

Tadele, Esubalew; Sirany, Teshome

Article

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*Corresponding author: Esubalew Tadele, Department of Agricultural Economics, Debre Markos University, Debre Markos, Ethiopia
E-mail: esu360@gmail.com; esubalewtadele@dmu.edu.et

Reviewing editor:
Christian Nsiah, School of Business,
Baldwin Wallace University, United States

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GENERAL & APPLIED ECONOMICS | REVIEW ARTICLE

The relative choice over destiny in a country's long-run economic growth and economic affluence

Esubalew Tadele^{1*} and Teshome Sirany²

Abstract: This paper examines an in-depth and systematic review of why some nations are so rich, while others remain so poor taking into account temporal and spatial dynamics applied for economic growth covariants. Growth literature underscores direct and indirect causes for economic growth. Likewise, economic and non-economic dynamics are thoroughly examined for countries' long-run economic growth and relative wealth accumulation. Endogenous growth theories emphasized that investment in human capital, innovation, and knowledge are major contributors to economic growth. Empirics confirmed that time-variant (such as well-established institutions and their prominent role in devising property rights and policies) gives



Esubalew Tadele

ABOUT THE AUTHOR

Esubalew Tadele is a lecturer and researcher in the Department of Agricultural Economics, Debre Markos University. He did Master's degree in Development studies, Major in Economics of Development at International Institute of Social Studies (ISS), The Netherlands. He has taught various Economics courses at Jimma University and Debre Markos University, Ethiopia since September 2009 (Such as Development Economics, Institutional economics, Natural Resource and Environmental Economics, Microeconomics and Macroeconomics, Econometrics, statistics, statistics for Economics). His area of research interest is the economics of poor countries, Econometric analysis of development policies, privatization and investment, regional development and geopolitics and regional integration of countries, development and environment, agriculture and development.

PUBLIC INTEREST STATEMENT

Searching the „black box „, of historical roots of development on one side and the main center of gravity for the sluggish economic outcomes of poor economies on the other side is not such an easy task until recently. It requires decisive factors before merely discredited the older explanations of underdevelopment such as poor resource endowments, or lack of potential markets or, the absence of economic rationality. However, one who travels across the globe from West to East; North to South can simply observe facts on the ground that diverse tracks of economic progress of nations. Some countries are gifted with plenty of natural resources, mountains, oceans, plain lands, diverse agroecology but failed to realize and exploit economic potential while others lack many of its features but achieved miracle growth (Example: Japan, and S. Korea). Some countries seem to have their geography imprisoned them and stay in poverty and in conflict trap for longer periods of time and failed to build a strong economy and a lot of messes and unstructured system persists (like many of Sub-Saharan African and Asian countries). For thus, economics, non-economics issues, direct and indirect causes, resource and administrative issues, historical events, and geographic reasons are considered for such diverse track experiences of nations and thoroughly examined what to do with it in this article. Following that, identifying the sharp insight into the ways how countries determine their fate in the ever-complex, chaotic, and interlinked world with its destiny.

more emphasis towards shaping a country's long-run economic growth than time-invariant exogenous attributes (like geography). Meanwhile, some nations did not industrialize being geographically advantageous, and the location of the country does not exclusively determine the fate of the nation's economic success. Moreover, state capacity is vital to determining relative wealth accumulation and economic prosperity. The incidence of routine war undermines the fiscal capacity and leads to an extractive form of government and weakens public and private investments, and this sets a country into undesirable outcomes. In a nutshell, time-varying attributes become more flexible to adjust the fate of countries' economic growth and destiny. Furthermore, it requires an intense investigation of what governs a nation's economic successes or failures focusing on country-specific concerns. It needs a close and continuous rectification to reconsider the country's institutional setup and policy frameworks towards endogenously rooted economic growth and development for the relative economic affluence.

Subjects: Development Policy; Economics and Development; Economics

Keywords: economic growth; time-variant factors; institutions; natural resources; geography; endogenous growth theories

1. Introduction

Economic growth is vital for the state and welfare of society in the first place. Growth is also the key indicator of the successful government and pinnacle for the national wellbeing in general. It can be a guarantee of the country's autonomy. Likewise, stable economic growth is an indicator of a country's robust economic system and, thus, its society is safely protected from potential economic risks and other external economic threats (Wajeetongratan, 2020).

In academic researches, the realization of various correlated factors of economic growth and its dynamic progress has always been taken among the top priorities (Wajeetongratana, 2020; Curzio et al., 1994; Zahka, 1990). Analysis of economic growth, its stages, cycles, required resources for growth, and related policies underpin scholars to continuously engage in the system and investigate the central causes of it over a long period.

Similarly, the primary focus of many developing countries is to have high and sustainable growth. Nonetheless, to achieve and keep up a high growth rate, there has to be comprehending the determinants of growth as well as how various policies affect growth. Since World War II, the pattern of growth of real GDP has become a key policy strategy for all nations practically (see Crafts, 2000). Several investigations have been carried out to find the path of long-run economic growth. The earliest studies were suggested by Solow (1956) and Swan (1956) based on the neoclassical theory. Its simple structure and presumptions—a well-behaved neoclassical production function, a single homogenous good, exogenous labor-augmenting technical progress, full employment, and exogenous labor force growth—have been used by economists for the past four decades.

One of the fundamental issues raised with long-run economic paths of countries, let's say prior to 1800, the living standards of world economies were roughly constant over time: per capita wage, income, output, and consumption did not grow (Hansen & Prescott, 2002). However, modern industrial economies, on the other hand, enjoy unprecedented and seemingly endless growth in nations' living standards, and hence countries experience diverse growth performances.

Even though it has been realized that economic growth is a continuous and dynamic process, some countries built a strong economy in a long-lasting and sustained manner and were able to

enjoy a high standard of living, while others failed to build a strong economy and were unable to compete with the advanced nations and even stay in a place of struggling their daily life. Several studies investigate causes that enhance or hinder economic growth, and it has been placed one of the fundamental queries for theoretical and empirical growth researchers, but little consensus has been reached to date (Chirwa & Odhiambo, 2016).

This review article tries to comprehend various perspectives that make countries around the globe achieve and pursue such a diverse track of economic experiences and why countries perform as such differently? Thus, it states the identification of principal causes or the missing links for the long-run economic growth of countries. How some countries achieve a high standard of living and why others lagged and struggle in daily life with a lot of messes and unstructured systems. Do institutions matter for everything? Does the existence of abundant natural resources have a good or bad outcome for long-run economic outcomes? Does the location of the country or being landlocked determines the fate of the country exclusively? Is low economic trap due to by misfortune? or does it because of bad government? or its people's sociocultural setting?

Hence, this review mainly circles to identify the key correlate factors for the existing economic divergent experience of countries looking at a time changing and unchanging features for various economic progress.

1.1. The objective of this review

General objective

- To review what determines the relative choices over destiny for long-run economic growth and economic affluence of countries.

Specifically,

- To review main covariates of long-run economic growth of countries in spatial and temporal dimensions.
- To review both time-variant and time-invariant dynamics of economic growth parameters.
- To review whether geography (location of a country) matters for long-run economic growth and economic affluence or not.

2. Review methodology

For this article, a comprehensive literature review is carried out based on theories and empirical findings, and extracted saturated information. It has been used both temporal and spatial dimensions and able to filter information including the recent works that reflect country-wide verdicts of economic growth parameters.

2.1. Search engines used

This literature searches mainly emphasized economic growth and significant contributing factors. The search engine sets in the information offered by Google scholar, and archives of qualified publishers of academic databases like the Web of Science and Scopus that are mainly focused on peer-reviewed journal articles, books, reports, and special issues. The search has been filtered using keywords such as "Economic growth", "time-variant factors for economic growth", "economic and noneconomic growth factors", "endogenous and exogenous", "Technology and economic growth", "institutions and economic growth", "geography and economic growth". More than 75 journal articles, books, proceedings, and thesis works, agencies reports related to the topic were browsed and around 40 materials were prioritized specific to the topic used for this investigation.

3. Basics of economic growth theories

Economic growth is a complicated process; however, the main theories of economic growth are reasonably basic and conceptually simple. The traditional growth model was advanced by Robert Solow (1956), a Nobel Prize winner, perhaps the most famous one. The basic foundation of this framework is that growth is caused by autonomous technological change and capital accumulation. Solow views the world as one in which output, Y , is generated by the production function (Gould & Ruffin, 1993).

There are two basic classifications of economic growth theories—those grounded on the traditional Solow (1956) growth model and those based on the concept of endogenous growth. Solow model emphasizes capital accumulation and exogenous population change and technologically innovative progress. This model predicts that all market-based economies will eventually arrive at a similar pace of growth rate if they have the same rate of technological progress and population growth. Moreover, the model expects that the long-run rate of growth is out of the reach of policymakers.

Solow verifies two factors into the model (see equation a): technological and labor growth. Specifically, at time t , output Y_t is determined by two inputs (capital and labor) as well as technological progress, and using the Cobb–Douglas function, the model is specified in the following ways.

$$Y_t K_t^\alpha (A_t L_t)^{1-\alpha} \tag{a}$$

The variable A_t denotes technology level at time t . Both labor input L_t and technology level A_t are expected to grow at constant rates. This design of technology is referred to as labor-augmenting and labor become more “effective” so that the effective labor input equals $A_{(t)} L_{(t)}$.

This evolution leads to the central equation of the Solow model involves how the capital per effective labor $k(t)$ arises as explained in the following equation.

$$\Delta k = sf(k) - (\delta + n + g)k \tag{b}$$

In the Solow model, the change in the capital stock Δk equals investment $sf(k)$ minus breakeven investment $(\delta + n + g)k$. Now, however, because $k = K/(LxE)$, break-even investment consists of three terms: to keep k constant, δk is needed to replace depreciating capital, nk is needed to provide capital for the new workers, and gk is the amount of capital needed for the new “effective workers” formed by technological progress. Here, s is the rate of savings, the fraction of total output $Y(t)$ saved for investment, δ is capital depreciation rate, the fraction of capital stock $K(t)$ that turn into obsolete, n is the growth rates of labor $L(t)$, and g is the growth technology $A(t)$. All of the four parameters s , n , g , δ plus α are exogenous, its values are not deliberately chosen by its economic agents but rather determined by factors outside of the model. This equation has a very intuitive explanation: the rate of change in capital per unit of effective labor, Δk , equals the amount of saving per unit of effective labor minus the dilution of capital stock per unit of effective labor due to population growth, technology growth, and depreciation (Mankiw, 2010; Zhao, 2019).

Hence, Solow model states that if countries have equal savings rates, population growth, technical progress, and depreciation rates, then regardless of their initial per capita outputs, they will converge to a similar balanced-growth path and become the same per capita income in the long run. It expresses that poor nations should grow faster and catches up with rich nations rather quickly.

To set and see the Romer model, it is essential to realize the Solow model that sustained growth is cannot achieve with the accumulation of capital alone because of the diminishing returns to capital: the extra output produced by new additions to capital stock will fall to nil in the long run so growth must stop when capital stock is sufficiently large. In the long run, to generate persistent growth, it must be assumed that the continuous rise of effective labor, so the marginal product of

capital (MPK) can stay above zero. Without technological change, population growth is the only way to achieve growth, but then per capita income will stay constant in the long run. This shows why technology is needed for output per capita to the long-run economic growth.

Moreover, the convergence prediction is not supported by data: there are persistent and large differences in the rate of growth and per capita income levels among countries. One can argue that countries differ in technological changes (different countries have different g values) and hence they do not necessarily converge to the same growth path, at least not unconditionally. The fundamental challenge in this perception is that there is no explanation why countries differ in technology because changes in technology are exogenously given in the Solow model (Zhao, 2019).

The ongoing expansion of endogenous growth models started with the work of Paul Romer (1990), he saw that traditional hypothesis neglected to accommodate its forecasts with the exact perceptions that, as time goes on, nations seem to have accelerated growth rates and, among nations, growth rates differ substantially. Romer needs to find a way to make the technology parameter $A(t)$ come out of decision-making by for-profit firms instead of exogenously given as explained in the Solow model. He needs to explicitly model the R&D process. Thus, Romer unlike other neoclassical economists emphasized that economic growth is an endogenous outcome of an economic system, it's not the result of forces that impose from outside.

Endogenous growth hypotheses depend on the likelihood that long-run growth is controlled by various economic incentives. The most mainstream models of this sort keep up that inventions are deliberate and produce technological spillovers that bring down the expense of future innovations. Basically, in these models, an informed workforce plays a unique role in deciding the pace of technological innovation and its long-run economic path (Mankiw, 2010; Zhao, 2019)

As Zhao (2019) describes, Romer's model is noticeably more complex due to the presence of three sectors (R&D, intermediate capital goods, and final goods) and the need to explicitly analyze the inner workings of these sectors. After analyzing decisions in the R&D and the sector of intermediate good and with some calculations. The model arrives at the final goods production function is proportional to the following inferences (see equation c)

$$K_t^\alpha (A_t L_t^F)^{1-\alpha} \tag{c}$$

One can immediately realize the similarity with the Solow model. The central difference is that change in technology A_t is endogenously determined as workers choose between working in the final goods sector and the R&D sector in the market equilibrium. In market equilibrium, Romer derives the share of labor input devoted to R&D and technological change g . Hence, g is the result of the decisions set by workers, consumers, and entrepreneurs not assumed as in the Solow model. To this end, Solow's exogenous growth rate g is endogenized (Zhao, 2019).

One of the imperative implications of the Romer model concerns population growth. In the Solow model, population growth does not contribute to the growth of per capita income, which only depends on (exogenous) technology growth. While in Romer's model, population can be a source of growth through more labor working in the R&D sector will enhance the rate of technological change.

Across the board, Romer's analysis has far-reaching policy inferences. It suggests that government can do more, for example, using subsidies to correct the market failure and spur economic growth by promoting the development of science and technology. In recent years, technology has transformed people's lives throughout the globe, compared to just a few decades ago. However, the impacts of technology do not fall equally on everyone's life. Let's say when a new technology arrives, it interrupts the old ways of doing things and can have undesirable effects on some

people's lives, at least for an early time. Society must confront the negative impacts of new technology while embracing its life-enhancing potentials.

4. Fundamentals of economic growth and some stylized facts

In the new growth theories, research, and development through the production of goods captured by $K(t)$ and labor $L(t)$ with the full stock of knowledge, $A(t)$ verify long-run economic growth. On the flip side, a nation cannot maintain its long-run growth by simply accumulating more capital or labor due to its diminishing returns. Accordingly, endogenous technological progress is the main driver of rigorous long-run economic growth as stated in the Romers model.

Furthermore, empirical verdicts confirmed that various covariate factors determine the long-run economic growth of nations. It has been characterized as a direct and indirect cause of economic growth. Direct factors include human resources (active population, investing in human capital), natural resources, physical capital, or technological advancements. Indirect causes comprise institutions (well-devised institutions, financial institutions, private administrations, property rights), the size of the aggregate demand, saving rates and investment rates, the efficiency of the financial system, budgetary and fiscal policies, migration of labor and capital, and the efficiency of the government. Generally, it can be consolidated into four major determinants of economic growth: human resources, natural resources, capital formation, and technology, but the importance that researchers had given for each determinant has been always different.

Similarly, the economic growth of a nation is influenced by various inter-related factors. As (Boldeanu & Constantinescu, 2015), states that it can be further sorted into supply-side, and efficiency, and demand-side factors. On the supply side, natural resources (both renewable and non-renewable), physical capital goods, human capital, and technology have a direct effect on the value of goods and services supplied. In addition, socio-political factors and events have a major influence on the economic progress of a country. Acemoglu et al. (2009) mainly emphasized that the main determinants are categorized into economic and non-economic classes. "Proximate" or economic determinants stand for capital accumulation, technological progress, labor, and likewise "ultimate" or non-economic sources refer to government efficiency, institutions, political and administrative systems, cultural and social factors, geography and demography can surrogate economic progress of countries.

Scholars confirmed that different positive economic sources of economic growth like Schooling, education investment (Barro, 1991); level of human capital (Gould and Ruffin (1993); capital savings and investment (Mankiw et al., 1992); Equipment investment (De Long & Summers, 1991); open to trade (Barro, 2003; Romer, 1990). FDI inflows (Lensink & Morrissey, 2006; Li & Liu, 2005).

According to (A. v. Cooray, 2009) who confirms that using a cross-section of 71 economies; both the size and quality of the government are vital to economic growth. Such as investing in the capacity for enhanced governance is a priority for the improved growth performance of the countries.

Likewise, non-economic sources for economic growth include high governance (A. Cooray, 2009), institutional frameworks (property rights, regulatory institutions, institutions for macroeconomic stabilization, social insurance, and conflict management) (Abrams & Lewis, 1995; Mauro, 1995; Rodrik, 2000b; Acemoglu et al. 2002).

Some scholars stated that corruption can also be sometimes beneficial because it can make the economy more efficient and facilitate for investors a way to pass more restrictive and ease bureaucratic hurdles (Acemoglu et al., 2000; Kaufman; Wei, 2000). While others state that it is undesirable and it has negative influences and bad outcomes on economic growth (Murphy et al., 1993; Mauro, 1995).

In addition, negative economic influences extend to factors like government consumption spending (Barro, 1991), Trade barriers (Gould & Ruffin, 1993; De Long & Summers, 1991); Military spending (Benoit, 1978; Pieroni, 2009; Ho and Chen, 2014). Furthermore, non-economic factors that have a negative impact include political and social instability (Barro, 1991), socio-cultural factors, ethnic diversity, and fragmentation, language, religion, civic norms, beliefs are among the socio-cultural features that may have a negative influence on economic growth. Ethnic diversity can have a destructive outcome on education (low schooling), creates political instability. As W. Easterly and Levine (1997), Easterly & Levine (1999) argue that using cross-country differences in ethnic diversity in Africa, low level of economic development is associated with a high degree of ethnic heterogeneity and ethnic fractionalization and it affects the choice of public policies. The existences of political unrest follow discouraging public investment in the sense of implanting low educational policy, poor infrastructure and growth become collapse and end up with rent-seeking and benefits towards the competing bodies at the expense of massive population living in poverty. Thus, this existing behaviour among groups follows in competition in position rather than following good policies which are productive and public sector investments.

Nevertheless, ethnic diversity also brings new insights, tolerance, appreciation of diversity, and an opportunity to share and learn from others. It can be beneficial by enhancing productivity through innovation, skill complementarities, increased creativity, trade, and product varieties. Furthermore, as García Montalvo and Renal-Querol (2019) state that the association between economic growth and ethnic heterogeneity is complex. In cross-country data, it confirms a negative or statistically insignificant result. However, at city level analysis—data from small geographical areas—ethnic diversity create a positive effect on wages and productivity (Alesina et al., 2016; Ottaviano & Peri, 2005). There is a trade-off between economic benefits and the costs of heterogeneity.

4.1. Conceptual hypothesis related to economic growth

4.1.1. Convergent hypothesis

One of the fundamental economic issues is whether poor nations or regions tend to grow faster than rich ones: are there automatic forces that lead to convergence over time in the levels of per capita income and product? (Barro, 1992). From a theory postulating that a convergent occurs between poorer economics and wealthy economies of national income due to an acceleration of growth as poorer economies “catch-up” in their use of technologists (Barro, 1991, 1992; Barro and Sala-i-Martin, 1992; Dowrick & Nguyen, 1989; Mankiw et al., 1992). Advanced economies with high levels of productivity tend to grow slower than poor economies that require much less capital to make significant gains. What is behind this circle of convergence? The rationale is somewhat straightforward—when a country is poor, subsequently that there is little production; hence, there are few factories and labor is cheap. Building a new factory plant in such a country can be quite worthwhile: if the product is easily tradable, then with low labor costs and earn higher rates of return on investment. Alternatively, we can consider the new manufacturing as supplying for the local market an item that did not exist previously. Once more, benefits will be high a direct result of the absence of rivalry. Likewise, if the country is starting poor then it has various opportunities for copying and importing knowledge. Hence, the level of economic growth rates becomes higher. It can be noted that the initial conditions provide the potential for catching up. Thus, poor countries can grow faster when they set on a convergence path to the rich economies. China today, Singapore in the 80s.

4.1.2. Institution hypothesis

For all investment activity, there are expected benefit and risk that is determined by a long list of factors that we put together under the label of institutions, such as legal institutions (the rule of law, property rights), political institutions (stability of policy, decision-making), economic institutions (regulation, taxes, customs duties, and procedures), social norms (that will determine how issues like income inequality will be resolved, which will affect policy variables such as tax rates),

culture (entrepreneurial spirit, risk-taking behavior, attitudes to work). In short, the *environment for doing business* matters, and it matters a lot. This environment we call it institutions.

“Institutions are the humanly devised constraints that structure political, economic, and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights). Throughout history, institutions have been devised by human beings to create order and reduce uncertainty in exchange” (North, 1990).

Robust economic growth and quality of institutions have been recorded. Advanced countries have institutions of high quality, while the opposite is true about poor countries. This measure of institutional quality provides countries and governments with clear guidelines on what to do to speed up reforms and growth. The goal for the government should be to set up the right environment for business rather than managing investment. Once the environment exists, once it is rewarding to save and a big chunk of the uncertainty about future payoffs is gone, individuals and firms start putting aside more money for investment and growth picks up.

In recent years, the “new institutional economics” has emphasized the possible effects on growth rates and income levels of property rights, contract enforcement, and rent-seeking activities (e.g., North, 1990; Weingast, 1993).

In principle, the change in institutions and economic growth are interrelated and possibly further institutional changes might set in only after countries develop further. But although growth itself determines the willingness to change, it is still valid to say that in most of the poor countries there are still ample opportunities for improvements in the business environment. The good institution plays the best way to ensure sound macroeconomic policies (i.e., stability) and political stability is to build institutions that create incentives for stability: No country has become rich with poor-quality institutions.

The role of institutions for economic growth has been emphasized by many scholars. According to Acemoglu et al. (2002), considerable attention is given to the functionality of institutions that highly influence the economic growth of countries. Emphasizing the previously productive area of the hot climate later fails to compute with the temperate area where the introduction of advanced technology in the agricultural systems of production and type of improved varieties are released. Thus, institutions matter more for economic progress.

In growth literature, particular attention is given to endogenous variant factors like policy and institutional frameworks rather than paying attention to exogenous “unchanging” factors such as geography. Thus, in the success ladder of the country’s economic growth and development, the existence of well-performed and managed institutions is vital. It helps to secure property rights and directs to productive investments and wealth of nations. In this perspective, the country’s economic prosperity is determined through regulating economic actors and creates a sense of ownership to the asset properties owned and this can be manifested by achieving better economic development through directing the use of resources in an intended way (Acemoglu, Simon Johnson et al., 2001). Hence, evidence assured that different economic performance between North and South Korea, West and East Germany growth divergence of economy confirmed the existence of well-performed institutions and well-equipped and inclusive social welfare systems. Thus, along with secure property rights and a market-led economy promotes investments, reinvestment opportunity and creates more space for human capital development and able to facilitate more economic growth.

Unlikely, those unsuccessful economies follow policies whose interests and benefits are directed towards only the elites and no property right established for the welfare of the whole society. So that there is no guarantee for the majority of the society’s assets and then it discourages further investments and ended up with an unsuccessful economy. Hence, when the institutions are

extractive, the system established is serving for the hands of few, and this leads to “risk of expropriation” for a vast number of the society, which discourages the people to invest and finally ends up with collapse.

According to Acemoglu et al. (2002), in his “institutions hypothesis,” the presence of a good institution is vital for economic growth and development through adopting new processes and a new style of desirable economic outcomes and able to promote investment. Those countries that already established good institutions are more likely to induce and accelerate industrialization than those that did not set good institutions. By the same token, from the perspectives of time and nature of the establishment of institutions, during the time of colonization, Europeans used to set up good institutions in their settlement and developed secured property rights and thus positively influenced the economic growth of a country of their colony. The reverse has been recorded when they set up bad/extractive institutions.

4.1.3. *Geography hypothesis*

In another dimension, scholars argue that once institutions and other factors controlled the role of geography matters for economic growth and it leads to the type of policy intended to follow. As Gallup et al. (1998) argued that climate conditions and geographical location is vital for the countries to determine economic destiny. Different Scholars looking the “*geography hypothesis*,” in the perspective of explaining countries’ diverse economic progress. Such as differences in resource endowments, climate (hot, cool environments, temperate, tropics) or ecological variances across countries and prevalence of diseases, transportation cost—covered the distance from the core market—and the transfer of knowledge and all its influences on the development of human capital and productivity of agricultural produces (Diamond, 1997; Gallup et al., 1998, 1998). Developing countries of South East Asia, sub-Saharan Africa, and South America with a hot climate and humidity cause decline labor productivity, widely spread and the prevalence of diseases, low crop productivity due to insect infestation.

People and ideas influence events, but geography largely determines them, now more than ever (Kaplan, 2009). According to Kaplan, realism is about recognizing and embracing those forces beyond our control that constrain human action. And of all the unsavory truths in which realism is rooted, the bluntest, most uncomfortable, and most deterministic of all is geography.

In the discussion of geographical location, Arvis et al. (2007) highlight that the cost of a country being landlocked. They show that a landlocked country bears not only the high cost of freight services but also the cost of unpredictable transportation time, widespread rent activities, and severe flaws in the implementation of the transit systems. An ocean in the immediate surroundings of a country has a positive impact on its GDP per capita.

According to (Marshall, 2016), in his book “Prisoners of geography: ten maps that explain everything about the world” argued that societies are inevitably shaped by the land upon which they exist. The features of natural resources and geographical topographies can provide safety and affluence or leave a country’s citizens exposed and struggling. Geography has been a determining factor in the wars humans fight, as well as the rate of our economic growth. Although modern technology, the distance between us both in mental and physical space now allows us to bend the rules of geography, it remains crucial to understanding why nations have turned out the way they are today and it looks fundamental in geopolitics interaction of different nations.

Furthermore, the near ocean areas have more intense economic activity going on and in the case of the inland countries, economic activity appears more intense along navigable rivers where transportation by ship is feasible. One other criterion accompanying intense economic activities is a temperate climate with adequate rainfall; most likely because it is favourable for the productivity of agriculture and for mitigating disease. The following image (Figure 1: a collection of images from the DMSP) (Défense Meteorological program). This highlights that the level of different activity at

the global coverage level whether inland or coastal access countries. It inspects darkness and the presence of light for those countries on the globe. Sub-Saharan Africa (SSA) countries except for some of it, the level of darkness at the night dominates regardless of whether the country has coastal access or not. The same is true for some Asian and Latin American countries.

After World War II, there was a surge in the empirical analysis of geography. Braudel (1981–1984), Crosby (1986), and Diamond (1997) analyzed the impact of geography and climate change in Europe and its dominance over the colonies. North-Atlantic and Mediterranean Europe were the creative centers of the world after the Middle Ages ended. Acemoglu (2009) affirmed that geography can affect in many ways’ economic growth. Soil quality can influence agricultural productivity. Natural resources directly contribute to the industrialization of a country by essential components for production. Climate has a direct impact on production and attitudes regarding consumption. The topography of a region or state can have a positive or negative impact on transport costs and communication. And not least, diseases can affect health care, production, and the accumulation of human and physical capital.

According (Diamond, 1997), in his book “Guns, Germs, and steel” stated that farm-based societies conquered populations of other areas and maintained dominance, despite sometimes being vastly outnumbered—superior weapons provided immediate military superiority (guns); Eurasian diseases weakened and reduced local populations, who had no immunity, making it easier to maintain control over them (germs); and durable means of transport (steel) enabled imperialism. Diamond argues geographic, climatic, and environmental characteristics which favoured the early development of stable agricultural societies ultimately led to immunity to diseases endemic in agricultural animals and the development of powerful, organized states capable of dominating others.

4.2. The geography of land locked with bad neighbours

Paul Collier (2010) in his book “*The bottom Billion*” argues that being landlocked in a poor geographic neighbourhood is one of the four major development “traps” by which a country can be held back. In general, he found that when a neighbouring country experiences better growth, it tends to spill over into favourable development for the country itself. For landlocked countries, the effect is particularly strong, as they are limited in their trading activity with the rest of the world. He states, “If you are coastal, you serve the world; if you are landlocked, you serve your neighbours.” Others have argued that being landlocked has an advantage as it creates a “natural tariff barrier” which protects the country from cheap imports. In some instances, this has led to more robust local food systems.

Indeed, being landlocked does not necessarily condemn a country either to poor or slow growth, but 38 percent of the people living in bottom-billion societies are in landlocked countries. Expenses for

Figure 1. a) Dark and light inspection: source: eco browser, analysis of current economic conditions and policy, <http://apod.nasa.gov/apod/ap001127.html>; collected from the images sent by DMSP satellites: <http://heasarc.gsfc.nasa.gov/docs/heasarc/missions/dmsp.html>, 2016.



landlocked countries in terms of costs in shipping and trade of their goods but furthermore the ability to start manufacturing industries that require a lot of transport is bound to be challenging. Along with the above is the type of neighbours that the landlocked country has as some of them may provide the point of first trade or contact such as the differences seen between Switzerland and Uganda in this respect. This can be married with the point that most of the landlocked countries in Africa have completely inward-looking or toward the world market policies and not meant to reap the spill-over benefits of their neighbours which in any case may also be limited or non-existent. Spill-over benefits for every 1% growth the world average is 0.4% the Non-African Landlocked country average is 0.7% and that for African landlocked country is very low at 0.2% (Collier, 2010)

While others stated that the location of the country affects growth through productivity and proximity to the potential market, this leads to shape the choice of policy that a country is supposed to follow. Meanwhile, countries nearest to the world market benefit to follow a policy that leads to open their economy than a country far away from the world's potential market. Thus, it's the main finding of growth and geography indicates that domestic trade, as well as international trade and productivity, are influenced by access to seas and ports, this is assured by those countries nearest to the coastal area become more urbanized. But, many developing countries especially in Africa, majority of the population are living in landlocked, and it extremely affects transportation and trading capacity and problematic to integrate into the core economies and industrialize per se (Gallup et al., 1998).

In addition, many more challenges besides the geographical location in the tropics are that productivity is affected by the weak labor force injured by disease and malaria as we approach the tropics, disease prevalence becomes so sophisticated and productivity declines. Thus, tropical and temperate agricultural productivity shows a great variation due to these circumstances (Ibid).

4.2.1. *Natural resource and its paradox*

The existence of natural endowments serves as an engine of growth where it is supported by the quality of the institution unless it becomes a curse. Countries with abundant natural resources with wise management and target on the production of the technological-based production system and high intensity to productive assets investment make the country more benefited. Nevertheless, there is a negative effect associated with its abundance due to price instability and challenges the financial sectors of the economy (Van der Ploeg, 2011). Empirical studies showed that there is a negative association between natural resources abundance and economic performance when countries depend on exporting their excess abundance of the natural resources and ended up being a curse with it (Mavrotas et al., 2011). Similarly, the existence of natural resources (new oil discoveries Sachs, 2003) leads to the appreciation of the real exchange rate and it crowds out the other sectors and harms other export sectors of the economy Sala-i-Martin and Subramanian (2013). Accordingly, Hirschman 1958 as cited in Sachs & Warner (1999), countries with plenty of natural resources are failed to complement with supportive sectors and end up with poor performance and consume more rather than reinvesting it. Abrams and Lewis (1995) presented the effect of natural resources on long-term economic growth and confirmed that resource-rich countries tend to grow more slowly than resource-scarce countries, and they are labeled as the "natural resource curse." Similarly, natural resource richness crowds out human and physical capital, causing slower growth in the long term (Gylfason, 2001; Gylfason & Zoega, 2006). Moreover, resource-rich countries more emphasized on service sector than manufacturing sectors, and this tends to lag economic progress by the declining exporting capacity of manufacturing sectors. Not only this but resource-rich countries are also prone to corruption and established low institutional quality, and lead to negative economic growth.

Paul Collier in his book, "The Bottom Billion" argues natural resource traps. This looks at what happens when the countries rely on unearned rents. In addition to this is the issue of the "Dutch disease" where the reliance on a particular natural resource affects the other sectors. Boom and Bust cycles are a problem that comes along with Dutch disease in that there is normally uncontrolled spending and borrowing as a result of booms and in the periods of busts it's difficult to reprioritize

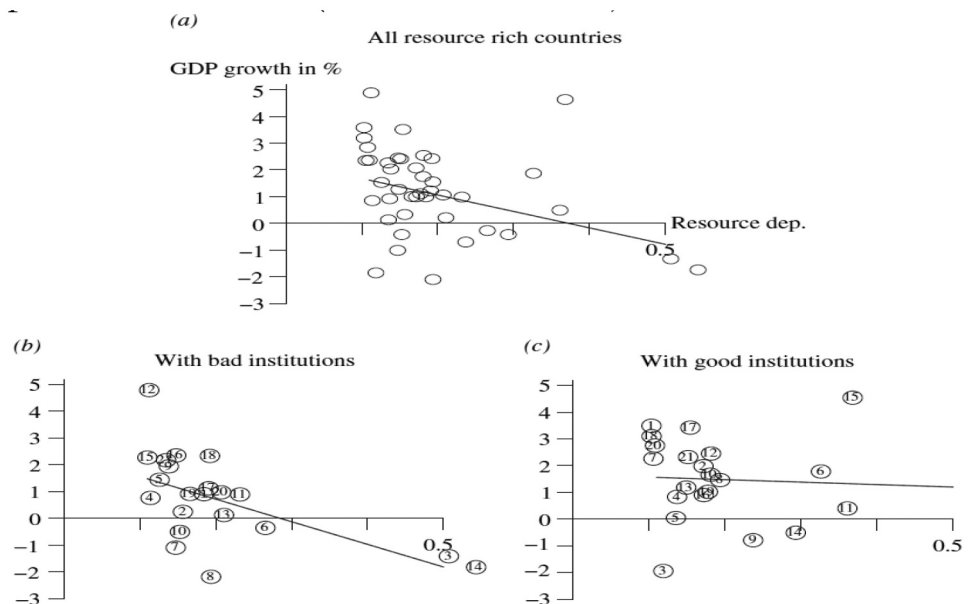
effectively but rather politically which creates an even bigger problem. Hence, abundant natural resources cannot exclusively explain and determine the fate of the country's economic growth and development since resource abundance in a country leads to either of the curse or blessing outcomes.

Nevertheless, the existence of resources¹ is not a curse by itself but the type of policy they followed, institutions, and human capital accumulation matter for the achievements. With plenty of natural resources, only a few countries become successful such as Botswana, Norway, Australia, and Canada behind this success the establishment of the institution is immense with human capital development. Different bad experiences are linked with the existence of plenty of natural resources, Zambia, Nigeria, Sierra Leone, Angola, Venezuela, and Saudi Arabia. But resource-poor countries of Asian Tigers: Taiwan, Korea, Hong Kong, and Singapore showed progress amazingly. This lesson should be taken as the best experiences of being a winner without resources and type of policy they followed with resources and its institutional quality substances more (Acemoglu et al., 2002; Mehlum et al., 2006; Sachs, 2003). Likewise, abundance resources become curses due to incompatible institutions (Mavrot et al. 2011).

Source: (Mehlum et al., 2006); Economic growth with resource and institutions.

Besides all the above factors in the process of economic and wealth accumulation of countries, other factors should explicitly have accounted to know the real effects of the choice of policies intended to follow and its governing systems (Figure 2). In line with this, the argument of the existences of democracy, there is an unclear and controversial sight on which comes first, in essence, does democracy lead to growth or the reverse leads? But, most of the empirical investigation pointed out that the role of democracy and the existence of political stability for the sake of solving communal problems and designed a project for the interest of the public and against self-interested gain from public resources. Democracy is appropriate for the benefit of the majority and maximizing output by fairly allocating the existing resources efficiently and it discourages corrupt officials. It links with the establishment of better institutions and demand multi-dimensional aspects and later enhances development further. Besides, Tavares & Wacziarg (2001) argues that democracy helps the poor by lowering inequality by redistributing income but at the expense of physical capital accumulation; thus, it affects growth negatively. The latter when there is more democracy, it increases the

Figure 2. Institutions vs resources (a) performance of rich countries (b) associated with bad institutions, (c) Countries with good institutions. thus, it is the self-explanatory figure above about the resources-rich countries perform negatively, in a situation a) and bad institution aggravates in case b, and good institution compliments for the growth as indicates in c).



government's consumption thus ultimately reduces growth. Moreover, Collier (2007) states that resource-rich democracies not only under-invest but invest badly, with too many white-elephant projects and focus on elections. This can be seen as the reason why democracy's ability to harness resource surpluses is poor based on the findings of the research that was carried out. They have generally seen the problem of resource rents as being proneness to autocracy: oil induces Saddam Hussein. There is good evidence for this, but the real problem is even worse.

While others look at the process of economic growth and accumulation of wealth, accounting social, political, and cultural development becomes more an imperative phenomenon for better achievements. Thus, fighting poverty and the pace of economic growth takes cultural and moral dimensions in the poor society at this time. At the beginning of the industrial revolution and capital development, the set of cultural values gives a clue for economic development (Weber, 1905, as cited in Cuesta, 2004). Understanding the culture of the society and creating a link with the past and future economic development is ideal to account for culture as an influencing parameter of economic development. Thus, development expresses in terms of the cultural dimension of giving a reserved value to the system beliefs, values, working habit, truthfulness, readiness to accomplish a given complicated task, and interaction with other new people and structures of social interactions. Hence, religion expresses the cultural habits of nations. For instance, attendance into religious institutes negatively affects economic growth, but beliefs, trust, and associated things are positively linked with economic growth (Barro, 2003). While arguing that interims of nations' awareness in the process of productivity and competitiveness, belonging in certain circumstances speed up national production and global competencies.

4.2.2. *War and state capacity*

In the process of building a strong economy, other factors should be accounted for the nature of the government and its size in which adequately serve the wellbeing of the society. In the sense of giving protection to its societies and security and administer the economic systems. Thus, a country that builds its economy mainly depends on the capacity of the state, where state assurances for the provision and development of publicly available goods and direct in an intended way. According to (Tilly, 1992), in Europe, in the process of state-building its capacity there were a lot of wars, and it is undisputable linked to the creation of internal and external sovereignty and end up with strong government and hence state capacity. The country's economic growth process highly depends on the capacity of the state in extending its economic power, enforcement to build and implementing appropriate policies interims of imposing and securing property right to direct investments in the right direction.

Meanwhile, lack of state capacity induces civil wars, internal instability, unfair and unequal distribution of resources; which many developing countries lack this capacity at this time, and the share of the government in the economy is very small and incapable to afford and provide adequate funding to the provision of the public good. Thus, building a strong economy requires, being strong in building state capacity, having a big share of government expenditure in a state-led economy. Moreover, to strengthen state capacity and fulfill nation's demand' make sure internally stable and build an externally competitive economy.

5. Summary and possible suggestions

Growth is a complex phenomenon that depends on many factors. But a quick look at a few stylized facts has shown us that both economic and non-economic, endogenous and exogenous factors are considered.

Divergent growth experiences of countries across different regions take decisive factors for long periods and it accounts for both time-variant and invariant factors, and recent findings more emphasized the changing parameters for countries economic growth and economic affluence. Strong institutional frameworks play a pivotal role in achieving robust economic progress via developing faiths and reduce transaction costs, and encouraging productive (re)investment options along with human capital development.

Consequently, well-functioned institutions are used as a bridge for better economic progress and stimulate forward and backward linkages of different economic sectors but not everything. The role of geography and resource endowments should not be underestimated. Similarly, geography, the location of the country, does not regulate growth performance exclusively as well, even if countries in the tropics disfavoured by climate condition for the prevalence of disease and productivity, it is not a sufficient condition to be poor. Moreover, countries with coastal access to the sea did not industrialize first being an advantage for it (such as Indonesia, the Caribbean, India). Thus, the mystery is just allocating all changing and unchanging factors together, and designing good policy, openness, administrative capacity and establishing well-performed institutions, developing human capital, more emphasis on changing factors. By saying this, sub-Saharan Africa and other regions struggling today for improved economic development require much more than lectures about good governance and institutions.

Finally, state capacity is vital to determine the relative wealth of state economic affluence. Meanwhile, the state should be more strong and powerful in securing their sovereignty and internal affairs and to enforce and securing property rights, and directing investments in the desired perspectives.

5.1. Possible suggestions

Along all the discussion for the robust economic growth performance, time-variant factors than time-invariant parameters shall lead the countries into prosperities and desirable outcomes. Hence, good institutions by secured property rights, good governance, improve education health and facilities will lead to countries into desirable outcomes. Geographical disadvantageous and landlocked countries better involve in a combination of multiple strategies as can be seen below;

- Engage more on creating financial capacity, and human capital development and regional integrations and promote win-win policies: increase neighbourhood growth spill-overs, improve neighbours' economic policies and improve ways for getting coastal access.
- Develop alternative and possible all-rounded infrastructure facilities, telecommunications, railways and services: do not be Air-locked or E-locked and support and encourage remittances from various nations.
- Develop and create a transparent and all possible investor-friendly environment for resource prospecting.
- Focus on rural development policies, strategies, and biases towards it.
- Seek alternatives to attract Aid and foreign investments in various sectors.
- Promote research & development and homegrown policies for home-specific problems.

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Author details

Esubalew Tadele¹
E-mail: esu360@gmail.com
E-mail: esubalewtadele@dmu.edu.et
ORCID ID: <http://orcid.org/0000-0001-7519-2738>
Teshome Sirany²

¹ Department of Agricultural Economics, Debre Markos University, Debre Markos, Ethiopia.

² Department of Rural Development, Debre Markos University, Debre Markos, Ethiopia.

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Note

1. Even if countries with natural resource scarcity, the growth process somewhat restricted by these constraints, capital can be accumulated and labour productivity can be improved through intensive training and using higher technology. Caution should be taken when natural resources are scarce in the production process, it imposes restricts limitation on the destiny of a country wealth affluence, yet this is not a general case, for instance, Japan achieve this miracle growth performance and enjoys high standard of living without plenty of natural resources (Roy et al. 2013).

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