# The Relationship Between Institutional Strength And Economic Growth

## Introduction

”High quality institutions will not prevent the next economic crises in a market economy, but they do raise the odds that a society can cope with and recover from such crisis and continue on its long term trajectory of progress”(Bruinshoofd, 2016). A country institutions are entities which regulate, execute, and protect rules which a country governed by. The strength of these entities create smooth and efficient system in a country. A developed system (bureaucracy) has dynamic effects in development of a country. In general, it creates enabling environment for activities which contribute to development. Most developed nations are based on well function institutions relative to the developing world.

Growth theories indicated that, growth depends on human capital, physical capital, and technology. The accumulation and management of these resources require strong institutions. Institutions classified as political, economic, and political power institutions. Political institutions have defined power by the constitution. It is called de jure (a power which is given by the law). Economic institutions manage the distribution of resources in society. Political power is an indirect influence that comes from economic power superiority. It is a de facto (informal) power. One of the pioneers in the study of institutions is Douglass C. North. He defined institutions as”institutions are 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” North (1990).

Institutional quality is a root cause of economic growth than the accumulation of physical and human capital or access to technology. For example, strong economic institutions promote property rights. Lack of these rights discourages economic agents to invest in human or physical capital, which resulted in a low level of capital accumulation. Research and development of new technologies will not be profitable because of the free-rider problem. So the accumulation of capital and technological innovation are more of proxies of strong institutions influence in economic growth than an original cause of growth.

”If you want to predict the prosperity of a country, just look at its institutions”(Drzniek-Hanouz,2015).Korea’s natural experiment is a known example in the literature to show how institutions make a difference in the long term. Korea was a homogeneous country in terms of culture, ethnicity, language, geography, and economic states. After the end of World War Two(1945), the Northern part joined the socialist block and the Southern part was helped by the USA. The government systems they have adopted shaped their institutions and economic development of both parts. The Northern part abolished private property of capital and land, strength monopoly of the government, and directed economic interaction in the country. This kind of government system weakens the check and balance, accountability, and transparency of the authorities in each power hierarchy in general. It leads to weak and incapable institutions. The southern part has followed a market-based economy which creates an enabling environment for strong institutions. But following a market-based or pro-democracy system by itself does not ensure strong institutions. Building well organized and functional institutions are a

complicated process that many fail to do so. In South Korea’s case, they have achieved to do that. By 2000, the economic development gap was high. The per capita income in South Korea was 16,100 USD and 1000 USD in North Korea. The role of institutions in the country’s long term economic development can be seen in this natural experiment.

The motivation of this seminar paper is that many developing countries are trying to copy a development model of the Asia tigers (Japan, South Korea, Singapore, Taiwan, and Hong Kong) called the developmental state (DS). These countries have achieved impressive economic development in the second half of the twentieth century. ”Chalmers Johnson first proposed the concept of a developmental state, using the term to describe strong interventionist policies implemented by Japan that led to sustained, rapid industrialization and long term economic development” Singh and Ovadia et al (2018). The DS model requires strong governmental involvement through policy and more. For example, in China (uses developmental state) the government dictate not only the economy but all aspect of interactions. South Korea, on the other hand, has a well-developed democracy while following the developmental state model. But the successful DS countries have common elements like professionalized and meritocratic bureaucracy, fairly distributed technocrats and, strong state capacity.

The developing countries in the global south have tried to implement a DS model, but many of them had failed. The question of why do we see a few developmental state countries or why did not the global south countries succeed in implementing a DS model is not addressed with the relation of the group of failed and successful countries in the economics literature. In this paper, I will investigate the relationship between economic progress and the institutional strength of those countries.Because institutional strength is an important factor to succeed in DS model. The question which I will address is, what is the effect of institutional strength on economic growth(represented by per capital income)?

## Literature Review

The Solow-Swan growth model is the first modern theory to explain the determinate of economic growth. They stated capital, labor, and technology are the determinants of economic growth (Solow, 1956; Swan, 1956). Their theory extended by Mankiw, Romer, and Weil (1992) to include human capital other than capital itself.

Paul Romer (1986) stated the importance of knowledge in the production process which lead to efficient production or increasing return to scale. Paul Romer (1986) stated the importance of knowledge as an input in the production process, which leads to efficient production or increasing return to scale. Robert Lucas (1993) extended the Romer model to include the improvement which comes through repeat production. He stated that learning by doing(codified and tacit knowledge) increases returns to scale.

Douglass North succinctly explained the role of institutions in economic growth and development in his book of ”Institutions, Institutional Change, and Economic Performance”(1990). His work influenced the development agencies like the World Bank to shift their attention from technical issues to more broad institutional concerns. The World Bank had increased the financial allocation to legal and institutional agencies of countries under the motto of ”institutions matter”(Faundez, 2016).

Hall and Jones (1990) showed that the difference in productivity among countries is not fully explained by the level of capital or technology. The differences in part are caused by the institutions that regulate the economic environment. Rodrik, Subramanian, and Trebbi (2002) argue that well functional institutions are important in determining economic development. On the Contrary, Barro(1996) argues that the impact of institutions in economic growth is insignificant. The reason is that they can not improve beyond a certain level. But many papers in developmental economics agree on the importance of institutional quality and necessity to take into account to get the wider picture.

In the previous papers, strong institutions defined as the ones that maintain stability in the political arena, prevent rent-seeking behavior by constraining the officials, secure property rights of investors, and provides an opportunity for society's participation. Rodrik et al(2008), good institutions are a stimulus for business activity and a helpful tool to ensure balanced macroeconomic indicators.

## Methodology and Data

In this paper, I want to study the effect of institutional quality on economic growth. In the model, economic growth is represented by a per capita income of a country because it can reflect a country's growth level fairly than a growth rate itself. Per capita income growth or growth in general, determined by many factors other than institutions. Those variables should be included as instrumental variables to measure the precise relationship between economic growth and institutional quality. The endogeneity problem can be avoided by including the instrumental variable in the model. The instrumental variables include saving and population growth. These macro indicators are from Solow -Swamp model. The model that is used in this paper is as follow:

Y = ? + ?1GE + ?2RQ+ ?3S + ?4PG+ ?

Y is a per capita GDP adjusted to Purchasing Power Parity(PPP). GE and RQ are the variables that I used to represent institutional quality. These variables are from Worldwide Governance Indicators (WGI). It is reported by the World Bank as an indicator of institutional quality. The index measures and compile data on the strength of governance in a country on six broad categories (Voice and accountability, Political stability, Government effectiveness, Regulatory Quality, Rule of Law, and Control of corruption). The index started to prepared since 1996 for two hundred countries. The problem of variables that measure institutional qualities is a high correlation among them. For example, a country that has a good check and balance score probably have very low corruption and vise versa. Government Effectiveness "reflects perceptions of the quality of public service, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies" WGI definition. Regulatory Quality " Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development" WGI definition. S is a percentage of saving from the GDP. PG is a population growth annually.

The countries that are chosen in this study classified as successful, partially successful in implementing the DS model, and countries that never implement DS model.South Korea, Singapore, and China are economically successful countries by implementing strong state

involvement in the country. South Korea and Singapore have a small population and size relative to China, which counts for 18.47 percent of the world population. These countries rapidly industrialized in the second half of the twentieth century. Their success attributes other factors in addition to strong state involvement (DS) through policy and more. South Korea had enjoyed persistence forms of help from the USA in the Cold wartime. Including technology transfer unavailable to others, the export opportunity to the USA market, military aid, and infrastructure loans. Singapore got a significant financial package from the Western world. China's cheap labor supply in the 1980s and 1990s made it a manufacturing hub of the world.

Argentina, Brazil, Ethiopia, and Rwanda had limited success in following the DS model. Brazil (2002-2010) "under President Petrobars had tried to utilizing sector-specific development through local content policy, Keynesian style infrastructure spending and building enter sectoral linkages in sustaining industrialization as policy elites identify new sources of growth and inspiration for industrial policymaking. Petrobras government was also intended to utilize the natural resources sector, especially its oil and gas industry, to further deepen the process of structural transformation in Brazil. While the policy was, by and large, well designed, rent-seeking and clientelism have weakened the autonomy of Petrobras, which meant losing its ability to deliver public policy goals" (2018, Page 1048) Singh and Ovadia. Argentina (2002-2007) under Kirchners followed strong state involvement to built big projects that end up as a waste of resources. Unable to transfer rent from natural resources to promising sectors are the common mistakes in countries that experiments DS model.

Ethiopia (2002-2018), under the ruling party, had succeeded in infrastructure, poverty reduction, and the agricultural sector. The country's great success was to lift out its 29 percent of the population from poverty. Also, there were significant improvements in Keynesian style infrastructure buildings. But the high corruption and bribery deteriorate the popularity of the government. Rwanda had achieved fourfold GDP growth between 2005- 2015. Nigeria and Kenya are included in the analysis to have a representative economy level of the global south.

## Result

I used panel data regression to quantify the effect of institutional quality on economic growth. Institutional quality is represented by government effectiveness and regulatory quality. They are measured from -2.5 up to 2.5. The instrumental variables saving rate and population growth rate data are from World Bank Economic outlook. I used data from the year 2002 to 2018. I applied the Hausman test to see whether fixed or random effects explained it better.

Regulatory quality is the ability of a government to effectively implement sound policies. A one score point improvement in regulatory quality has 8041.87 units increase in per capital income. Government effectiveness measures public service quality in general. A one score point improvement in government effectiveness has 7243.39 units increase in per capital income. Both of the results have significant effects on the increase of per capital GDP with a high R square of 0.7762. The saving rate, as a percentage of GDP, an insignificant effect on per capital income. This result is, contradicted the standard economic theories. An explanation is that the importance of saving in economic growth is, to be used as a capital source for investment in productive activities. But most of the countries in the data except China got a sustained capital source from aid packages, concessional loans, and raw material (oil and gas) export, which is different than saving but used as a source of capital. This might downgrade the importance of

saving in per capital income growth. Population growth has a significant and opposite effect on per capital income as expected one-unit increase in population growth has 2359.15 decreases in per capital income. It is because per capital income is, GDP divided by a country population, so the population growth rate increases the denominator of the ratio.

## Conclusion

In this seminar paper, I tried to explain the relationship between institutional strength and economic growth. Institutional strength is an important factor, to implement a Developmental State model. Countries that were partially successful in adapting the developmental state model have a low institutional quality standard. For example, in Brazil clientelism and corruption, in Argentina the lack public capacity to transfer the rent to productive sectors, and in Ethiopia corruption. On the contrary, South Korea, Singapore, and China have well developed bureaucratic capacity, merit-based public positions, and dispersed technocrats. So it is recommended that the partially succeed countries concentrate on improving the regulatory quality and government effectiveness of their institutions. But additional improvement will also bring extra gain for successful countries.