (1994, p. 3) puts it:

The phrase ‘endogenous growth’ embraces a diverse body of theoretical and empirical work that emerged in the 1980s. This work distinguishes itself from neoclassical growth by emphasizing that economic growth is an endogenous outcome of an economic system, not the result of forces that impinge from outside. For this reason, the theoretical work does not invoke exogenous technological change to explain why income per capita has increased by an order of magnitude since the industrial revolution. The empirical work does not settle for measuring a growth accounting residual that grows at different rates in different countries. It tries instead to uncover the private and public sector choices that cause the rate of growth of the residual to

vary across countries. As in neoclassical growth theory, the focus in endogenous growth is on the behavior of the economy as a whole. As a result, this work is complementary to, but different from, the study of research and development or productivity at the level of the industry or the firm.

Unlike the neoclassical growth model, the endogenous growth model aspires to explain why per capita income in rich countries continue to grow and at a faster rate than in poor countries, in defiance of the expectations of diminishing returns. There seems to be increasing returns at work, and its source needs to be understood.

The endogenous model started with the works of Paul Romer (1986) and Robert Lucas (1988), and has expanded very fast ever since. These models took investment in human capital as having a spillover effect in the economy which offset the diminishing returns to capital (Barro and Sala-i-Martin (2004). Among others we can mention: Romer (1989, 1990, and 1994), Shaw (1992), Krugman (1990, 1993), Murphy et al. (1989a; b), Grossman and Helpman (1991), Pack (1994), Thirlwall and Sanna (1996), Ruttan (1998), Temple (1999), Aghion and Howitt (1998, 2009), Aghion and Durlauf (2005), and Barro and Sala-i-Martin (2004).

The neoclassical model developed by Solow was able to incorporate three important aspects: one, many firms in a market economy; two, the fact that while inputs are rival discoveries are non-rival; and finally, if the production function is:  $Y = AF(K, H, L)$ , then it is assumed to be homogenous of degree one with respect to K, H, and L. Which means doubling all rival inputs (K, H, and L) will double the output (Y). There is no need to double A, as the existing level will suffice. But it failed to incorporate two important points: one, the fact that technological advances come from peoples' activities; and two, economic agents have market power over discoveries and earn monopoly rents on them (Chandra, 2022, pp. 257-258). It is the ambition of endogenous models to try to include these last two points.

Aghion and Howitt (2009) summarize this effort by presenting four growth paradigms: (1) the neoclassical growth model, (2) the AK model, (3) the product-variety model, and (4) the Schumpeterian model. Since we have seen the first one, we will follow their example and see the remaining three models.

**The AK model** is the first version of the endogenous growth theory. It lumps together both capital accumulation and technical progress in the form of physical and human capital. It

could be said that the AK model is a neoclassical model without diminishing returns. A linear homogenous aggregate production function of the following type is assumed:

$$Y = AK$$

Where  $A$  is a constant productivity parameter. If capital accumulates as in Solow's model, we will have:

$$K' = sY - \delta K$$

Where  $sY$  is aggregate savings and  $\delta K$  is aggregate depreciation of capital.

Then, the economy's long and short run growth rate will be:

$$g = \frac{K'}{K} = sA - \delta$$

Accordingly, the higher the saving rate, the higher the rate of growth will be. This model applies the same growth process to both rich and poor countries without any other considerations.

***The Product-Variety model*** tries to model innovation. Those types of models are considered as "innovation-based" models. One example is Romer (1990). Here innovation will be responsible for growth in productivity. It emerged out of the new international trade theory which emphasizes the role of technology spill overs. The starting point is the Dixit and Stiglitz (1977) production function of the form:

$$Y_t = \sum_0^{N_t} K_i^\alpha d_i$$

Where there are  $N_t$  different intermediate product varieties each produced using  $K_i$  units of capital. The aggregate capital stock  $K_t$  is equally divided evenly among  $N_t$  varieties. The production function can then be re-expressed as:

$$Y_t = N_t^{1-\alpha} K_t^\alpha$$

The degree of product variety  $N_t$  is the economy's aggregate productivity parameter and represents the long-run growth rate of per capita output. The larger the product varieties, the

larger is the economy's production potential as the given stock of capital gets spread over a larger number of uses each of which exhibits diminishing returns. The researcher-entrepreneurs, motivated by monopoly rents, undertake R&D investments leading to new innovations and hence new varieties. Here there is just one innovation resulting in the same kind of new product. Also there is no role for exit or Schumpeterian "creative destruction". Indeed increased exit may drive down product varieties and reduce a country's GDP. However, this model is useful where competition and turnover considerations take the back seat, for example, in analyzing persistent cross-country productivity differences or in analyzing the relationship between risk, diversification, and growth.

*The Schumpeterian model* is another way of modeling innovations. It is developed by Aghion and Howitt (1992; 1998) and is referred as Schumpeterian growth theory because of its focus on quality-improving innovations that render old products obsolete through the process of creative destruction.

$$Y_i = A_i^{1-\alpha} K_i^\alpha, 0 < \alpha < 1$$

Where  $A_i$  is the productivity parameter in terms of the most recent technology of industry  $i$  at a time  $t$ .  $K_i$  is the intermediate output of this sector. Aggregate output is the summation of industry specific outputs  $Y_i$ . As new innovators enter with the most recent intermediate output, they displace the old ones, and improve the productivity parameter,  $A_i$ . As the process of creative destruction implies entry of new and exit of old innovators, a higher rate of firm turnover is associated with faster growth. The theory is focused on individual industries and is concerned with the microeconomics of industrial competition. But since industries are assumed to be identical in ex ante sense, aggregate per worker output is obtained as a function of aggregate capital  $K_t$ :

$$Y_t = A_t^{1-\alpha} K_t^\alpha$$

Where  $A_t$  is unweighted sum of sector-specific  $A_i$ s. As in neoclassical theory, the long-run growth is driven by  $A_t$  which in this case is determined endogenously on the economy-wide rate of innovation.

The growth rate of innovations,  $g_t$ , can be derived as:

$$g_t = \frac{(A_{t+1} - A_t)}{A_t = \mu_n(\gamma - 1) + \mu_m(a_t^{-1} - 1)}$$

Where  $a_t = \frac{A_t}{\bar{A}}$  and  $\mu_n$  is the frequency of leading-edge innovations and  $\mu_m$  is the frequency of imitations.  $\bar{A}$  is the global technology frontier or the stock of global technological knowledge.

Here there are two types of influences on innovations—the private expenditures of innovators and the stock of innovations that already exist. So two cases are included: (1) that of leapfrogging, where the new innovation is some multiple  $\gamma$  of the preexisting value, and (2) that of catching up (or convergence), where the new innovation catches up to the global technological frontier  $\bar{A}$ .

These models have many implications concerning government's role, saving rate, R&D, international trade and productivity.

In less developed countries where there is a shortage of domestic saving, budgetary surpluses were taken as a remedy. But we must not forget saving rate has only a level effect. Once the economy reaches its steady state output per capita will remain constant. At this point it is only technical progress that brings change in productivity and hence growth rate. Here since technical progress is made endogenous, it leaves room to endeavor for its realization via favorable policies. For example the government could subsidize R&D, innovation or invest in raising the human capital. Encouraging international trade also opens up the pool of international knowledge and skill.

Endogenous models, like all economic theories, have their own critiques. Fine (2000) for instance, accuses them of bringing nothing new to the table except for taking old neoclassical growth theories and packaging them in mathematical models (p. 248). He also derides the model by calling it, “microeconomics parading as macroeconomics” (ibid., p. 252). His reasoning is the microeconomic bases of the endogenous models which make sources of productivity increase their main concern. “As such, it has drawn upon microeconomic theories, as in the use of resources to produce R&D, economies of scale and scope, the use of 'human capital' as an input, or the externalities that spill over from one firm or agent to another” (ibid., p. 248). Accordingly, these theories other than requiring two economic agents for exchange to arise, they have nothing to do with the economy as a whole.

Thirlwall (2003, pp. 44-45) also recalls Shultz (1961), Denison (1967) and Griliches (1957) as already discussing knowledge spillovers of human capital and R&D investments.

Other than the issues of originality, endogenous growth models are blamed for failing to explain the conditional convergence observed in empirical literature (Sachs, 1997). On the other side, it also fails to explain the income divergence between rich and poor countries (Parente, 2001).

Pack (1994) also tries to show how the endogenous growth model has intellectual appeal but lacks in empirical grounds. According to him all it has achieved is in testing previous models rather than testing endogenous model itself (ibid., p. 58). He says, “Unless there is some demonstration forthcoming that the theory is useful in explaining the growth pattern over time of national economies, it will remain a rich expansion of existing growth theory rather than powerful organizing framework for thinking about actual growth phenomena” (ibid., p. 55).

## **2.5. Institutions and Growth**

We have just seen the policy implications of endogenous models such as favorable policies towards innovation or the development of human capital or greater trade access, but what determines these policy choices is not answered. In the words of Acemoglu et al. (2005, p. 388) this makes them “unable to provide a *fundamental* explanation for economic growth”, by contrast they call innovation and factor accumulation “*proximate* causes of growth” (italics in original). According to North and Thomas (1973, p. 2) these proximate causes such as capital accumulation, innovation, education etc. “are not causes of growth; they *are* growth” (italics in original).

The difference between neoclassical economics and institutional economics stems from basic assumptions about transaction costs, information, rationality, preferences, equilibrium orientation, power and the like. They will be discussed briefly.

It was Coase (1937; 1960) who brought the issue of transaction costs to the full front of the discussion. In the neoclassical economics markets are assumed to be perfectly competitive

and there are no transaction costs. The presence of transaction costs and imperfect markets is the start of divergence between these two thoughts.

The next point of divergence is in regard to economic agents. In institutional economics agents are heterogeneous, have bounded rationality and do not have perfect market information. In neoclassical economics the opposite is assumed. Further, while the neoclassical economic models are mainly concerned with states of equilibrium focusing on optimization under static constraints, institutional economists are more oriented towards evolutionary view and hence prefer dynamic models. Institutional economics studies long-run processes of change and the interaction between institutions and the economy. Neoclassical economics on the other hand takes institutions as given while institutional economics is largely interested in uncovering the relationship between institutions and the economy. The other important factor neoclassical economics takes as given is power, while for institutional economists power relations are central to their analysis, as it influences institutions in a major way.

### **2.5.1. Definition of Institution**

So what exactly are institutions according to those who are interested in them? It's not only institutional economists who concern themselves with institutions. Other social studies such as political science, sociology, anthropology, philosophy, and psychology are also increasingly studying institutions. Even geography is incorporating institutions in to its study. For now we will not go in detail but view briefly what social scientists mean by institutions.

According to Hodgson (2006, p. 1) the usage of the term "dates back at least to Giambattista Vico in his *Scienza Nuova* of 1725". Even though it would be expected that there will be clear understanding over the usage of the term, such is not the case. But there is an overall basic agreement as to what it would imply.

The most popular understanding of the term seems to be to view institutions as rules of the game. This was popularized by North. He defines institutions as "the rules of the game in a society...[and] the purpose of the rules is to define the way the game is played" (North, 1990, p. 3). What this implies is that institutions will make sure the game is played well. This view

assumes institutions to be effective, but because there are institutions who serve the elites well while denying the majority any participation their effectiveness will not be general.

Hodgson (2006) improves upon this definition by taking institutions as social rules that structure social interactions. By social rules he means a rule that is “socially transmitted and customary normative injunction or immanently normative disposition that in circumstances X do Y” (Hodgson, 2006, p. 3). But simply having a claim to those rules, i.e. institutions, is not enough, they need to be accepted and followed, “ignored laws are not rules” (ibid). For Hodgson habit plays a critical role (Hodgson and Knudson, 2004). It is not only legal rules but also unwritten conventions that determine behavior are considered as institutions. What matters is not whether they are codified or not, but have potential codifiability.

Ostrom (1992) also accepts this social rule definition. Accordingly, institutions are taken to be “the set of rules actually used by a set of (actors) to organize repetitive activities that produce outcomes affecting those (actors) and potentially affecting others” (ibid). In general any rules in use are accepted as institutions (Crawford and Ostrom, 1995).

Searle (2005) on the other hand takes only constitutive rules to be institutions and does not include regulative ones. Hence, he defines institution as “any collectively accepted system of rules (procedures, practices) that enable us to create institutional facts” (ibid, 21).

Grief (2006) for his part takes rules to be only one element of the overall social elements. Rules according to him only provide the instructions to follow; the decision to follow them depends on norms or beliefs. So for Grief the rules, beliefs and norms are all part of what makes institutions. In this regard organizations are needed to make and enforce these rules, organizations such as courts which sustain the law, or associations which enforce rules. But also these organizations themselves constitute rules, beliefs and norms exogenous to the individual whom they influence; as such they are taken as institutions as well.

Aoki (2011) takes a deeper look at institutions. His focus is on institutions in substantive form which make institutions in deep structure to be self-sustaining. What he calls institutions in substantive form are public propositions. A shared public proposition where players can infer the state of societal game they play and the beliefs of other agents become the prerequisite for common knowledge. The substantive form of an institution is a social structure in linguistic form on which the agents agree. This makes agents’ choices consistent with their mutual beliefs. This is not always a conscious choice, but could result from

internalized norms or habits from which deviation from equilibrium behavior would be considered wrong.

This is actually taken as equilibrium approach. As Aoki (2015, p. 487) puts it, “equilibrium is part of the ontological nature of institutions”. What makes the equilibrium approach appealing is the effort to make institutions endogenous and not exogenous constraints in the theory of institutions. But defining institutions as equilibrium works only within game theoretic model; hence, it fails to link the model with real world institutions.

What all definitions agree is that institutions exist in the social realm and that they will have to be able to be codified. This is only reasonable since institutions are social constructs and are not transmitted genetically, they will have to be maintained in a written form. Additionally, institutions have different parts with related roles; hence they are considered as systems of social structures. But having institutions is not enough, they will have to be accepted and followed. An institution that no one respects cannot be considered as an institution.

So, we could summarize these definitions by saying *institutions are taken to be rules, norms and beliefs which are considered as systems of social structures that are capable of being codified and have objective influences on the behavior of economic agents.*

## **2.5.2. Theories of Institutional Change**

Having defined what an institution is it becomes important to understand how institutions rise and change over time. Since different economists have different views of institutions, they also differ in their theories of institutions.

Over a hundred years ago Hamilton (1919, p. 314) declared that, “the proper subject-matter of economics is institutions.” But as discussed, the earlier century was dominated by neoclassical thought that takes institutions as exogenously determined. Now with the rising recognition of institutions as fundamental variables, it becomes essential to understand how societies end up with the kind of institutions they live with.

Even though many researchers share the field of institutional economics, this does not mean they have similar approaches or understandings. They differ in methodology as well as the

questions they focus on. Therefore we do not have a unified theory of institutional economics that share common assumptions and hypotheses. In this part we will try to see the different prominent approaches within the field. They could mainly be grouped as: the conflict approach, evolutionary approach and equilibrium approach. We will see them one by one.

### ***2.5.2.1. The Conflict Approach***

This approach considers institutions as results of collective actions of members of a society. More precisely, results of social conflict among different groups with differing and often conflicting interests. In this view “most social outcomes are the product of conflict among actors with competing interests” (Knight, 1992, 14).

Every group in this conflict is looking for “the economic institutions that maximize their own rents, and the economic institutions that result may not coincide with those that maximize total surplus, wealth or income” (Acemoglu et.al, 2005, 427). In fact the end result of this conflict could be the end of the defeated group. According to Weber (1978, 51) an order is always a result of imposition which “includes ‘majority rule,’ in that minority must submit.” But this must be understood with the proportion of power each group wields. This means those with more power will gain more. If a dictator has more power, he could override the property right of others and maximize his economic rents. But if the populace were able to overpower him, they could protect their property rights and curtail the economic rent such a ruler might be able to extract.

This approach is focused on politically determined rules. Libecap (1989) affirms this by taking an institutional change as a result of a game ruled by higher level of political rules; individuals and groups engage in different political actions to change the rules in their favor. Alston (1996) simply describes this kind of institutional change in line with the logic of supply and demand in a society.

Ostrom (2005) approaches rules hierarchically. She identifies four of those: (1) operational rules that govern everyday interactions, (2) collective choice rules, which are rules for selecting operational rules, (3) constitutional rules, which are rules for selecting collective choice rules, and (4) meta -constitutional rules, which are rules for selecting constitutional rules. Ultimately, however, at the top of this pyramid, we arrive at a level in which there are

no humanly-devised rules, what will remain is a set of constraints which reflect the physical limits of the players, after the fashion of Hobbes's "state of nature" (Ostrom, 2005: 58, 211). But for Hodgson (2004) even this state of nature is not free of institutions, because the likes of language must implicitly be assumed beforehand. In this view of institutional change, it is assumed that change of rules occur at the lower levels of the hierarchy, while at higher level they are assumed fixed. The change will be determined by the expected cost-benefit analysis of the different groups and the existing higher order rules.

For Libecap (1989) these changes in institutions are exogenously determined by pre-existing inherited institutions. These inherited institutions influence the bargaining power of existing groups. Those who benefit from existing institutional set up will like to keep the status quo, and those who will benefit more than the cost of change will like to see a differing set of institutions. This makes institutional change a path-dependent process. "Past political agreements on property institutions create the framework for responding to new common pool losses, the identities of the agents for and opponents of change, their effectiveness in political bargaining, and the range of feasible alternatives" (Libecap, 1998, p. 116).

What this implies is that powerful groups could block changes, even if the changes will be better for the society as a whole. Acemoglu (2003) refers to this problem as evidence of the inapplicability of what he terms the Political Coase Theorem. According to him, "in politics there is an inherent commitment problem" (Acemoglu et.al, 2005, p. 423). There will be no third party independent guarantor that those who agree to the terms of change of institutions will keep their promise after the changes are implemented. The potential beneficiaries of the changes may not properly compensate the groups that will loss from the changes. The second problem with the Political Coase Theorem is that it doesn't help in understanding the effect of institutions on growth, because they assume all societies will end up with the most efficient institutions given their circumstances (ibid).

Additional difficulty to the efficient change of institutions is bounded rationality of the players (Ostrom, 2005). Players may have wrong beliefs about the efficiency of institutional set ups they choose. It is this limited rationality that leads players to try different institutional arrangements they take from other countries.

Theories that view institutional change as an outcome of collective action are criticized for not explaining well why rules are ignored in some places or fail to give their expected results. Ostrom (2005, p. 138) for her part recognizes a distinction between rules-in-form and rules-

in-use, the former rules that remain in paper and the latter rules that are followed in practice. But she does not give any way of telling how rules become rules-in-use.

This is a major short coming of the collective action approach, which fails to take in to account the informal rules. Informal rules are unwritten rules such as ethics or norms of a society. They are viewed as self-enforcing mechanisms (Kandori, 1992; Greif, 2006). The collective action approach is obviously focused on formal written rules, so the informal rules don't easily fit with this framework. This cannot be overlooked easily, because informal rules play important role in institutional changes. For instance, as Kingston (2007) has showed, the evolution of the insurance company Lloyd's started as a coffee house gathering place for merchants transacting marine insurance by the start of the 18<sup>th</sup> C. By the mid of that century, it has turned in to highly structured market for insurance and a major player in the international insurance industry.

In general, in this theory, institutional change is a result of deliberate action of individuals and groups with different interests. This does not rule out gradual man made evolutionary change, but it could also be sudden or revolutionary as well.

### ***2.5.2.2. The Evolutionary Approach***

This approach adopts Darwinian Theory of evolution to institutional changes. It is Dawkins (1983) who brought the term "universal Darwinism" to refer the process of evolutionary change that can be applied universally as a process of variation, selection and retention. In this way Darwinian Theory could be applied to a wide variety of phenomenon without being limited to biological observations.

The process of variation refers to mutations; that of selection to the survival of the fittest traits; and retention are all about continuity or replication of those fit traits. In the biological sense evolutionary changes are results of natural trial-and-error. Evolution of social institutions on the other hand will involve human players with cognitive capabilities that make conscious selection of institutions (Lewis and Steinmo, 2012).

Veblen (1899) who views institutions as habits of thought was the earliest to formulate evolutionary change of institutions. For Veblen institutions are "in substance, prevalent habits

of thought with respect to particular relations and particular functions of the individual and of the community” (ibid, 190). In this way the evolution of institutions becomes a natural selection of the fittest habits of thought. That is through the “selection of individuals endowed with the fittest temperament”, and through the “adaptation of individual temperament and habits to the changing environment through the formation of new institutions” (ibid, p. 188). This means that since habits are passed down from the past and are influenced by the present, both the past and the present will have an effect on the future institutional changes (Hodgson, 2004, ch. 8).

The transformation of institutions is imposed by changes in the external environment. When changes in relation to demography and technology are observed, present institutions become ineffective, and this forces some modifications. When existing habits of thought begin to change, already the external environment is having its own changes independently. This makes the newly developed institutions to again lag behind. Additionally, changes in economic institutions will have distributional consequences, which make the part that loses wealth to resist changes. This is where relics are created (Jakub et. al, p. 193).

Hayek (1973) who viewed rules as institutions didn’t stop at the rules; he put forward shared expectations as the fundamental source of order in society. This made him develop evolutionary theory of institutional change based on selection at the level of the social group rather than the individual unlike Veblen. Rules of conduct that are best fit will survive and displace the unfit. As a result, Hayek takes all man made rules and organizations, including the state, as part of “spontaneous order”.

What makes Hayek similar with Veblen is in regards to the “mind”. He believed in the matching evolution of institutions and the individual mind: the latter is a product of the former, and it in turn shapes the former. The habits and practices that increase persistence within the group gain strength (ibid. p. 17). Over the long run efficient institutions will be selected and the inefficient will be eliminated. As a result, he insisted, that attempts at institutional design should be limited by this knowledge. The government should limit itself to the protection of property rights and the designing of institutions should aim to discover efficient rules, which means that design should mimic the outcomes of the evolutionary process.

Another strand in this vein of thought comes from the Coase Theorem. Coase (1960) put forward the thought that when different economic agents could negotiate in a costless

manner, they could succeed in bargaining to internalize externalities. Externalities arise when one agent's activity affects another agent positively or negatively without any consent on the affected party or without the ability of the affecting party to withhold benefits to those who don't pay in cases of positive externalities. For example, farmers paying bee keepers to set up their bee hive in their farm so that they could benefit from the pollination, or bee keepers paying Orange farmers to set up their bee hive in their farm, because the Orange blossoms are source of valuable honey (Cheung, 1973).

It was Williamson (2000) who further developed the Coase Theorem in the framework of transaction costs economics.

Transactions costs may include costs of finding an economic agent to transact with, negotiating and contracting, monitoring contracts, enforcement of contracts, enforcement of property rights, costs of political activities, legal actions etc. "In short, any difference between the value of output generated in the real world, where a real transaction is governed by real institutions, and an imagined world without any agency problems or information asymmetries (and therefore a world in which no governance is required), including any deviation from first-best production and exchange, can be called a "transaction cost"" (Greif and Kingston, 2011, p. 17).

Williamson (2000) relates how transaction costs arise as a result of transacting economic agents' bounded rationality and opportunism. Some rules are capable of handling certain transactions more efficiently than others. Transaction costs economics (TCE) assumes efficiency in terms of minimizing transaction costs to be the determining factor for the selection and survival of institutions.

However, the scope of TCE is limited to circumstances where competition could operate to eliminate the inefficient institutions. This readily makes it inapplicable in areas where imperfect competition is prevalent and it becomes inappropriate in the study of the development of designed rules. Additionally, TCE cannot explain why societies with similar technologies may end up with differing institutions to handle similar transactions; or the persistence of inefficient institutions in different countries; or the failure of unsuccessful societies in following the example of the successful societies in their institutional set up (Kingston and Caballero, 2008).

Acemoglu et.al (2005, p. 423) consider the relevance of Coase Theorem to economic development, because achieving efficient economic institutions is not the result of individual bargains but collective choices and the efficiency approach does not specify how different parties reach agreements. TCE regards political institutions irrelevant, it “may matter for the distribution of total surplus, but it will not matter for efficiency itself” (ibid).

Acemoglu (2003) coins the term Political Coase Theorem to refer to the application of the Coasian logic to politics. He sees a major problem in this applicability because of the commitment problem in politics, as we saw it earlier. Additionally, with Political Coase Theorem “economic institutions cannot be fundamental cause of income differences (Acemoglu et.al, 2005, p. 423). This is because economic institutions are assumed to be chosen efficiently and every “society have the best possible economic institutions” considering their particular circumstances (ibid). But it is precisely because institutions are significant for economic growth that economists want to study them. As a result the efficiency approaches cannot fully cover the institutional concerns.

What makes the collective action approach and evolutionary approach similar is both take change in exogenous variables such as technology and population as the main sources of change. Their difference lies in the process of institutional changes. For the collective action or design approach takes centralized selection of formal rules as the way, while the evolutionary approach takes decentralized changes of informal rules will be the deciding factors of which formal rules will be selected and retained.

The design approach has a hard time explaining changes in the informal rules. For North (1991) formal rules changing through political processes are the main drivers of institutional change, while the informal rules follow through and show some changes. Therefore the slow and unplanned changing nature of informal institutions becomes a challenge for institutional changes.

Roland (2004) on the other hand takes the opposite direction of change. For him it was the slow spontaneous change of informal institutions that drive the changes in the formal institutions; he takes the metaphor of the slow forming fault lines leading to the sudden earthquake as an analogy.

### ***2.5.2.3. The Equilibrium Approach***

The challenge of explaining institutional changes by properly considering both the formal and informal institutions seems to be taken by the equilibrium approach. Greif and Kingston (2011) criticize both the design and evolutionary approaches for their focus on the selection of new rules rather than their enforcement, which according to them the rules (both formal and informal) together with their enforcement is most important part of institutions.

“That is, the problem of designing efficient institutions is not fundamentally a problem of choosing rules so as to minimize “costs”, but a problem of aligning incentives in a way which generates the maximum possible benefit, given a fundamental problem of exchange” (ibid, p. 18).

The focus of the equilibrium approach is the self-enforcing nature of rules rather than the controlling or monitoring nature. What matters is not the coordination role played by the rules, although it is needed, rather it is the expected behavior of the others which guides people’s motivation (ibid, p. 14-15). In this approach institution is just a name given to an established equilibrium. In fact, for Calvert (1995) an institution is just a representation of certain types of equilibria. Institution is viewed as behavioral pattern rather than monitoring rules.

Viewing institutions as rules doesn’t endogenize their enforcement. This is why Acemoglu (2003) raises the commitment problem as an obstacle to the selection of efficient rules. The incentives of the monitors are not examined.

“The aggregated expected behavior of all the individuals in society, which is beyond any one individual’s control, constitutes and creates a structure that influences each individual’s behavior. A social situation is ‘institutionalized’ when this structure motivates each individual to follow a regularity of behavior in that social situation and to act in a manner contributing to the perpetuation of that structure (Greif and Kingston, 2011, p. 25).

The failure of many good rules to function properly or to be implemented in many undeveloped countries is not the failure of the rules but due to existing patterns of behavior of the society. This is why in the equilibrium view the focus is on the motivation, on the why. It is this believe that made Calvert (1995, p. 23), identify institutions as “certain kinds of

equilibria”. For Aoki (2001), institutions are reflections of the beliefs about expected behavior of other agents in the society. Greif (2006, p. 30), elaborates it more and takes institution as “a system of rules, beliefs, norms and organizations that together generate a regularity of (social) behavior”.

Consequently the kind of behavior chosen by the players (agents) will be the one that would benefit them maximally. Agents are bounded externally as a result of technology and geography and internally by the institutions or the rules of the game. In an effort to optimize their gains the players come up with intentions that perpetuate the rigidity of the conditions for all. Therefore the institutions that will be formed would replicate the endogenous equilibrium.

For example, Greif (2006) defines informal social norms as rules that are used to dictate anticipations of players. Such informal rules that are self-enforcing may be norms of reciprocity whereby people can trust each other and work together knowing that no one will take advantage of them (Fehr et.al, 2002). Or they could be informal social punishments such as gossip or ostracism which will discourage the individual from violating the norms. Individuals are scared of losing their reputation and therefore they need to abide to such norms to avert this (Ostrom, 2000).

So, formal rules could be viewed to be within such similar lines as well. They help identify certain expectations and the mechanisms for cooperation. This minimizes the confusion and enables people to make necessary decisions (North, 1990). They could also encourage cooperation by setting the boundaries for playing fair and practices they would like to be rewarded. For instance, property rights motivate people to invest and produce because they will reap from their work (Demsetz, 1967).

Therefore, what is important in the equilibrium view of institutional change is a change in expectations, not the rules themselves. A rule will be effective only if all the players expect everyone else to also respect the rules, including those who are expected to enforce the rule. For example, in societies where the rule is what Ostrom (2005) calls rules-in-form, seemingly good rules on hate speech, defamation, or anti-terrorism could be used to limit press freedom or persecute opposition politicians. In general, any rule could be misused to limit citizens’ rights. Any rule introduced could fail to affect patterns of behavior or change them in unexpected ways (Kingston, 2018). Those who view institutions as rules tend to overlook these possibilities.

In all three theories of institutional change, we saw changes in exogenous parameters, for instance, changes in technology or tastes could cause changes in formal rules. If the formal rules remain unchanged while there is a gradual change in the exogenous parameters, this could lead to changes in informal rules. Greif and Laitin (2004) have a term they call “quasi-parameters” to refer to parameters that are exogenous in the short run, such as income distribution or the information available to the players, but gradually change as the game progresses. Thus changes in “quasi-parameters” could cause short disturbances of patterns of behavior that result in disequilibrium.

Expectations and behaviors will progressively adapt as parameters are gradually changed. This kind of institutional shift can be seen as a change in the informal norms because the formal rules in this instance stay the same. In essence, the equilibrium behavior pattern is altered (Kingston 2018).

The equilibrium approach is not free from criticism. Knight (1992) mentions that this approach assumes all conflict of interests will be resolved by coordination of agents. They ignore the distributional effect of institutions on the players and how this impacts the players’ decisions (ibid). Easterlin (1981) simply asks, if institutional choices were responses and movements towards equilibrium, “why isn’t the whole world developed?”

It is obvious there are bad institutional choices in the world. The equilibrium approach fails to explain bad institutions.

#### ***2.5.2.4. Conclusion***

The evolutionary approach relies on the metaphor of biological evolution to explain institutional modification. Successful institutional arrangements that increase social welfare or empower the primary actors over other actors in a particular institution are enduring and diffused while the unsuccessful ones are demised. This process is usually progressive and determined by history, this is known as path dependency. The strength of this view is that it outlines how variation, selection, and retention affect the method of institutional change. Additionally, it has the advantage of portraying the processes relating to the formation of an institution as slow and cumulative and largely unplanned. Its weakness is its preoccupation

with the issue of efficiency to the exclusion of power and ideology as factors that constitute institutions. It also fails to explain fast revolutionary changes.

In the social conflict approach institutions are viewed as embodying the projects of the hegemonic actor, who utilizes their political authority to create dominant frameworks that facilitate the subordination of others. Institutional change takes place when a subordinate set of players strengthens its position and rebel against the current dominant set of rules and structures, applying a new set of rules that enhances their own utility. Highlighting power politics and policy negotiations as critical processes in institutional development is its strength. This also provides a clue on how institutions may keep these inequalities cycle going, provided those at the top get favor. While, its weakness is its preoccupation with conflict to the neglect of considerations for determining peace and common ground with rival factions. It may also not fully portray the processes and mechanisms involved in accumulative or progressive institutional transformations.

In the equilibrium approach the special focus is the self-fulfilling expectations. It means that beliefs actors have in each other result in a stable state or a predictable course of action that is followed. Institutional change comes about when such expectations fail thus prodding actors to re-ordinate on fresh institutional framework. Its strength is its emphasis on coordinated expectations and definition of roles, which are central to the sustainability and changes of institutions. It also offers a conceptual model for understanding how small changes might accumulate into larger shifts over time. Its weaknesses are minimizing the significance of power and control relationships and the role of conflict on institutional changes.

The implications discussed above provide the basis for future research where more detailed analysis of the relationships between these forces can be conducted in detail exploring how institutional changes are determined by historical experience, and influence it in turn through the role that history and culture play in constructing society and in the processes of creating a new configurations.

### **2.5.3. Theories of Institutions**

In this part we will be reviewing the available discussions on how institutions affect growth. Different researchers have identified several ways in which strong institutions foster economic growth; the following paragraphs will mention the few examples:

*More Investment and Innovation:* Strong institutions elicit confidence in long-term investment via stability. As a result, businesses spend more on research and development in the knowledge that their legal rights will protect their innovation. Therefore, this promotes innovation and is a key driver of productivity growth which determines economic development (Acemoglu et al., 2005).

*Efficient Resource Allocation:* Conversely, inefficacious institutions ensure allocation of resources is done wrongly. Nevertheless, weak institutions support fraud rather than poverty resource utilizing inefficiency (Mauro, 1995). Legal reforms stimulate appropriate resource management and regulation particularly in financial terms while enhancing economic growth.

*Reduced Transaction Costs:* Property rights that are sufficiently secured and contract enforcement systems that are strong, are factors that make transactions less costly in terms of time and resources. In the case of business property, it is possible for an individual to invest because he or she knows that they will take ownership of whatever they invest in. North (1990) suggests that if institutions maintain contracts and ensure their enforcement, trust is established since there will be no reason for the other party to become opportunistic and thus engage legal action for contract enforcement.

*Strengthened Human Capital Development:* Strong institutions foster investment in education and health systems thus producing skilled workforces while a healthy workforce ensures a productive environment. Consequently, this raises efficiency levels leading to innovation while speeding up economic growth (Barro, 2003).

*Political stability and growth:* Countries with good governance structures such as those that have incorporations of political systems with checks and balances, independent judiciaries, and proper methods of power transition are likely to experience economic growth. According to a research, there could be permanent investments in businesses at these nations' regions which would otherwise lose them (Przeworski et al., 2000).

All these create a virtuous cycle. It must be appreciated that strong institutions compel investment by individuals and businesses thus promoting growth. Thus, it spills over to promote investments for enhancing the strength of institutions that, in return, reinforces growth and development.

It is often possible to notice the effect of institutions on economic growth when comparing countries. Kaufmann et al., (2010) observed that countries with good property rights, low

level of corruption, effective contract enforcement and other related stronger institutions have better and more sustainable economic growth than the countries with the weaker institutions.

For example, East Asia's economic growth in the second half of the twentieth century can be explained partially by an incorporation of robust institutions like export-promoting policies or education (Rodrik, 2003). On the other hand, countries with poor institutions characterized by corruption in addition to regular political instabilities hardly record the set economic growth rates (Easterly, 2006).

The influence of institutions on Economic growth is not exactly a clear cut answer. There are several challenges to consider:

Some may ask a question of which one came first, institutions that are strong or sustainable economic growth. It might be possible that strong institutions are needed for continuous growth, but in its turn, strong institutions might need a degree of development to finance reforms, as well as to create the capacity for implementation (Hall & Jones, 1999).

There is also the importance of context. What may boost growth depends with the specific type of institutions in each particular country fixed by the stage of development and history. One possible reason for this could be that the institutions that prove to be efficient in one country may not be the same in another (North, 1990).

There is also the difficulty of change. It is very slow and tiresome to change institutions when you are in them. While in the long-term people are more likely to support change, the reality shows that certain groups may oppose reforms, and changing behaviors may be a challenge due to cultural characteristics. Also, reforms often mean that the implementation of the measures may be effective depending on the quality of their fulfillment (Acemoglu & Robinson, 2012).

Institutions are considered as the foundation of the economy. Strong institutions, therefore, create a stable and predictable environment for investments, foster creativity as well as enable the efficient allocation of resources. In general, many researches imply a strong relationship between growth and institutions. Therefore, it seems investments into efficient institutions are critical to achieve sustainable growth. Thus, the countries which concentrate their efforts on the legislative adjustments, the fight against corruption, the financing of the education, the enhancement of the good governance, and the development of the international cooperation will be the ones that will have a successful future.

## **2.6 Empirical Literature Review**

Various scholars have suggested that there is a positive relationship between institutional quality and the levels of economic growth. Nonetheless, critics argue that we need better empirical evidence in order to appropriate a proper institutional perspective in the growth data analysis (Pelikan, 2003; Rodrik, 2004). Additionally, it is claimed that literature on institutions is not coherent enough to offer a robust analytical framework (Potts, 2007), although it has been argued that institutions are instrumental in stimulating economic growth.

We will discuss the various considerations of this aspect of the issue.

### **2.6.1 Measures of Institutional Quality**

Analyses of institutional quality rely on certain standard variables, and some of the most frequently used ones include social factors, economic liberalization, democracy, and rule of law, or what can be termed as political institutions as well as protection of property rights.

One of the social factors used as a proxy for institutional quality is trust and civic cooperation, and there are several researches that show its positive impact on the economy (La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997) and Knack and Keefer (1997) and Zak and Knack (2001)). Hall and Jones (1999) used index of government anti-diversion policies, i.e. regulations and measures taken to prevent the misuse of resources, which they term as “social infrastructure” and find them to determine capital accumulation and productivity.

The results provided by Carlsson & Lundstrom (2002) and Ali & Crain (2002) showed that, other things being equal, political and civil rights are not quite as strong antecedent of growth as is economic freedom. However, in another recent study, ‘Researchers willing to look beyond these direct effects can find considerable empirical support that the positive impacts of political and also economic freedom are large and significant on growth,’ (Ulubasoglu and Doucouliagos, 2004).

Using a variety of proxies, some scholars have examined the security of property rights; generally, they have found evidence of the institutional quality's growth-enhancing impacts (Kormendi and Meguire (1985), Scully (1988), Barro (1991, 1996), Knack and Keefer (1995), Acemoglu et al. (2001), Havrylyshyn and van Rooden (2003), Rodrik et al. (2004) and Tavares (2004), Demetriades and Law (2006) and Hall and Ahmad (2014)).

Other researchers take democracy to have significant effect on growth more than any other proxies (Bardhan (2005), Rivera-Batiz (2002), Butkiewicz and Yanikkaya (2004)).

Mauro (1995) finds corruption as an obstacle to growth. For Aidt, Dutta and Sena (2008) corruption hinders growth where there are quality political institutions, in a low quality political institutions corruption doesn't have influence on growth.

There are many researchers arguing and presenting their findings on political institutions or the rule of law. For these authors, the rule of law is the most important determinant of a country's growth (Knack and Keefer (1995), Barro (1996), Havrylyshyn and van Rooden (2003), Tavares (2004), Eicher and Leukert (2009), Eicher and Schreiber (2009), Law and Bany-Ariffin (2008)).

## **2.6.2 Heterogeneity and Conditional Effects**

It is clear from a literature analysis that institutions do not always have a direct and equal impact on growth. Heterogeneity in the results by kind of institution, socioeconomic groups, and regions has been observed in some studies.

Zak and Knack (2001) found that when economic freedom is taken into account, political stability has a conditional direct positive effect on growth.

Different institutional characteristics appear to have played a significant impact in increasing development performance in different regions, according to Campos and Nugent's (1999) research; for East Asia it was bureaucracy, while for Latin America it was the rule of law that worked the best.

The analyses conducted by Law and Bany-Ariffin (2008) revealed that rule of law gives a statistically significant positive influence towards any income category including higher,

medium-high, medium-low, and lower income groups. Besides the rule of law, they found that the medium-low and lower income groups have more improvements from the lower risk of expropriation, a better bureaucracy, and efficient anti-corruption measures. The less risk of expropriation, better bureaucracy, and effective anti-corruption resulted in more improvements for the medium-low and lower income groups. In a similar vein, Aixelá and Fabro (2008) established that, while in the case of the developed nations, the rule of law was the key driver of growth, in the underdeveloped countries, the management of corruption was the prime driver of growth.

Hall and Ahmad (2014) demonstrated how the impacts of institutions change depending on their geographical location and, in the case of East Asian nations, the time frame leading up to and following the Asian Financial Crisis of 1998.

According to Lee and Kim's (2009) research, policies and institutions have distinct effects on various income groups: institutions have a major role in the growth of lower-income countries, but not of upper-middle-class and higher-income countries.

### **2.6.3 Measuring Institutions**

One major research restriction that applies here is the method of measuring institutional quality. Institutions are very diverse and have a complex structure, which makes identifying their main characteristic difficult. Different researchers have used a variety of measures; surveys such as the Worldwide Governance Indicators and expert rating such as the Polity IV project. However, these measures are generally not metrics and are prone to bias.

The World Bank Governance Indicator (WGI) has six components: (a) Voice and Accountability, (b) Political Stability and Absence of Violence/Terrorism, (c) Government Effectiveness, (d) Regulatory Quality, (e) Rule of Law, and (f) Control of Corruption. It is originally developed by Kaufmann et al. (1999). Even though this was used by many, it has researchers that question the validity of the measurements used to construct this indicator (Thomas (2010); Langbein and Knack (2010)).

The Polity IV dataset measures the constraints on the executive branch of governance; hence it is mainly about the checks and balances in a system. Even though this too is used widely,

Glaeser et al. (2004), criticize it for focusing on elections and not on the actual political limits on government.

The other widely used measure is the International Country Risk Guide (ICRG). This indicator incorporates rule of law, expropriation risk, repudiation of contracts, corruption and quality of bureaucracy. But this indicator is criticized for its lack of transparency and potential subjectivity.

Institutions are still by no means easy to measure. Therefore, although the error component and the fact that the perfect measurement is hard to make, to get the most full and accurate picture of institutional quality, it is better to use both quantitative and qualitative data.

With this in mind we could say appropriate statistics such as the composite indices offered by the World Bank can to some extent be employed to start the exercise but capturing institutional specifics cannot be adequately achieved using such statistics.

It is emerging to be more pertinent to constantly incorporate institutional assessments in a larger context. However, it is necessary to note that depending on historical conditions and the level of country's development, the impact of a certain type of institutional arrangements may be of different intensity.

Studies about the extent and impact of changes across various societal institutions are necessary as well as examining the efficiency of different institutional change strategies. Increasingly, it means working to refine new methodologies, which integrate quantitative and qualitative methods, to generate more enlightening institutional insights.

If through constant improvement of the instruments and ways of measurement and the enhancement of our comprehension of the nature of institutions, we may enhance our understanding of such aspects that support prosperity, stability and comprehensiveness of economic and political institutions in a society. This understanding could advance positive policy interventions for the enhancement of good governance and support for development practice in various nations of the world.

## 2.7 Brief Review of Political Economic History of Ethiopia

For Acemoglu and Robinson (2012, p. 234) Ethiopia is a “durable example of African absolutism”. Not a flattering remark in terms of institutional building, but a curious prelude to understanding Ethiopia’s political economy.

Modern Ethiopia traces its origin to the ancient Aksumite Empire, as every modern state does to paint a golden era of past glories. In reality the actual connection might be as unlikely as Modern Egypt’s connection with the Pharaonic times, or Modern Greek’s connection with the Hellenic era. This might sound beside the point but national script or narration is an important part of state building and hence institutional formation via the creation of national consensus. It is this narration that gave birth to the Solomonic Dynasty that ruled this area for the better part of the second millennium and resulted in the current Ethiopian state which became a durable absolutism.

The main institution Ethiopia inherited from this imperial past is the religious institution of the Orthodox Church. Like all empire states the center-periphery conflict is also a deciding factor for the fate of the central authority.

Successful modern states are mostly nation states, i.e., they are constituted largely by homogenous people that could be called nations, or they are just modern manifestations of preexisting cultural unit (Smith, 2010, p. 140; Hazony, 2018; Tamir, 2019, p. 27).

The people under the influence of the Aksumite Empire never transitioned to this model of modern nation state and seem to be locked in this age old center-periphery conflict, which hinders the establishment of centralized authority and other necessary modern institutions and wastes resources and time on conflict. The history of Ethiopia shows us the very same cycle of conflict among forces competing for dominance by rallying the support of their cultural units.

The power that came to rule the area after the fall of Aksum is the Agaw kingdom referred as the Zagwe Dynasty, after its ruling dynasty.

For the Aksumites as Semitic speakers, which the Tigrayans and Amharas consider themselves to be a genuine representatives, the Agew as Cushitic speakers are considered alien adventurers (Fiaccadori, 2014, p. 108). The Agew rulers’ focus on religion and

dedication for religious architecture, within the framework of continuing Aksumite legacy could be explained in terms of this pursuit of legitimacy (ibid. p. 109).

My focus on the issue of legitimacy is because of its importance in determining the nature of institutions a state will pivot towards, the historical trajectory it will reproduce. It is obvious a ruler considered as illegitimate cannot aspire to establish a rule of law; one cannot enter into contract with someone one doesn't trust.

The Amhara king that finally overthrew the last Zagwe king in 1270 was Yikuno Amlak. Later his royal chroniclers presented him as a descendant of Delnaod, considered to be the last king of Aksum, thereby claiming to be a descendant of the Solomonic dynasty. His rise to power was presented as restoration of the Solomonic dynasty. Nevertheless, the Aksumite kings never claimed to be descendants of Solomon and no such Aksumite inscription has been discovered (Kaplan, 2010, p. 688). In addition to this there is even no evidence linking Yikuno Amlak to an Aksumite king (Kaplan, 2017, p. 111).

The following millennia could be viewed as a millennia of rivalry between the Amhara and Tigray. Alemseged Abay (2022) discusses this historical rivalry between Tigray and Amhara.

### **2.7.1. Solomonic Dynasty: Foundations of Extractive Institutions**

What came after the fall of Aksumite Empire is a feudalistic society, just as in Europe after the fall of the Roman Empire. Acemoglu and Robinson (2012, p. 235) describe the absolutism as follows:

“There were no pluralistic institutions of any kind, nor any checks and constraints on the power of the emperor, who claimed the right to rule on the basis of supposed descent from the legendary King Solomon and the Queen of Sheba.”

This absolutism was based on the exploitation of the agricultural sector. This expropriation extends to the claim that made the entire kingdom the property of the king. This way of rule stayed in force until the 1974 coup d'état that replaced the last ruler of the Solomonic dynasty, Emperor Haileselassie I, with a military junta.

Shiferaw Bekele (1990, pp. 294-300), discusses the key institutions of the period that complement the main institution of kingship that are referred as central institutions. Among these the first one is the royal court which “maximize support for a particular line of action and to mobilize as many of the lords as possible for a specific position.” (ibid. p. 295). On the other hand it also gives the lords a platform to air their views and participate in decision making process. Additional part of the royal court is the clergy that play at coordinating roles or secondary positions depending on the times and their fortunes.

The other important organ of the state was the royal tribunal – here the king exercises his judiciary functions. It handles all cases from criminal offences up to rebellions and conspiracies against the state. The king could use this as a platform to put his case in the best of lights and mobilize support against political offenders (ibid. p. 296).

Royal prison was another central institution of the state. All these institutions strengthened and enabled the king to keep his power and rule over the people and his vassals. The king’s vassals are important part of the dominion of the king. They are referred as *Mekuanent* (*Mekonen* in the singular) meaning governor and judge (ibid. p. 297).

These *Mekuanent* are interested in maximizing their personal gains, and they do this with the institution of land tenure. There were different kinds of such institutions but mainly the *rest* and *gult* systems were prominent. The *rest* system enabled the farmer to own land right through lineage; while the *gult* granted the *Mekuanent* the right to parts of the farmers’ produces (Merid Wolde Aregay, 1986).

But the *rest* rights were conditional, in that it is expected the holder of such right to fulfill mandatory obligations such as paying tribute to the church, which makes *rest* ownership to lack absolute ownership (Hoben, 1963). Additional obligation of a *rest* holder was military service (Shiferaw Bekele, 1990, p. 335). Even though the *rest* land tenure provided security, it was on precarious grounds as it was subject to fragmentation and successive reductions in individual plot sizes with successive inheritors (Crewett, Ayalneh and Korf, 2008, p. 8).

The *gult* was just an imposition on the existing *rest* system. It required a *rest* holder to pay to the *mekuanent* a tribute and taxes whether in cash, labor or kind (Pausewang, 1983). In addition to the *mekuanent* the *gult* rights were also given to those who served in the military and administrative services of the newly conquered areas of the south and south western expansion at the onset of the 20<sup>th</sup> century (ibid). Unlike *rest* the *gult* rights were not

permanent but depended up on the emperor's decisions. Merid (1986, p. 118) says, this "temporariness and uncertainty of *gult* rights became a perennial source of political instability".

Alvares who visited Ethiopia in 1520-1527 A.D. with a Portuguese diplomatic mission noted that "there would be much more 'fruit and tillage if the great men did not ill-treat the people.'" (Acemoglu and Robinson, 2012, p. 235).

Almeida (as quoted in Acemoglu and Robinson, 2012, p. 236) who visited Ethiopia on the next century between 1624 and 1633 observed:

"It is so usual for the emperor to exchange, alter and take away the lands each man holds every two or three years, sometimes every year and even many times in the course of a year, that it causes no surprise. Often one man plows the soil, another sows it and another reaps. Hence it arises that there is no one who takes care of the land he enjoys; there is not even anyone to plant a tree because he knows that he who plants it very rarely gathers the fruit. For the king, however, it is useful that they should be so dependent upon him."

Another visitor, James Bruce, from the next century between 1768 and 1773, witnesses that "all the land is the king's" and under the king's will, no matter how long one might own the land at death it is returned to the king (Acemoglu and Robinson, 2012, p. 235).

There was, however, a heritable *gult* right called *rest-gult* which gave the regional lords independence from the central power. The grant of *rest-gult* system was the rule in the newly conquered areas of the south (Pausewang, 1983).

The other major tenure was the *gebbar* system. This basically refers to tribute paying peasants which were under *gult* holders. They were subject to heavy tribute and service payments to the *gult* holders (Crewett, Ayalneh and Korf, 2008, p. 9). Following the 1941 tax reform *gebbars* who paid tax for the land they tilled became owners of the said land (ibid. p. 10). But all the remaining lands where taxes were paid to the lords but not forwarded to the government became the government's land. Those who lost their land became sharecroppers who were obliged to share up to half of their produce with their landlords; they were even subject to more demands of services and gifts (ibid.).

As Crewett, Ayalneh and Korf (2008, p. 12) summarize it,

“Broadly speaking, the Ethiopian land tenure system during the emperors’ rule was dominated by drastic power imbalances between landlords and peasantry. Land policy was used in as an instrument of “divide-and-rule” at the disposal of the emperors (and the nobility).”

Basically this institution of land tenure created a relationship of patronage between the ruler and his/her subjects. It seems to this day that land is a major source of capital and hence whoever controls it wields more power. This locked the people and the state in perfect mold of absolutism. It put the state in a historical trajectory of extractive institutions, to use Acemoglu’s phrase, whose influence is still persisting to this day.

All these extractive institutions benefited the King and the Lords at the expense of the masses. This resulted in isolation of Ethiopia from the global trends and mostly hindered the state and society from participating in the industrial revolution and modernization (Acemoglu and Robinson, 2012, p. 238).

The culmination or climax of the nearly 800 years of this most absolute extractive rule was the military junta that took over it.

### **2.7.2. Derg: Socialist Gigantism**

Just as the last Emperor of the Solomonic Dynasty, Haileselassie I, was simply the same absolutist ruler with “the outward modern trappings” (Bereket, 1990, p. 117), the new military junta, the Derg, that came following a revolution mainly led by student movements was just another, even worse, totalitarian rule with the outward Marxist-Leninist trappings.

It can be said fundamentally nothing really changed. Kaplan (2008) goes as far as to say the new regime that came after the revolution was just a sophisticated form of an evolved Amhara imperialism. But this situation cannot be blamed on any one regime or society, as these entities themselves are prisoners of the past they inherited.

As Ottaway (1990, p. 6) put it, the Derg inherited an illegitimate state; illegitimate in a sense that “it is not a nation-state, it does not have unmistakably colonial borders, it does not have a democratic regime, and the government does not control the territory effectively or satisfy the

needs of the population even minimally”. This does not look like a fertile ground for building legitimate formal institutions at all. Hence, what the Derg did was bring the old ways in a new packaging.

The military leaders that took over were indoctrinated with the imperial ideology of keeping the territorial integrity of the state a sacred duty and believed in “the myths and legends of a glorious past” (Bereket, 1990, p. 120). The myth was even part of the Preamble of the constitution they ratified (ibid, p. 134).

The Derg might have replaced the state ideology of Solomonic descent with Marxism-Leninism, but if we see the details the Derg will be nothing but neo-imperial state.

The much praised nationalization of land simply replaced the landlords and *Mekuanent* with a much more pervasive state control (ibid. p. 132). Kaplan (2008) notes if one observes the Derg’s resettlement areas, they would align with the trajectory of Menilik’s military campaigns of expansion. In fact, after the substitution of the landlords with the state the surplus and rent collected from individual peasants were consumed by expanded military and bureaucracy (Bereket, 1990, p. 133). Additionally, the terror of the *Mekuanent* was replaced by the organized terror of the state. This seems to be the only possible way of maintaining an illegitimate state that cannot build legitimate institutions. More than half of state expenditure was spent on defense budget, reaching up to 65% in 1978 (Mulatu, 1990, p. 202).

Haileselassie I failed to de-feudalize Ethiopia and the Derg replaced the extractive feudal institutions with extractive totalitarian institutions. For instance the lowest administrative unit established by the Derg was the kebelles, but these were not used to empower the populace or involve them in the decision making processes but to control them. As Clapham (1988, p. 135) notes, “it is the control functions of the kebelles that are most highly developed. Each kebele has its own court, its own police force (of revolutionary guards, normally with about thirty for each kebele), and its own jail”. To this day the kebele is in existence with similar control powers.

The economic reforms the Haileselassie I regime tried to implement were met with challenges coming from the structural nature of the state. For instance after the regime started implementing a five years development plans in 1957, impressive changes were observed within a short time (in three consecutive five year plans). The main focus was to put public investments on infrastructure and mining sectors. In the period 1960-1970 GDP grew

annually by 4.4% in average (Mulatu, 1990, p. 199). In a similar period agriculture's share of GDP fell from 65% to 53%; services' share of GDP rose from 1.9% to 4.5%; and manufacturing's share rose from 9.3% to 14% (ibid).

In spite of these changes agriculture stagnated. The main cause, in addition to population pressure and lack of loan funds and improved technologies for farmers, was "the archaic land tenure system that extracted one-third to one-half of the farmers' output" (ibid. pp. 199-200).

The Derg introduced socialist policies of agriculture that included nationalization of land, resettlements of farmers and setting production quotas and prices. As discussed, the Derg's new policies only changed the landlords with a more intrusive state. All the reforms ended up bringing disincentives to the farmers (ibid. pp. 203-208). The gross mishandling of the agricultural sector is exposed by the 1984/85 famine which took the life of one million peasants in Tigray (Kaplan, 2008).

In the urban sector the Derg nationalized, fully or partially, 100 industries. This sent a wave of uncertainty with regards to government policy which is a major disincentive to investors (Mulatu, 1990, p. 210). Mulatu (ibid. p 216), concludes the main factors that brought the dismal economic performance were,

"... loss of technical personnel, domestic political unrest and external threats, the heavy burden of military expenditure, and an inflexible economic and political strategy bent on the logic of developing a socialist state within a Marxist-Leninist ideological framework. The economic and political strategies were characterized by price control, rapid and wide collectivization, expansion of state farms, an uncertain economic climate that has effectively excluded the private sector, and the predominance of politics over economics."

As a result the economy stagnated and Ethiopia remained one of the least developed states in the world. Clapham (2019, p. 39), calls the policy failures of the Derg in short "'socialist gigantism' at its most counter-productive".

Over all the 1973/74 - 1989/90 period was a time of dismal performance: annual growth rate of GDP per capita was -0.4%; and that of GDP growth rate was 2.3%; the share of agriculture in GDP fell only by 10% from 52.5% to 43.6%, that of industry rose only by 1.5% from 15.1% to 16.6 (Alemayehu, 2001).

The Derg's failure to solve the national and social questions that were the causes of the revolution only exacerbated the rebellions all over the country. The main ones that became its demise were the ones in Eritrea and Tigray, led by EPLF and TPLF respectively. The EPLF demanded complete independence from Ethiopia and TPLF wanted more autonomy within Ethiopia. But these weren't the only groups that rose to arms against the Ethiopian state. Almost every major national unit had its own liberation front/s.

### **2.7.3. EPRDF: State Gigantism**

In May 1991 the Derg regime collapsed and the Eritrean People's Liberation Front (EPLF) took over Eritrea and the Tigray People's Liberation Front (TPLF) with its new coalition of national fronts, the Ethiopian People's Revolutionary Democratic Front (EPRDF), took over Ethiopia. The Eritrean problem was solved by formally accepting Eritrean independence in 1993. What remained was finding solutions to the rest of Ethiopia's problems short of granting independence to the other nationalities.

As Clapham (2019, p. 45) describes it, one major issue of Ethiopia's political economy is the structural "imbalance between the sources of political and economic power". The main areas of economic activities are the areas acquired in the late nineteenth century, the Southern and Western parts; while the political power is mainly in the hands of elites from the Northern area.

The EPRDF together with other representatives formed the Transitional Government of Ethiopia and accepted a "charter" where its reform agenda for transition was set. Vaughan (2015) describes three trajectories of fundamental reform: decentralization, democratization and liberalization. By establishing regions with national boundaries and granting of self-rule the state was to be decentralized; with the introduction of multi-party electoral system the politics was to be democratized; and with the introduction of market economy and liberalization the productive potential of the people was to be released.

This was easier said than done because for one the first thing needed was national consensus or trust among the people and between people and the leadership. This was in non-existence. On the one hand the Unitarians opposed accepting Eritrean independence and thought of the

national federation as posing a danger of fragmenting Ethiopian unity; on the other hand national fronts like the Oromo Liberation Front (OLF) and the Ogaden National Liberation Front (ONLF), that were denied from exercising the right to secession, thought of TPLF as only giving lip-service to national rights in order to widen its political base by garnering support from the hitherto oppressed nationalities of Ethiopia.

In the face of such polarization and lack of any common ground, democratization and liberalization doesn't look feasible. But overlooking this limitation and imagining a radical top-down reform isn't a new phenomenon either. From the very start of any thought of transformation or modernization in Ethiopia, it is first thought in terms of state power. Clapham (2006) attributes this to the hierarchical nature of the society and the resulting consciousness of power relations, in addition to this he also mentions the European states that the Ethiopian rulers envied were powerful as a result of their modernity, this power is also seen as a means to realizing modernity.

One important factor Clapham overlooks is the need of power in maintaining an empire, because empires aren't built with the consent of the populace. As Clapham (ibid, p. 109) notes for Ethiopians modernity isn't "something brought on the back of colonialism", as it is for most of Africa; he says for Ethiopians modernity is something brought by attempts of 'modernizing' Ethiopians which he terms 'the politics of emulation'.

The prize for these modernizers is state power, but modernization by its nature empowers the populace and thereby the path for further modernization is paved. In Ethiopia's case this was unthinkable because there wasn't a populace that could initiate such a transformation, which is why it remained a top-down affair. The public was divided and kept under control with a pervasive and extractive state. As John Stuart Mill (1993 [1863]. pp. 392) puts it:

"Free institutions are next to impossible in a country made up of different nationalities. Among a people without fellow-feeling, especially if they read and speak different languages, the united public opinion necessary to the working of representative government cannot exist."

Clapham (2006) as well observes that from the very start in Ethiopia development is seen with different kinds of 'state power' models. Ethiopian leaders at different periods have taken as their model Russian, Japanese, British, Soviet and Asian tiger economies' experiences.

One example that is conspicuously missing is the liberal model, which proves Mill's quote mentioned above.

What these emulations have in common is their failure. Clapham (ibid, p. 110) attributes the failures to "the inadequacies of state power as an instrument of development".

So, we can see the EPRDF's attempt of transformation in this line. It started with the promise of decentralization, democratization and liberalization and in practice introduced different mechanisms it could supersede them. The EPRDF has to promise these things because it knows their opposites have been tried and have failed. But whether because of its ideological background, i.e. Marxism-Leninism, or other political aims, it was committed to maintaining the Derg's policy of state ownership of land. It was also the Derg's invention, the *kebele* administrative unit that was maintained and strengthened (Clapham, 2019). In a poor country like Ethiopia, land is one of the main sources of capital, the other being labor, so maintaining control over land access is a critical issue. Meanwhile the *kebele* is, as we saw it, where the government's tentacles reach the people, or where basic social and civil services are delivered. This means the government maintains monopoly over land and over decision making over delivery of services (Vaughan, 2015).

The national regional states established by the federation were supposed to have autonomy, but in practice the economic policy that took Ethiopia as a single unit encroached on their autonomy. The developmental state model the EPRDF chose needed big and centralized government.

According to the framework of Hauge and Chang (2019), who wrote on the developmental state experience of Ethiopia, developmental state is one that is mainly inspired by the Asian experiences, has state-private partnership led by the state, prioritizes economic development through industrialization, is legitimized by its economic performance, and has independent professional bureaucracy.

Hauge and Chang (ibid) identify three main areas where Ethiopian developmental state deviates from their framework: the public support for development projects is ethnically fragmented; the bureaucracy lacks power and independence; and in manufacture the domestic private sector is small.

It is easy to see these shortcomings are symptoms of a polarized state. For the EPRDF, just like its predecessors, the response to the challenges was making the state even more

ubiquitous. There were two major watershed moments in EPRDF's experience before it was dissolved by elites from within the Front and replaced it by Prosperity Party in 2019. The first is the Ethio-Eritrea border war of 1998-2000 and the second is the 2005 countrywide election. The first made the EPRDF lean towards a more pan-Ethiopian rhetoric for a countrywide military mobilization; and the second one made it seek a more aggressive industrialization policy to achieve performance legitimation from the urban population following its unexpected losses in the 2005 election.

The border war with Eritrea created pressure on the leading member of the EPRDF, the TPLF, over differences on Eritrea and spilled over to the other members as well. The Prime Minister's, Meles Zenawi, faction won over the dissident faction. The dissidents were excommunicated in a truly socialist fashion and arrested over charges of corruption.

After the division the party started reforms of the state by modernizing, professionalizing and bureaucratizing it with a focus on capacity building, education and urban development (Vaughan, 2015). The TPLF as a guerrilla fighter that came to power never seem to accept the separation between state and party. It feels entitled to rule because the party has sacrificed so much for the "liberation". On the other hand the population at the center felt the TPLF is a usurper that took power by force instead of consent. One Amhara elite, Tekle Yishaw, even wrote a book about it listing TPLF along all historical Tigrayans starting from the imperial times that happen to become powerful as usurpers who scrimmage for power. The title of the book literally says "Tigrayans who Scrimmage for Power" in Amaharic (romanized): *Seltan Teshami Tegrewoch*.

In absolute opposite of this the TPLF was completely at home ruling in Addis Ababa. In fact it felt so entitled to rule that it doesn't even seem to see itself as an alternative political party operating under a constitutional rule. It wants to run the government just as it ran the liberation struggle, as a sole representative of the will of the people (except now the people are no longer as homogenous as in its liberation struggle days). It described itself as vanguard party and its ideology of revolutionary democracy was to serve the people until full democracy could be viable. This domination of the party over the state at all levels was undermining any form of democracy at the individual or group level, neither individuals as citizens, nor national regions as members the federation were to exercise the rights guaranteed by the constitution.

The border war weakened the TPLF in two ways, one the split has resulted in the reform and strengthening of the state at the cost of the party and two the pan-Ethiopian nationalistic rhetoric gained strength at the cost of the national right to self-determination of the nations within Ethiopia (ibid.). To this we might add the “cold war” that continued between the two states was a burden on its base region of Tigray which was turned into a far north peripheral state by the close of borders with Eritrea and the resulting loss of trade route that leads to the port of Massawa through the region.

These changes were exposed by the 2005 countrywide elections, which resulted in unexpected losses to CUD, a party that claims to advocate a pan-Ethiopian “civic” nationalism. This lay bare the fact that there was no national consensus on the federal structure of the state; it was a threat not only to the ruling party but to the state itself as well. Election results were rejected by the opposition and this resulted in violence and arrest of opposition politicians. This made the EPRDF to work in strengthening the party’s hold on the society and strengthen its investment for a better performance legitimization.

A new wave of party cadre appointments were made to manage *kebeles* and *kebele* representative council members were expanded, Vaughan (ibid.), says this was done to improve either service delivery and accountability, or strengthen political control. EPRDF obsession with control is manifestation of any empire state’s control syndrome. In addition to the administrative control the EPRDF used monopolizing the economy as a political tool. This was achieved via direct control of private entrepreneurs, large party owned enterprises and large state owned enterprises (Wassihun, 2020). As we saw earlier Clapham (2019, p. 39) used the term “socialist gigantism” to describe Derg’s policies, in a similar fashion we could say EPRDF’s policies could be seen as manifestations of “state gigantism”.

The new capital investments saw massive infrastructural expansions in road and telecommunication networks, industrial parks, condominium housing constructions and hydroelectric power generations.

The crown jewel of these investments was the Grand Ethiopian Renaissance Dam (GERD), the biggest of its kind in Africa and among the top ten in the world, but the EPRDF would be dissolved before the dam’s completion and the TPLF would be reversed back to a guerrilla fighter and its base region Tigray would host the biggest war of the 21<sup>st</sup> Century with the deaths of hundreds of thousands of soldiers and close to a million civilians.

Ironically, the dam was a double whammy for the TPLF. First it invited international relations challenge by angering Egypt whose view of the Nile waters is stuck in colonial era treaties. This made Egypt to double down on its effort of sabotaging the EPRDF regime (Maher, 2013). Second after the downfall of TPLF, according to Verhoeven and Michael (2022, p. 639), because of the ““schizophrenic”—pro-Egypt on the GERD and pro-Abiy in Ethiopia” approach of the U.S. policy, the Trump administration embraced Abiy’s domestic policy even more and increased their support for his consolidation of political power and (ibid., p. 641) blaming any other concern on “vestiges of the old regime”. This means the dam instead of bringing the TPLF any performance legitimation, if anything it hastened its downfall and after its downfall it garnered U.S.’s support for Abiy’s war on the TPLF.

The EPRDF, however dysfunctional its system might have become, did bring impressive transformation of the economy. Between 2000-2013 GDP grew at a rate of 9.5% annually, which was exceeded only by Angola (11.1%) in sub-Saharan region, of course Angola’s growth could be ascribed to hydrocarbons while Ethiopia has very little minerals (Clapham, 2018). By 2013 the number of Ethiopian millionaires doubled to 2,700 since its 2007 level; this rise of millionaires is closely associated with growth in GDP which rose by 93% over the same period (Smith, 2013). In 2000 Ethiopia had one of the highest poverty rates in the world (44% of the population), by 2011 share of households living in poverty fell to 30%, which is a 33% reduction in households living in poverty (World Bank, 2015).

Real GDP per capita grew from US\$258 to US\$744 in 2018 as measured by constant 2015 US\$ (WDI 2024). Export of manufactured goods grew 21-fold from US\$21m to US\$436m in the period 2004-2015; in the same period total merchandise export grew from US\$503m to US\$3.8b (Hauge and Chang, 2019, p. 837). Agriculture’s share of total GDP declined to 31% in 2018 from 45% in 2008 (WDI 2024).

What drove this growth is large government spending on infrastructure and construction. Infrastructure projects mainly transport and power generation took more than 40% of federal budget (Hauge and Chang, 2019). On the human development side education and health saw significant changes. Net primary school enrollment in 2014 rose by 19% from a 1994 level covering 79%; while life expectancy reached 64 years with an increase of 12 years from the year 2000 (Arkebe, 2015).

This economic boom raised so much hope among economists that it made Hauge and Chang (2019, p. 837) say, “If any African country will become an industrial power-house, it is likely

to be Ethiopia.” But as we saw it above they do notice the support for the developmental efforts was ethnically fragmented (ibid.).

The group within EPRDF that brought Abiy to the leadership position was popularly referred as Team Oromara (an amalgamation of the names Oromo and Amhara, in reference to the base regions of the team). This is a clear demonstration of mobilization of cultural units (i.e. nations) for political ambitions and the cycle of conflicts that we saw at the beginning of this part. While the U.S. in their support for Abiy were thinking of “democratic transition”, there was only “the personalization of power and the deinstitutionalization of the party-state” Verhoeven and Michael (2022, p. 640).

Once again the vicious circle of conflict is being observed kicking the hope of building modern institutions further. Today the country’s defense forces are being deployed in all regions to quell conflicts and rebellions. Internally displaced people passed 28 million at the height of the political crises in 2018 (WDI 2024).

## **2.8. Conceptual Framework**

The discussion above helps in defining a strong conceptual framework by examining a wide range of theoretical and empirical research. Theories ranging from endogenous growth theory- to institutional economic perspectives and growth models ranging from classical to neoclassical models-described the economic growth's complexity as well as the critical role played by the institutions in it. In their basic elements, however, the classical and neoclassical models point to technological advancement and to the possession of physical wealth as drivers behind development. Both seem to neglect institutions' role in creating incentives and affecting economic behavior. This particular gap is filled by the endogenous growth theory, which emphasizes the significance of an institutional framework for creating an environment conducive to growth by elevating technological and human capital as endogenous elements.

For the institutionalists (North and others), institutions frame the game of economic interactions and thereby shape the trajectories of growth. Institutionalism approaches institutions from a theory of context that advocates views associated with conflict, groups development, evolutionary theories, and equilibrium in the explanation of institutional transitions and their impacts in respect to economic performance.

The central hypothesis of this study is that institutions are the binding force between the short-term drivers of development and long-term results.. This theoretical framework presents itself at three levels:

1. Macroeconomic Variables (e.g., inflation, government spending, investment): These variables account for the short-term dynamics and impact of policy, being rooted in neoclassical and endogenous thinking.
2. Control Variables (e.g., population growth, military spending): Classical theories express concerns over resource allocation, while endogenous theories criticize their misallocation.
3. Institutional Variable (political freedom index): This variable captures the institutionalist perspective that governance quality constrains or reinforces the effectiveness of macroeconomic policies.

While theoretical derivation confirms the empirical results, it found a positive association between strong institutions and high rates of economic growth, which is expected for any country. A combination of different institutional quality metrics such as rule of law, political freedom, and corruption frequently found that these institutional variables were the most important factors affecting any kind of economic prosperity. Last but not least, the uneven findings put into play the contextual and related factors that will have to be taken into account, including measures relating to stage of development and historical legacies.

Ethiopian extractive institutions which are seen earlier in time as the medieval *gult* and later on persist as statist policies confirm North's notion that inefficient institutions persist. Ethiopian unique institutional path dependency is contextualized by including in the econometric framework certain historical narrations like the Derg regime's gigantism with a socialist orientation and the developmental state under EPRDF.

In North (1990) and Acemoglu (2005), institutions are seen as meta-determinants that shape the efficacy of the proximate growth drivers (i.e. hierarchy of Institutions). Institutions may create misalignments between incentives, transaction costs, and investments. Ethiopian examples are the *gult* systems in Ethiopia and centralization by Derg and EPRDF.

Institutional change is path dependent, as Libecap (1989) and Acemoglu (2003) put it. This is best illustrated by Ethiopia's cyclical authoritarian governments, when long-term institutional

deterioration is concealed by temporary autocratic stability (such as the developmental state of the EPRDF).

In short, the institutional DNA of Ethiopia is vested in centralized patrimonial rule that dates to the Solomonic dynasty (1270-1974). The main attributes include:

- Land Tenure Systems; the gult and rest systems concentrated wealth among elites and did not encourage peasant productivity. Land was then a political tool, not an economic asset, hence it promoted dependence rather than innovation.
- Absence of Rule of Law; emperors like Menelik II and Haile Selassie ruled by imperial decree applying religious authority (Ethiopian Orthodox Church) with coercive power. The legal systems lay behind the elite, denying the very essence of contract enforcement and property rights.
- Path Dependency; post-1991 regimes inherited these systems of extractive norms. EPRDF's ethnic federalism (1991-2018) superficially decentralized power while allowing the center to continue holding power over the party-owned conglomerates (e.g., EFFORT), centralized economic planning and the state-held land ownership that formed the base of rent seeking.

Each regime repurposed institutions to consolidate power, not boost growth, hence the vicious cycle of extraction remains. The state is still 'prize' to elites (Acemoglu & Robinson, 2012), and has never been a neutral facilitating agent for growth.

In summary, the literature review provides solid theoretical and empirical foundations for this study reinforcing the hypothesis that quality of institutions significantly affects growth. Ethiopia's institutional context steeped, over time, in terms of absolutism, socialist centralization, and state-led development, makes a good case study for the nexus between institutions and growth. Breaking the cycle of extractive institutions to sustainable growth requires strong political freedoms, property rights, and governance institutions as emphasized by North (1990) and Acemoglu et al (2005). Future researches need to focus on how institution affects in unison across different regions and ethnicities in Ethiopia and how international aid contributes to institutional changes and reforms.

## **3. Research Methodology**

### **3.1. Data Type and Sources**

This study uses a time series secondary data. The source is World Development Indicators from the World Bank dataset retrieved from the 2024 reports. Other additional data are used from Freedom House. The Freedom House dataset gives us information on political freedom. The political freedom is measured on the basis of political rights which are the freedom to participate in the political process. The other measure is based on civil liberties and is rights to free expression, to organize or demonstrate, freedom of religion, education, travel and other such individual rights.

Whenever there is a gap in the World Bank data, other sources were used to supplement it. These are as follows: the data for Government Expenses and Gross Fixed Capital Formation for the period from 1982 up to 2010 are from YCharts; the data for Trade Openness from 1982 up to 2010 is from the Federal Reserve Bank of St. Louis; the data for Broad Money starting from 2009 up to 2022 is compiled by the researcher from annual reports of the National Bank of Ethiopia. All in all, the period of data ranges from 1982 to 2022.

### **3.2. Methods and Instruments of Data Analysis**

This study used the Autoregressive Distributed Lag (ARDL) approach to cointegration. This method, also known as bounds testing, has some advantages with respect to other cointegration methodologies. Since the ARDL is a single-equation method and as a result requires the estimation of a small number of parameters, it becomes a more efficient approach (see Pesaran et al. 2001). The other methods that are data intensive, such as the Johansen Maximum Likelihood method that is based on a VAR system, suffer from loss of degrees of freedom. The ARDL is free from such shortcomings.

The ARDL method is free from the problem of pre-testing for the order of integration of the individual variables. But if a long-run relation between the variables is identified, an Error Correction (EC) model could be used to test for Granger type causality. A significant EC term shows long-run causality running from the explanatory towards the dependent variables (Granger et al. 2000).

### **3.3. Description of Study Variables**

***Growth rate of real per capita GDP:*** this is the dependent variable which measures the average change in income adjusted for the population growth.

Although this measure has been the best alternative so far for capturing the standard of living and productivity gains (see: Sala-i-Martin, 2006; Jones, 2016), it has its critics who say it neglects factors such as income inequality and environmental costs (see: Piketty, 2014; Stiglitz et al., 2009).

The independent variables will be: political freedom index, inflation, government spending, broad money, life expectancy, trade openness, population growth, domestic investment, military spending and natural resource rents.

***Political freedom index:*** This independent variable is used as a measure of institutional quality. Freedom House is the only source for this variable. Freedom House monitors political freedom around the world. It uses two criteria: political rights and civil liberties. Political rights are rights of citizens to have a say in public affairs or being politically empowered. Civil liberties are basic rights or freedoms that will be guaranteed by the constitution such as free press, free association and the right to peaceful demonstration, to practice one's religion, to study, work, move and other individual rights. Freedom House classifies states as free, partially free and not free. Countries whose combined average ratings fall between 1.0 and 2.5 are designated Free, those between 3.0 and 5.0 are Partly Free, and those between 5.5 and 7.0 are Not Free. In this study we will give the dummy variables 0 for not free, 1 for partially free. Since Ethiopia has never been categorized as free, that need not concern us for this study.

In the period under consideration (1982-2022) Ethiopia has been classified as partially free for 17 of them and the rest 23 years as not free. Ethiopia has never been rated free, and the time it was rated partially free is in the 1990s and 2000s.

**Inflation:** This variable is an indicator of macroeconomic instability. When there is higher inflation, it is expected to reduce economic growth. The CPI (Consumer Price Index) growth rate is used as a proxy for inflation. From the data we have it can be observed that prices have been highly unstable.

As posited by the Keynesians, on a short-run basis, moderate inflation may give impetus toward economic growth - an increase in consumption and investment. When consumers expect rising prices, they tend to consume more in the present, thus enhancing aggregate demand. Similarly, businesses may increase their investment in productive assets to benefit from an anticipated higher expected return (Blanchard, 2017). According to the Monetarist school developed by Milton Friedman, inflation above a certain limit erodes the purchasing power, increases uncertainty, and, hence, discourages long-term investments (Friedman, 1977).

Khan and Senhadji (2001) analyzed effects of inflation on economic growth and concluded that it is generally favorable in low to moderate levels and becomes harmful above a particular level or critical threshold.

**Government Size:** This too is used as a proxy for a policy variable. It is measured as a percentage of government spending to GDP. It tries to sense the effect of expansionary government policy (Barro, 1991). The Keynesians approach supports expansionary policy as stimulating the economy. But because expenditure could lead to both crowding-in and crowding-out of output and employment, ambiguous relationship is possible (Moudud, 1998).

**Broad Money Supply:** Cash, coins, and various liquid assets fall under this category. According to the Quantity Theory of Money, changes in the supply of money affect nominal GDP, assuming the velocity  $\left(\frac{GDP}{Money\ Supply}\right)$  is constant and prices also do not change. However, the effects of money supply would very much depend on liquidity preference and propensity to consume according to Keynesian Economics (Mishkin, 2019).

According to Akinlo and Egbetunde (2010), there is a positive association between monetization and GDP growth in emerging economies. However, according to a study by Oomes and Weber (2005), in the economy of Russia excessive money supply may lead to inflationary pressure.

***Life expectancy:*** this variable is used as a broad indicator of the population's health and well-being. It is affected by various factors, including health care quality in various countries as well as the nutritional and living standards available in that country. It affects GDP by its influence on labor productivity and encourages citizens to save and invest in retirement plans. On the other hand increased life expectancy could take resources from other sectors for the care of an aging population.

Analysing more than 100 countries, Bloom and Canning (2000) found that a one-year increase in life expectancy raises GDP per capita by over 4%, in the long run. The important source of this possibility was defined by them as optimism from improved productivity and increased saving rates, but at the same time, in such developing countries, it could become a bottleneck in growth because of a longer lifespan without proportionate increase in education and infrastructural investments. Acemoglu and Johnson (2007) show that improvements in health may temporarily reduce GDP per capita due to resource constraints.

***Trade Openness:*** This is the final policy variable and is used to measure the economy's openness. Trade as a dimension refers to the sum of exports and imports of goods and services measured as a fraction of gross domestic product. Trade openness is supposed to be able to increase profitability and thus attract investment, which leads to growth (Romer, 1989; Levine et al., 2000).

Dependency theories, on the other hand, caution against excessive trade openness, claiming that it would rather reinforce inequalities on the global arena. As they find these developing economies reliant on exporting low-value goods but importing high-value products, these will result in patterns of growth that are uneven (Prebisch, 1950).

Most important are the empirical results that show trade openness having a significant positive impact. Sachs et al. (1995) conducted a cross-country analysis of 100 countries and found that open economies grew faster than closed ones. The faster growth rate of open economies compared to their closed ones has been attributed to enhanced access to foreign

markets, investment, and technology by these open economies. However, the relationship is not always linear. Rodriguez and Rodrik (2001) argued that the gains from trade openness are conditional on other favorable factors, for example: institutional quality, infrastructure, and macroeconomic stability.

**Population growth:** This variable can put pressure on resources and infrastructure when it outpaces GDP growth. The reason for this is that it increases the consumption base, which will eventually put more shoulders under the labor force and drive up the demand for economic activities. Classical view as expressed by Malthus (1798) showed that an expanding population leads to diminishing returns and stagnation in economy. Whereas the neoclassical view, as advocated by Solow (1956), regards growth in population to increase the labor force and propel GDP in the short run; on the other hand, long run growth is dependent on technology and accumulation of capital.

A great population, according to endogenous growth theory, can give rise to diverse ideas, skills, and entrepreneurial activity which would contribute to the increase in productivity and long-term GDP growth (Romer, 1990).

So far, empirical studies on the phenomenon have produced mixed results-in favour of and against the effect of population growth on GDP growth. There are literatures such as Baumol et al. (1989) that argue the effect of population on growth is positive. Kelley and Schmidt (1995) found that population growth positively affects GDP in those countries where investments in education and healthcare accompany demographic changes. However, in less developed countries, excessive population growth creates negative effects. Therefore, we assume that it would have negative correlation with GDP. Bloom et al. (2001) observed that high rates of population growth in developing nations put a tremendous strain upon resources and infrastructures and public services, thus preventing smooth economic progress. Declining population growth, as is the case in many advanced economies, poses other challenges such as shortage of labor and increased dependency ratios. This shift in the population structure will result in a slowdown in GDP growth unless compensated by a rise in productivity or immigration (Feyrer, 2007).

**Domestic Investment:** This is used as control economic explanatory variable, since it is considered an important factor for economic growth in this area of study. It is a share of gross fixed capital formation to GDP. This includes all domestic investments at the state level in

public utilities and infrastructures as well as social investments in areas of education, health and communications, agriculture, housing etc. In the neo-classical growth model as well as endogenous growth theories, the role of domestic investment on economic growth is given much emphasis (Romer, 1986; Lucas, 1988; Grier and Tullock, 1989; Barro, 1991).

Keynesian also emphasized short-term impact of investment on GDP growth during recession periods. In this context, when foreign investments increase, demand for goods within the economy would be increased hence creating an increase in employment and stimulating economic activity (Blanchard, 2017).

Aghion and Howitt (1998) established that, with respect to enhanced rates of investment in R&D and infrastructure, sustained economic growth ensued in both developing and developed countries. In a similar vein, Mankiw, Romer, and Weil (1992) proved that physical and human capital investment serve as fundamental causes for the income differences across countries.

***Military expenditure:*** government defense spending has the potential to promote an economy by creating jobs, improving facilities, and introducing technology; however, it would fail to do so if excessive or badly managed spending crowded out productive investment, retarded capital accumulation, and be a heavy public financial burden.

Spending by the government, including defense expenditure, stimulates demand within an economy at any given point in time, especially in periods of stagnation (Barro, 1991); but on the contrary, crowding out theory contends that increased military spending draws resources away from more productive sectors such as education, health care, and infrastructure (Deger & Smith, 1983). Such diversion, in turn, might limit the development of human capital and private sector expansion, thereby reducing long-term growth potential. Public debt growth is likely to be accompanied by sustained military expenditure, which would cause an instability in the macro economy.

Military spending impact on GDP might differ depending on the economic and political conditions. For instance, in the US a great deal of innovations have been created due to defense-related R&D a good example being the creation of the internet and GPS (Brauer, 2002). In this regard, the military spending has proved to be useful as it provides the economy with some technological advancement that promotes economic expansion. In

developing countries, on the other hand, military overspending often occurs at the expense of economic expansion. Dunne & Tian (2013) explained that low-GDP growth in low-income states is due to a high level of defense spending, as this leads to inefficient resource allocation and lack of investment in human capital. This effect is even more pronounced in conflict – prone regions where military expenditures address urgent security issues that benefit development in the long run.

Likewise, there are some external factors which foster the military spending-GDP growth relationship like geopolitical tension and governance type. In authoritative regime, People's Republic of China, for example, the military budget is mostly covered up, lacks accountability and control which leads to mismanagement and wastage which in turn impedes growth (Collier & Hoeffler, 2007).

*Natural resource rents*: rents can be useful income streams for countries endowed with resources because they can invest more in infrastructure, education, and health, all of which help spur economic growth. Excessive dependence on natural resource rents, however, introduces adverse effects such as economic volatility, corruption, and "resource curse".

However, a reduced diversification by countries is something that of course leads to the patronage or rent-seeking behaviors in countries and discourages with time, hitting the growth aspect (Auty, 1993). Similarly, the resource-rich countries will suffer from what Corden & Neary (1982) call "Dutch disease," in which the resource boom strengthens the currency and makes competitive other sectors, specifically manufacturing and agriculture, less competitive.

Sachs and Warner (2001) found that under institutional weakness and overreliance on resource revenues, resource-rich countries tend to have slower economic growth. In this analysis, the involved countries were discovered to have a negative correlation of economic diversification with resource wealth and a deteriorating quality of institutions. In contrast, nations like Botswana and Norway show that economic growth is possible if resource rents are managed optimally. Norway's sovereign wealth fund, funded with oil revenues, is an example of how resource rents can be invested in long-term development while avoiding economic volatility and rent-seeking behaviors (Mehlum et al., 2006). Similarly, Botswana utilized diamond revenues in developing infrastructure and human capital to achieve sustained growth in GDP.

Table 3.1: Discription of variables and expected signs

Variables	Description	Expected signs
<b>Dependent variable</b>		
GDP	Growth rate of real per capita GDP	
<b>Independent Variables</b>		
<i>Institutional Quality</i>		
POF	Political Freedom Index	-
<i>Policy Variables</i>		
INF	Inflation	-
GOV	Government Spending (%GDP)	- or +
BDM	Broad Money Supply	- or +
LFE	Life Expectancy	+
OPN	Trade Openness (%GDP)	+
<i>Control Variables</i>		
POP	Population Growth	+ or -
INV	Domestic Investment (%GDP)	+
MLE	Military Expenditure (%GDP)	+ or -
NRR	Natural Resource Rents(%GDP)	+ or -

### 3.4. Model Specification

The short-run dynamics and long-run equilibrium relationship is captured using the Autoregressive Distributed Lag (ARDL) bounds testing. The ARDL (p, q) model is specified as follows:

$$\Delta GDP_t = \alpha_0 + \sum_{i=1}^p \beta_i \Delta GDP_{t-i} + \sum_{j=0}^q \gamma_j \Delta X_{t-j} + \delta_1 GDP_{t-1} + \delta_2 X_{t-1} + \epsilon_t \dots \dots \dots (1)$$

Where:

- $\Delta$  denotes the first difference operator.

- $X$  represents the vector of independent variables:  $POF$ ,  $INF$ ,  $GOV$ ,  $OPN$ ,  $BDM$ ,  $LFE$ ,  $POP$ ,  $INV$ ,  $MLE$ , and  $NRR$ .
- $\beta_i$  and  $\gamma_j$  are short-run coefficients.
- $\delta_1$  and  $\delta_2$  are long-run equilibrium parameters.
- $\epsilon_i$  is the error term.
- $t$  is the time vector.

The vector of variables is as follows:

- $GDP$  is the growth rate of GDP per capita,
- $POF$  is political freedom index,
- $INF$  is rate of inflation,
- $GOV$  is government spending (%GDP),
- $OPN$  is trade openness i.e. share of imports  $\wedge$  exports  $\in$  the GDP,
- $BDM$  is broad money supply,
- $LFE$  is life expectancy,
- $POP$  is annual population growth rate,
- $INV$  is domestic investment (%GDP),
- $MLE$  is military expenditure (%GDP),
- $NRR$  is natural resource rents (%GDP).

In order to check for any long run relations between variables, bounds testing is used. The  $F$ -test is used for the joint null hypothesis that the coefficients on the level variables are jointly equal to zero (Pesaran et al. 2001). The  $F$  distribution which depends on the number of regressors, the existence of an intercept and/or trend and whether the variables are individually  $I(0)$  or  $I(1)$ . Pesaran et al. (2001) reports two critical bound values for all classifications of the regressors, which are purely  $I(0)$ , purely  $I(1)$ , or mutually cointegrated. When the test statistic exceeds the respective upper critical value, it could be taken as evidence of a long-run equilibrium relationship. When the test statistic is below the lower critical value, we fail to reject the null hypothesis of no cointegration. And when the test statistics lies between the two bounds, it becomes inconclusive.

The long-run coefficients of the EC models are estimated using the ARDL approach to cointegration and the use of OLS. The corresponding EC specification is based on the implied ARDL specification, through a simple linear transformation (Banerjee et al. 1993).

$$\Delta GDP_t = \alpha_0 + \sum_{i=1}^p \beta_i \Delta GDP_{t-i} + \sum_{j=0}^q \gamma_j \Delta X_{t-j} + \delta_1 \lambda ECT_{t-1} + \epsilon_t \dots \dots \dots (2)$$

Where:

- *ECT<sub>t-1</sub> is the error correction term.*
- *λ measures the speed of adjustment to long-run equilibrium. A significant negative λ confirms cointegration.*

The lag structure for the ARDL specification to account for the short-run dynamics is determined by Akaike's Information Criterion (AIC), which also controls for the problem of autocorrelation.

## 4. Results and Discussions

### 4.1. Descriptive Statistics

As can be seen from the descriptive statistics in table 4.1 below for 41 observations between the years 1982 - 2022, except for population growth which had a yearly average growth rate of 3.02 and a yearly fluctuation of 2.5, all of the variables show great fluctuations. GDP per capita growth rate had a maximum value of 10.36 and a minimum of -13.5 percent with an average value of 2.75. With a maximum value of 44.36, 51.88 and 40.67 and a minimum value of -9.81, 11.75 and 11.43 respectively, inflation, trade openness and investment which are the variables that exhibit the greatest variation.

Though less severely, the remaining variables are likewise in a similar state. For example, life expectancy has a minimum of 36 and a maximum value of 65.8. The average annual change in government spending is 12.36, with an annual fluctuation of 3.61. Additionally, its lowest and maximum values are 7.36 and 22.85 respectively.

Similarly, the broad money supply has a minimal value of -1.09 and a maximum of 39.2, with an average annual growth of 18.23 percent and an annual fluctuation of 8. With an annual fluctuation of 3.07 and minimum and highest values of 0.49 and 10.27, military spending has a mean proportion of GDP of 3.7 percent.

Table 4.2: Descriptive statistics of variables

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP	41	2.75013	6.284537	-13.5332	10.35674
INF	41	10.49009	11.78784	-9.80877	44.35669
GOV	41	12.35641	3.608369	7.361108	22.85
OPN	41	32.11535	10.83635	11.74584	51.87747
INV	41	25.78663	8.368434	11.43	40.67127
POP	41	3.016571	0.419836	2.499425	4.211319
BDM	41	18.23297	8.00008	-1.09342	39.2
MLE	41	3.72397	3.074643	0.491974	10.27665
LFE	40	52.71177	8.824014	36.036	65.838

Source: Author's computation of the data between 1982-2022 from the WB's WDI, YChart, Federal Reserve Bank of St. Louis, and National Bank of Ethiopia.

Our dummy variable, political freedom, is shown in table 4.2 below, where 0 denotes no freedom and 1 denotes partial freedom. As can be seen from the 41 observations, 17 of them—or 41.5 percent of the total—have Ethiopia classified as partially free. Ethiopia has been classified as not free for the remaining 24 years, or 58.5 percent of the time.

Table 4.3: Descriptive statistics of the variable political freedom

POF==PF	Freq.	Percent	Cum.
0	24	58.54	58.54
1	17	41.46	100
Total	41	100	

Source: Author's computation using data from Freedom house's Political Freedom Index.

For visual inspection we will graph all the variables and see their stationarity or any sudden breaks. We could easily discern from the two figures below (figures 4.1 and 4.2) the variables don't seem to be stationary. Even if anyone of them were stationary, it would not bring any difficulty to our analysis, because the ARDL model deals with both stationarity at level ( $I(0)$ ) and at first difference ( $I(1)$ ).



Figure 4.2: Trend of variables across time (1982-2022)

Source: Author's computation of the data between 1982-2022 from the WB's WDI, YChart, and Federal Reserve Bank of St. Louis.

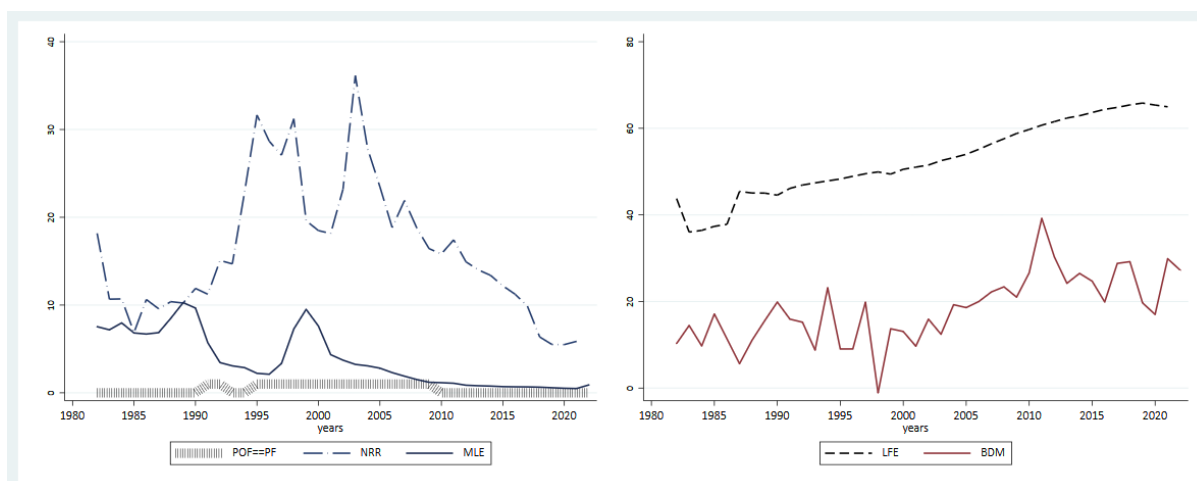


Figure 4.3: Trend of variables across time (1982-2022)

Source: Author's computation of the data between 1982-2022 from the WB's WDI and National Bank of Ethiopia.

## 4.2. Econometric Analysis

### 4.2.1. Determining Stationarity

As we have seen above from the graphs the variables don't seem to be stationary. However, for final decision statistical tests are required. This is accomplished using a unit root test. The most popular stationarity test methods, namely Augments Dickey-Fuller and Phillips-Perron, will be used here.

Table 4.4: Augments Dickey-Fuller and Phillips-Perron tests

Variable	ADF				PP			
	Level		First difference		Level		First difference	
	t-stat	p-value	t-stat	p-value	t-stat	p-value	t-stat	p-value
GDP	-3.857	0.0024	-9.820	0.0000	-4.493	0.0002	-8.165	0.0000
INF	-3.235	0.0180	-8.411	0.0000	-4.057	0.0011	-8.891	0.0000
GOV	-2.078	0.2535	-4.490	0.0002	-1.731	0.4152	-4.688	0.0001
OPN	-1.436	0.5651	-3.854	0.0024	-1.239	0.6566	-4.739	0.0001
INV	-1.581	0.4932	-3.578	0.0062	-1.637	0.4636	-9.346	0.0000
POP	-1.938	0.3146	-5.974	0.0000	-2.623	0.0884	-6.908	0.0000
POF2	-2.178	0.2144	-7.246	0.0000	-2.157	0.2221	-6.083	0.0000
NRR	-1.586	0.4905	-4.405	0.0003	-1.629	0.4678	-6.342	0.0000
MLE	-2.469	0.1233	-5.935	0.0000	-1.734	0.4135	-3.902	0.0020
LFE	-1.519	0.5239	-5.372	0.0000	-0.270	0.9297	-9.362	0.0000
BDM	-1.917	0.3241	-8.312	0.0000	-3.159	0.0225	-10.813	0.0000

Source: Author's computation of the data between 1982-2022 from the WB's WDI, YChart, Federal Reserve Bank of St. Louis, and National Bank of Ethiopia.

From the above result we can see that both GDP per capita growth rate and inflation are stationary at level, while the rest of the variables are non-stationary. At first difference all the variables are significantly stationary for both unit root tests.

Even though the ARDL method doesn't require unit root pretesting because it can deal with both  $I(0)$  and  $I(1)$  (Kripfganz and Schneider, 2022, p. 18), it is better to go ahead with the tests because there is a risk that some of the variables might be neither  $I(0)$  nor  $I(1)$ . The ARDL method does not work for  $I(2)$  (Pesaran et al., 2001).

#### 4.2.2. Determining Cointegration

For determining long run relationship running from the explanatory variables to the dependent variable, Pesaran et al. (2001) proposed a "bounds test". This test compares the  $F$ - and  $t$ -statistics to both the lower and upper critical values. If the  $F$ -values are above the critical values we reject the null hypothesis and establish a long run relationship, if the  $F$ -value is below the critical values we fail to reject the null. For the  $t$ -statistics in order to reject the null the  $t$ -statistics has to be further away from zero than the critical values. On the other hand if the  $F$ - and  $t$ -statistics lie between the critical values the test remains inconclusive.

As can be seen from *table 4.4* below we have a result that rejects the null hypothesis and accepts a long run relationship.

Table 4.5: Pesaran, Shin and Smith (2001) bounds test result

	10%		5%		1%		p-value	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
F = 6.484	2.115	3.546	2.534	4.171	3.569	5.708	0.000	0.005
t = -7.784	-2.443	-4.399	-2.827	-4.900	-3.617	-5.939	0.000	0.000

Note: Kripfganz and Schneider (2020) critical values and approximate p-values are used.

Since we have concluded with the above bounds test that there is a cointegrating relationship, we can proceed with long-run estimation of coefficients using the ARDL model.

#### 4.2.3. Diagnostic Tests

As summarized below our diagnostic tests results suggests that our estimated regression passes all the tests. The only result that suggests a mistake is the misspecification result of the

linktest. But according to Shrestha and Chowdhury (2005) this is not unusual for ARDL models. They suggest that this results probably because of the mixed order, i.e.  $I(0)$  and  $I(1)$ , integration.

Table 4.6: ARDL model diagnostic tests

Model	R-squared = 0.7819	F-Stat. $F(16, 22) = 4.93, [0.00]$
ARDL (1 0 0 0 1 1 1 0 0 1 1)	<b>Serial Correlation:</b> Durbin-Watson d-statistics = 1.9004 Breusch-Godfrey LM test = [0.6179]	<b>Normality:</b> Jarque-Bera test = [0.9181]
	<b>Heteroscedasticity:</b> White's test = [0.4246] Cameron & Trivedi's IM-Test = [0.3678] Breusch-Pagan / Cook-Weisberg test = [0.0666]	<b>Functional Form:</b> Ramsey RESET test = 2.35 [0.1050]
		<b>Specification:</b> Linktest = $\_hatsq$ [0.034]

Note: all values in brackets – [ ] – are p-values.

Durbin-Watson statistics outcome shows a 1.9004 points. As this DW value is close to 2 it indicates our model shows no autocorrelation in the residuals. The other test used for serial correlation is the Breusch-Godfrey LM test with a p-value of 0.6179 which is significantly higher than the lower 0.05 limit, we reject the null and conclude with no sign of serial correlation in the residuals, the same as our DW result. The residuals are independent across observations.

White's test for heteroscedasticity shows a p-value of 0.4246, which is much greater than 0.05. We fail to reject the null hypothesis of homoscedasticity, which means there is no evidence of heteroscedasticity in the residuals. The Cameron & Trivedi's IM-test also aligns with the White's test for heteroscedasticity, with p-value for skewness at 0.2861, p-value for kurtosis 0.6125, overall in total with a p-value of 0.3678. Similarly, Breusch-Pagan / Cook-Weisberg test for heteroscedasticity shows a p-value of 0.0666. The tests largely indicate no heteroscedasticity.

The Jarque-Bera (JB) normality test assesses if the residuals follow a normal distribution. The p-value from this test is 0.9181, which is greater than 0.05. This suggests that the residuals appear to follow a normal distribution.

The functional form is checked using the Ramsey RESET test which looks for the possibility of omitted variable bias in the model. The p-value from our test is 0.1050, which is much greater than 0.05 showing there is no significant evidence of omitted variables in the model.

The specification error test used to detect model misspecification uses the linktest. If the squared fitted values ( $\_hatsq$ ) are statistically significant, this suggests a specification error. For our test the p-value of  $\_hatsq$  is 0.034, which indicates a potential specification error. As we saw it at the start of this sub-sub-section Shrestha and Chowdhury (2005) suggest that this results in ARDL models probably because of the mixed order, i.e.  $I(0)$  and  $I(1)$ , integration.

Last of all, there is the Cumulative Sum (CUSUM) chart. This is combined with Cumulative Sum of Squares (CUSUMSQ) for confirming whether or not the long-run coefficients have remained stable. This gives one the CUSUM and CUSUMSQ statistics plotted against break points and makes it update recursively. The null hypothesis of stability of coefficients cannot be rejected, if the observations of the CUSUM or CUSUMSQ statistics stay within the critical boundary limits at the level of significance of 5%. The estimated CUSUM and CUSUMSQ statistics are illustrated as boundaries in Figures 4.3 and 4.4, which suggests that all coefficients in the employed ARDL error correction model are stable.

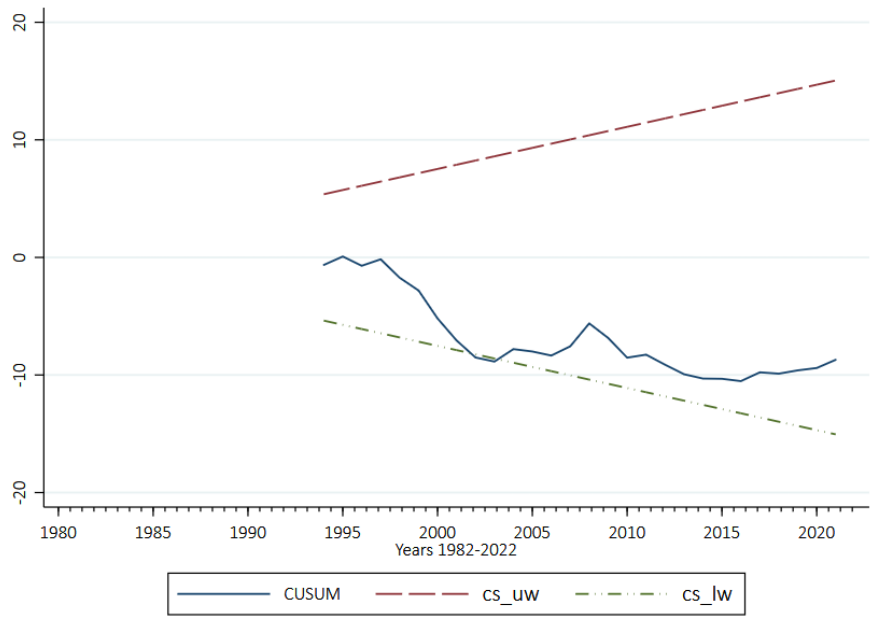


Figure 4.4: Plot of cumulative sum of recursive residuals



Figure 4.5: Plot of cumulative sum of squared recursive residuals

#### 4.2.4. ARDL Regression Results

Table 4.6 below presents the results of an Error Correction Model (ECM) derived from our ARDL model.

*Table 4.7: Error correction representation for the selected ARDL model*

ARDL model (1 0 0 0 1 1 1 0 0 1 1)	
	(1)
	D.GDP
ADJ	
L.GDP	-1.131*** (-7.78)
LR	
INF	-0.135 (-1.77)
GOV	0.115 (0.27)
OPN	0.758*** (4.84)
INV	-0.554 (-1.70)
POP	4.104 (1.71)
POF2	-7.326* (-2.26)
NRR	-0.379* (-2.65)
MLE	-1.369 (-1.91)
LFE	0.406 (1.94)
BDM	-0.595* (-2.71)
SR	
D.INV	0.576* (2.45)
D.POP	-9.944* (-2.14)
D.POF2	8.442* (2.54)
D.LFE	0.849 (1.41)
D.BDM	0.406* (2.52)
_cons	-19.16 (-1.58)
N	39
R <sup>2</sup>	0.839

*t* statistics in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The adjustment coefficient in our model is significant and negative as expected. This implies in the long-run GDP adjusts towards equilibrium by about 113.1% of the disequilibrium per period. The adjustment is strong and fast. With  $R^2$  value of 83.9% it is indicating that our model is a good fit in explaining the variation in our dependent variable GDP per capita growth rate.

Our institutional variable POF2 is statistically significant at 5%, and it is negatively related with our dependent variable GDP per capita growth rate. A unit change in the variable political freedom is associated with a 7.326 change in GDP per capita growth rate in the opposite direction. This result confirms that political freedom has a significant effect on economic growth in Ethiopia over the study period. Political and civil rights measured by this variable are practically absent in Ethiopia. This result corresponds to previous findings that indicate the influence of institutions on economic performance (Acemoglu and Robinson, 2010; Glaeser et al., 2004; Hall and Jones, 1999; Iqbal and Daly, 2014; Knack and Keefer, 1997; Mauro, 1995; Nawaz, 2015; Heshmati and Kim, 2017; Rodrik et al., 2004).

The other statistically significant variables are OPN, BDM and NRR. OPN is highly statistically significant and a percentage increase in our variable trade openness in its share of GDP leads to a 0.758 unit increase in our dependent variable. The second statistically significant variable BDM is found to be negatively related with GDP per capita growth rate. This implies a rise in the supply of broad money will lower GDP per capita by 0.595. The last one of these three statistically significant variables is NRR, which has a negative coefficient. This means an increase in natural resource rents' share of GDP leads to a 0.379 fall in our dependent variable. However these three variables might be found to be significant, the level of their coefficients are small which leaves them with weak effect on the GDP per capita.

The other variables in our analysis: INF, GOV, INV, POP, MLE, and LFE are not statistically significant. This result is in line with those that say once institution is introduced in to the model other macroeconomic variables do not have predictive power (Acemoglu et al., 2003; Easterly et al., 2004; Rodrik et al., 2002).

Over the short-run period our model has been able to give us a significant influence of the variables INV, POP, POF2, LFE, and BDM. Again here the coefficients are not large except for POF2. What is more interesting here is the sign POF2 took over the short run. It seems it has a positive and significant effect over GDP per capita which is the opposite of the negative long-run sign. The other variable with opposing signs in the two periods is BDM. It seems an increase in money supply stimulates the economy over the short-run, while the opposite is true over the long-run.

Since our model passes all of the diagnostic tests and fulfills the ARDL assumptions, this result is acceptable. The probable causes of lack of political freedom having a positive impact over the short-run is due to autocratic regimes being able to prevent disruptions and enforce policies, but are unable to sustain growth over the long-run due to inefficiencies that arise

from stifling the productive potentials of the economy. This finding on short-run vs. long-run dynamics is in line with the growth literature (Campos et al., 2020).

Even though the other variables are insignificant or marginally significant it is important to discuss their potential implication. The negative coefficient for inflation in our model supports the Monetarist theory that posits price instability deters economic growth (Friedman, 1977). The coefficient of GOV is positive but it is not statistically significant, implying not having robust effect on GDP per capita. This expansionary government policy is considered as stimulating the economy by the Keynesians. But because of its potential crowding effect it may lead to a weaker result. Investment has a negative (-0.554) and marginally significant ( $t=-1.70$ ) effect. It was expected to have a positive effect, but perhaps due to large share of public investments which could lead to inefficiencies and misallocations we have the opposite of our expectation.

POP has positive coefficient but is not significant. However we were expecting to get a negative correlation with GDP per capita. MLE has a negative coefficient of 1.369 but it is not statistically significant. Though this evidence is weak the negative correlation suggests a potential crowding-out effect of military expenditure. Expanded defense spending leads to inefficient resource allocation and lack of investment in human capital (Dunne & Tian, 2013). LFE as expected has positive coefficient but it is only marginally significant. This implies a better health outcome may lead to economic growth.

In the short-run dynamics we have found the variables INV, POP, POF2, and BDM to be statistically significant. The coefficient of  $-9.944$  for POP suggests that short-term population changes may negatively affect GDP, perhaps due to short-term resource strain. We have discussed POP and BDM earlier. As for INV the positive coefficient of 0.576 suggests a short term increase in investment stimulates the economy. For LFE the coefficient is positive but not significant.

## 5. Conclusion and Recommendations

### 5.1. Conclusion

Our look at the Ethiopian economy from 1982 to 2022 presented insight concerning the determinants of GDP per capita growth. The study adopted an Autoregressive Distributed Lag (ARDL) model to track the long- and short-run linkages of GDP per capita growth with a set of institutional qualities, macroeconomic, and demographic explanatory variables. Based on empirical findings, the following key conclusions emerge:

The first and foremost point we established is that institutional quality does matter. Political freedom is one of the long-run determinants of economic growth in Ethiopia. Denial of political and civil rights leads to substantial adverse economic performance. However, in the long history of the creation of the Ethiopian state, it has never fully guaranteed political freedom and civil rights to its citizens. As long as that kind of absolute state structure exists, we can conclude that there is not much hope for economic prosperity.

The comparison between the short-run and long-run dynamics of some of the variables really turns out to be interesting. Some variables, like political freedom and supply of money, show such divergent results in terms of short-versus long-run effects. Autocracies can experience short-term economic profits that will not last much longer. Population growth also stood to benefit GDP but not over the short run.

It was also clear that in the presence of institutional dynamics, there is still limited impact of macroeconomic variables. Once institutional quality is accounted for, the effects of other macroeconomic variables like inflation and government expenditure become less pronounced in the long run.

Trade openness enhances economic growth, which shows how vital worldwide trade is for the Ethiopian economy. However, all these aside Ethiopia is not a resource-rich state. The negative relationship between natural resource rents and GDP per capita growth points to a case of a potential "resource curse," i.e., reliance on natural resources hinders the diversification and development of the economy in the country.

## **5.2. Recommendations**

Thus, following the conclusions the priority of institutional reform could be suggested.

The need for change in this area stems from the fact that without such institutional changes, the productive potential of Ethiopians will not be able to be realized and their standard of living will remain unimproved. Emphasis is laid on democratic institutions, freedom of expression and assembly, human rights, and the rule of law as the required institutional changes relating to political and civil liberties.

These reforms would bring about sustained economic growth for the long-run.

## Bibliography

- Abeyasinghe, R. (2004). *Democracy, Political Stability, and Developing Country Growth : Theory and Evidence*. Retrieved on Feb. 2024 from [http://digitalcommons.iwu.edu/econ\\_honproj/17](http://digitalcommons.iwu.edu/econ_honproj/17)
- Acemoglu, D. (2003). Why not a Political Coase Theorem? *Journal of Comparative Economics* 31, 620–652.
- Acemoglu, D., Aghion, P., Griffith, R., and Zilibotti, F., (2003). Technology, Hold-Up, And Vertical Integration: What Do We Learn From Micro Data? *Mimeo*, IFS, London.
- Acemoglu, D., & Johnson, S. (2007). Disease and development: The effect of life expectancy on economic growth. *Journal of Political Economy*, 115(6), 925–985.
- Acemoglu, D., & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Publishing Group.
- Acemoglu, D., Johnson, S., & Robinson J.A. (2001) The colonial origins of comparative development: An empirical investigation. *American Economic Review*, 91, 1369 – 1401.
- Acemoglu, D., Robinson, J. (2010). The role of institutions in growth and development. *Review of Economics and Institutions*. 1(2), Article 1. Retrieved on Dec. 2023 from <http://www.rei.unipg.it/rei/article/view/14>
- Acemoglu, D., S. Johnson, and J. Robinson. (2005). Institutions as a Fundamental Cause of Long-Run Growth. In Philippe Aghion and Steve Durlauf (Eds.). *Handbook of Economic Growth*. (pp. 385-472). Amsterdam: Elsevier.
- Acemoglu, Daron, (2007). *Introduction to Modern Economic Growth*. Massachusetts: Massachusetts Institute of Technology.
- Aghion, Philippe and Howitt, Peter. (2009). *The Economics of Growth*. Massachusetts: MIT Press.
- Aghion, Philippe, and Durlauf, S. eds. (2005). *Handbook of Economic Growth*. Amsterdam: Elsevier North-Holland.
- Aghion, Philippe, and Howitt, Peter. (1998). *Endogenous Growth Theory*. Cambridge: MIT Press.
- Aghion, Philippe, and Howitt, Peter. (2009). *The Economics of Growth*. Cambridge: MIT Press.

- Aghion, Philippe, and Peter Howitt. (1992). A model of growth through creative destruction. *Econometrica* 60: 323–351.
- Aidt, T., Dutta, J., & Sena, V. (2008). Governance regimes, corruption and growth: Theory and evidence. *Journal of Comparative Economics*, 36(2), 195-220.
- Aisen, A. and José, F. (2013), “How does political instability affect economic growth ?”, *European Journal of Political Economy*, 29, 151-167.
- Aixalá, J., & Fabro, G. (2008) Does the impact of institutional quality on economic growth depend on initial income level? *Economic Affairs*, 28(3), 45-49.
- Akhtar, S. M. (1963). A Review of Growth Theories. *The Punjab University Economist*. 3(6): 52-64.
- Akinlo, A. E. & Egbetunde, T. (2010). Financial development and economic growth: the experience of 10 sub-saharan African countries. *Review of Finance and Banking*, 2(1), 17-28.
- Alemayehu Geda. (2001). Macroeconomic Performance in Post-Derg Ethiopia. *Northeast Africa Studies*, 8(1), 159-204.
- Alemseged Abay. (2022). State-Building/State-Destroying In Ethiopia–A Backdrop to the Tigray Genocide. *Hungarian Journal of African Studies*, 16(3), 95-116.
- Ali, A.M., & Crain W.M. (2002) Institutional distortions, economic freedom and growth. *Cato Journal*, 21(3), 415-426.
- Alston L. (1996), Empirical work in institutional economics: an overview. In: *Empirical Studies in Institutional Change*, ed. L. Alston, T. Eggertsson and D. North. Cambridge University Press, pp. 25–30.
- Aoki, M. (2011). Institutions as cognitive media between strategic interactions and individual beliefs. *Journal of Economic Behavior and Organization* 79(1-2): 20–34.
- Aoki, M., 2015. Why is the equilibrium notion essential for a unified institutional theory? A friendly remark on the article by Hindriks and Guala. *Journal of Institutional Economics* 11(3): 485–488.
- Arkebe Oqubay. (2015). *Made in Africa: Industrial Policy in Ethiopia*. Oxford: Oxford University Press.
- Auty, R., & Warhurst, A. (1993). Sustainable development in mineral exporting economies. *Resource Policy*, 19(1), 14-29.

- Banerjee, A., Dolado J. J., Galbraith J. W. and Hendry D. F. (1993). *Co-integration, Error Correction, and the Econometric Analysis of Non-stationary Data*. Oxford: Oxford University Press.
- Bardhan, P. (2005). Institutions matter, but which ones? *Economics of Transition*, 13(3), 499–532.
- Barro, R. J. (2003). Economic growth in a cross-section of countries. *The Quarterly Journal of Economics*, 118(1), 1-74.
- Barro, R. J., (1991). Economic Growth In Cross-Section Of Countries. *Quarterly Journal of Economics*. 106(2), 407-443.
- Barro, Robert J.; Sala-i-Martin, Xavier (2004). Growth models with exogenous saving rates. *Economic Growth* (Second Ed.). New York: McGraw-Hill.
- Baumol, W. J., Batey Blackman, S. A, and Wolff, E. N. (1989). *Productivity and American Leadership*. Cambridge, MA: The MIT Press.
- Bereket Habte Selassie. (1990). Empire and Constitutional Engineering: The PDRE in Historical Perspective. In Ottaway, Marina (Ed.). *The Political Economy of Ethiopia*. pp. 115-136. New York: Praeger Publishers.
- Besomi, Daniele (2001). Harrod's dynamics and the theory of growth: the story of a mistaken attribution. *Cambridge Journal of Economics*. 25 (1): 79–96.
- Blanchard, O. (2017). *Macroeconomics* (7th ed.). Pearson.
- Bloom, D. E., & Canning, D. (2000). The health and wealth of nations. *Science*, 287(5456), 1207–1209.
- Bloom, D. E., Canning, D., & Sevilla, J. (2001). Economic growth and the demographic transition. *National Bureau of Economic Research Working Paper Series, No. 8685*.
- Brauer, J. (2002). Survey and review of the defense economics literature on Greece and Turkey: What have we learned? *Defence and Peace Economics*, 13(2), 85–107.
- Brenner, Y. S. (1966). *Theories of Economic Development and Growth*. London: George Allen & Unwin Ltd.
- Breton, T. R. (2013). The role of education in economic growth: Theory, history and current returns. *Educational Research*. 55 (2): 121–138.
- Brown, Stephen. (2020). Aid Donors, democracy and the developmental state in Ethiopia. *Dmocratization*. 27 (2): 185-203.

- Butkiewicz, J. L. & Yanikkaya, H. (2004). Institutional quality and economic growth: Maintenance of the rule of law or democratic institutions, or both? Department of Economics, Alfred Lerner College of Business & Economics, *University of Delaware Working Paper No. 2004-03*.
- Calvert, R. (1995). Rational actors, equilibrium and social institutions. In J. Knight & I. Sened (Eds.), *Explaining social institutions* (pp. 57–94). Ann Arbor: University of Michigan Press.
- Campos, Nauro and Karanasos, Menelaos and Koutroumpis, Panagiotis and Zhang, Zihui. (2020). Political Instability, Institutional Change and Economic Growth in Brazil Since 1870. *Journal of Institutional Economics*, 16(6), 883-910.
- Campos, N. F. & Nugent, J. B. (1999). Development performance and the institutions of governance: Evidence from East Asia and Latin America. *World Development*, 27(3), 439-452.
- Carlsson, F. & Lundstrom S. (2002). Economic freedom and growth: Decomposing the effects. *Public Choice*, 112, 335–344.
- Chandra, Ramesh. (2022). *Endogenous Growth in Historical Perspective from Adam Smith to Paul Romer*. Switzerland: Palgrave Macmillan.
- Cheung, Steven N. S. (1973). The Fable of the Bees: An Economic Investigation. *Journal of Law and Economics*, 16: 11-33.
- Clapham, Christopher. (1988). *Transformation and Continuity in Revolutionary Ethiopia*. Cambridge: Cambridge University Press.
- Clapham, Christopher. (2006). Ethiopian Development: The Politics of Emulation. *Commonwealth and Comparative politics*, 44(1), 108-118.
- Clapham, Christopher (2018) The Ethiopian developmental state. *Third World Quarterly*, 39(6), 1151-1165.
- Clapham, Christopher. (2019). The political Economy of Ethiopia from the Imperial Period to the Present. In Fantu Cheru; Cramer, Christopher; Arkebe Oqubay (Eds.). *The Ethiopian Economy*. pp. 33-47. Oxford: Oxford University Press.
- Coase, R. H. (1992). The Economic Structure of Production. *American Economic Review*, 82, September, 713-19.
- Coase, R.H. (1937). The nature of the firm. *Economica* 4(16): 386–405.
- Coase, R.H. (1960). The problem of social cost. *Journal of Law and Economics* 3: 1–44

- Colander, David. (2000). The Death of Neoclassical Economics. *Journal of the History of Economic Thought*. 22(2), 127-143.
- Collier, P., & Hoeffler, A. (2007). Unintended consequences: Does aid promote arms races? *Oxford Bulletin of Economics and Statistics*, 69(1), 1–27.
- Corden, W. M., & Neary, J. P. (1982). Booming sector and de-industrialisation in a small open economy. *The Economic Journal*, 92(368), 825–848.
- Crawford, S.E.S. and Ostrom, E. (1995). A Grammar of Institutions. *American Political Science Review* 89(3): 582–600.
- Crewett, W., A. Bogale, and B. Korf. (2008). Land Tenure in Ethiopia: Continuity and Change, Shifting Rulers, and the Quest for State Control. *CAPRI Working Paper 91*. International Food Policy Research Institute: Washington, DC.
- Dahlman, C. J. (1979). The Problem of Externality. *The journal of Law and Economics*, 22(1), 141-162.
- Davis, S. (2008). *The Political Economy of Land Tenure in Ethiopia*. (PhD dissertation, School of International Relations, University of St. Andrews).
- Dawkins, Richard. (1983). “Universal Darwinism”. In *Evolution from Molecules to Men*. Ed. D.S. Bendall. Cambridge: Cambridge University Press.
- Deger, S., & Smith, R. (1983). Military expenditure and growth in less developed countries. *Journal of Conflict Resolution*, 27(2), 335–353.
- Demetriades, P., & Law, S. H. (2006). Finance, institutions and economic development. *International Journal of Finance & Economics*, 11, 245–260.
- Demsetz, H. (1967). Toward a theory of property rights. *The American Economic Review*, 57(2), 347-359.
- Denison, E. (1967). *Why Growth Rates Differ: Post-war Experience in Nine Western Countries*. Washington, DC: Brookings Institution.
- Dixit, Avinash, and Joseph E. Stiglitz. (1977). Monopolistic competition and optimum product diversity. *American Economic Review* 67 (3): 297–308.
- Domar, Evsey (1946). Capital Expansion, Rate of Growth, and Employment. *Econometrica*. 14 (2): 137–147.
- Dunne, J. P., & Tian, Nan. (2013). Military expenditure, economic growth and heterogeneity. *Defence and Peace Economics*, 26(1), 15-31.

- Easterlin, Richard A. (1981). “Why isn’t the Whole World Developed?” *Journal of Economic History*, 41 (1): 1-19.
- Easterly, W. (2006). *The white man's burden: Why the West's efforts to aid the most corrupt countries are doomed to fail*. Penguin Books.
- Easterly, W., Levine, R., and Roodma, D., (2004). Aid, Policies, and Growth: Comment, *American Economic Review*, 94(3), 774–780.
- Eicher, T. S., & Leukert, A. (2009). Institutions and economic performance: Endogeneity and parameter heterogeneity. *Journal of Money, Credit, and Banking*, 41 (1), pp. 197-219
- Eicher, T. S., & Schreiber, T. (2009). Institutions and growth: Time series evidence from natural experiments. *Department of Economics, University of Washington, Working Papers: UWEC-2007-15-P*.
- Ellickson, R. C. (1991). *Orders without law: How neighbors settle disputes*. Harvard University Press.
- Eltis, Walter. (2000). *The Classical Theory of Economic Growth*. Palgrave.
- Federal Reserve Bank of St. Louis. (2023). *Openness at Current Prices for Ethiopia*. Available online: <https://fred.stlouisfed.org> [Extracted on 16 October 2023]
- Federal Reserve Bank of St. Louis. (2023). *Openness at Current Prices for Ethiopia*. Available online: <https://fred.stlouisfed.org> [Extracted on 16 October 2023]
- Fehr, E., Fischbacher, U., & Gächter, S. (2002). Strong reciprocity, earnings inequality, and human capital investment in villages. *American Economic Journal: Microeconomics*, 4(4), 3-39.
- Ferrini, Luca (2012, September 19). *The Importance of Institutions to Economic Development*. Retrieved August 04, 2021, from <https://www.e-ir.info/2012/09/19/the-importance-of-institutions-to-economic-development/>
- Feyrer, J. (2007). Demographics and productivity. *The Review of Economics and Statistics*, 89(1), 100–109.
- Fiaccadori, Gianfranco. (2014). Zagwe. In Uhlig, Siegbert (Ed.), *Encyclopaedia Aethiopica*. Vol 5, pp. 107-114. Wiesbaden: Harrassowitz Verlag.
- Finckenstein, Valentina. (2021). How international aid can do more harm than good: the case of Lebanon. LSE Ideas. Retrieved on January, 2025 from <https://lse.ac.uk>.
- Fine, Ben. (2000). Endogenous growth theory: A critical assessment. *Cambridge Journal of Economics* 24 (2): 245–265.

- Freedom House. (2023). *Country and Territory Ratings and Statuses*. Available online: [freedomhouse.org](http://freedomhouse.org)
- Friedman, M. (1977). Nobel Lecture: “Inflation and Unemployment.” *Journal of Political Economy* 85(3): 451–72.
- Gilbert, Geoffrey. (1798). Introduction to Malthus T.R. *An Essay on the Principle of Population*. Oxford World's Classics reprint. viii in Oxford World's Classics reprint.
- Glaeser, E. L., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2004) Do institutions cause growth? *Journal of Economic Growth*, 9, 271-303.
- Granger C.W., Huang B., and Yang C. (2000). A Bivariate Causality between Stock Prices and Exchange Rates: Evidence from Recent Asian Flu. *The Quarterly Review of Economics and Finance*, 40, 337–354.
- Greif, A. (2006). *Institutions and the Path to the Modern Economy*. Cambridge, UK: Cambridge University Press.
- Greif, A., & Laitin, D. (2004). A theory of endogenous institutional change. *American Political Science Review*, 98(4), 633–652.
- Greif, Anver; Kingston, Christopher. (2011). Institutions: Rules or Equilibria? In *Political Economy of Institutions, Democracy and Voting*, ed. Schofield, N. and Caballero, G. Springer: Verlag Berlin Heidelberg, pp: 13-43.
- Grier, K. and G. Tullock. (1989). An Empirical Analysis of Cross-National Economic Growth: 1951–1980. *Journal of Monetary Economics*, 24(2), 259–276.
- Griliches, Z. (1957). Hybrid corn: An exploration in the economics of technological change. *Econometrica* 25 (4): 501–522.
- Grossman, Gene, and Elhanan Helpman. (1991). *Innovation and Growth in the Global Economy*. Cambridge: MIT Press.
- Gupta, Mayank. (March 2015). Revisiting Neoclassical Economic Growth: A Survey in the Literature. *Journal of Economics and Political Economy*, 2(1): 118-136.
- Habtmu Alebachew, (2010). *Ethiopia: The Quest for Social Change and Mental Order*. Mekelle: Mega Printing Enterprise.
- Hall, R. E., & Jones, C. I. (1999). Why do Some Countries Produce So Much More Output Per Worker than Others? *The Quarterly Journal of Economics*, 114(1), 83-116.
- Hall, S. G., & Ahmad, M. (2014). Revisiting the institutions–growth nexus in developing countries: The new evidence. *New Zealand Economic Papers*, 48(3), 301–312.

- Halsmayer, Verena; Hoover, Kevin D. (2016). Solow's Harrod: Transforming macroeconomic dynamics into a model of long-run growth. *The European Journal of the History of Economic Thought*. 23 (4): 561–596.
- Hamilton, Walton H. (1919). The Institutional Approach to Economic Theory. *American Economic Review* 9 (Supplement): 309-18.
- Harrod, Roy F. (1939). An Essay in Dynamic Theory. *The Economic Journal*. 49(193): 14–33.
- Hauge, Jostein and Chang, Ha-joon. (2019). The Concept of ‘Developmental State’ in Ethiopia. In Fantu Cheru; Cramer, Christopher; Arkebe Oqubay (Eds.). *The Ethiopian Economy*. pp. 824-841. Oxford: Oxford University Press.
- Havrylyshyn, O., & van Rooden, R. (2003). Institutions matter in transition, but so do policies. *Comparative Economic Studies*, 45(1), 2-24.
- Hayek, F. A. (1973). *Law, Legislation and Liberty, vol. 1: Rules and Order*. Chicago: University of Chicago Press.
- Hazon, Yoram. (2018). *The Virtue of Nationalism*. New York: Basic Books.
- Heshmati, A. and Kim, N. (2017) *The relationship between economic growth and democracy: Alternative representations of technological change*, IZA DP No.10880, available at: [www.iza.org](http://www.iza.org).
- Hoben, A. (1963). *The Role of Ambilineal Descent Groups in Gojjam Amhara Social Organisations*. Ph.D. thesis. Berkeley: University of California.
- Hodgson, G. (2006). What are institutions?, *Journal of Economic Issues* 40(1): 1–25.
- Hodgson, G. M. (2004). *The Evolution of Institutional Economics: Agency, Structure and Darwinism in American Institutionalism*. Routledge.
- Hollander, Samuel. (2019). Retrospectives Ricardo on Machinery. *Journal of Economic Perspectives*. 33 (2): 229–242.
- Iqbal, N., Daly, V., (2014). Rent seeking opportunities and economic growth in transitional economies. *Economic Modelling*. 37, 16–22.
- Jakub, Sukiennik; Sławomir, Czetwertyński; Marcin, Brol. (2022). Models of Institutional Change in Theory and Practice, *Ekonomista*, Komitet Nauk Ekonomicznych PAN, Polskie Towarzystwo Ekonomiczne, Wydawnictwo. Key Text, no. 2, 2022, pp. 190-212.
- Jones, C. I. (2016). *Introduction to Economic Growth*. W.W. Norton & Co.

- Kaboul, El Yamani. (2020). Economic Growth Theories: A Literature Review. *Revue Internationale des Sciences de Gestion*, 3(4), pp. 279 – 289.
- Kandori, M. (1992). “Social Norms and Community Enforcement”. *Review of Economic Studies* 59: 63-80.
- Kaplan, Robert D. (2008). *Surrender or Starve: Travels in Ethiopia, Sudan, Somalia, and Eritrea*. New York: Vintage Books.
- Kaplan, Steven. (2010). Solomonic Dynasty. In Uhlig, Siegbert (Ed.), *Encyclopaedia Aethiopica*. Vol 4, pp. 688-690. Wiesbaden: Harrassowitz Verlag.
- Kaplan, Steven. (2017). Solomonic Dynasty. In Bausi, Alessandro; Appleyard, David L.; Uhlig, Siegbert; Kaplan, Steven; Hahn, Wolfgang (Eds.). *Ethiopia: History, Culture and Challenges*. pp. 111-112. East Lansing: Michigan State University Press.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical overview. *World Bank Policy Research Working Paper*, No. 5428.
- Kaufmann, D., Kraay, A., & Zoido-Lobaton, P. (1999). Governance matters. *The World Bank Policy Research Working Paper No. 2196*.
- Kelley, A. C., & Schmidt, R. M. (1995). Aggregate population and economic growth correlations: The role of the components of demographic change. *Demography*, 32(4), 543–555.
- Khan, Mohsin S. & Senhadji, Abdelhak S. (2001). Threshold Effects in the Relationship Between Inflation and Growth. *IMF Staff Papers*, 48(1). Retrieved from imf.org.
- Kingston, C. (2007). “Marine insurance in Britain and America, 1720-1844: A Comparative Institutional Analysis”. *Journal of Economic History* 67(2): 379-409.
- Kingston, C. (2018). *Institutional change*. Berlin: Springer.
- Kingston, Christopher; Caballero, Gonzalo. (16 June 2008). Comparing Theories of Institutional Change. *EAEPE Conference 2007*. Retrieved October, 2023, from <https://www.fep.up.pt>.
- Knack, S., & Keefer, P. (1995). Institutions and economic performance: Cross-country tests using alternative institutional measures. *Economics and Politics*, 7, 207-227.
- Knack, S., & Keefer, P. (1997). Does social capital have an economic payoff? A cross-country investigation. *Quarterly Journal of Economics*, November, 112(4), 1251-1288.

- Knight, Jack. (1992). *Institutions and Social Conflict*. Cambridge: Cambridge University Press.
- Kormendi, R. C., & Meguire, P. G. (1985). Macroeconomic determinants of growth: cross-country evidence. *Journal of Monetary Economics*, 16(2), 141-163.
- Kripfganz, S and Schneider, D. C. (2020). Response surface regressions for critical value bounds and approximate p-values in equilibrium correction models. *Oxford Bulletin of Economics and Statistics, Department of Economics*. University of Oxford, 82(6), 1456-1481.
- Kripfganz, S and Schneider, D. C. (2022). ARDL: Estimating autoregressive distributed lag and equilibrium correction models. *Tohoku University Research Center for Policy Design Discussion Paper*, TUPD-2022-006. Retrieved on 10 Nov. 2024 from <https://www2.econ.tohoku.ac.jp/~PDesi gn/ dp. html>
- Krugman, Paul. (1990). *Rethinking International Trade*. Cambridge: MIT Press.
- Krugman, Paul. (1993). Towards a counter-counterrevolution in development theory. *Proceedings of the World Bank Annual Conference on Development Economics*, 15–38. Washington, DC: World Bank.
- Kurz, Heinz D. and Salvadori, Neri. (n.d.). Theories of Economic Growth: Old and New. In Salvadori, Neri (ed.). *The Theory of Economic Growth: a 'Classical' Perspective*. Cheltenham, UK: Edward Elgar.
- Kurzman, C., Werum, R. and Burkhart, R.E. (2002). Democracy's effect on economic growth: a pooled time-series analysis, 1951–1980. *Studies in Comparative International Development*, 37(1), 3-33.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny R. W. (1997). Trust in large organizations. *American Economic Review*, 87(2), 333-338.
- Langbein, L., & Knack, S. (2010). The worldwide governance indicators: Six, one, or none?. *The Journal of Development Studies*, 46(2), 350-370.
- Law, S. H., & Bany-Arifin, A. N. (2008). Institutional infrastructure and economic performance: Dynamic panel data evidence, *Transit Stud Rev*, 29, 542-557.
- Lee, K., & Kim, B. (2009). Both institutions and policies matter but differently for different income groups of countries: Determinants of long-run economic growth revisited. *World Development*, 37(3), 533-549.

- Lefebvre, Louis. (2000). Classical Vs. Neoclassical Economic Thought In Historical Perspective: The Interpretation of Processes of Economic Growth and Development. *History of Political Thought*. Autumn 2000, Vol. 21, No. 3, States and Societies: Essays presented to Neal Wood (Autumn 2000), pp. 525-542. Imprint Academic Ltd.
- Levine, R., Loayza, N., and Beck, T. (2000). Financial Intermediation and Growth: Causality And Causes. *Journal of Monetary Economics*, 46, 31-77
- Lewis, A. Orion and Steinmo, Sven. (2012). "How Institutions Evolve: Evolutionary Theory and Institutional Change". *Polity* 44(3): 314-339.
- Libecap G. (1989). *Contracting for Property Rights*. Cambridge University Press, Cambridge.
- Lucas, R.E. 1988. On the mechanics of economic development. *Journal of Monetary Economics* 22 (1): 3–42.
- Macleod, Christopher. (14 November 2017). John Stuart Mill. In Zalta, Edward N. (ed.). *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University – via Stanford Encyclopedia of Philosophy.
- Magnusson, L. G. (2003). Mercantilism. In Biddle, Jeff E, Davis, Jon B, & Samuels, Warren J. (eds.). *A Companion to the History of Economic Thought*. Blackwell Publishing.
- Maher, Ahmed. (2013, June 4). Egyptian Politicians Caught in On-Air Ethiopia Dam gaffe. *BBC News*. Retrieved October 26, 2024, from <http://www.bbc.com>
- Malthus, Thomas Robert. (1798). *An Essay on the Principle of Population*. (2010 edition) Oxfordshire, England: Oxford World's Classics.
- Mankiw, N. G., Romer, D., & Weil, D. N. (1992). A contribution to the empirics of economic growth. *The Quarterly Journal of Economics*, 107(2), 407–437.
- Marrassini, Paolo. (2007). Estifanos. In Uhlig, Siegbert (Ed.), *Encyclopaedia Aethiopica*. Vol 3, pp. 364-368. Wiesbaden: Harrassowitz Verlag.
- Mauro, P., (1995). Corruption and growth. *Quarterly Journal of Economics*, 110 (3), 681–712.
- Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse. *The Economic Journal*, 116(508), 1–20.
- Meier and Baldwin. (1957). *Economic Development - Theory, History and Policy*. New York: John Wiley & Sons.

- Merid Wolde Aregay. (1986). Land Tenure and Agricultural Productivity, 1500-1850. *Proceedings of the Third Annual seminar of the Department of History*. Addis Ababa: AAU.
- Mill, John Stuart. (1993 [1861]). *Representative Government*. In Williams, Geraint (ed.). *Utilitarianism, on Liberty, and Considerations on Representative Government*. London: Everyman.
- Mishkin, F. S. (2019). *The Economics of Money, Banking, and Financial Markets* (12th ed.). Pearson.
- Moudud, J. K. (1998). *Government Spending and Growth Cycles: Fiscal Policy in a Dynamic Context*. Working Paper No. 260, Levy Economics Institute, Bard College.
- Mulatu Wubneh. (1990). Development Strategy and Growth of the Ethiopian Economy: A Comparative Analysis of the Pre- and Post-Revolutionary Period. In Ottaway, Marina (Ed.). *The Political Economy of Ethiopia*. pp. 197-219. New York: Praeger Publishers.
- Murphy, K.M., A. Schleifer, and R. Vishny. (1989a). Income distribution, market size and industrialization. *Quarterly Journal of Economics* 104 (3): 537–564.
- Murphy, K.M., A. Schleifer, and R. Vishny. (1989b). Industrialization and the big push. *Journal of Political Economy* 97 (5): 1003–1026.
- National Bank of Ethiopia. (2009-2022). *Annual Report*. Addis Ababa: Domestic Economic Analysis and Publication Directorate-National Bank of Ethiopia. Retrieved on October, 2023, from <https://www.nbe.gov.et>.
- Nawaz, S. (2015). Growth effects of institutions: a disaggregated analysis. *Economic Modelling*, Vol. 45, pp. 118-126, doi: 10.1016/j.econmod.2014.11.017.
- North, D. C. (1991). Institutions. *The Journal of Economic Perspectives*, 5(1), 97–112.
- North, D.C. (1990). *Institutions, Institutional Change and Economic Performance*. New York: Cambridge University Press.
- North, D.C., Thomas, R.P. (1973). *The Rise of the Western World: A New Economic History*. Cambridge University Press, Cambridge, UK.
- O'Brien, D. P. (2003). Classical Economics. In Biddle, Jeff E, Davis, Jon B, & Samuels, Warren J. (eds.). *A Companion to the History of Economic Thought*. Blackwell Publishing.
- Oomes, N., & Ohnsorge, F. (2005). Money demand and inflation in Russia. *Journal of Comparative Economics*, 33(3), 462-483.

- Ostrom, E. (2000). Collective action and the evolution of social norms. *Journal of Economic Perspectives*, 14(3), 137-158.
- Ostrom, E. (2005). *Understanding Institutional Diversity*. Princeton: Princeton University Press.
- Ostrom, E. 1992. *Crafting Institutions for Self-Governing Irrigation Systems*. San Francisco: ICS Press.
- Ottaway, Marina (ed.). (1990). *The Political Economy of Ethiopia*. New York: Praeger Publishers.
- Özveren, Eyüp Y. (1998). An Institutional Alternative to Neoclassical Economics? *Review (Fernand Braudel Center)*. 21(4), 469-530.
- Pack, Howard. (1994). Endogenous growth: Intellectual appeal and empirical shortcomings. *Journal of Economic Perspectives* 8 (Winter): 55–72.
- Parente, Stephen (2001). "The failure of endogenous growth". *Knowledge, Technology & Policy*. 13 (4): 49–58.
- Pausewang, S. (1983). *Peasants, Land and Society. A Social History of Land Reform in Ethiopia*. München, Köln, London: Weltforum Verlag.
- Peart, Sandra J. and Levy, David M. (2003). Post-Ricardian British Economics, 1830–1870. In Biddle, Jeff E, Davis, Jon B, & Samuels, Warren J. (eds.). *A Companion to the History of Economic Thought*. Blackwell Publishing.
- Pelikan, P. (2003). Bringing institutions into evolutionary economics: Another view with links to changes in physical and social technologies. *Journal of Evolutionary Economics*, 13(3), 237–258.
- Pesaran, H. Shin, Y. and Smith, R. (2001). Bound Testing Approaches To The Analysis Of Level Relationships. *Journal of Applied Econometrics*. 16, 289-326.
- Piętak, Łukasz. (2014). Review Of Theories and Models of Economic Growth. *Comparative Economic Research*. 17(4): 45-60.
- Piketty, T. (2014). *Capital in the Twenty-first Century*. Harvard University Press.
- Potts, J. (2007). Evolutionary institutional economics. *Journal of Economic Issues*, 41(2), 341–350.
- Prebisch, R. (1950). The economic development of Latin America and its principal problems. *Economic Bulletin for Latin America*, 7(1), 1–12.

- Przeworski, A., Alvarez, Michael E., Cheibub, J. A., & Limongi, F. (2000). *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. Cambridge University Press.
- Rist, Charles; Gide, Charles. (1915). *A History of Economic Doctrines from the Time of the Physiocrats to the Present Day*. D.C. Heath and Company.
- Rivera-Batiz, F. (2002). Democracy, governance, and economic growth: Theory and evidence. *Review of Development Economics*, 6(2), 225–247.
- Rodriguez, F., & Rodrik, D. (2001). Trade policy and economic growth: A skeptic's guide to the cross-national evidence. *NBER Macroeconomics Annual*, 15, 261–325.
- Rodrik, D. (2003). Institutions for economic development: From the Washington Consensus to fragile states. *Journal of Economic Development*, 38(1), 7-40.
- Rodrik, D. (2004). Institutions and economic performance-getting institutions right. *CESifo DICE Report*, 2(2), 10-15.
- Rodrik, D., Subramanian, A., & Trebbi, F. (2004). Institutions rule: the primacy of institutions over geography and integration in economic development. *Journal of Economic Growth*, 9(2), 131–165.
- Roland, G. (2004). Understanding institutional change: Fast moving and slow-moving institutions. *Studies in Comparative International Development*, 38(4), 109–131
- Romer, D (1989). *Staggering Price Setting with Endogenous Frequency Adjustment*. Working Paper Series, Department of Economics, Institute for Business and Economic Research, UC Berkeley.
- Romer, David. (2006). *Advanced Macroeconomics*. McGraw-Hill.
- Romer, Paul M. (1986). Increasing Returns and Long-Run Growth. *Journal of Political Economy*, 94(5) (October), 1002–1037.
- Romer, Paul M. (1989). Capital accumulation in the theory of long-run growth. In *Modern Business Cycle Theory*, ed. Robert J. Barro. Cambridge: Harvard University Press.
- Romer, Paul M. (1990). Endogenous technological change. *Journal of Political Economy* 98 (5): S71–S102.
- Romer, Paul M. (1994). The origins of endogenous growth. *Journal of Economic Perspectives* 8 (1): 3–22.
- Ruttan, V. (1998). New growth theory and development economics. *Journal of Development Studies* 35 (December): 1–26.

- Sachs, Jeffrey D.; & Warner, Andrew M. (1997). Fundamental sources of long-run growth. *American Economic Review*. 87 (2): 184–188.
- Sachs, J. D., & Warner, A. M. (2001). The curse of natural resources. *European Economic Review*, 45(4–6), 827–838.
- Sachs, J. D.; Warner, A. M.; Aslund, A.; & Fischer, S. (1995). Economic reform and the process of global integration. *Brookings Papers on Economic Activity*, 1995(1), 1–118.
- Sala-i-Martin, X. (2006). The world distribution of income: falling poverty and convergence, period. *The Quarterly Journal of Economics*, 121(2), 351-397.
- Scully, G. W. (1988). The institutional framework and economic development. *Journal of Political Economy*, 96, 652-662.
- Searle, J.R. (2005). What is an institution? *Journal of Institutional Economics* 1(1): 1–22.
- Shaw, G.K. 1992. Policy implications of endogenous growth theory. *Economic Journal* 102 (412): 611–621. Reprinted in Snowdon and Vane (1997, pp. 616–627).
- Shiferaw Bekele. (1990). Kassa and Kassa: The State of Their Histrigraphy. In Taddese Beyene; Pankhurst, Richard; Shiferaw Bekele (Eds.). *Kassa and Kassa: Papers on the Lives, Times and Images of Tewodros II and Yohannes IV (1855-1989)*. pp. 289-347. Institute of Ethiopian Studies, Addis Ababa University.
- Shirley, Mary M. (2208). *Institutions and Development*. Glos: Edward Elgar Publishing Limited.
- Shrestha, M.B. & Chowdhury, K., (2005). A Sequential Procedure for Testing Unit Roots in the Presence of Structural Break in Time Series Data: An Application of Quarterly Data of Nepal, 1970-2003. *International Journal of Applied Econometrics and Quantitative Studies, EuroAmerican Association of Economic Development*. 2(2), pp. 31-46.
- Shultz, Theodore. (1961). Investment in human capital. *American Economic Review* 51 (March): 1–17.
- Smith, Anthony D. (2010). *Nationalism: Theory, Ideology, History*. Cambridge: Polity.
- Smith, David. (2013, Dec. 4). Ethiopia Hailed as ‘African Lion’ with Fastest Creation of Millionaires. *The Guardian*. Retrieved October 28, 2024, from <http://www.theguardian.com>
- Snowdon, B. and Vane, R. Howard. (2005). *Modern Macroeconomics*. UK: Edward Elgar Publishing.

- Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, 70(1), 65-94.
- Spiegel, H. W. (1983). *The Growth of Economic Thought*. Duke University Press.
- Steiner, Phillippe. (2003). Physiocracy and French Pre-Classical Political Economy. In Biddle, Jeff E, Davis, Jon B, & Samuels, Warren J. (eds.). *A Companion to the History of Economic Thought*. Blackwell Publishing.
- Stiglitz, J. E., Sen, A., & Fitoussi, J. P. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress. Retrieved Dec. 12, 2024 from <https://www.stiglitz-sen-fitoussi.fr>
- Swan, Trevor W. (November 1956). Economic Growth and Capital Accumulation. *Economic Record*. 32 (2): 334–361.
- Tamir, Yael. (2019). *Why Nationalism*. New Jersey: Princeton University Press.
- Tavares, H. and Wacziarg, R. (2001). How democracy affects growth. *European Economic Review*, 45, 1341-1378.
- Tavares, J. (2004). Institution and economic growth in Portugal: A quantitative exploration. *Portuguese Economic Journal*, 3, 49-79.
- Temple, J. (1999). The new growth evidence. *Journal of Economic Literature* 37 (March): 112–156.
- Thirlwall, Anthony P. (2003). Old thought on new growth theory. In *Old and New Growth Theories: An Assessment*. Ed. Neri Salvadori. Cheltenham and Northampton: Edward Elgar.
- Thirlwall, Anthony P., and G. Sanna. (1996). New growth theory and macrodeterminants of growth: An evaluation and further evidence. In *Employment, Economic Growth and Tyranny of the Market: Essays in Honour of Paul Davidson*, Vol. 2, ed. P. Arestis. Cheltenham and Brookfield: Edward Elgar.
- Thomas, M. A. (2010). What do the worldwide governance indicators measure?. *The European Journal of Development Research*, 22(1), 31-54.
- Ucak, Ayhan. (2015). Adam Smith: The Inspirer of Modern Growth Theories. *Procedia - Social and Behavioral Sciences*. 195: 663 – 672.
- Ulubasoglu, M. A., & Doucouliagos, C. (2004). Institutions and economic growth: A systems approach, *Econometric Society 2004 Australasian Meetings Paper No. 63*.

- Vaughan, Sara. (2015). Federalism, Revolutionary Democracy and the Developmental state, 1991-2012. In Prunier, Gérard and Ficquet, Éloi (Eds.). *Understanding Contemporary Ethiopia*. pp. 283-311. London: Hurst & Co.
- Veblen, Thorstein. (1899). *The Theory of the Leisure Class: An Economic Study of Institutions*. New York: MacMillan.
- Veblen, Thorstein. (1961). *The Place of Science in Modern Civilisation and Other Essays*. New York: Russell & Russell.
- Verhoeven, Harry & Michael Woldemariam. (2022). Who lost Ethiopia? The unmaking of an African anchor state and U.S. foreign policy. *Contemporary Security Policy*, 43:4, 622-650.
- Wassihun Gebreegizaber Woldesenbet. (2020). The tragedies of a state dominated political economy: shared vices among the imperial, Derg, and EPRDF regimes of Ethiopia. *Development Studies Research*, 7(1), 71-82.
- WDI (2024). *World Development Indicators online database*, World Bank, Washington, DC. Retrieved October 2024.
- Weber, Max. (1978). *Economy and Society*, ed. Guenther Roth and Claus Wittich. Berkeley: University of California Press.
- Williamson, O. (2000). The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature*, 38: 595–613.
- Winch, D. (1972). Marginalism and the Boundaries of Economic Science. *History of Political Economy*. 4(2), 325–43.
- World Bank Group. (2015). *Ethiopia Poverty Assessment 2014*. Retrieved October 2024. <http://hdl.handle.net/10986/21323>
- World Bank. (2020). *World Development Indicators*. Available online: <https://datacatalog.worldbank.org/dataset/world-development-indicators> [Accessed 11 October 2023].
- Ycharts (2023). *Ethiopia General Government Final Consumption Expenditure*. Available online: [https://ycharts.com/indicators/ethiopia\\_central\\_government\\_final\\_consumption\\_expenditure\\_percent](https://ycharts.com/indicators/ethiopia_central_government_final_consumption_expenditure_percent) [Extracted on 18 October 2023]

Ycharts (2023). *Ethiopia Gross Fixed Capital Formation*. Available online:  
[https://ycharts.com/indicators/ethiopia\\_gross\\_fixed\\_capital\\_formation\\_percent](https://ycharts.com/indicators/ethiopia_gross_fixed_capital_formation_percent)  
[Extracted on 19 October 2023]

Ycharts (2023). *Ethiopia Gross Fixed Capital Formation*. Available online:  
[https://ycharts.com/indicators/ethiopia\\_gross\\_fixed\\_capital\\_formation\\_percent](https://ycharts.com/indicators/ethiopia_gross_fixed_capital_formation_percent)  
[Extracted on 19 October 2023]

Zak, P. J., & Knack, S. (2001). Trust and growth. *Economic Journal*, 111(470), 295-321.