THE IMPACT OF INSTITUTIONS ON ECONOMIC GROWTH: THE CASE FOR ZIMBABWE (1980-2013)

BY

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DECLARATION

I declare that this work is mine and has not been submitted for a degree at any other University.
DEDICATION

To my late mother who brought me to this world; I wish you were around to this day, and to my wife, Rumbidzai and my son Theophelus, I dedicate this Thesis to you.
ACKNOWLEDGEMENTS

My heartfelt gratitude goes to my supervisor, Dr Mumvuma for his unwavering guidance and constructive criticism throughout this study. I would also like to extend my profound gratitude to Cathbert Mudhunguyo and Douglas Muzimba my classmates for providing invaluable comments during the research.

My sincere gratitude also goes to my wife Rumbidzai Ngwanga for the warm environment she provided during this work and emotional support in the realisation of my dreams.

I also would like to make special thanks to Zimbabwe Economic Policy Analysis and Research Unit (ZIPARU) for providing sponsorship through the assistance of SERA- USAID. Without them I would not have been able to undertake the Msc Economics Degree programme.

Finally, to the Almighty God, I say thank you for giving me wisdom, understanding and the gift of life.
ABSTRACT

This dissertation explores the role of institutions in determining the income per capita for the period 1980 -2013 in Zimbabwe. It analyzed empirically using the Generalized Method of Moments (GMM) whether the institutions (proxied by political stability index) affect economic growth alongside the traditional factors. The results show that institutional quality has a greater impact on growth in Zimbabwe and if not taken into account may crowd out all other economic policy initiatives. Therefore the policy implication from the study is that economic growth success hinges on the soundness of institutions.
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LIST OF ACRONMYS

ADF  Augmented Dickey-Fuller
AfDB  African Development Bank
CPIA  Country Performance and Institutional Assessment Index
ESAP  Economic Structural Adjustment Programme
FDI   Foreign Direct Investment
GMM  General Method of Moments
GNU  Government of National Unity
GPA  Global Political Agreement
HDI  Human Development Index
HDR  Human Development Report
IMF  International Monetary Fund
IRCG  International Risk Country Guide
NDP National Development Plan
MDGs Millennium Development Goals
MFED Ministry of Finance and Economic Development
OLS  Ordinary List Squares
RBZ  Reserve Bank of Zimbabwe
SADC  Southern African Development Community
UNCTAD United Conference on Trade and Development
WB  World Bank
ZANU (PF) Zimbabwe African National Union (Patriotic Front)
ZIMPREST Zimbabwe Programme for Economic Sustainable Transformation
ZIM-ASSET Zimbabwe Agenda for Sustainable and Socio-Economic Transformation
ZIMSTAT Zimbabwe Statistical Agency
ZEPARU Zimbabwe Economic Policy Analysis and Research Unit
CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.0 INTRODUCTION

According to Arbache et al. (2008) the Sub-Saharan African economies have since mid-1990s started to grow consistently with 14 and 26 countries growing at more than 5% and 4% per annum respectively after a long period of 45 years of stagnation. While this growth is good for Africa, for Zimbabwe economy’s growth has been bad with the economy shrinking by more than 50% cumulatively from the period 2000-2008 (ZIM-ASSET, 2013) after another decade of unpleasing economic performance. Underlying this impressive performance for Africa is the improvement in institutional quality as measured by Country Performance and Institutional Assessment (CPIA) Index from 2.8 in 1995 to 3.2 in 2006 and not the conventional economic growth factors particularly savings or the investment levels.

Furthermore, Luiz (2008) in his research paper titled “Institutions and Economic Performance: Implications for African Development” further asserts that rule of law, clean government, social and political institutions that manage social conflicts are conspicuous by their absence on the poor countries. Given this striking and close relationship between institutions and economic growth in Africa and other developing countries, Zimbabwe will not be an exception. There is thus a relentless necessity to do introspection on the institutional quality performance with a view to take it as important ingredient to economic growth process.

The correct policy prescription for Zimbabwe economy will be found by correctly diagnosing the root causes. According to Acemoglu et al. (2001) and Rodrick et.al (2002) the lack of capital, and technology are only approximate determinants of growth as it make us ask further on why we have low technology, low human capital and fail to make use of our factors we are endowed with as well as opportunities. Furthermore Rodrick et.al (2002) came to a conclusion that
institutions prevail over geography\textsuperscript{1} and openness to trade. Easterly et.al (1997) also confirms that Africa’s poor income is on account of weak institutional performance (i.e political instability, underprovided infrastructure, poor schooling and distorted foreign exchange markets). In order to understand economic performances it is suggested that institutions are a key factor.

It is also of paramount of importance to know that lately the Reserve Bank of Zimbabwe (RBZ) has acknowledged in it’s 2014 Mid-Term Monetary Policy that there are missing ingredients which are required to be restored in order to attain sustainable economic growth. The ingredients which are highlighted include the rule of law, positive business culture, policy clarity and visible fight against corruption. Put differently the quality of institutions in Zimbabwe is poor and it is therefore inhibiting economic growth. Institutions are not self-creating which therefore means that there is need for deliberate and conscious decision to come up with good quality institutions.

In view of the foregoing observations, it is therefore more than needful to have an empirical research on Zimbabwe which is based on the institutional theory perspective explaining the economic performance which can guide policy makers and this research is one such attempt.

\textbf{1.1 WHAT ARE INSTITUTIONS AND WHY ARE THEY IMPORTANT?}

The linking of institutions to economic growth have gained a lot prominence and generated major debates as main determinant of economic performance after the work of North in the early 1990s. North (1990, p. 3) defines institutions as the rules of the game in a society or, as the formal and informal constraints which are created by society designed to shape human interaction parameters.

The institutions consists of both the informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights). North (1990) goes on to emphasize that institutions structure incentives in human exchange, whether political, social, or economic.

\textsuperscript{1}Geography here is referring to the disadvantages and advantages that occur to a country on account of it’s physical location in the form of it’s latitude, climate and proximity to navigation waters.
We will proceed to give in summary the role of institutions to economic performance. The theory on institutions asserts that rules and regulations shape the environment in which interaction occurs and thus provides incentives to either engage in productive or unproductive activities which will have an effect on economic performance outcome. One crucial role played by institutions on economic growth is to reduce uncertainty by providing a predictable environment in which economic agents interact. In essence institutional theory emphasizes the protection of property rights, rule of law and contract enforcement to attain improved economic performance. When property rights are not observed it will reduce the incentive to invest in both the physical and human capital formation. In addition it compromises the extent to which firms invest in efficient technologies.

Besides protection of property rights economic institutions are fundamental as they facilitate the creation of markets and help in the efficient allocation of resources. Societies with economic institutions that facilitate and encourage factor accumulation, innovation, trade and the efficient allocation of resources will prosper. In the absence of markets or when they are ignored (as they were in the China before 1978, for example), gains from trade go under exploited and resources are inefficiently used.

1.2 THE INSTITUTIONAL PERFORMANCE AFTER INDEPENDENCE IN ZIMBABWE

Upon attaining it’s independence in 1980, Zimbabwe like many African states it took various measures to attain higher GDP growth rate which are articulated in various policy documents which include Growth with Equity Framework(1981), The First Five Year National Development Plan((NDP) 1986-1990), the Economic Structural Adjustment Program ((ESAP) 1991-1995), ZIMPREST(1996-2000) and ZIM-ASSET(2013-2018). The transition from the colonial rule to black majority rule raised hopes for shared growth and greater access by the majority of the population to better economic opportunities. At this juncture more than three decades have passed,a period long enough to take stock of the past growth performance and draw implications for future pro-growth policies.
1.2.1 The first decade after independence: 1980-1990

When a new dispensation of black majority rule was ushered the economy was considered as the jewel of Africa. It had robust industry and agriculture was a major contributor to the GDP enjoyed during the period. The close relationship between the agricultural and industrial sector was maintained which also influenced the macroeconomic stability. In addition, the Independence brought resurgence to economic growth and from the year 1980 to 1990 the economy experienced an average growth rate of 5.5% which was above the Sub-Saharan Africa region. The economic growth recorded was on account of several factors that included the removal of international sanctions and the redistributive policies.

Kanyenze et al. (2011) highlights that at independence 6 600 white owned 15.5 million hectares of prime agricultural land compared to 7 million black majority people who were on infertile and dry land. The period from 1980 to 1990 land was on willing buy and willing seller basis and little progress was achieved in terms of addressing the land ownership disparity. This anomaly did not last long as shall be discussed in the subsequent sections.

One prominent feature during this period was that land reform was pursued though slow but in an orderly manner. This was made possible on account of the constitutional protection enjoyed by the whites. To ensure that their interest were protected upon independence the settlers negotiated for their specific ‘rights’ to be included in the ‘ceasefire’ Lancaster House Constitution which was adopted in 1980 (Gwenhamo, 2009). Several favours for the whites which were included in the Lancaster House Constitution are as follows;

1. Protection for up to 10 years from land expropriation by the state or private agents and any expropriation could only take place thereafter compensation.
2. Reservation of 20% of the seats in the lower house of parliament for a period of seven years even they only constituted less than 3% of the entire population.
3. Reservation of 25% of the seats in the upper house of parliament. (Robinson, 2004).

In essence the Lancaster constitution was a compromise document meant to provide political and economic security to the white minority while giving a guarantee to end marginalisation to black majority in the political and economic affairs of the country.
1.2.2 ESAP and ZIMPREST Period: 1991-1999

The economic performance during the preceding period was not up to the expectation hence to stimulate the economy the government under the guidance and instigation of the International Monetary Fund (IMF) and World Bank (WB) adopted the Structural Adjustment Programme (ESAP). This was despite of the fact that the structural adjustment programmes had dismally performed in various countries it had been implemented.

The key objectives for ESAP were as follows;

- achieve annual GDP growth of 5 per cent over the period 1991–95;
- raise savings to 25 per cent of GDP;
- raise investment to 25 per cent of GDP;
- achieve export growth of 9 per cent per annum
- reduce the budget deficit from over 10 per cent of GDP to 5 per cent by 1995;
- reduce inflation from 17.7 per cent to 10 per cent by 1995.

The objectives of ESAP were to be achieved through liberalization in the goods and labour markets as well as in the foreign trade. Government was also supposed to remove or reduce subsidies to parastatals and other consumer services it provided such primary education.

The performance of economy before and during ESAP is summarized in Table 1 below;

Table 1: Zimbabwe economic performance, 1980-1996

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual real GDP growth</td>
<td>4.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Savings as a %age of GDP</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Investment as a %age of GDP</td>
<td>17</td>
<td>21.7</td>
</tr>
<tr>
<td>Export growth per annum</td>
<td>23</td>
<td>41</td>
</tr>
<tr>
<td>Budget deficit as a %age of</td>
<td>-3</td>
<td>-5.8</td>
</tr>
<tr>
<td>GDP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average annual inflation</td>
<td>12</td>
<td>26.6</td>
</tr>
</tbody>
</table>

Source: Beyond the enclaves 'Towards a Pro-Poor and Inclusive Development Strategy for Zimbabwe', Kanyenze et al., (2011)

Drawing from the above table it can be observed that exports, investment and savings increased. On the hand the economy contracted to 2.8 % per annum while the inflation rose to 26.6% per annum. The budget deficit deteriorated to -5.8% of the GDP.

The failure to achieve the above highlighted ESAP objectives was attributed to several factors. Firstly, poor performance was on account of poor weather conditions. A serious drought was experienced from 1991 to 1992. Zimbabwe is an agro-based nation therefore a poor performance in the agricultural sector feeds into the industrial sector which lead to general economic decline during the period.

In addition, there was also no national ownership of the program to ensure the necessary buy in by all the stakeholders. Broader participation by the indigenous people in policy formulation and implementation is a vital component for sustainable economic growth. According to Kanyenze et.al (2011) to build ownership of reforms by all stakeholders within a country there is need for open and constant engagement among the respective sectors of the economy which will consequently create certainty and boost their positive participation.

Furthermore, the other weakness of ESAP is that it diminished the role of the government to giving necessary interventions for the functioning of the economy as it was premised on Washington Consensus\(^2\) doctrine. However for those countries that have been able to enjoy long periods of economic growth such as Botswana and the Asian Tigers\(^3\) they had to rely on Government intervention to create the necessary institutional market framework underpinnings (Commission on Growth and Development Report, 2008). The Report further states that;

> “Just because governments are can at times incompetent and misbehave, does not therefore mean that they should be thrown out of the picture. Instead, there are required more and should play a fundamental role in drive of the economy in a way that cannot be done by any other stakeholders in the economy.”

\(^2\)The termWashington consensus was coined by John Williamson (1989) to refer to a set of economic policy prescriptions that he considered constituted the "standard" reform package and were promoted by the international financial institutions. Their focus was on macroeconomic stabilization, economic opening with respect to both trade and investment, and the expansion of market forces within the domestic economy.

\(^3\)Asian Tigers is a term used to describe highly developed Asian countries namely Hong Kong, Taiwan, Singapore and South Korea.
1.2.3 The crisis period in Zimbabwe: 2000-2008

This was followed by a worst episode in Zimbabwe’s economic history attributed largely to a combination of factors, including economic mismanagement, poor governance, and sour international relations, capital flight, and low investment (ADB, 2011). The effect of these actions was that the economy contracted massively by nearly 50% for the period 2001-2008 cumulatively and inflation reached world record level of 231 million % as at September 2008. With such high levels of inflation the economy growth declined heavily, the industry capacity utilization plunged to below 10% and formal unemployed spiraled. Widespread controls on consumer and producer prices which were common feature also contributed to acute shortages of consumer goods and exacerbated the rate of increase in inflation. The government abandoned the prudent fiscal and monetary policies. This was clearly manifested with the behavior of both the central government and central bank: Reserve Bank went on spree of printing money during the period 2005-08 which went to the financing of both the budget deficits and quasi-fiscal activities worsening the purchasing power of the Zimbabwean dollar. The impact of the excessive money supply growth to Zimbabwe’s hyperinflation is confirmed by Makochekanwa (2007).

During the same period the central bank took foreign currency of companies, organisations and in banks without their consent which has not been returned to date. This clearly shows failure by state to protect the assets of private economic agents which results in erosion of the fundamental trust between the banking institutions and the public. To this end, it is not surprising that the liquidity crunch the country is experiencing is partly explained by the public’s skeptical on the security of their banked deposits.

During this crisis period the Government went on to take a major step in terms of land ownership changes by embarking on fast track land reform. The speed with which it was done there was no room of passing skills from the former white farmers to the new resettled farmers. Moreover the old farmers were removed sometimes violently and without any compensation as was initially promised. The manner in which the land form took attracted a lot of criticism both locally and internationally resulting in imposition of sanctions and as a result Zimbabwe earned itself high risk profile. Consequently donors and investors shunned the country. The effect of these changes was decline in agricultural output and consequently the economic growth. AfDB (2011) observed that the share of agriculture in GDP was
about 22 percent in 2001, it took a nosedive to approximately 10 percent in 2008. In the same
vein, the agricultural sector’s value added contracted by 66 percent during 1999-2008, most of
the contraction occurring in commercial and communal farming.

What would then explain the incentive for the polity to accept the policy that clearly disastrous to
the economy? It is glaring to the effect that the polity enjoyed the taxes from both industry and
agriculture sector and when they were cornered with circumstances they give in emotionally
without appreciating the consequences since they also did not have any stake in farming or
industry. Instead they viewed it as viable option for them politically. This is contrast to Botswana
post its independence when the main political actors had large numbers of cattle (cattle ranching
contributed largely to the country’s GDP) thus instituted measures to ignite and grow the sector.

The situation was aggravated by the passing on of the Indigenization and Economic
Empowerment Act (Chapter 14:33) in the year 2007 by the Government of Zimbabwe which
aimed at addressing the historical imbalance in the productive sectors of the economy. The
implementation methodology and the interpretation of the Indigenization law have not been clear
and consistent. This created uncertainty and hence the country has repeatedly recorded the least
in terms of foreign direct investment according to the United Conference on Trade and
Development (UNCTAD) World Investment Report Statistics. According to the UNCTAD
(2014) Zimbabwe received US$52 million during 2008 in terms of FDI ranking behind even
Mozambique and Zambia which received US$592 million and US$932 million respectively over
the same period.

During this crisis period it can be concluded that the Zimbabwean government did a poor job in
enforcing sound fiscal and monetary policies that are essential in driving the growth agenda. It is
therefore plausible that the resulting high expropriation risk emanating from the unclear
indigenization law among other factors negatively impacted on economic growth.

1.2.4 Partial economic stabilization period: 2009-2013

Finally there was some period of partial economic stabilization, covering 2009 to 2013 following
the formation of a Government of National Unity (GNU) and adoption of the multicurrency
system. The formation of GNU brought together the two main political parties namely ZANU PF and Movement for Democratic Change in government. The objective of the GNU was to restore political and economic stability while building a concrete framework for credible national elections. This was to be achieved through a broad-based stakeholder constitution making process, a National Economic Council to oversee the economic stabilization process, national healing through the Organ on National Healing and Reconciliation, resolving land disputes through the land audit and removal of sanctions, electoral reforms. A closer analysis to the Global Political Agreement (GPA) will reveal that it was a vehicle to restore the institutions for protection of property rights, conflict management and macroeconomic stabilization.

On the economic front, growth in per capita income achieved was initially high but did not last long. In 2009 the economy started to achieve positive growth achieving a real GDP growth rate 5.4% in that year, 11.4% in 2010, reaching a peak of 11.9% in 2011. The momentum was lost with growth recorded to decline to 10.6% in 2012, 3.4% in 2013 and in 2014 is projected to be 3.1% (MFED, 2014). An important question would then arise, what are the main determinants of long-term economic growth in Zimbabwe? The answer to this question is vital as it has implications on the future policy economic policies. The initial high growth can be explained by the high positive expectations for the new dispensation in terms of policy formulation and implementation and end to high polarization that had engulfed the pre-GNU era.

However, the economic growth momentum lost its steam following conflicting policy pronouncements by Cabinet Ministers resulting in policy uncertainty. This was manifested by different interpretations of the Indigenization law among other Government policies. Failure by different political parties in government to speak with one voice with respect to government policies signaled conflict on policy and hence created uncertainty resulting in low economic performance. In addition, the slowdown in economic growth can be attributed to the snail pace at which institutional reform as was articulated in the Constitution of Zimbabwe Amendment No. 19 (2008) was implemented which gave birth to the GNU. The divergent interpretation of this agreement to the advantage of each political party and constant breach of the agreement by the political parties concerned was pervasive, consequently it was another episode of lost time for the reconstruction of the Zimbabwean economy.
Given the above observations, it is not surprising that Zimbabwe according to Freedom House (2014) attained 35.5 score on economic freedom measure, taking last position out of 46 countries in Sub-Saharan African region and 176th freest economy in the world. On another institution measure of corruption, the country in 2013 was rated from International Transparency with a score of 21 (the score is rated from 0-100, 0 highly corrupt and 100 least corrupt) and number 157 out of 177 countries. According to theory and empirical studies there is negative relationship between corruption and economic growth. The failure to have institutions that deal with corruption has resulted in pitiable economic growth.

The summary of the 2009 to 2013 period is that Zimbabweans squandered a golden opportunity to build institutions for protection of property rights, conflict management and macroeconomic stabilization essential for to steer sustainable socio-economic growth and development.

1.3 COMPARATIVE ANALYSIS OF ZIMBABWE’S ECONOMIC PERFORMANCE

It is be quite thought-provoking to observe that Zimbabwe economic performance as measured by GDP per capita at independence was rated at par or better with the now Asian tigers among other good economic performers. The Table 2 below shows the trend of GDP capita for selected Asian countries and two African nations including Zimbabwe from 1950 to 2010;

Table 2: GDP capita comparison for selected years (US$)

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<tbody>
<tr>
<td>China</td>
<td>448</td>
<td>662</td>
<td>778</td>
<td>1,061</td>
<td>1,871</td>
<td>3,421</td>
<td>8,032</td>
</tr>
<tr>
<td>India</td>
<td>619</td>
<td>753</td>
<td>868</td>
<td>938</td>
<td>1,309</td>
<td>1,885</td>
<td>3,372</td>
</tr>
<tr>
<td>South Korea</td>
<td>854</td>
<td>1,226</td>
<td>2,167</td>
<td>4,114</td>
<td>8,704</td>
<td>13,985</td>
<td>21,701</td>
</tr>
<tr>
<td>Thailand</td>
<td>817</td>
<td>1,078</td>
<td>1,694</td>
<td>2,554</td>
<td>4,633</td>
<td>6,398</td>
<td>9,372</td>
</tr>
<tr>
<td>Botswana</td>
<td>349</td>
<td>403</td>
<td>647</td>
<td>1,765</td>
<td>3,304</td>
<td>4,084</td>
<td>13,079</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>701</td>
<td>938</td>
<td>1,282</td>
<td>1,295</td>
<td>1,356</td>
<td>1,231</td>
<td>750</td>
</tr>
</tbody>
</table>

Source: [http://www.ggdc.net/maddison/maddison-project/data.htm](http://www.ggdc.net/maddison/maddison-project/data.htm) (Accessed on 15 December 2014)
On the other hand the Zimbabwe’s Human Development Index (HDI) has performed below that of the Sub-Saharan Africa and was ranked 173 out of 187 countries during 2011 (HDR, 2011). The HDI is a commonly accepted development index that measures the expansion of people’s freedoms and capabilities to lead lives that they value and have reason to value. HDI is important as it affords the opportunity to find the relative development position of countries. As illustrated in Fig. 1 below, Zimbabwe’s HDI was on upward trend from 1980s but started to decline in 1990. It’s Gini coefficient (which measures inequality) followed the similar trend which suggests strong relationship between income and inequality in Zimbabwe. The deterioration in incomes has the effect of worsening the inequality among the citizens and vice versa and as a result measures to address income levels will consequently solve inequality gaps.

Fig. 1 Trend of the Human Development Index for Zimbabwe and Sub-Saharan Africa

Source: Human Development Report, 2011

The maintained hypothesis in literature is that economic growth is a prerequisite for economic progress and improvement in the standards of living. It is against this background that developing countries need to focus on economic growth as it is at the center of fighting poverty
and to achieve prosperity for their countries (i.e attaining MDGs). The benefits of growth can also be shared by the people on a broad basis for example China has tremendously been able to reduce the number of people living in absolute poverty from over 250 million to about 50 million, a decline from a one third to a twenty-fifth of its population; and life expectancy has increased from 64 years in the 1970s to over 70 years in the late 1990s (Qian, 2007). Furthermore, high growth rate of GDP is typically associated with more business expansion which results in low levels of unemployment, more tax revenue (increased fiscal space), and quality public services to the populace.

1.4 PROBLEM STATEMENT

Given the criticality of good economic performance in satisfying the needs of the populace, the poor economic performance by Zimbabwe deserves urgent attention. As already highlighted above, economic performance hitches on the institutional underpinnings of a country. These institutional underpinnings ranges from policy consistency, policy ownership through participation, fight against corruption, observance of property rights and prudent fiscal and monetary policies. From the above comparative and institutional analysis it shows that Zimbabwe’s economic growth challenges were characterized by deterioration on the quality of institutions.

It is therefore essential to understand the institutional factors that were behind the Zimbabwe’s lagging performance while on the other nations took exactly the opposite direction? As shown from the table1 above, our neighbor Botswana is counted among the best performers since it’s independence while countries such as Thailand, South Korea and China significantly improved their economic performance. This is despite the fact that Zimbabwe was at some point in time better than these nations. The empirical question is therefore; why has Zimbabwe's economic development stalled and can institutional improvement be able to reverse this trend?

1.5 RESEARCH QUESTIONS

1. Does the quality of institutions affect economic growth?
2. Do institutions have more impact on growth than physical and human capital?
1.6 RESEARCH OBJECTIVES

1. To estimate and test the impact of institutional quality on economic growth for Zimbabwean economy using econometric modelling.

2. To estimate and confirm whether capital and labour; the conventional determinants of economic growth, are significant for the Zimbabwean Economic growth.

1.7 STATEMENT OF HYPOTHESES

1. ‘Good quality’ institutions spur economic growth.

1.8 JUSTIFICATION OF THE STUDY

Zimbabwe’s current economic growth problem is not unique in the history of nations. Zimbabwe can learn from how others have been able to craft their economic success notwithstanding unfavorable initial conditions. One thing that is coming as core to the attainment of sustainable economic growth are institutions, Rodrick et al. (2002) argues that the quality of institutions ‘trumps everything else’. After taking into account the conventional causes of growth, the variation in economic performance for developing countries is increasingly attributed to institutions.

The answer to economic growth is vital as it will unlock employment opportunities, reduce fiscal constraint, avoid company closures and in short it is a precondition to poverty eradication and prosperous Zimbabwe but not an end to itself.

In answering the question of economic growth the researcher would like to take departure from the traditional answer to causes of economic growth but focus on the fundamental causes of economic growth; institutions. While there many studies have been done which confirming that institutions as fundamental to economic very few studies have been done which focus on country specific. Prominent cross country examples of studies includes Mauro (1995), Rodrick et al (2002) and Sacks et al (1997). The cross country and country specific studies are not substitutes for each but rather play complimentary role to each in our understanding of growth process. In-depth country studies can serve the purpose highlighting the vital interactions in ways that cross-country empirics cannot. It is therefore against this background that the researcher intends to do
country specific study for Zimbabwe’s institutions and their impact to economic performance. The study will provide an opportunity to reconfirm the effect institutions on economic growth to a country specific and to be precise Zimbabwe’s economic performance.

1.9 ORGANISATION OF THE STUDY

Following this introductory chapter, the rest of the study is organised as follows: The second chapter gives a detailed underlying theoretical foundation and critical empirical literature review as well the limitations of past research. This will be followed by an elaboration of the methodology used for the study. Chapter four will present and give interpretation of the study findings. Finally, the fifth chapter gives policy implications and recommendations as well as suggestions for future studies.
CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter shall providereviews of both the theoretical and empirical literature on the impact of institutions to economic growth. Theoretical literature is important in that it does give possible links between institutions and economic growth while the empirical literature saves to give the validity of the theory in the real world. On the other hand theoretical literature is going to help in the selection of variables to be used in the empirical model and interpretation of the results. Empirical literature will be critical in evaluating theory and comparing the results of the study to those of previous studies.

2.1 THEORETICAL LITERATURE REVIEW

Economic growth theory has evolved over time and has taken many forms during different times. During the 1950s and 1960s, “big push,” planning, and import-substitution were given as best recipe for the developing nations (Rodrick, 2004). As we went into 1970s these ideas lost ground to the price mechanism as best way to allocate resources and at the sametime export-led growth was advocated. These new views were in the early 1980s consolidated into what famously become known as the ‘Washington Consensus’. These views were embraced and propagated to many developing nations by the international financial institutions particularly the World Bank and the International Monetary Fund. As we entered the 1990s it became increasingly evident that the Washington Consensus had failed to deliver what was expected from it. Another tool to emancipate poor nations from mediocre economic performance to economic prosperity had to be searched and takeover from the failed Washington consensus.

2.1.1 INSTITUTIONS AND ECONOMIC GROWTH

Beginning in the early 1990s the answer to economic growth emerged and was pioneered through the ground breaking article by North (1990) titled ‘Institutions, institutional change and
economic performance’. North (1990) observed that the neoclassical theory failed to take into account institutions which are the formal and informal rules that shape the environment for economic, political and social exchange. This was even admitted by the IMF in the Commission on Growth and Development Report (2008) and they have since started to incorporate the institutional dimension in their policy reform advice. The coming on board of institutions tears down the notion of ‘invisible hand’ advocated by Adam Smith which states that in pursuit of self-interest by economic agents the markets work efficiently in allocating resources and thus government role should be minimal. On the other hand institutional theory emphasizes the criticality of Government in enforcement of property rights and reducing transaction costs. Institutional theory goes on to say that exchanges of goods and services has costs and have to be minimized through creation of the necessary institutional framework. In addition markets which are assumed to exist on their own under neo-classical theory may not exist and thus need to be created.

2.1.2 RODRICK’S PERSPECTIVE ON THE ROLE OF INSTITUTIONS

Rodrick (2000) highlights five key institutions which not only exert influence on economic performance but also affects other determinants of growth such as human and physical capital formation and technological progress. These institutions relate to property rights, regulatory mechanisms, macroeconomic stabilization, social insurance and conflict management.

Property rights institutions

Rodrick (2000) argues that property rights should provide adequate control over assets that are accumulated by private economic agents. In other words property rights provide economic agents with the incentive to accumulate and innovate through guaranteeing return on investment be it physical or human capital which will ultimately affect the economic performance. On property rights it is neither sufficient nor adequate to only put the necessary legislation but the enforcement characteristics, traditions and custom environment plays a bigger role to the success of formal laws. Thus good laws in one country cannot be expected to be transplanted and implemented in another nation and produce the same results because of differences in culture, custom and the enforcement characteristics.
**Regulatory institutions**

For the goods and services markets to function effectively and efficiently there should be necessary regulatory frameworks that provide the operating parameters. Regulatory institutions are put in place with objective to minimising fraudulent, anti-competitive behaviour, moral hazard and adverse selection in the various markets. Markets may fail if there are inadequate regulatory institutions as witnessed in the 2008 world financial crisis. This example illustrates how the developed nations learned the hard way on the criticality of regulatory institutions and as well the need for continuous monitoring on the effectiveness of the developed institutions. Similarly, in countries where markets failures are pervasive especially developing nations like Zimbabwe more regulatory institutions are required in order to guard against the failures.

**Institutions for macroeconomic stabilization**

Macroeconomic stabilization is vital component for the success of the private investment. It is therefore expected that government set up monetary and fiscal policy institutions to create the necessary environment for economic prosperity. This includes setting up independent central bank, supervision mechanism for financial market which is inherently fragile and maintaining fiscal prudence.

**Institutions for social insurance**

Societies are always evolving and dynamic resulting in other organisations emerging will others are dissolving. These changes may spell disaster on other people therefore to get the necessary buy in from all stakeholders which is critical for the success of policies social insurance mechanisms should be created to cater for the potential losers. Good quality economic institutions can fail to take off as those likely to have their incomes reduced may not be guaranteed that they are to be compensated for their loss and therefore block them. However, if the likely losers from better economic institutions are given the satisfaction that they are to be compensated for any loss arising from a policy change they are likely to support the better economic institutions. Robinson (2004) highlights that in the real world the commitment is difficult to get. It is therefore against this background that the social insurance institutions must
be created to insulate the potential losers while also getting their support to successfully implement policies.

Institutions of conflict management

Many nations are made up by people from diverse religious, tribal and ethnic classes which can be a source of conflict. Bates (2003) observes that there is often tension between those favoured, namely those directly or indirectly identified with the political leadership, and those at the other end of the spectrum. When conflict occurs in form of wars it also target economic infrastructure which is taken as representing the exploitation by the elite. This was the case in Sudan long war where the rebels targeted the oil infrastructure because they were not benefiting from oil exports. Rodrick (2000) further argues that when conflicts exist it creates uncertainty, diverts resources and therefore negatively affecting the investment and ultimately hampering economic performance. It is essential to put in place institutions that guard against conflict which include rule of law, independent judiciary, and multiple political party system, regular, free and fair elections. In the same vein social dialogue mechanisms, social insurance, independent trade unions, representation of minority groups mechanisms will go a long in reducing internal conflict. In Zimbabwe one good example where we lack is political tolerance resulting in fights and sometimes avoidable deaths during each election time since the formation of several political parties in the early 2000. This conflict has soiled the country’s image and adversely affecting investment.

2.1.3 COLONIZATION AND INSTITUTIONS

The work of Acemoglu and Robinson (2010) provides the relationship between the present institutions in former colonised nations and their historical background.

Beginning the late 15th century the Europe became dominant through colonization of other nations. Different types of colonisation policies were pursued and produced different results namely extractive institutions (e.g. in Nigeria and Tunisia) and developmental institutions (e.g. USA, Canada and New Zealand). Extractive states were characterised by non-protection of private property rights, absence of checks and balances on the Government and confiscatory taxation with the objective to extract as much as possible resources from the colonised states. For example, Robinson (2000) disclosed that between 1930 and 1940 Britain had cumulatively
collected 2,400,000 pounds in terms of taxes from the Copperbelt for it’s benefit, this is in sharp contrast to a paltry 136,000 pounds in grants for development given to Northern Rhodesia (which is now Zambia) from Britain. While on other hand developmental states had protection of private property rights and observance of law of order which were skewed in favour of the settlers.

The colonisers’ settlements were mainly influenced by the settler mortality rates. The settler’s deaths were mainly caused malaria and yellow fever particularly in Africa, India and Caribbean while local people were not affected because they had developed immunity. Yellow fever was considered ‘a strangers disease’ in West Africa. It therefore resulted in setting up of extractive institutions by settlers in countries where they had higher mortality rates and promoted protection of property rights where their mortality rates was lower. The extractive systems were set up to concentrate power in the hands of the elite, and built state organs that work to their advantage at the expense of the majority of the population (Robinson, 2004).

Acemoglu et.al (2010) concluded that institutions set up by colonisers have no direct effect on economic performance but affected colonialists settlement patterns which then influenced the institutional development. Consequently, colonial history explains the variation in institutions to the present day and hence economic performance.

Why do then previous institutions persist even many years after gaining independence from the colonizers? Robinson (2000) offers the following possible reasons;

1. Putting in place institutions that will constrain the behavior of the Government and make it accountable is a costly exercise. If these costs have already been taken care of by the colonial powers, then it may not be in the interests of those in power to incur additional costs of setting up developmental institutions when they attained their independence. The elite would therefore be happier to cling to the extractive institutions so as to enjoy the benefits without having to incur costs of setting up alternative institutions. This suggests that those who assumed power did not fight for the dismantling of colonial system but rather fought the liberation wars in order to adopt the colonial system.

2. When economic agents make particular investments there are likely to support institutions that are complementary to their investments and will do all what they can to
ensure that those set of institutions continue. It is therefore logical that individuals who have invested abundantly in human and physical capital are prepared to incur costs that will guarantee enjoyment of both the control and returns from their investments. This is in contrast with those who have invested little and have nothing to lose may not resist change of these institutions.

3. Again the per capita gain from extractive institutions is influenced by number of the ruling elite. Obviously a smaller number of the elite means that the benefits that accrue to each individual will be large and resultantly the elite may have a bigger incentive to maintain extractive institutions. This line of argument has been accepted by other scholars as the roots of authoritarianism under Mobutu of Zaire (the present day Democratic Republic of Congo).

Accepting this line of argument present some challenges. Firstly, countries such as China and India were colonised but managed to change their economy trajectory through reforms therefore colonisation alone cannot explain economic performance. Furthermore, countries that have never been colonised will be expected to be more prosperous in comparison with those that have been colonised but in reality this is not the situation.

2.1.4 GEOGRAPHY AND INSTITUTIONS

Geography has also emerged has an important factor that determine economic performance. Geography determines the abundance and quality of natural endowments. The natural resources such as oil, gas, gold and diamond are good examples of possible sources of income. In addition, the climatic conditions, soil fertility and the rainfall patterns determine to a larger extent the agricultural productivity and prevalence of certain diseases (i.e malaria is common in tropical areas). The extent to which a country is integrated to the rest of the world is also influenced by its proximity to navigation waters regardless of its internal trade policies. The greater the distance from the ocean/sea a country is will result in more costs being incurred in order to engage in international trade and hence eroding its competitive edge. This view is supported by the Gravity Model which predicts that bilateral international trade flows are based on the economic sizes of two nations, and the distance between them.
Rodrick (2001) also examined the relationship between geography and institutions. He was of the view that the death rate of colonial settlers on account of climatic conditions in the native lands determined whether they put in place extractive or in developmental institutions. In areas where the white settlers die in numbers was due to yellow fever and malaria. Then extractive institutions were set up while on the hand where they die in small numbers they set up developmental institutions. He went on to say that these institutions are still prevailing and therefore explain the present economic performance.

Proxies that have been used to measure geography include distance from the equator (Rodrick, 2001), abundance of natural resources, and disease burden. While geography is crucial there are other countries that have resources but have failed to benefit from them and have performed badly in terms of economic growth (popularly known as resource curse). Under these circumstances economic performance is better explained the country’s institutional framework and not its geographical advantage or disadvantage.

2.1.5 NON INSTITUTIONAL FACTORS THAT EXPLAIN ECONOMIC GROWTH

Openness to trade

Openness to trade as measured by the ratio of exports to GDP has been proven to have positive influence on economic growth. The more open the markets of a country are, the more integrated it is into the world economy, the higher should the economic welfare for its citizens. The thinking behind this view is borrowed from the theory of relative advantage developed by David Ricardo (1817). In addition, research done by Sachs and Warner (1995) confirms that indeed trade influence economic growth. Ndambiri et al. (2012) also maintained that openness affects economic growth through several channels such as increased competition, sharing of knowledge and technology transfer as well as economies of scale.

Human capital formation

Human capital formation has been identified as one of key sources of economic growth. It basically refers to acquisition of skills and know-how through training and education. By acquiring skills and knowledge it enhances productivity of workers and ultimately the economic performance.
Foreign Direct Investment (FDI)

Foreign Direct Investment also plays a crucial role in determining economic performance. UNCTAD (2007) defines FDI as ‘an investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy in an enterprise resident in an economy other than that of the FDI’. Countries that have been able to attract much foreign capital have witnessed better economic growth rates (i.e China economy after 1978 have been growing at an average rate of 10%).

2.2 EMPIRICAL LITERATURE REVIEW

Acemoglu et al. (2001) study focuses on the underlying causes of the phenomenal Botswana’s economic from 1966 to 1998. During this period Botswana unlike many African states transformed itself from poor country to middle income country despite many negative initial factors. Botswana has been able to record high economic performance since its independence leading to many development economists asking why that has been so. To start with, when Botswana attained it’s independence in 1966 it had host of problems to grapple with. They had only 22 university graduates and 100 from secondary education (poor human capital) and only 22 kilometers of road was paved (physical capital) and poor climatic conditions. This scenario did not deter them to put in measures to address their problems. They observed good policies which included maintaining prudent fiscal policies, property rights protection, retained a relatively small, uncorrupt and efficient public sector. In addition their exchange rate was largely determined by economic fundamentals and the political climate was stable.

The success of Botswana was not only on account of formal institutions but the informal institutions as well. Their traditional leaders allowed for broader participation which is necessary to have check and balances in use of authority. Thus upon independence their traditional form of governance continued and avoided making socially inefficient policies that favours only on a certain class of people at the expense of the entire nation. This is in sharp contrast to what Ghana experienced under the leadership of Nkrumah who used overvalued exchanged rate policy and high taxes to extract resources from cocoa farmers in order to redistribute the wealth the urban elites who supported Nkrumah administration and his distortive policies (Bates, 1981).
One other major observation to Botswana’s growth is that the diamonds contributed fairly to it’s success story of which is not comparable elsewhere with many other nations endowed with similar or better abundance of natural resource but have turned themselves into resource curse. One good example is Democratic Republic of Congo (DRC) where the abundance of natural resources has been a source of political instability and hence creating unstable environment that inhibits growth. Aisen et al. (2011) confirms the negative consequences of political instability to economic growth. It therefore does not follow that Botswana large diamond deposits spurred it’s growth but rather the good quality institutions were a critical ingredient that shaped the environment essential for economic performance observed. Indeed transparency in the extraction and use of proceeds from diamond sales has been a vital characterization in mineral exploitation of Botswana. Political stability was further reinforced by regular conduct of credible elections as required by their constitution though one political party has consistently been winning. The political stability created certainty which is a critical component for investment by the private sector.

The leaders of Botswana also deserve credit as they were very influential in providing the guidance and in particular Seretse Khama and Quett Masire. It therefore can be highlighted that the good political leadership created the environment for the high economic performance observed in Botswana among other factors.

The methodology used by Acemoglu in his study is qualitative on the excuses that some of the growth factors (institutions) cannot be measured. However, this cannot stand as justification as there are various measures for political stability, policy consistence, protection of property rights, participation, corruption, ethnicity and statistical test can be conducted to determine the significance of institutions to economic growth. In order to counter for this limit the current research will use the econometric tools to understand the importance of institutions to economic growth. Despite the aforementioned drawback, Acemoglu gives a conclusion to the effect that it is the quality of institutions in Botswana that can explain the phenomenal economic growth than any factors which include initial conditions, geography and openness to trade.

This is in line with Mijiyawa(2008) who did cross country study of 123 selected countries covering the period 1960 to 2003 using panel data and concluded that Botswana among other good performers was on account of it’s institutional quality. Using the GMM technique
documented the evidence of poor economic performance in developing countries as being caused by lower quality of economic regulations and property rights institutions.

Similarly, Subramanian et al. (2001) examined the Mauritian growth since the mid-1970s focusing on the following factors; initial conditions, openness to trade, FDI, and institutions. He dismissed the argument that openness to trade, initial conditions and FDI as better explanation to the Mauritian economic growth experience but as an institutional phenomenon.

What makes striking on the Mauritius economic growth is that through it’s high economic growth just like Botswana it has been able to transform itself to a star both in Africa and the world. Here are few undeniable facts about Mauritius. Between 1973 and 1999, real GDP in Mauritius grew on average by 5.9 percent per year compared with 2.4 percent in Africa. On inflation, between 1973 and 2000, consumer price inflation averaged 7.8 percent per annum, compared with over 25 percent in Africa (Subramanian et al, 2001).

The ability of Mauritians to overcome the domestic macroeconomic imbalances in the early 1980s was on account of goods institutions as argued by Gulhati and Nallari (1990). During this early period the Mauritian Government was made up of three political parties of different ideologies which would have been difficult but however the governing political parties rose above their ideologies and put their nation first and were able to build their country. In the same vein transparency and participatory culture also ensured that there were checks and balances on the elite to avoid making policies which are predatory or against the majority of the population.

Subramanian et al. (2001) also argued that the domestic institutions contributed to the success of Mauritius economy highlighting particularly the sugar industry sector which was nurtured and able to grow significantly. This is contrast to many African nations including Zimbabwe who dismally failed on their similar Export Processing Zones policy, it can therefore be said Mauritius success was not by coincidence but rather due to it’s strong supportive domestic institutions.

In addition, Mauritius has since it’s independence been able to put in place institutions that support democracy which helps to bring certainty and encourage broader participation in the
running of the country. While democracy does not guarantee delivery of better economy Rodrick (2000) has argued empirically that democracy offer better chances of providing economic success through providing predictable environment, able to respond to adverse shocks better and delivering superior distributional income effects.

Unlike the study by Acemoglu et al. (2000) which offers a qualitative argument on institutional influence on economic growth to a specific country (Botswana); Subramanian goes further to provide an econometric investigation. The variables used in the study can be classified into broad categories namely openness, geography and institutions. The methodology used in this study borrows from Sachs and Warner (1997) and Rodrick (1999b) which test the regressions using ordinary least squares (OLS) and the two-stage least squares (2SLS). OLS has been criticized on account of it’s inability to resolve endogeneity. However, the 2SLS method has been used to counter the presence of endogeneity which is often associated with including institutional variables in growth models.

Of paramount importance on Subramanian et al. (2001) conclusion is that there is large unexplained Mauritians economic performance in their study even after taking consideration of institutions due to the fact that by their nature the cross-country studies fail to capture the country specific idiosyncratic effects. It therefore confirms that country-specific studies cannot be avoided for the objective of capturing unique features that explain each country economic performance. On the other hand country specific studies would serve to reaffirm the robustness of cross-country studies.

Siddiqui et al. (2009) also in a bid to confirm whether institutions affect economic performance in Pakistan undertook a time series study stretching from the period 1984 to 2006. In their study the independent variables used in this are inflation, savings, trade openness and institutional index calculated by the authors. On the other hand the real GDP per capita was used as the dependent variable. The study employed both OLS and GMM estimation procedure and they find out that OLS coefficients produced were both significant and have the expected signs. Inflation was found to have negative sign while institutions, openness and savings had positive signs. Because of potential endogeneity between institutional variable and economic growth they turned to GMM in order to resolve the problem. The results from using the GMM show that the results remain unchanged but the level of influence of institutions had significantly increased and the same
effect occurred to the other variables. Their overall result of the study bore out the testimony of the importance of institutions in the promotion of long run growth of Pakistan economy.

A closer study to the research at hand was also done by Ajide (2014) for Nigeria covering the period from 1980 to 2010. The focus of the study was to examine the effect of FDI and economic freedom (a measure of institutional performance produced by the Frazer Institute\(^4\)) to Nigeria’s economic growth. A Multivariate Regression estimation technique was used on the augmented economic growth models. The variables included in the study are openness to trade, life expectancy, physical capital, FDI, financial development and economic freedom. The results from the study revealed that the disaggregated economic freedom had more effect to economic growth in comparison with the composite economic freedom index besides being significant and positive effect on economic performance. It therefore suggests that use of disaggregated index yields better results. While these findings are consistent with both theory and other empirical studies it failed to account for potential endogeneity often highlighted across many empirical studies.

In recent years China has emerged as one of the fastest growing economy and has been growing at 10 percent per annum since 1980. Many economists have been eager to unpack the determinants behind such outstanding growth. It is also surprising that its rapid economic growth was not accompanied by a relatively same level of improvement in the institutional environment (Wu, 2011). China’s rating on economic freedom is regularly below the world average and has not improved over time. In 2014 was ranked only 139th out of 178 countries in the Index of Economic Freedom. However, the findings with respect to China’s should not be taken as a rule but an exception.

Unlike Ajide who uses the level of economic freedom to proxy, Wu went further to include the change in the level this variable as another variable as well as the level of inflation as proxy for macroeconomic stability. Other studies show that the change in economic freedom, rather than

\(^4\) Frazer Institute produces annually the level of economic freedom which is made up of five components which are (i) size of government, (ii) legal structure and security of property rights, (iii) access to sound money, (iv) freedom to trade internationally, and (v) regulation of credit, labor, and business.
its level, is robustly related to economic growth (De Haan and Sturm 2000). While Wu (2011) is also acknowledging that endogeneity problem between economic growth and economic freedom he fails to resolve it apart from highlighting that using instrumental approach has its own weaknesses. In addition the time span of the study using the time series data is too short\(^5\) to be able to make reliable conclusions on the impact of institutions on economic performance. At least a period of 30 years is recommended otherwise the findings will be biased.

In addition, Nawaz (2011) revisited the debate on whether institutions play a fundamental role of on economic growth by carrying out a panel study of 24 Asian economies for the period 1996 to 2008 using the GMM estimation technique. In this Asian study the real GDP per capita was used as the dependent variable while the dependent variable were initial GDP, trade openness, population growth, government final consumption (as a percentage of GDP) and investment (as a percentage of GDP). On institutional measure the following individual Governance variables were used namely; control of corruption, rule of law, regulatory quality, government effectiveness, political stability, voice and accountability as well as the overall institutional quality index. Each institutional variable was tested one at a time for it’s influence on growth on the basis that institutional effect should be defined separately.

Guided by the other previous studies such as Bond et al. (2001) the “Generalized Method of Moments (GMM)” was chosen and applied as the estimation technique. Nawaz also highlighted that GMM was selected because of it’s attractive features namely resolving the endogeneity and unobserved heterogeneity of a country as well as measurement errors.

One important result coming from Nawaz (2011) study is that institutions impact differently to countries depending on their level of development with institutions being more effective in developed countries than developing countries. This suggests that the economic transactions in developed countries are significantly based on formal institutions underpinnings in comparison to the developing nations. This also implies that different set of institutions will be ideal to different countries to boost their long run economic performance. The conclusion from this study specifically states that the both individual Governance indicators and the composite institutional

\(^5\) Wu’s research covered fifteen years from 1995 to 2008
indicator are important ingredients for the realization of better long the run economic growth. While this gives a broader regional perspective on the influence institutions on economic performance it cannot be a substitute for country case studies as results from cross-country studies cannot be easily extrapolated to specific country cases. It therefore follows that one drawback of panel study is it tend to overcrowd unique country features and the present study focus is to fill this void as is also highlighted by Subramanian et al. (2001).

Besley (1995) has provided evidence through a study in two regions of Ghana finds that the protection of property rights increases the rate of investment on the cultivated piece of land. This study though it is micro-level it confirms that protection of property rights is an important ingredient to spur investment. In the same way, Johnson et al. (2002) show that the protection of property rights is a necessary and sufficient condition for the development of private investment. Finally, Keefer and Knack (2000) shows that in an environment of political instability and social polarization, the political leaders in place, have little incentive to ensure the protection of property rights, so private investment level is depressed.

2.3 CONCLUSION

Institutions are a relatively new factor in growth theory which have gained their popularity in the 1990s. Institutions have emerged as even strong and better explanation to the variation in economic performances between nations, regions or continents. It cannot also be denied there is no one unique measurement of institutions resulting in various institutional measures which includes economic freedom, ethnicity, political stability and protection of property rights.

On the hand while institutions explain better the economic performance they cannot be transplanted from one nation to another and produce identical results. This is explained by the differences in culture, traditions, enforcement characteristics and the path dependency trajectory. Hence institutional building requires a closer analysis at these factors for incorporation into an economic performance improvement strategy. Another important revelation in the empirical review is that inclusion on institutions in economic growth model has problem of endogeneity which can be resolved by using GMM. The
next chapter will proceed to give an outline of methodology to be used in the study which is anchored on this literature and empirical review.

CHAPTER 3
METHODOLOGY

3.0 INTRODUCTION

This chapter focuses on giving an outline of econometric estimation techniques used in the investigation of the impact of institutions on economic growth. In essence it will give variables description and relationships, regression specification and methodology used for regressions estimation.

3.1 MODEL SPECIFICATION

We shall first assume a simple production function where the factors of production in the economy determine the aggregate economic output. This is summarized as follows:

\[ Y = f(K, L) \]  

Where \( Y \) measures economic growth (proxy with real GDP), \( K \) denotes the amount of capital (measured by Gross Fixed Capital Formation), and \( L \) on the other hand denotes the amount of labor (measured by total population).

To ensure consistency with the empirical literature regarding the determinants of economic growth, our specification is based not only on the above equation (1) but shall be guided by combining growth theories such as Solow (1956), Romer (1986), Lucas (1988) as well as North (1981). The model will therefore be specified as follows:

\[ y_t = \beta_0 + \beta_1I_t + \beta_2X_t + \mu_t \]  

Where \( y_t \) - GDP per capita in real terms,
\( I_t \) - institutional variables,
\( X_t \) - vector of control variables for of the growth model and
\( \mu_t \) - error term.

The above growth model represented by equation (2) can be restated as follows:
\( \text{GDP} = f [\text{Physical Capital, Human Capital, Trade Openness, CPI, Government consumption, Institutional quality}] \). In reduced form is given as follows;

\[ Y = [PK, HK, OPEN, CPI, GVTE, INS] \] \hspace{1cm} (3)

Where \( Y \) is the log of real GDP per capita, \( PK \) is the log of ratio of gross physical capital formation to GDP, \( HK \) is the log of secondary school enrolment, \( OPEN \) is the log of ratio of summation of imports and exports of goods and services to GDP, \( CPI \) is the annual price level, \( GVTE \) is the Government’s consumption of goods and services and \( INS \) is the log of political stability.

The econometric specification is given as follows;

\[ y_t = \beta_0 + \beta_1 pk_t + \beta_2 hk_t + \beta_3 open_t + \beta_4 cpi_t + \beta_5 gvte_t + \beta_6 ins_t + \epsilon_t \] \hspace{1cm} (4)

Where \( t \) and the small letters are indicating the time dimension and the natural logarithms of the variables in the economic growth model respectively.

3.2 DEFINITIONS AND JUSTIFICATION OF VARIABLES

In most empirical studies, the choices of explanatory variables are ad hoc across studies. The selection of explanatory variable shall be guided by the empirical review and the appendix in Levine and Renelt (1992) which provide a list of in excess of 50 possible explanatory variables.

REAL GROSS DOMESTIC PRODUCT (GDP) PER CAPITA

Real GDP per capita shall be used as a proxy for economic growth as it gives an overall picture of economic performance within a country. According to the data source, it is defined as the total output produced by all economic agents resident within an economy for a particular period which is usually a year. Siddigui et al. (2009) uses the same variable in their study of the effect of institutions to Pakistan’s economic performance.

PHYSICAL CAPITAL
The researcher has selected gross capital formation as one of the explanatory variables which is defined as a summation of public and private investment in fixed assets and inventories. Fixed assets consist of plant and machinery, the construction of roads, schools, hospitals and private residential dwellings. On the other hand inventories are made up of stocks of goods held by companies to meet their demand when there is occurrence of fluctuations in production or sales, and "work in progress." It is believed that public capital stock (particularly in public infrastructure) and private capital stocks play a complementary role to each other. As proved in endogenous growth models, such as Rebelo (1990) and Barro (1990), per capita growth and investment ratio tend to move together. Levine and Renelt (1992) also further confirms that physical capital positively influence economic growth. The coefficient of physical capital is expected to have a positive sign. The data is measured in current U.S. dollars.

**HUMAN CAPITAL**

In addition, human capital has been considered in literature to be important factor on economic growth. Human capital increases the productivity of both labour and capital and ultimately driving growth. The inclusion of this variable in economic growth is also supported by Siddiqui et al. (2009) who uses secondary enrolment to proxy of education attainment. This is contrast to Aisen et al. (2013) that uses the primary school enrolment to measure human capital formation and Barro (2000) who uses average years spent in school for the population above the age of fifteen years. The researcher will use secondary enrollment as proxy human capital formation on the basis that secondary school graduates will likely to have acquired more skills in comparison to primary school graduates. Therefore positive sign is expected for the coefficient of human capital.

**TRADE OPENNESS**

Another important variable included in our model is trade openness. Trade openness measures the extent to which a country’s policies restrict or promote trade with other countries. Removal of trade restrictions helps in improving the domestic production efficiency as the domestic firms are exposed to international competition. It also helps to remove distortion in goods and factor markets besides the possibility to enjoy economies of scale and greater access to investment goods. Trade liberalization is therefore a catalyst to economic growth and countries that
liberalize relatively grow fast as confirmed by Sachs and Warner (1997). Ndambiri et al. (2012) argues that economies that are more open to both trade and capital movement are more likely to grow faster and have higher GDP per capita. To this end, the expected sign for trade openness is positive.

**POLITICAL STABILITY**

An empirical investigation of this nature faces the classical problem of how to measure the status of institutions. Although there are several institutional quality indices such as those produced by the World Bank (Governance Indicators, CPIA, and Doing Business Index) and International Transparency (Corruption Perception Index), their time coverage is too short for any meaningful use in country-specific time-series studies. To counter this limitation, the researcher shall make use of the data from Political Risk Services Group (which provides data for political risk index) that has long period coverage. IRCG (2015) view the Political risk index as an assessment of risk which embraces factors of government stability, corruption, socioeconomic conditions, internal relationships, external relationships, separation of powers, and interference of the military in politics as well as religious and ethnic conflicts. The political risk ratings range from a level high of 100 (least risk) to a low level of 0 (highest risk). The countries with low political index are associated with deterioration in investment profile, bureaucracy quality, democratic accountability, socioeconomic conditions, law and order besides the prevalence of corruption, ethnic and religious tensions. In view of the preceding discussion, a positive coefficient is expected. The use of the IRCG data is not new as it has been used in many previous studies which include Knack and Keefer (1995) and Valeriani et al. (2011).

**CONSUMER PRICE INDEX (CPI)**

CPI measures the general increase in the price level of goods and services for a particular period which is usually a year. The collapse of institutions is often observed by macroeconomic instability. To capture the macroeconomic stability the researcher shall use of the consumer price index. The higher the inflation the more it becomes difficult for economic agents to plan for the future hence it depress investment and ultimately retards economic growth. Makochekanwa

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6 It basically to independent in the functioning of the three arms of Government namely legislature, judiciary and executive.
(2007) confirms that there is inverse relationship between inflation and economic growth. The inclusion of consumer price index in economic growth estimation is also supported by Aisen et al. (2011) and Wu (2011). The expected sign of inflation is negative.

**GOVERNMENT CONSUMPTION (GVTE)**

The size of government as represented by government consumption as a percentage of GDP shall be used as one the variable to capture the macroeconomic conditions in the country. According to theory an excessive large government will tend to crowd out the private sector. The bigger the Government’s expenditure the bad it becomes for economic growth therefore a negative coefficient is expected.

**3.3 ESTIMATION TECHNIQUE**

The choice of appropriate estimation technique is important in order to obtain robust estimates. The majority of existing literature mainly uses cross section approach and average data for long periods of time to examine the impact of institutions on economic growth. This approach ignores the country specific aspects of the data that may be linked with explanatory variables and averaging a time series variable implies that not all information is utilized, causing an omitted variables bias. In addition the researcher might face the problem of endogeneity that could emanate from the institutional variables, as these variables might be influencing growth while at the sometime growth influencing the institutional variables.

Taking the above highlighted problems, the estimation technique adopted for use in examining the impact of the institutions on the economic growth is the Generalized Method of Moments (GMM). Easterly and Levine (1997), and Nawaz (2011) apply the Generalized Method of Moments (GMM) and reaffirm the superiority of this technique in addressing these shortcomings. Because of the GMM ability to remove endogeneity between institutions and economic also been used by Siddiqui et al. (2009) and Mijiyawa (2008).

**3.3.1 STATIONARITY AND NON-STATIONARITY**
Because of the widespread availability of time series data base most studies use the time series data. Using time series comes with it’s own challenges as one needs to guard against spurious regression. A spurious or nonsensical relationship may result when one non-stationary time series is regressed against one or more non-stationary time series produce results indicating a strong relationship though in practical world there exist no such relationship. Therefore it follows that time series data should be tested for stationarity and made stationary if not and avoids wrong inferences from spurious regression.

Treating non-stationary series in econometric estimation as if they were stationary will lead to bias in estimation and thus result in misleading economic analysis (Makochekanwa, 2007). When the model estimation produces R-squared which is approximating unity, t and F statistics look significant and valid and on the hand with a low Durbin–Watson (dw) it could be problem of spurious regressions that arises when non-stationary series are regressed.

If a Non-Stationary Time Series $Y_t$ has to be “differenced” d times to make it stationary, then $Y_t$ is said to contain d “Unit Roots”. It is customary to denote $Y_t \sim I(d)$ which reads as “$Y_t$ is integrated of order d”. However, when the data is integrated of order zero it means that it is stationary and hence it can be used in it’s original form.

A stationary time series variable exhibits the following properties over time;

i. Constant mean; $E(Y_t) = \mu$ \(\cdots\cdots\cdots\cdots\) \(5\)

ii. Constant variance; $E[(Y_t - \mu)^2] = \text{Var}(Y_t) = \chi(0)$ \(\cdots\cdots\cdots\cdots\) \(6\)

iii. Constant covariance; $E[(Y_t - \mu)(Y_{t-\tau} - \mu)] = \text{Cov}(Y_t,Y_{t-\tau}) = \chi(\tau)$, for $\tau = 1, 2, \cdots$ \(\cdots\cdots\cdots\cdots\) \(7\)

There are many various ways to make non-stationery data stationery which include differencing, Dickey-Fuller (DF) Test, Augmented Dickey-Fuller (ADF) Test and the Phillips-Perron (PP) Unit Root Test. However for the purposes of this study we shall limit to Augmented Dickey-Fuller (ADF) on account of it’s attractive features namely consistency, accuracy and its ability to correct for serial autocorrelation (Perotti, 2004).

The ADF regression test with intercept is to be conducted using the following equation:
\[ \Delta Z_t = A_o + \lambda \Delta Z_{t-1} + \epsilon_t \]  \hspace{1cm} (8)

Where,

- \( Z_t \) is a variable selected in the model to be tested for stationarity,
- \( \Delta \) is the first difference operator and
- \( \epsilon_t \) is a stationary disturbance error term

The following shall guide the decision rule:

(i) If \( t^* > \) ADF critical value, then do not reject null hypothesis, i.e., unit root exists

(ii) If \( t^* < \) ADF critical value, then reject null hypothesis, i.e., unit root does not exists

3.3.2 DIAGNOSTIC TEST

A brief descriptive of the statistics which aims to give overview of data will precede the diagnostic tests. In order to use data it is essential to test whether it is satisfying the Classical Linear Regression (CLR) assumptions and make the appropriate remedies depending on the results of the various tests. The formal tests are to test for autocorrelation, normality and the validity of the specification of the model. The normality of the errors of the model will be tested using the Jarque-Bera test statistic while autocorrelation test will be conducted the Durban Watson (DW) test. Lastly but not least the Hansen J tests (regression specification error tests) will be used to check whether the model has been correctly specified and has valid instruments.

3.4 DATA SOURCES

\(^7\)The effect of ignoring autocorrelation in econometric estimation when it is present is that coefficient estimates derived will be unbiased and the R-squared is likely to be very high. Another way to overcome autocorrelation in the data is to include lagged values of the explanatory variables or of the dependent variable in the regression.
Annual time series analysis will be used in this study for empirical testing covering the period of study is from 1980-2013. Data was collected from various sources. Data on Government consumption, gross capital formation, secondary school enrolment, GDP per capita, GDP, exports and imports was collected from the World Bank’s World Development Indicators. On the other hand the data on political stability is to be collected from the Political Risk Services \(^8\) (PRS).

3.5 CONCLUSION
This chapter gave an outline of how we are going to carry out our analysis, described and justified the inclusion of variables in the specified model as well as stating the sources of data. The GMM method was outlined and how it is going to be used in the estimation of economic growth in Zimbabwe. The estimation is going to be done using E-Views version 8 statistical software and in the subsequent chapter the empirical results and interpretations will be presented.

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\(^8\)Political Risk Services is a private firm that collects and publishes data on the level of "risk" to international business operations present in different countries across the globe.
EMPIRICAL RESULTS AND INTERPRETATIONS

4.0 INTRODUCTION

This chapter presents estimated results of the tests elaborated in the methodology chapter. The first section presents the summary statistics of all the variables in the model. This is followed by the correlation matrix and the unit root tests. The regression results are then reported. Discussion and interpretation of results are in the last section of the chapter.

4.1 PRELIMINARY TEST

Table 3 below shows the descriptive statistics of the dependent and explanatory variables to be used in the study for the period 1980 to 2013 and each variable has 34 observations. The standard deviation shows variability of the variables and the minimum and maximum helps to check for outliers in the data.

Table: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>RGDP</th>
<th>PK</th>
<th>OPEN</th>
<th>HK</th>
<th>CPI</th>
<th>GVTE</th>
<th>POL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>584.5206</td>
<td>15.05974</td>
<td>0.845835</td>
<td>40.03938</td>
<td>67.79480</td>
<td>17.19699</td>
<td>48.82353</td>
</tr>
<tr>
<td>Median</td>
<td>631.7831</td>
<td>16.98624</td>
<td>0.800686</td>
<td>42.60257</td>
<td>58.13211</td>
<td>17.91989</td>
<td>46.00000</td>
</tr>
<tr>
<td>Maximum</td>
<td>718.4184</td>
<td>23.89191</td>
<td>1.234796</td>
<td>47.42966</td>
<td>114.8593</td>
<td>27.48708</td>
<td>66.00000</td>
</tr>
<tr>
<td>Minimum</td>
<td>362.3998</td>
<td>1.525177</td>
<td>0.668646</td>
<td>7.752440</td>
<td>41.72508</td>
<td>2.047121</td>
<td>34.00000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>117.5829</td>
<td>6.272832</td>
<td>0.129972</td>
<td>8.833312</td>
<td>20.73701</td>
<td>5.374879</td>
<td>8.928913</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.759308</td>
<td>-0.742298</td>
<td>1.185808</td>
<td>-2.419565</td>
<td>0.934161</td>
<td>-1.176813</td>
<td>0.776767</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.041944</td>
<td>2.594558</td>
<td>3.980969</td>
<td>8.325561</td>
<td>2.724840</td>
<td>4.838444</td>
<td>2.516005</td>
</tr>
<tr>
<td>Observations</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: Computed by the author using e-views 8

The RGDP has the highest standard deviation of 118 indicating more variability compared to any variable presented in Table 3 and it’s maximum and minimum are 718 and 362 respectively. On
the other hand the explanatory variables have relative low variability which signifies that there was no much significant deviation around the mean for the variables used in the model.

The descriptive statistics shows that the average percentage of Government expenditure to GDP in Zimbabwe is 18% while the mean for political stability is 49.

4.2 CORRELATION ANALYSIS

Table 4 shows a pair wise correlation matrix of variables to be used economic growth estimation. The objective of correlation tests is to determine whether the variables included in the model are perfectly correlated or not. When they are perfectly correlated it shows the problem of multicollinearity. In addition, correlation tests helps to determine the degree of strength of the variables in explaining economic growth. According to Cameron et.al (2005) the presents of multicollinearity is indicated by correlation values of greater than 0.8.

<table>
<thead>
<tr>
<th></th>
<th>RGDP</th>
<th>PK</th>
<th>OPEN</th>
<th>HK</th>
<th>CPI</th>
<th>GVTE</th>
<th>POL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RGDP</strong></td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PK</strong></td>
<td>0.447651</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OPEN</strong></td>
<td>-0.227903</td>
<td>0.447608</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HK</strong></td>
<td>-0.229622</td>
<td>-0.175297</td>
<td>0.353233</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CPI</strong></td>
<td>-0.447447</td>
<td>0.281015</td>
<td>0.412762</td>
<td>-0.187764</td>
<td>1.000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GVTE</strong></td>
<td>0.499314</td>
<td>0.374466</td>
<td>0.106237</td>
<td>0.027598</td>
<td>0.047065</td>
<td>1.000000</td>
<td></td>
</tr>
<tr>
<td><strong>POL</strong></td>
<td>0.488258</td>
<td>0.548948</td>
<td>0.311238</td>
<td>0.068554</td>
<td>-0.294918</td>
<td>0.130429</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: Computed by the author using e-views 8

Consequently, as shown by the Table 4 above all the variable have values less than 0.8 in absolute terms and it can therefore be concluded that there is no multicollinearity in the variables to be used in the model. This allows for the inclusion of all the variables in the regression model. The human capital formation (HK) and Government consumption (GVTE) have the least correlation while physical capital formation and political stability (POL) have the strongest correlation. The researcher shall proceed to test for stationarity using the ADF test.
4.3 STATIONARITY TEST RESULTS

Testing for stationarity was conducted using the Augmented Dickey-Fuller (ADF) which test for unit root in the series. The initial stationarity results are shown on Table 5 below.

Table 5: Augmented Dickey Fuller (ADF) Test Results In Levels.

<table>
<thead>
<tr>
<th>Variable</th>
<th>t-ADF Statistic</th>
<th>Critical 1%</th>
<th>Critical 5%</th>
<th>Critical 10%</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>-1.257653</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.619160</td>
<td>Non-stationary</td>
</tr>
<tr>
<td>PK</td>
<td>-1.854321</td>
<td>-3.653730</td>
<td>-2.957110</td>
<td>-2.617434</td>
<td>Non-stationary</td>
</tr>
<tr>
<td>OPEN</td>
<td>-2.959801</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.619160</td>
<td>Non-stationary</td>
</tr>
<tr>
<td>HK</td>
<td>-6.279858</td>
<td>-3.653730</td>
<td>-2.957110</td>
<td>-2.617434</td>
<td>Stationary</td>
</tr>
<tr>
<td>GVTE</td>
<td>-1.402662</td>
<td>-3.653730</td>
<td>-2.957110</td>
<td>-2.617434</td>
<td>Non-stationary</td>
</tr>
<tr>
<td>POL</td>
<td>-2.092406</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.619160</td>
<td>Non-stationary</td>
</tr>
<tr>
<td>CPI</td>
<td>-0.539439</td>
<td>-3.653730</td>
<td>-2.957110</td>
<td>-2.617434</td>
<td>Non-stationary</td>
</tr>
</tbody>
</table>

Source: Computed by the author using e-views 8

The Table 5 above indicates after carrying out stationarity test, only HK is found to be stationary in levels, implying that HK is integrated of order zero I(0). The other variables were found to exhibit non-stationarity in levels. Therefore it follows that the other remaining variables (PK, CPI, RGDP, POL, GVTE and OPEN) have to be differenced to achieve stationarity and avoid spurious regression.

The same ADF tests were conducted after differencing the series and Table 6 below presents the unit root test for the differenced variables. The results show that PK, CPI, ECF, OPEN, GVTE and RGDP are stationary after first differencing, hence they are said to be integrated of order one, I (1). The data is now ready for use in estimating our regression model and we shall present the results from estimation in the next section.
### Table 6: Augmented Dickey Fuller (ADF) Test Results after First differencing

<table>
<thead>
<tr>
<th>Variable</th>
<th>t-ADF Statistic</th>
<th>Critical 1%</th>
<th>Critical 5%</th>
<th>Critical 10%</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>-4.115496</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.919160</td>
<td>*Stationary</td>
</tr>
<tr>
<td>PK</td>
<td>-4.838803</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.619160</td>
<td>*Stationary</td>
</tr>
<tr>
<td>OPEN</td>
<td>-3.790930</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.619160</td>
<td>*Stationary</td>
</tr>
<tr>
<td>GVTE</td>
<td>-6.070096</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.619160</td>
<td>*Stationary</td>
</tr>
<tr>
<td>POL</td>
<td>-4.822045</td>
<td>-3.653730</td>
<td>-2.957110</td>
<td>-2.617434</td>
<td>*Stationary</td>
</tr>
<tr>
<td>CPI</td>
<td>-4.414466</td>
<td>-3.661661</td>
<td>-2.960411</td>
<td>-2.619160</td>
<td>*Stationary</td>
</tr>
</tbody>
</table>

NB:  
** Indicates stationarity at 1% level of significance,  
*** Indicates stationarity at 5% level of significance  
**** Indicates stationarity at 10% level of significant

Source: Computed by the author using e-views 8

### 4.4 DIAGNOSTIC TESTS RESULTS

Before estimation the regression equation the researcher first performed the diagnostic tests. From the diagnostic tests the Hansen J statistic provides the evidence that the estimated model is correctly specified and has valid instruments. With Hansen J statistic test statistic of 5.422803 and p-value of 0.538253 it implies that do not reject null hypothesis and conclude that the model is correctly specified and has valid instruments at 5 % level of significance. The normality test also indicates that we do not violate the assumption of normal distribution since the Jarque-Bera probability value is 0.538253. The Durban-Watson statistic\(^9\) is also in the acceptable region (1.525730) indicating that there is no serial autocorrelation. Table 7 below provides a summary of the diagnostic tests results.

### Table 7: Diagnostic Tests Results

<table>
<thead>
<tr>
<th>Test</th>
<th>Statistic</th>
<th>P-value</th>
</tr>
</thead>
</table>

\(^9\) The Durban–Watson statistic acceptable range is from 1.5 to 2.5 otherwise the series will have serial autocorrelation.
4.5 REGRESSION RESULTS

The Table 8 below presents estimated regression results\(^{10}\) of equation (5) :

\[ y_t = \beta_0 + \beta_1 p_k + \beta_2 h_k + \beta_3 o_p e_n + \beta_4 c p i + \beta_5 g v t e + \beta_6 p o l + \epsilon_t (5) \]

Table 8: Regression results for equation 5 (Dependent variable-RGDP)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-Statistic</th>
<th>Probability Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>-0.390430</td>
<td>0.081470</td>
<td>-4.792299</td>
<td>0.0001</td>
</tr>
<tr>
<td>PK</td>
<td>0.126097</td>
<td>0.025568</td>
<td>4.931767</td>
<td>0.0000</td>
</tr>
<tr>
<td>POL</td>
<td>0.224954</td>
<td>0.126323</td>
<td>1.780782</td>
<td>0.0866</td>
</tr>
<tr>
<td>OPEN</td>
<td>-0.475773</td>
<td>0.186870</td>
<td>-2.546002</td>
<td>0.0172</td>
</tr>
<tr>
<td>HK</td>
<td>-0.201248</td>
<td>0.092589</td>
<td>-2.173566</td>
<td>0.0390</td>
</tr>
<tr>
<td>GVTE</td>
<td>0.182279</td>
<td>0.025528</td>
<td>7.140314</td>
<td>0.0000</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>6.938528</td>
<td>0.843186</td>
<td>8.228946</td>
<td>0.00000</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.824967, \text{ Adjusted } R^2 = 0.784575 \]

Source: Computed by the author using e-views 8

4.6 INTERPRETATION AND DISCUSSION OF RESULTS

\(^{10}\) The results of the same regression model but without the institutional variable are presented in Appendix 2 and the results are consistent with results presented in Table 7. The major difference being that the estimated equation (5) is superior as it produces a higher \( R^2 \) and Adjusted \( R^2 \) further confirming the need to include institutions in economic growth models.
Before proceeding to give the individual coefficients interpretations, it is important to know the extent to which the regression model estimated fit well to the data used. We shall therefore first consider the value of $R^2$ (or adjusted $R^2$) which measures goodness of fit of the regression equation. The model is a good fit as 82% variations in real GDP per capita is explained by variations in the explanatory variables while the adjusted $R^2$ is a little lower at 78%.

In relation to the growth model coefficients we shall first consider the inflation variable. The study found that the inflation coefficient as expected has a negative sign and statistically significant at 1% level which suggests that unstable macro-economic conditions compromise economic growth prospects. A 1% increase in inflation will result in decline of income per capita by 0.39% (ceteris paribus) which shows that the general price level changes can heavily weigh down economic performance. This finding is consistent with theory which state that there is an inverse relationship between inflation and economic growth. It therefore follows that an inflationary environment will work against efforts to ignite or boost economic growth.

In addition physical capital formation was found to have the expected positive sign and to be statistically significant in influencing economic performance. From the findings of the study it shows that a unit increase in capital formation will result in 0.12% increase in per capita output holding all other things constant. This finding is consistent with the Solow’s growth model prediction and is also confirmed by Ajide (2010). It therefore suggests that pursuing investment in fixed assets by both the public and private economic agents is therefore a recipe for better economic growth prospects. This also implies that favorable investment policies which can increase investment by both local and foreign investors need to be vigorously pursued. In the same vein, the Government can improve capital formation by putting up the basic infrastructure such as roads, railway lines and electricity which can act as catalyst for private investment which in turn ignites growth momentum or enhance it.

On the other hand the coefficient of trade openness has negative sign and highly statistically significant in the model, showing that increased trade liberalization impact negatively on economic growth. The theory predicts trade openness will positively influence economic growth but the results from the study are contrary to this prediction. In relation to Zimbabwe, negative effect of trade openness to economic growth can be attributed to huge influx of imports from our
trading partners such as South Africa and China with no corresponding value of exports. Mufunda (2014) also confirms the existence of a negative relationship between trade openness and economic growth for Zimbabwe. It therefore follows for Zimbabwe trade openness has exacerbated the falling of domestic output which is reflected by the collapse industrial sector.

In addition, the study found that institutions are statistically significant and have the expected positive sign in line with theoretical principles. This finding is crucial as it reinforces our hypothesis that good quality institutions spur economic growth. One other important observation from the results is that institutions have more positive influence on growth relative to other factors used in the model that spur economic performance. A unit improvement in institutional quality will result in 0.22% improves in income per capita holding all other things constant. This is contrast with the physical capital formation and government consumption which will only improve income per capita by 0.13% and 0.18% respectively if there is a unit increase in their levels. It therefore suggests that institutions are a dominating factor in Zimbabwe’s economic performance. More specifically deterioration of political stability is bad for economic growth and improvement in political stability should be a policy priority. Political stability brings certainty thereby giving the incentive for physical and human capital accumulation which will facilitate economic growth process. The previous studies of Panahi et al. (2014) and Siddiqui et al. (2009) are in agreement with findings of this study. Aisen (2010) further confirms the adverse effect of political instability on economic growth.

Results from the study are also indicating that human capital formation to be both negative (contrary to the expectation) and statistically insignificant. This misbehavior can be explained by several factors which include the massive brain drain since early 2000 meant that the human capital formation though it improving but has not been available for use locally. Similarly, the limited employment opportunities has resulted in underutilization of human capital in the country hence an inverse relationship between human capital accumulating and economic growth.

In contrast to results found by Ndambiri et al. (2012), the study shows that Government expenditure as a percentage of GDP both explain and positively influence the economic performance. However, the theory is indeterminate on the nature of the relationship government
expenditure and income per capita. This study finding suggests that increase in government expenditure will also result in positive economic performance. It would be plausible to have this relationship due to the fact that the government is a major consumer of goods and services and therefore increase in its expenditure would also increase the aggregate demand and hence more economic activities are bound to take place and improve the economic performance. However, this is only possible up to a certain level of optimal government expenditure beyond which there will negative consequences to economic growth.

4.7 CONCLUSION

This chapter presented the empirical findings and their interpretation. The GMM was used for estimation and the results show that physical capital formation, government expenditure and political stability have a positive and significant effect on economic growth while trade openness, inflation and human capital have negative impact on economic growth.

On the whole, the results support the hypothesis of the study that good quality institutions have a positive effect on economic growth in Zimbabwe. The next chapter gives a brief summary of the study, findings, and policy recommendations and suggests areas of further study.
SUMMARY, CONCLUSION, POLICY AND RECOMMENDATIONS

5.0 INTRODUCTION

The present chapter marks the end of the study. It summarizes the main findings of this study and presents policy recommendations and makes suggestions on areas for further studies in the future. The conclusions are inferred from the estimation results presented in the preceding chapter.

5.1 SUMMARY OF MAIN FINDINGS

The objective of the study was to investigate whether economic growth in Zimbabwe is influenced by the quality of institutions. The economic performance was proxied by real GDP per capita while the main institutional variable was proxied by political stability index. The analysis was done in several stages. Initially the empirical and literature review was done which guided model specification and estimation method. This was followed by stationarity tests on the time series variables used. The stationarity tests showed that real GDP per capita, inflation, political stability, physical capital formation, and government consumption and trade openness were integrated of order one except the human capital which was of order zero. The unstationary series were differenced.

Using the GMM the growth model was estimated. The findings from the study suggest that the institutional quality strongly influence economic performance for Zimbabwe. An improvement in political stability leads to a positive effect on economic growth. Similarly, government expenditure on goods and services as well as physical capital formation have a positive contribution to economic performance. On the contrary, inflation, human capital formation and trade openness has the negative effect on growth.

5.2 POLICY IMPLICATIONS AND RECOMMENDATIONS

On policy front, given the aforementioned results a developing county such as Zimbabwe or any other country for that matter must create and strengthen their institutions in order to achieve
sustainable development. In essence the absence of good quality institutions, even in the presence of best policies for development and attracting investment might perform dismally as their incentives are crowded out by the huge business risk imposed on the country. Moreover political instability is characterized by poor enforcement of law, poor quality of bureaucracy, sour internal and external relationships and accountability by the Government will be a challenge. It therefore follows that political instability creates uncertainty and thereby reducing economic activities as economic agents will be unsure of the return from their investment. It is therefore recommended that the Government strengthen quality of bureaucracy, accountability mechanisms, step up reengagement efforts both at local level and international arena.

Although human capital formation is critical in support of economic prosperity it’s contribution hinges on the ability of the respective Government to create a conducive environment that will facilitate use of the acquired skills. This entails availing favourable conditions by the Government for its citizens to set up their businesses or finding employment opportunities which will enable harnessing the human capital skills towards economic growth. Consequently more efforts need to be directed towards harnessing the human capital and the researcher suggest that formal export of labour be explored as means to benefit from the immense human capital base we are endowed with in the country.

In view of the evidence from the study trade openness has to be embraced in a cautious manner as it can work against growth aspirations. The domestic firms need to be safeguarded as witnessed that domestic firms are either closing down or down-seizing while foreign firms are making brisk business in the domestic market. Consequently, the economy has contracted without any hope in sight. The policymakers will therefore need to curtail on excessive openness as it is working against economic performance. Efforts should be directed towards value addition of our exports to increase the exports earnings and resuscitate the domestic industry in order to increase reduce the import bill.

Likewise, policies should be put in place that encourage physical capital formation should be strengthened. Through physical capital formation more wealth is created and in the process economic growth is boosted. The researcher proposes that to boost physical capital the country must put measures to attract both domestic and foreign investors. Firstly, the country needs to work vigorously towards normalizing international relations which weigh down efforts to raise
external finance and imposed additional risk attached to the country. In addition, domestic bilateral agreements need to be respected and break the previous record where the country reneged on some of it’s bilateral agreements particularly in the agriculture sector. Policy clarity and consistence on investment policies such as the Indeginisation policy need to be strengthened. On the other hand the current limited fiscal space which affect mostly the capital budget poses a great challenge to the Government to finance the physical capital through the national budget. The recommendation would therefore be to reexamine the reserved investment areas for the Government with the goal to open up investment to private players. This can be done through dismantling monopolization in certain sectors (where appropriate), Public-Private Partnership or allowing for private sector to purchase equity in state enterprises. Examples of areas that can be targeted include electricity power generation and railway transport system which require huge capital investment.

From the evidence in the preceding chapter, inflation poses a great risk to economic revival and therefore it would be suicidal to pursue inflationary policies. It is therefore recommended that Government strengthen anti-inflationary policies.

From the policy recommendation it can be concluded that institutions play a significant role in influencing economic growth for Zimbabwe. It therefore suggests that policy makers besides focusing on the traditional growth factors which are human and physical capital investment unparalleled efforts should be put in place to improve institutional quality. These policies must be specifically targeted at improving political stability which will bring certainty. It therefore entails putting in place measures to improve accountability by the government, law and order, bureaucracy quality, internal and external relationships. A more stable environment is required by investors as it gives them some guarantee to control their return on their investment. The long run benefits of institutional quality outweigh any transitional benefits that may accrue to the ruling elite at the expense of the nation at large and therefore it is in the best interest of the nation at large to put institutional improvement as a priority of priorities.

5.3 AREAS FOR FURTHER RESEARCH
The study is not exhaustive in terms of exploring the impact of institutions on economic growth. While the current study focused on formal institutions this is not to dismiss the critically of informal institutions and I urge further research to be done on examining the effect of informal institutions on economic growth. On the other hand while the current study used the political stability risk index further research is required using other institutional measures but maybe constrained by short time period of the data. To counter this pitfall the researcher recommends the use of panel data estimation technique which also allows for a comparative analysis on performance of other regional peers (i.e. SADC countries) which can better enlighten the policy makers.

Bibliography


Government of Zimbabwe, (1998), Zimbabwe Programme for Economic and Social Transformation. GoZ


APPENDICES

Appendix 1: Description of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description of variable</th>
<th>Data source</th>
<th>Expected sign</th>
</tr>
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</table>

The Reserve Bank of Zimbabwe, Monetary Policy Statement (July 2014).
www.fraserinstitute.org
Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim-Asset)“Towards an Empowered Society and a Growing Economy”2013, Harare.
<table>
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<tr>
<th>Variable</th>
<th>Description</th>
<th>Source</th>
<th>Sign</th>
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</thead>
<tbody>
<tr>
<td>GDP</td>
<td>Real Gross Domestic Product/capita</td>
<td>World Development Indicators, World Bank</td>
<td>+</td>
</tr>
<tr>
<td>PK</td>
<td>Physical Capital formation</td>
<td>World Development Indicators, World Bank</td>
<td>+</td>
</tr>
<tr>
<td>HK</td>
<td>Human Capital investment</td>
<td>World Development Indicators, World Bank</td>
<td>+</td>
</tr>
<tr>
<td>OPEN</td>
<td>Trade openness</td>
<td>World Development Indicators, World Bank</td>
<td>+</td>
</tr>
<tr>
<td>GVTE</td>
<td>Government expenditure</td>
<td>World Development Indicators, World Bank</td>
<td>+/-</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
<td>World Development Indicators, World Bank</td>
<td>-</td>
</tr>
<tr>
<td>POL</td>
<td>Political Stability</td>
<td>Political Risk Services</td>
<td>+</td>
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**Appendix 2: Regression results for the model but without the institutional variable (Dependent variable-RGDP)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<tr>
<td></td>
<td>LOG(HK)</td>
<td>LOG(CPI)</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>----------</td>
<td>-----</td>
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<tr>
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<td>10.41117</td>
<td>0.0000</td>
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R = 0.799520 \quad R^2 = 0.762394