Determinants of Poverty and Remedial Measures: Lessons for Lesotho

By Selloane Khoabane[1]

Abstract

LESOTHO HAS achieved solid economic growth and a seemingly positive shift in the output structure. Nonetheless, these have not translated into corresponding improvements in employment and poverty outcomes. The literature identifies a number of factors that explain this phenomenon. The empirical analysis and case studies included in this paper reveal that economic growth should be supplemented with employment generating economic structural transformation to have a meaningful poverty reducing impact. Effective economic transformation can be achieved when there is an effective institutional structure in place to support implementation of strategic development policies. Development of effective institutions could be the solution to Lesotho's sluggish implementation of strategic development policies. Lesotho needs to define the kind of institutions that have to be developed to address all impediments to effective implementation of policies that have the potential to transform the economy, generate employment and address poverty.

Keywords: Economic Development, Economic Growth, Poverty, Employment, Institutions
JEL classification: E24, E61, I32, O40, O43, O10

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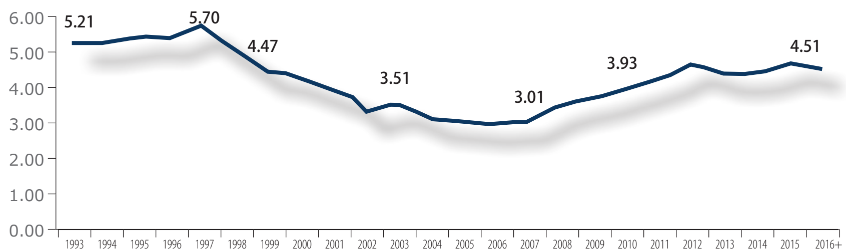
1 INTRODUCTION

THERE IS A wide realization and acceptance among policy makers and the nation at large in Lesotho that Lesotho needs economic transformation to enhance its capacity to address its major challenges of poverty, inequality and unemployment, amongst others. The need for economic transformation is expressed in a number of development planning documents including the Five Year Development Plans, Annual Plans and Budgets since 1970 and the Three Year Rolling Plans since 1997. In the year 2000 the National Vision 2020 was developed as the first document that describes the long term vision for Lesotho's economic, political and human development. The implementation strategies for the Vision 2020 were outlined in the Poverty Reduction Strategy 2004/05 – 2006/07 and the Interim National Development Frameworks. Currently, the National Strategic Development Plan 2012/13 – 2016/17 is the implementation strategy of the Vision. The development planning documents outline a number of key priorities and objectives and these have not changed much from one document to the next. These include accelerating economic growth by enhancing production in agriculture, manufacturing, tourism, mining and micro, small and medium enterprises (MSME s) so as to generate employment and minimize inequality. In addition, the necessary infrastructure, skills, technology and innovation, amongst other things, would be developed to support growth of the productive sectors.

This realization notwithstanding, Lesotho's economy has consistently been expanding since 1983, albeit with decelerations in some years. Economic growth averaged about 4.0 per cent over the 33-year period from 1983 to 2016. This reflected long periods of expansion in all the sectors except the agricultural sector, which has been highly volatile though dominated by contractions. The highest growth rates were observed in the mining and quarrying sector at 10-year moving averages of above 50.0 per cent from 2005 to 2012 after which they moderated though still remaining high. The second highest growth rates were recorded by the manufacturing sector though it has been under pressure in recent years, experiencing its longest period of contraction from 2008 to 2014. The services sector, which is mainly dominated by public administration, education and health, which are services that are mainly provided by government, also persistently registered positive growth rates of 2.5 per cent to 5.0 per cent during the same period with highest growth rates observed in communication and information and financial and insurance services. The wholesale and retail trade sector also significantly supported growth at single digit 10-year moving average growth rate of 2.1 per cent in 2006 that rose over the years to 5.2 per cent in 2016.

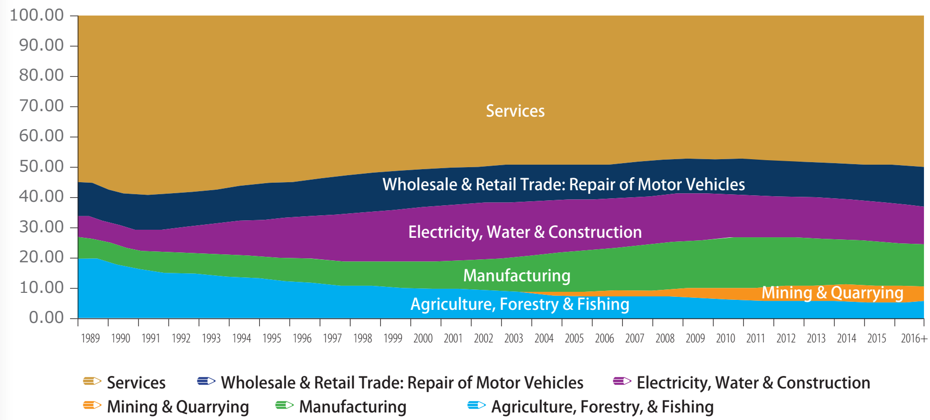
Figure 1 Lesotho's Real GDP Growth Rates (10 Year Moving Averages)



Source: Lesotho Bureau of Statistics and Author's calculations

The strong economic growth has been accompanied by some changes in the output structure and in the contributions of different sectors to Lesotho's GDP. The agricultural sector as a share of GDP has fallen from an average of 15.9 per cent in the first ten years of the 33 years covered by this review to an average of 6.0 per cent in the 10-year period to 2016. The electricity, water and construction sectors have also declined. The services sector remained the largest contributor to Lesotho's output despite declining from an average of 58.0 per cent as a share of GDP in the 10-year period from 1983 to 2002 to 49.0 per cent in the 10 years to 2016. The wholesale and retail trade sector has remained relatively stable. The manufacturing sector has increased from 6.0 to 13.0 per cent during the same period. The mining and quarrying sector remained the lowest contributor to GDP despite accelerating on account of high investment in the sector in recent years.

Figure 2 Lesotho's Real GDP - Sectoral Contributions



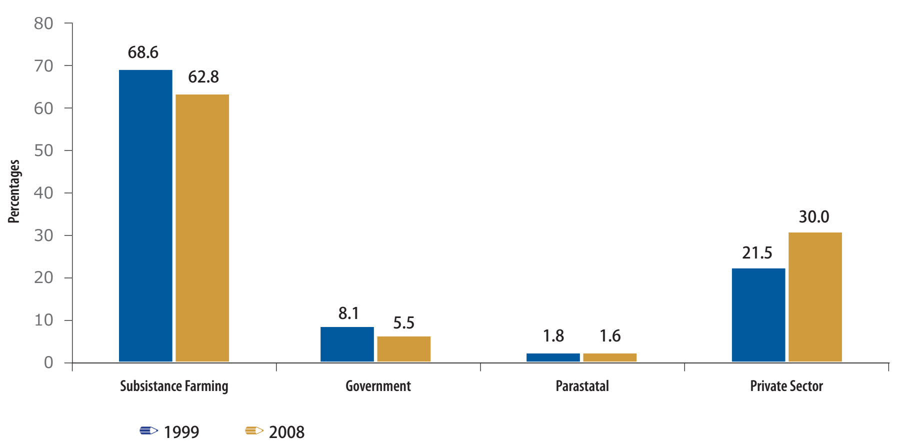
Source: BOS and Author's calculations

The strong economic growth and a seemingly positive shift in the output structure have not been accompanied by commensurate developments in employment and poverty reduction. According to the IMF (2016), Lesotho has achieved solid economic growth but unemployment has remained high, particularly among the youth and poverty has also remained high. The unemployment rate has deteriorated over the years and it is estimated at 25.3 per cent according to the Integrated Labour Force Survey of 2008. The most recent estimate by the Continuous Multi-Purpose Survey 1st Quarter 2014/2015 is 32.8 per cent and it also estimated the youth unemployment rate at 36.1 per cent. However, this Survey does not provide a sectoral breakdown of employment. The Labour Force Survey 2008 reveals the agricultural sector as the largest employer in Lesotho. It shows that the agricultural sector, which is mainly characterized by subsistence farming in Lesotho, is the largest employer of the Basotho nation at 62.8 per cent in 2008, a slight improvement from 68.6 per cent in 1999. Employment by the private sector, which covers sectors such as mining and quarrying, construction, services, wholesale and retail trade, *inter alia*, has increased moderately by 8.5 percentage points from 21.5 per cent in 1999 to 30.0 per cent in 2008.

Unavailability of high frequency statistics on employment precludes more elaborate discussion of Lesotho's employment developments. Nonetheless, it is worth noting that the sectors that have been growing fast and have consequently been behind Lesotho's solid economic growth over the past two decades as depicted in Table A1 in the Appendix are not highly labour intensive in nature. As such their contribution to employment has been very minimal. For example, the mining and quarrying sector has generated around 3,000 jobs despite growing by 10-year moving average growth rates of more than 50.0 per cent per year from 2005 to 2012.

Consequently, poverty remains high and unchanged from a decade ago (IMF, 2016). The poverty level in Lesotho as measured by the poverty head count ratio at US$1.90 per day in 2011 purchasing power parity (PPP) was 59.7 per cent in 2010. Measured at a higher poverty head count ratio of US$3.20 per day in 2011 PPP, Lesotho's poverty level was 78.0 per cent in 2010.

Figure 3 Sectoral Employment in Lesotho



Source: Integrated Labour Force Survey 2008

This state of affairs raises policy concerns. Thus this paper has two main objectives. The first one is to assess the determinants of poverty with the aim of understanding why poverty still remains a pressing challenge for Lesotho. The second objective is to identify policies that could enable Lesotho to address this challenge more effectively. The paper is structured as follows. Following this introduction is the literature review. Section 3 outlines the analytical methodology and Section 4 discusses the empirical results on the determinants of poverty. Section 5 reviews case studies that demonstrate how poverty reduction could be achieved. Section 6 concludes the study and provides policy lessons for Lesotho.

2 LITERATURE REVIEW

2.1 Theoretical Literature

There are different schools of thought on the theories of poverty. The classical theory is based on the premise that factors of production receive payments in the form of rent, wages and profits on their productivity. On the basis of the assumption that the market is efficient, it views poverty as a result of individual choices that affect productivity (Davis and Sanchez-Martinez, 2014). The role of government is to intervene when there is a need for supportive activities or threats, to correct for perverse economic incentives (Davis and Sanchez-Martinez, 2014). Second, the Keynesian or liberal theory attributes poverty to market distortions and broad underdevelopment. According to this school of thought, economic growth can promote economic development hence reduce poverty (Davis and Sanchez-Martinez, 2014).

Third, according to Marxist theories, poverty results from capitalism and related social and political factors. As articulated by Angelsen and Wunder (2006) the Marxist inspired theories are a result of uneven development and exploitation that cause skewed asset and income distribution. This is based on the notion that capitalists keep the cost of labour unnaturally lower than its value added by threatening to reduce employment. Furthermore, it is also contended that regulation of the labour market, for example through minimum wages, can alleviate poverty (Davis and Sanchez-Martinez, 2014).

Fourth, the monetarist and neoclassical mainstream theories do not explicitly include poverty reduction as part of their targets (Troyano and Martin, 2016). The policies of the Washington Consensus were focused more on economic growth as the key to poverty reduction. However, economic growth of the conventional economic reforms, inspired by the Washington Consensus, has not resulted in poverty reduction (Rodrik, 2005 and Troyano and Martin, 2016). This is culminating in a shift in policy thinking. Rodrik (2005) points out that the alternative policy direction that countries appear to be taking is to add more on to the policy agenda as existing policies yield less than expected results, which he terms the Augmented Washington Consensus[1].

2.2 Empirical Literature

Angelsen and Wunder (2006) contend that the debate on poverty has culminated in a consensus that in most cases, macroeconomic growth increases the income of the poor and reduces the number of people below the poverty line. Seleteng and Motelle (2016) found out that, SADC countries that experienced higher average economic growth rates over the 2002 to 2012 period also registered lower unemployment levels and consequently inferred that economic growth reduces poverty. Most Asian countries such as Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand have experienced the poverty reducing impact of economic growth. However, there are quite a significant number of cases where little or no poverty reduction was achieved through growth, particularly in Africa. This is attributable to skewed initial asset distribution and/or 'bad quality' economic growth that is characterized by low labour intensity and taking place in sectors that do not have a direct and significant link to the poor (Angelsen and Wunder, 2006).

Lavopa and Szirmai (2012) identify three channels through which economic growth affects employment and poverty. First is the direct impact, which results from the creation of new jobs

[1] Washington Consensus included the following policies; secure property rights, deregulation, fiscal discipline, tax reform, privatization, reorientation of public expenditures, financial liberalization, trade liberalization, openness to FDI, unified and competitive exchange rates. The augmented Washington Consensus added ten more policies to the Washington Consensus list. These are anti-corruption, corporate governance, independent central bank and inflation targeting, financial codes and standards, flexible labour markets, World Trade agreements, capital account liberalization, non-intermediate exchange rate regimes, social safety nets and targeted poverty reduction.

or the reallocation of workers from lower to higher productivity sectors, when wages reflect productivity levels. Second is the indirect impact, which arises from strong linkages between the growing sector and the rest of the economy. Lastly is the induced impact, which refers to the multiplying effects as growth in the rest of the economic activities further creates employment, productivity, and income growth.

In addition to growth of income, poverty risk and social exclusion are affected by other factors related to the quality of governance in an economy. The ILO (2005) explains that HIV/AIDS causes impoverishment through a number of channels. Household income is lost when working-age adults who earn income can no longer work due to illness and as household expenditures increase due to medical care costs. Sometimes households expend savings and loose assets to purchase medical care for sick members. Productivity in agriculture, particularly at subsistence level and among smallholder farmers becomes severely curtailed by lack of able bodied workers. In addition, the HIV/AIDS related labour force losses cripple economic growth thus undermining efforts to reduce poverty at the national level.

On the one hand, democracy is generally expected to result in the betterment of the lives of the nations. However, Holmberg and Rothstein (2010) found a positive but weak relationship between democracy and absolute poverty and inequality. This reflects that democracy may not produce the public goods needed to alleviate poverty. Furthermore, bad governance that is characterized by corruption, patronage, favoritism and abuse of power restricts the positive impact of democracy on poverty (Diamond, 2007). On the other hand, Varshney (1999) found out that authoritarian countries exhibited mixed signals on poverty reduction with countries such as Singapore, South Korea and Taiwan attaining spectacular success, some lying somewhere in between and others, particularly in Sub-Saharan Africa and Latin America failing miserably. He further points out that while countries that have had long tenures of democracy may not be enormous failures, none of them has attained success levels of Singapore, South Korea and Taiwan.

Government effectiveness, which reflects the degree to which citizens of a country view the public sector as fulfilling its obligations with a minimum waste of resources, is also important for poverty reduction. Bosco and Poggi (2016) found out that in countries with high government effectiveness, the individual probability of being poor is lower. This is because government effectiveness is highly correlated with GDP per capita and it is more relevant for low-income countries (Jha and Zhuang, 2014). While all other different elements of governance are important for poverty reduction, the most important for low-income countries include government effectiveness, better regulatory quality and rule of law, and tighter control on corruption (Jha and Zhuang, 2014).

3 METHODOLOGY

To address the first objective of the paper, cross sectional data methodology is used to assess the extent to which factors identified by the literature affect poverty in developing countries. The analysis covers 102 developing countries that have data on the multidimensional poverty index as shown in the Human Development Report 2016, including Lesotho. The list of variables, their abbreviations and a-priori expected signs are provided in Table 1. The description and other details about the variables included in the model are provided in Table A1 in the Appendix. A more direct analysis on Lesotho would be ideal. However, it was not possible because of data constraints. Data on most of the variables used in this analysis were only introduced recently, for example, the dependent variable was introduced in 2010. In addition, data on most of the variables is compiled periodically through surveys conducted with lags of 5 or more years. This results in a small number of observations per variable per country.

Cross-sectional data regression was used to estimate the following model:

$$\log(MDPI_{it}) = \beta_0 + \beta_1 DEMOC_{it} + \beta_2 GEFF_{it} + \beta_3 \log(HIV_{it}) + \beta_4 \log(UNEMPR_{it}) + \beta_5 \log(GDP_{it}) + \beta_6 \log(MODERN_{it}) + \mu_{it}$$

Table 1	List of Variables and A-priori Expected Signs	
Variable Name	Abbreviation	A-priori Expected Sign
Multidimensional Poverty Index	MDPI	N/A
Democracy	DEMOC	-
Government Effectiveness	GEFF	-
GDP per Capita	GDP	-
The Rate of HIV Prevalence	HIV	+
The Unemployment Rate	UNEMPR	+
Modernization	MODERN	-

Different approaches are used in different studies to model the determinants of poverty. The choice of a specific analytical approach is often determined by availability of data and the objectives of the study. Individual country studies based on household income and expenditure survey data pertaining to one period (year) are common (Adeyemi *et al.*, 2009, Biyase and Zwane 2017 and Pindiriri, 2015). Many of these types of studies mainly employ ordinary least squares to study the determinants of poverty (Sakuhuni *et al.*, 2011; Manjengwa *et al.*, 2012; Benson et al., 2005; Okwi *et al.*, 2007; and Datt and Jolliffe, 1999). A few studies that model the macroeconomic determinants of poverty over a cross section of countries, such as Adeyemi *et al* (2009) and Ulriksen (2012) use cross country data for one period (one year) and simple linear regression analysis. This could be attributable to the frequency of the available data for the poverty indicator or index that is used as the dependent variable. Along the lines of Adeyemi *et al* (2009).

While the quality or spuriousness of regression results in time series data is affected by stationarity issues, in cross-section data it is determined by cross-sectional dependence and heterogeneity. Cross-sectional dependence refers to a situation whereby the shocks in one cross section unit e.g. a country, impact on another unit when both belong in the cross sectional data set. According to Baltagi (2005), cross-sectional dependence and serial correlation are a problem in macro panel data with long time series but not in panels with few years and a large number of cases. As such the analysis in this study is based on the assumptions of cross-section independence and no serial correlation.

Heterogeneity refers to the dissimilarity or diversity in the cross-sectional observations, that is, a situation whereby the observations are widely scattered. Heteroskedasticity is a type of heterogeneity characterized by unequal variances of the disturbance terms in the regression function. In cross-section data analysis, one can improve over OLS in the presence of heteroskedasticity of unknown form by applying generalized method of moments (GMM) or two-stage least squares (2SLS). However, in large samples, OLS is unbiased and consistent, whereas GMM is guaranteed only to be consistent. With regards to the two-stage least squares, application in cross section analysis is not common. This is because two-stage least squares generally has only a minor impact on estimates of coefficients and statistical significance in the presence of heteroskedasticity. Thus the empirical analysis has taken care of heteroskedasticity.

The case study approach is used in pursuance of the second objective of this paper. The cases of two developing countries, Mauritius and Thailand, which have already reached or are on track to reach middle-income status, are reviewed. Mauritius is an African country that has attained commendable economic success. It has transformed itself from a poor sugar economy into one of the most successful economies in Africa in recent decades. In tandem with its economic transformation, Mauritius has achieved significant improvements in poverty reduction and other key human development indicators. Thailand is a developing country in Southeast Asia. It has attained structural economic transformation that has helped it to achieve impressive results on employment creation and poverty reduction.

4 EMPIRICAL RESULTS – DETERMINANTS OF POVERTY

This section presents the results of the pooled regression results on the determinants of poverty in developing countries. Three models have been estimated. The first model includes all the selected explanatory variables except modernization. The objective behind it is to determine the importance of economic growth in poverty reduction in the absence of economic transformation. The second model leaves out economic growth and includes modernization. It is intended to assess whether poverty can be addressed with economic modernization in the absence of economic growth. The third model includes both variables and it is meant to assess the complementary effect of these two variables on poverty.

Table 2 Empirical Results

Variables	Model 1	Model 2	Model 3
Democ	0.014	0.036	0.02
	[0.37]	[0.92]	[0.53]
Geff	-0.652	-1.278	-0.691
	[1.85]*	[-4.50]***	[-1.98]**
Log(hiv)	0.265	0.338	0.254
	[3.04]***	[3.87]***	[3.00]***
Log(unempr)	-0.108	0.004	
	[-0.82]	[0.03]	
Log(GDP)	-1.001		-0.764
	[-5.17]***		[-3.16]***
Log(modern)		-1.438	-0.67
		[4.18]***	[-1.73]*
Constant	5.5201	2.151	5.941
	[3.08]***	[1.54]	[3.34]***
Number of Observations	79	80	79
Adjusted R-squared	0.64	0.60	0.65
F-statistics	25.63***	22.49***	26.90***

NOTE: *Dependent variable is the Multi – Dimensional Poverty Index. ***, ** and * denote 1%, 5% and 10% level of significance, respectively. Values in square brackets are t-statistics.*

The results confirm the importance of economic growth for poverty reduction. Models 1 and 3 show that an increase in GDP per capita leads to a decline in the poverty index. Structural transformation, as proxied by economic modernization, which results in the reallocation of workers from lower to higher productivity sectors, is also important for poverty reduction as demonstrated by models 1 and 2. This is in line with the findings of Lavopa and Szirmai (2012). When both GDP per capita and economic modernization are included in the model (Model 3), they both maintain their importance for poverty reduction, with GDP per capita displaying a little bit higher impact than modernization. The inclusion of both variables in the model also improves the explanatory power of the model. The results indicate that economic growth that is supported by structural transformation is likely to have a more effective poverty reducing impact. This is because growth of the manufacturing and services sectors is usually accompanied by creation of formal and reasonably salaried employment opportunities.

There is a weak and statistically insignificant relationship between democracy and poverty. This is in line with the findings of Holmberg and Rothstein (2010) who contend that democracy does not always facilitate production of public goods that are necessary for poverty alleviation. This is particularly the case where governance that is plagued by corruption, patronage, favoritism and abuse of power hinders effective implementation of development orientated policies that are necessary for creation of quality employment and poverty reduction, regardless of whether it is democratic or authoritarian.

An improvement in government effectiveness results in a significant reduction in poverty. This is because government effectiveness reduces the probability of being poor, especially for low-income countries (Bosco and Poggi, 2016). This notion is further substantiated by Jha and Zhuang (2014) who highlighted that the importance of government effectiveness for poverty reduction emanates from its high correlation with GDP per capita.

The results depict that HIV prevalence retards poverty reduction. It intensifies poverty by reaping-off households of income when some household members can no longer engage in productive activities due to ill-health and by increasing household expenditures as a result of medical care costs. This is in line with the findings of Adeyemi *et al* (2009) on Sub-Saharan Africa. He concluded that the high prevalence of HIV/AIDS has affected the level of economic activities and well-being of the people in the sub-region and recommends that policies aimed at arresting the spread of HIV will go a long way in reducing poverty in Sub-Saharan Africa.

The estimated models were tested for heteroskedasticity using the Breusch-Pagan-Godfrey test. The results of this test, presented in Table2, show that the null hypothesis of homoscedasticity could not be rejected. In addition, the results of the heteroskedasticity robust pooled OLS regression presented in Table A2 in the Appendix are similar to those presented in Table 1 above, thus leading to the same conclusions. This confirms robustness of the empirical results of this exercise.

Table 3	Heteroskedasticity Test: Breusch - Pagan - Godfrey
Model 1	2.004
Model 2	3.500
Model 3	2.792
1% = 15.086 Critical Values for 5 df	1% = 15.086
	5% = 11.071
	10% = 9.236

5 POLICIES/STRATEGIES FOR ADDRESSING POVERTY: CASE STUDIES

Economic modernization stands out as a very important factor for poverty reduction amongst the explanatory variables explored in this study. It is therefore important to probe this variable further with the objective of deriving policy lessons for poverty stricken developing countries like Lesotho. Thus case studies have been included in this paper to demonstrate how economic modernization/ transformation impacts poverty. These case studies also provide some insight on the factors that could facilitate successful economic transformation that could effectively achieve the desired poverty reduction results.

5.1 Mauritius

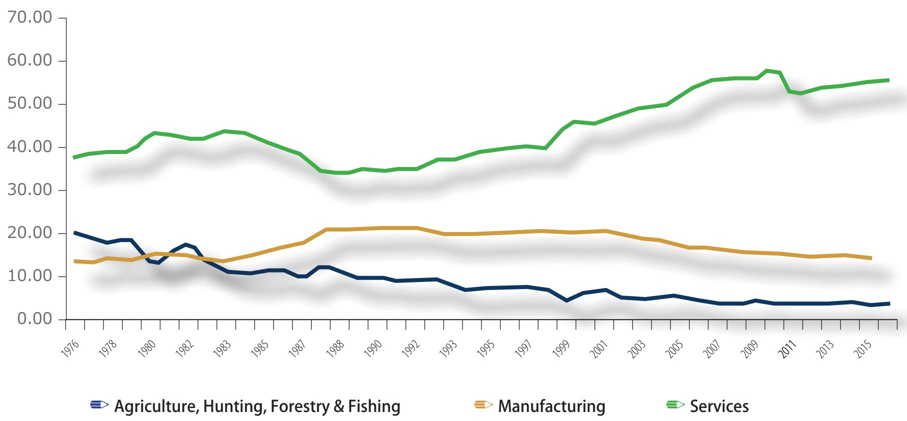
Mauritius has successfully transformed its economy from sole dependence on sugar at independence in 1968 to tourism, textiles, financial services and Information and Communication Technology (ICT) in recent years (AFDB (2014), Sobhee (2009), Ulriksen (2012), Zafar (2016)). Mauritius has defied the predictions of Meade et al (1961) of dismal developmental prospects, which were based on Mauritius's high economic dependence on one crop (sugar), low income due to lack of job opportunities outside the sugar sector, rapid population growth and its long distance from the world markets than the average African country. According to the World Bank's World Development Indicators, Mauritius has transitioned from a Low Income to Upper Middle Income Country in 2012. Its GDP per capita in constant 2010 US Dollar terms has grown to US$9812.55 in 2016 (World Bank, WDI). It has made commendable progress on poverty reduction, with the poverty headcount ratio at US$1.90 a day of 0.1 per cent of the total population while it boasts one of the lowest unemployment rates in Africa at 7.8 per cent in 2016 (World Bank, WDI).

Agricultural activities have declined as the economy of Mauritius diversified (Bank of Mauritius, 2017). The agricultural sector has fallen from above 20.0 per cent of GDP in the 1970s to below 4.0 per cent of GDP since the beginning of the 21st century. This is largely explained by the decline in sugar cane production from around 16.0 per cent of GDP in the 1970s to less than 2.0 per cent since 2010. Nonetheless, sugar remains an important source of export earnings at 10.5 per cent of total exports value in 2016.

The manufacturing sector became the largest contributor to GDP from 1982, outperforming the agricultural sector and has, to date retained this position. It grew from 14.6 per cent of GDP in the period from 1976 to 1987 and stabilized at 20.0 per cent of GDP from 1987 to 2001. After that it started to fall year after year and it reached 13.9 per cent of GDP in 2016. Textiles and wearing apparel is the main contributor to the performance of the manufacturing sector and it has been declining as a result of the erosion of preferential trade agreements and increased international competition, amongst other factors.

The services sector is comprised of a number of services activities such as accommodation and food service activities, financial and insurance activities and information and communication technology. According to Bank of Mauritius (2017), accommodation and food service activities are the fourth pillar of Mauritius' economic growth and are mainly supported by tourism related activities. Gross value added of this sector as a share of GDP has increased from 1.6 per cent in 1976 to 6.8 per cent in 2016. Tourism earnings have increased from Rs503.00 million in 1983 to Rs55, 867.00 million in 2016.

Figure 4 Mauritius' Real GDP Sectoral Contributions

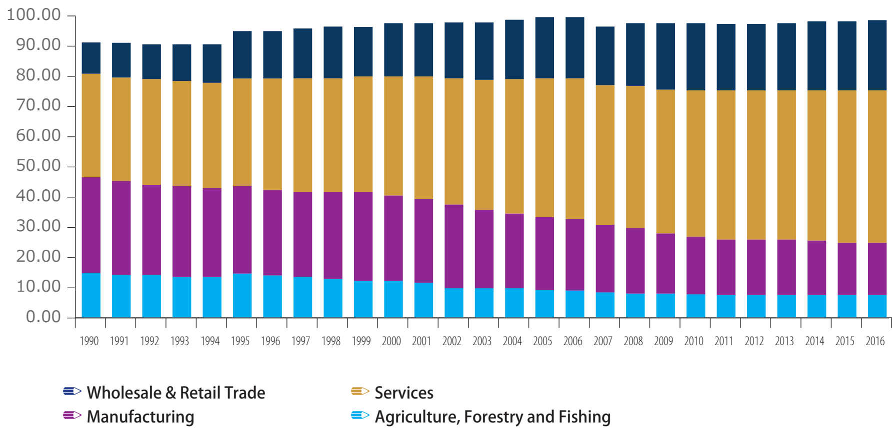


Source: Statistics Mauritius

The unemployment rate declined from 19.7 per cent in 1983 to a single digit figure of 6.0 per cent in 1987 and Mauritius has maintained the unemployment rate at single digit levels ever since. In 2016 it was recorded at 7.3 per cent. The manufacturing sector played an important role in this shift. According to Bank of Mauritius (1987) the manufacturing sector added 13 945, 20 390 and 16 808 new jobs as at end of March in 1985, 1986 and 1987, respectively. Most of these jobs were in the export processing zones and in clothing and apparel, in particular. Employment in the manufacturing sector rose to a peak of 142 400 in 1999 after which it fell steadily from year to year to 98 700 in 2016. This is in line with the decline in the contribution of this sector to Mauritius' GDP as discussed above. Employment in the agricultural sector has also been on the decline in line with this sector's importance in the economy. It fell from 63 200 in 1990 to 41 300 in 2016. Both the sugar cane and non-sugar agricultural activities have been shedding labour. The declines in employment in both the manufacturing and agricultural sector notwithstanding, they remain important contributors to employment in Mauritius.

The improvement in the unemployment rate has over the years been sustained by increasing employment in the services and wholesale and retail trade sectors. Employment in the services sector as a share of total employment has risen from 34.7 per cent in 1995 to 50.6 per cent in 2016. This represents an increase in the number of jobs from 159 900 in 1995 to 287 300 in 2016. Significant increases were recorded in the hotels and restaurants and transport and communications services categories. Employment by the hotels and restaurants rose from 16 800 in 1995 to 40 800 in 2016 while that of the transport and communications increased from 30 000 to 56 000 during the same period.

Figure 5 Mauritius's Sectoral Employment as a Share of Total Employment



Source: Statistics Mauritius

Ulriksen (2012) explains that Mauritius undertook measures to transform from "a mono-crop" economy and create employment through Import Substitution Industrialization (ISI) for catering for the domestic market and establishing export processing zones (EPZ) to produce for foreign markets. Trade preferences also played a significant role in Mauritius' economic transformation. They included the high quota on sugar exports to the European Union (EU) at a guaranteed price that remained above the market price for a considerably long period and the preferential access on exports of textiles and clothing under the Multi-Fiber Agreement (MFA). Zafar (2016) adds incentives such as low corporate tax rate of 15.0 per cent, double taxation avoidance agreements and liberalized capital account, global competitiveness, and a conducive business climate to the list pointing out that the World Bank's Doing Business 2010 ranks Mauritius as the most attractive country for doing business in Africa. World Bank's Doing Business Report 2018 ranked Mauritius at 25 out of 190 countries covered by the report. Macroeconomic stability, anchored on fiscal prudence, played a significant role in surviving external shocks and crises periods (Zafar, 2016). A relatively well developed financial sector also helped to provide the necessary capital and credit to the private sector (AFDB, 2014). The efficient telecommunication facilities and infrastructural networks have also minimized trading costs for Mauritius (Sobhee, 2009).

Many of these factors have existed and continue to exist in many other developing countries. Nonetheless, those countries have not attained the same high level of success as Mauritius. According to Subramanian and Roy (2001) the "conventional determinants of growth do not fully capture Mauritius's economic performance" between 1960 and 1990. They contend that "strong domestic institutions" have contributed substantially to Mauritius's successful economic transformation. Subramanian and Roy (2001) contend that the "institutions have ensured free and fair elections, the rule of law, a vibrant and independent press, and respect for property rights, all of which have made Mauritius an attractive investment destination". The institutions also ensured consistent pursuit of policies that supported macroeconomic adjustment by "different governments of apparently divergent ideological persuasions" (Subramanian, 2009). According to Frankel (2010), Subramanian and Roy (2001), Subramanian (2009), Svirydzenka and Petri (2014) institutions, in the context of Mauritius's economic success are defined by the following attributes:

- The political majority, mainly Indian community did not nationalize or heavily tax the sugar sector, owned predominantly by the minority French community but instead they guaranteed the property rights of the sugar owners. This contributed to the success of the sugar sector, which facilitated increased domestic investment and establishment of a generous social protection system, particularly with regard to pensions.

- The separation of economic and political power. The economic power was in the hands of the minority French community and other non-Indian community while the political power lay in the hands of the majority Indian community.

- A parliamentary system that ensures representation by all minority groups whereby members of Parliament elected during regular general elections by the first past the post system are supplemented with eight members who are referred to as 'the best losers' who are appointed by the Electoral Supervisory Commission to ensure that religious and ethnic minorities are equally represented.

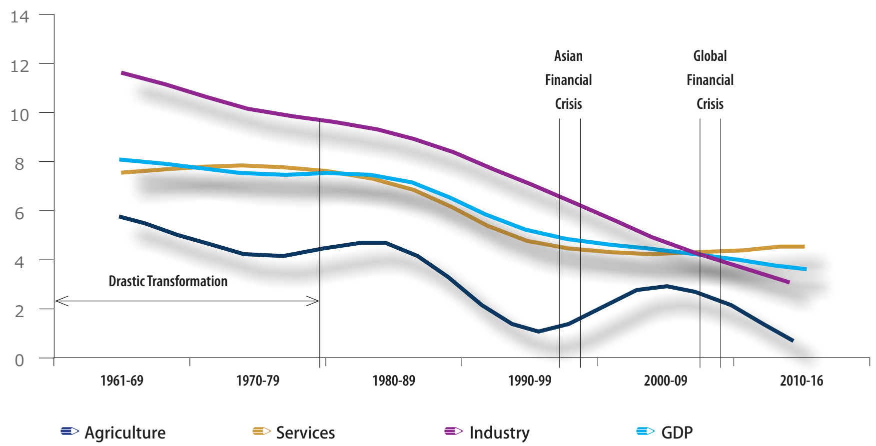
- Not having a standing army has created more fiscal space for spending on public services and investment and also freed Mauritius from military coups that have plagued and crippled development in many African countries.

Mauritius suffered a number of external shocks that it survived without major effects. As an oil-importing developing country it was hit by the 1974-80 oil price crisis that led to the rapid increase in its import bill and large current account deficits. To strengthen the economy to deal with such shocks, successful adjustment through devaluation and trade reforms were implemented over three successive governments, displaying the benefits of a stable political system. Mauritius also lost trade preferences including the sugar preferences and the MFA. In response, Mauritius refocused its development agenda more towards the services sector. To this end, measures were undertaken to improve the business climate including introducing the Business Facilitation Act 2006 to eradicate impediments to investment and hiring, granting desired immigrants citizenship and introducing a simplified tax system. It was also hit by the recent global recession.

5.2 Thailand

The economy of Thailand has evolved quite interestingly over the years. It has grown and developed tremendously. From 1960 to 1979, Thailand's economy grew by an annual average of 7.6 per cent. At this time, value added by the agricultural sector increased by 5.0 per cent, the industrial sector by 11.0 per cent and the services sector by 7.6 per cent. From 1987 to 1996 the economy grew by an annual average of above 9.0 per cent with the agriculture sector's growth rate declining to 2.7 per cent while those of the industry and services sectors increased to 12.7 per cent and 8.6 per cent, respectively. Following this period, Thailand's economy was hit by the Asian Financial crisis in 1997 to 1998. From 1999 to 2007, the period before the global financial crisis, Thailand's economy expanded by 5.2 per cent with the agriculture sector recovering slightly to 3.5 per cent while the industry and services deteriorated to 5.9 per cent and 4.9 per cent, respectively.

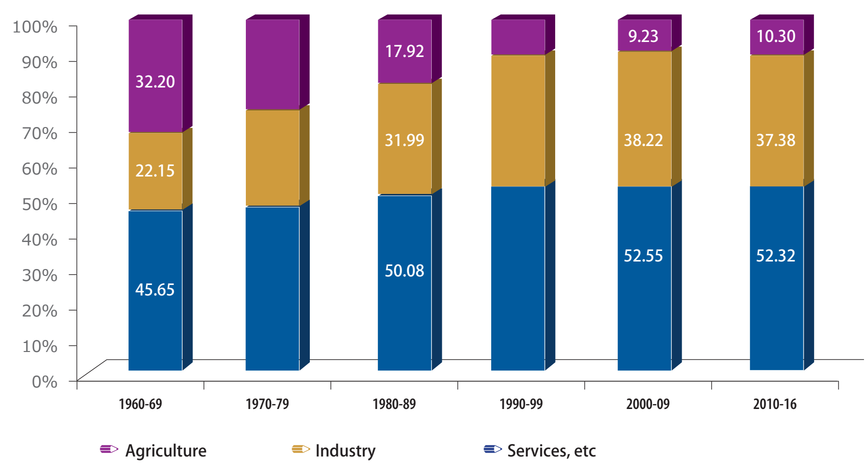
Figure 6 Thailand's Real GDP Growth by Sectors



Source: World Development Indicators

The importance of agriculture has declined over the years as the industrial and services sectors grew. In the early 1960 to early 1980s, the agricultural sector was the main driver of the economy, employing around 70.0 per cent of the active working population of Thailand. From the early 1980s to date the agricultural sector has been growing, albeit at a slower pace supported by mechanization and availability of formal credit. Nonetheless, the dependence of Thailand's economy on agriculture, measured by the sector's value added as a percentage of GDP, declined from above 20.0 per cent in 1980 to 10.0 per cent in 2014 and its employment from 60.0 per cent in the beginning of the 1990s to 35.0 per cent in 2014. The industrial sector, consisting of manufacturing, mining, electricity, water and gas industries has grown from 30.0 per cent of GDP in the early 1980s to above 40.0 per cent of GDP in recent years and its employment from 15.0 per cent in the early 1990s to 22.0 per cent of the labour force in 2014. The industrial sector and the manufacturing sub-sector in particular, has transitioned from dominance of food processing to include more sophisticated products such as petrochemicals, electronics, computers, automobiles, amongst others. The services sector has fallen from above 50.0 per cent of GDP in the early 1980s to around 45.0 per cent of GDP in recent years. However, its employment increased from 25.0 per cent at the beginning of the 1990s to 42.0 per cent in 2014.

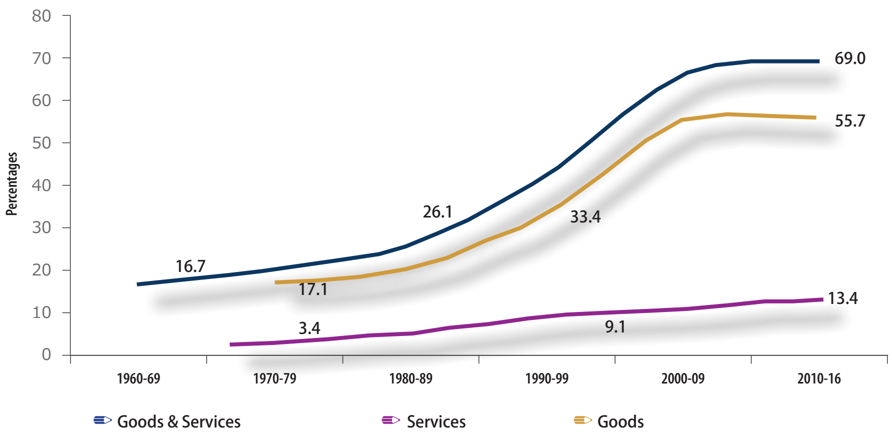
Figure 7 Thailand's GDP - Sectoral Contributions



Source: World Development Indicators

The structural transformation has turned Thailand into an export driven economy with its exports of goods and services having risen from just above 20.0 per cent of GDP in the early 1980s to above 60.0 per cent of GDP from 2005. Exports of goods were behind the observed trend in the exports of goods and services. They increased from an annual average of 17.1 per cent of GDP in the period from 1975 to 1979 to 55.7 per cent of GDP from 2010 to 2016. Agro-processing and other unsophisticated consumer goods were the main drivers of manufacturing exports in the early years of the transformation. They declined over the years as the process of transformation progressed and exports of much higher value-added products, including automobiles, office machines and electronic products increased. Exports of services rose from an annual average of 3.4 per cent from 1975 to 1979 to 13.4 per cent from 2010 to 2016.

Figure 8 Thailand's Exports as a Percentage of GDP



Source: World Development Indicators

Breisinger and Diao (2008) provide an account of Thailand's economic transformation and structural change. The development of the Thai economy is attributable to policies that promoted agricultural growth, ISI and growth of exports of agriculture and manufactured goods. The agricultural sector played a leading role in the crucial two decades of the growth of the Thai economy in the 1960s and 1970s. The development of the agricultural sector had a strong positive impetus on the industrialization process by facilitating agro-processing. The growth of agricultural production was supported by massive public investments in the construction of highways and rural road networks and in irrigation infrastructure. Investment in irrigation absorbed 60.0 per cent of the budget of the ministry responsible for agriculture up to the early 1980s (Breisinger and Diao, 2008) thus leading to a significant increase in irrigated area. In addition, measures were undertaken to improve access to credit by the agricultural sector. These included provision of credit guarantees for agricultural exports, encouraging commercial banks to increase credit to the agricultural sector to specified benchmarks and capacitating institutions such as the Bank for Agriculture to expand credit to rural producers.

According to Breisinger and Diao (2008) the ISI started in the 1960s supported with policies such as tax concessions, low tariffs on imported intermediate and capital goods and high tariffs on imported competing products. The initial focus was on less sophisticated, more labor-intensive manufacturing dominated by processed food and textiles. The important roles that government played in this initiative included to refrain from direct public investment in manufacturing, providing the necessary infrastructure, particularly in transport and power generation and undertaking reforms to improve ease of doing business. Export promotion was formally commenced in 1963 and pursued concurrently with the ISI strategy. Policies implemented towards its success included exemption from taxes on imported machinery, raw materials and other intermediate products, and a discount on interest rates on loans to exporters. The comparatively stable political and policy environment in Thailand over the 1960 to 1990 period also encouraged growth of private businesses, and created long-term confidence in the country. The conservative monetary and fiscal policies further helped maintain economic stability. Khan (2012) contends that "key macro-economic agencies of the state", particularly the central bank, the National Economic and Social Development Board (NESDB) and the Finance Ministry were relatively insulated from politics, hence were able to shield monetary and exchange rate policy from adverse political influences, initially at least.

The structural transformation has helped Thailand to attain impressive results on employment creation and poverty reduction. The poverty gap at $1.90 a day has declined from 5.0 per cent in 1981 to 1.8 per cent in 1990 and further to zero from 2008 to date. A commendable improvement is observed even at a higher measure of poverty. The share of the population living below the $3.20 a day poverty line fell from 15.5 per cent in 1981 to less than 1.0 per cent from 2007 to date. Thailand's official unemployment rate has been around 1.0 per cent, on average over the past decade, categorizing it among the lowest in the world. The unemployment rate fell perpetually from 2.7 per cent in 1991 to less than 1.0 per cent from 2010 to date. In addition, Thailand reached upper-middle income status in 2011 and is currently the 22nd largest economy in the world (Asian Development Bank, 2015).

This impressive performance has been attained despite a number of challenges encountered along the way. Thailand has seen a number of eras of political instability characterized by military coups and numerous nullifications of existing constitutions followed by promulgation of new ones. The Asian crisis of 1997 and the recent global economic and financial crisis did not leave the Thai economy unscathed. Nonetheless, Thailand was able to weather these storms better than many countries. The prudent macroeconomic management, supported by reputable policy-making institutions, has maintained macroeconomic stability during uncertain political times (IMF, 2017). In addition, Thailand continued to improve its regulatory environment and protection of property rights thus improving its ease of doing business ranking to 26 among 190 economies in 2017 from 46 in 2016.

5.3 Summary of Policy Lessons

- Economic transformation that facilitates attainment of high economic growth rates of above 5.0 per cent are more likely to have a meaningful dent on unemployment and poverty.

- Identification of sectors that have the potential to transform the economy is important.

- Implementation of policies that have a direct impact on and support growth of identified sectors e.g supportive infrastructure, relevantly skilled workforce, tax policies, access to finance, a conducive business and investment environment, amongst others increase chances of success.

- Learning from experience and reviewing the strategy helps to sustain development and the gains made from it. When manufacturing started experiencing challenges policy focus shifted to services in Mauritius.

- Strong and effective domestic institutions are more important because they protect the development process from political disruptions thus ensuring sustained implementation of development policies.

6 CONCLUSION – LESSONS FOR LESOTHO

1. The empirical results of this paper confirm that economic growth should be supplemented with structural economic transformation or economic modernization. The case studies of Thailand and Mauritius also confirm the importance of job creating economic transformation for poverty reduction. These case studies further demonstrate the importance of agriculture in employment generation and in spearheading growth of the manufacturing sector, which has the potential to create a sizeable number of productive jobs. The case studies also demonstrate the significance of the services sector in complementing manufacturing e.g. in provision of credit and in making a direct contribution to growth e.g. through tourism.

2. Effective economic transformation is a result of conscious policy decisions that include:

    a. Identification of economic sectors that have the potential to rapidly and successfully transform the economy.

    b. Identification and implementation of policies that support growth of the identified sectors, such as, supportive infrastructure, relevantly skilled workforce, tax policies, access to finance, a conducive business and investment environment, amongst others.

    c. Protecting/ insulating the formulation and implementation of development policies and the entire macro economy from adverse political influences and disruptions.

3. Recommendation of specific economic policies may prove a futile exercise in the absence of an effective institutional structure to support their implementation.

4. Every country is unique. Countries face different sets of opportunities and challenges. As such it is important to identify country specific gaps and challenges, identify what is most likely to work for a particular country, ensure proper and effective implementation, learn from it and change, improve and refocus the development strategy and its implementation strategy as necessary.

In as far as Lesotho is concerned, the identification of economic sectors is always very much well carried out and documented or has at least improved over the years. The NSDP 2012/13 – 2016/17 identifies the agriculture, manufacturing, tourism and mining sectors as the main sectors for transforming Lesotho's economy. The agricultural sector is the main source of employment in Lesotho, particularly in the rural areas. The manufacturing sector has ample potential to create jobs through export-led growth in labour intensive manufacturing activities. The tourism sector remains highly unexploited despite its high potential. The mining sector is attracting private sector investments and its capacity to boost economic growth is increasing.

Policies that could support growth of the identified sectors have also been outlined. According to the NSDP 2012/13 -2016/17, the potential of the identified sectors would be unleashed through developing the necessary infrastructure, developing relevant skills, improving health, promoting peace and democratic governance and building effective institutions. The importance of these factors for economic transformation and poverty reduction is supported by the literature, empirical results and case studies included in this paper.

However, action in the direction of laying these foundations down has been lacking. According to the Report on the Review of the NSDP (2017), this is seen in a number of areas. First is the deterioration in infrastructure including road networks, energy generation and water due to backlog of maintenance, amongst other factors. The government budget speech 2018/19 also points out that the maintenance backlog is a result of lack of a clear infrastructure maintenance plan. Infrastructure development is also hampered by low absorptive capacity of the public capital budget as pointed out in a number of government budget speeches. Nothing new has been done in as far as strengthening institutions, if things have not worsened due to the fragmentation of some government ministries, which have been sub-divided into more ministries, which has possibly weakened policy coordination hence effectiveness of government. HIV and AIDS remain a serious problem and the public health sector is plagued by numerous challenges including lack of medicines so that patients are sometimes issued medical prescriptions to buy from private pharmacies, a serious challenge for the poor.

The authorities in Lesotho are aware that economic transformation is the answer for attaining rapid economic growth that has the ability to create poverty reducing employment. They are aware of the sectors that can drive Lesotho in that direction as well as the policies that could support growth of those sectors. The question that remains to be answered is "what inhibits implementation?". Some ascribe sluggish implementation to factors such as lack of coordination between the work of different government agencies and ministries and the need for them to catalyze investment and employment generation, lack of or low political will, not taking lessons from past successes and failures, lack of an effective implementation plan, lack of monitoring and evaluation, lack of clear assignment of roles, political instability and frequent changes in government e.t.c. These may be remedied through two actions. Firstly, is the development of effective institutions. Secondly is the insulation of the development policies and their implementation as well as the whole economy from adverse political influences. Without these two, formulation of any microeconomic and/or macroeconomic policies might prove to be a futile exercise as we have learned from past experience.

Developing effective institutions and insulating the development process from adverse political influences: What could it mean and how could it be achieved in the context of Lesotho?

- The national law should provide for approval of the national development strategies and their implementation plans by Parliament and for implementing Government Ministries and agencies to account to Parliament on progress on implementation of development strategies.

- There should be a requirement in the national law for every incoming Government to align its policies to the prevailing national development strategy and to officially publicly communicate their policies towards attainment of the national development strategy and their implementation plans and to periodically, officially report to the public and Parliament on progress.

- Empowering and strengthening strategic institutions such as the Judiciary to ensure protection of property rights, the public service to ensure effective provision of public goods, the national executive to honestly and earnestly play their role in the execution of the national development agenda, the Parliament to hold the executive, government ministries and agencies accountable and the nation to hold government accountable.

- Affording all strategic institutions/bodies a reasonably high level of independence to shield them from short-term political influences in pursuing their mandate. All human resources positions in such institutions should be filled with individuals selected on merit through a transparent selection process.

REFERENCES

AAFDB (2014), *Mauritius: Country Strategy Paper 2014 – 2018*, SARC Department, African Development Bank.

Angelsen Arild and Wunder Sven (2006), *Poverty and Inequality: Economic Growth is Better than its Reputation*, Chapter in Dan Banik (ed.): Poverty, Politics and Development: Interdisciplinary Perspectives. Fagbokforlaget, Bergen, 2006.

Adeyemi Sidikat, Ijaiya Gafar and Raheem Usman (2009), *Determinants of Poverty in Sub-Saharan Africa,* African Research Review, Vol 3(2), January, 2009.

Asian Development Bank (2015), *Thailand Industrialization and Economic Catch-up*, Country Diagnostic Study, Asian Development Bank.

Bank of Mauritius (1987), *Annual Report for the Year Ended 30 June 1987*, Bank of Mauritius, Port Louis.

Bank of Mauritius (2017), *Annual Report for the Year Ended 30 June 2017*, Bank of Mauritius, Port Louis.

Baltagi Badi (2005), *Econometric Analysis of Econometric Data*, Third Edition, John Wiley and Sons, Ltd.

Benson Todd, Chamberlin Jordan and Rhinehart Ingrid (2005), *An Investigation of the Spatial Determinants of Local Prevalence of Poverty in Rural Malawi*, Food Policy 30.

Biyase Mduduzi and Zwane Talent (2017), *An Empirical Analysis of the Determinants of poverty and household welfare in South Africa*, Munich Personal RePEc Archive, MPRA Paper No. 77085, University of Johannesburg.

Bosco Bruno and Poggi Ambra (2016), *Government Effectiveness, Middle class and Poverty in the EU: A Dynamic Multilevel Analysis,* DEMS Working Paper Series, No. 344 – June 2016.

Breisinger Clemens and Diao Xinshen (2008), *Economic Transformation in Theory and Practice: What are the Messages for Africa?*, IFPRI Discussion Paper 00797, International Food Policy Research Institute.

Budget Speech to the Parliament of Lesotho for the 2018/19 Fiscal Year. Government of Lesotho.

Datt Gaurav and Jolliffe Dean (1999), *Determinants of Poverty in Egypt: 1997*, FCND Discussion Paper No. 75. Washington DC: IFPRI.

Davis Philip and Sanchez-Martinez Miguel (2014), *A Review of the Economic Theories of Poverty*, National Institute of Economic and Social Research, Discussion Paper No. 435.

Diamond Larry (2007), *A Quarter-Century of Promoting Democracy*, Journal of Democracy, Vol. 18, Issue 4, Johns Hopkins University Press, Washington D.C.

Frankel Jeffrey (2010), *Mauritius: African Success Story*, NBER Working Paper Series, Working Paper 16569, NBER, Cambridge.

Government of Lesotho (2006), *Kingdom of Lesotho: Poverty Reduction Strategy Paper, Prioritization, and Cost Matrix*, IMF Country Report No. 06/143, IMF, Washington D.C.

Government of Lesotho (2012), *National Strategic Development Plan 2012/13 – 2016/17*, Kingdom of Lesotho.

Government of Lesotho (2016), K*ingdom of Lesotho: Review of the NSDP and Scoping of the NSDP 2*, Kingdom of Lesotho.

Holmberg Sören and Rothstein Bo (2010), *Quality of Government is Needed to Reduce Poverty and Economic Inequality,* QoG Working Paper Series 2010:3, The Quality of Government Institute, University of Gothenburg.

ILO (2005), *HIV/ AIDS and Poverty: The Critical Connection*, Brief, ILO Programme on HIV/AIDS and the World of Work.

ILO (2017), *ILOSTAT database*, http://www.ilo.org/ilostat/faces/ilostat-home/download?

IMF (2016), *Kingdom of Lesotho: 2015 Article IV Consultation – Press Release; Staff Report*, IMF Country Report N0. 16/33, IMF, Washington D.C.

IMF (2017), *Thailand: 2017 Article IV Consultation Press Release; Staff Report; and Statement by the Executive Director of Thailand*, IMF Country Report N0. 17/136, IMF, Washington D.C.

Jha Shikha and Zhuang Juzhong (2014), *Governance Unbundled*, Finance and Development, June 2014, IMF, Washington D.C.

Khan Mushtaq (2012), *The Political Economy of Inclusive growth*, in de Mello, Luiz and Mark A. Dutz (eds) *Promoting Inclusive Growth: Challenges and Policies*, Paris: OECD Publishing.

Lavopa Alejandro and Szirmai Adam (2012), *Industrialization, employment and Poverty*, UNU-MERIT Working Paper No. 2012-081, United Nations University, Maastricht economic and Social Research Institute on Innovation and Technology.

Manjengwa Jeanette, Kasirye Ibrahim and Matema Collen (2012), *Understanding Poverty in Zimbabwe: A Sample Survey in 16 Districts*, Paper Presented at the Centre for the Study of African Economies Conference 2012. Oxford, United Kingdom.

Meade J.E. and Others (1961), *The Economics and Social Structure of Mauritius – Report to the Governor of Mauritius*, Methuen and Co Ltd, London.

Okwi Paul, Ndeng'e Godfrey, Kristjanson Patti, Arunga Mike, Notenbaert An, Abisalom Omolo, Henninger Norbert, Benson Todd, Kariuki Patrick, and Owuor John (2007), *Spatial determinants of poverty in rural Kenya*, Proceedings of the National Academy of Sciences Oct 2007, 104 (43) 16769-16774.

Polity IV (2016), *Political Regime Characteristics and Transitions, 1800-2016 - Polity IV Annual Time-Series, 1800-2016*. http://www.systemicpeace.org/inscrdata.html.

Rodrik Dani (2005), *Rethinking Growth Strategies*, WIDER Annual Lecture 8, United Nations University World Institute for Development Economics Research.

Sakuhuni Rose, Chidoko Clainos, Dhoro Netsai, and Gwaendepi Caleb (2011), *Economic Determinants of Poverty in Zimbabwe*, International Journal of Economic Research 2(6).

Seleteng Monaheng and Motelle Sephooko (2016), *Sources of Economic Growth in the Southern African Development Community: Its Likely Impact on Poverty and Employment,* Review of Economic and Business Studies, Vol 9, Issue 2, pp.211-249.

Sobhee Sanjeev (2009), *The Economic Success of Mauritius: Lessons and Policy Options for Africa,* Journal of Economic Policy reform, Vol. 12, No. 1, Routledge, Taylor and Francis Group.

Subramanian Arvind (2001), *Mauritius: A Case Study,* Finance and Development, Vol. 38, No. 4, IMF, Washington D.C.

Subramanian Arvind and Roy Devesh (2001), *Who can Explain the Mauritian Miracle: Meade, Romer, Sachs, or Rodrik?*, IMF Working Paper, WP/01/116, IMF, Washington D.C.

Subramanian Arvind (2009), *The Mauritian Success Story and its Lessons,* United Nations University – WIDER, World Institute for Development Economics Research, Research Paper No. 2009/36, United Nations.

Svirydzenka Katsiaryna and Petri Martin (2014), Mauritius: The Drivers of Growth - Can the Past Be Extended?, IMF Working Paper, WP/14/134, IMF, Washington D.C.

The Brookings Institution (2017), 2017 *Update of the Worldwide Governance Indicators (WGI),* https://www.brookings.edu

Troyano Miguel Carrera and Martin Rafael Dominguez (2016), *Poverty Reduction in Brazil and Mexico. Growth, Inequality and Public Policies*, Revista De Economia Mundial 45, 2017.

Ulriksen Marianne (2012), *How Social Security Policies and Economic Transformation Affect Poverty and Inequality: Lessons for South Africa*, Development Southern Africa, Vol. 29, No.1, March 2012.

United Nations Development Programme (2016), *Human Development Report 2016*, UNDP, New York.

Varshney Ashutosh (1999), *Democracy and Poverty*, Paper for the Conference on World Development Report 2000, Organized by the U.K. Department for International Development and Institute of Development Studies, Sussex, at Caste Donnington, England.

Wooldridge Jeffrey (2001), *Applications of Generalized Method of Moments Estimation*, Journal of Economic Perspectives, Vol. 15, No. 4.

World Bank (2018), World Bank's Doing Business Report 2018.

Zafar Ali (2016), Mauritius: *An Economic Success Story,* A paper presented at the Expert Group Meetings and Panel Discussions on the Second UN Decade for the Eradication of Poverty, 4-6 May 2016, Department of Economic and Social Affairs, Division of Social Policy and Development, United Nations.

APPENDIX

Table A 1 Lesotho's Sectoral Growth Rates (10-Year Moving Averages)

	2010	2011	2012	2013	2014	2015	2016+
Agriculture, forestry and fishing	-0.46	0.52	-0.97	3.57	2.77	2.20	1.99
Mining and quarrying	59.62	58.06	56.83	52.83	33.54	28.35	9.69
Manufacturing	9.91	7.65	4.24	0.74	-1.26	0.06	1.77
of which Textiles, clothing, footwear and leather	11.54	8.77	4.41	0.19	-2.53	-0.74	1.27
Electricity and water	1.18	0.87	0.69	0.51	1.08	1.05	0.18
Construction	2.18	-0.43	3.80	4.80	4.91	7.08	7.06
Wholesale and retail trade; motor vehicles repairs	3.82	4.85	5.72	6.48	6.02	7.06	6.82
Transportation and storage	3.93	4.25	4.66	4.88	4.50	5.00	4.60
Accommodation and food service activities	3.03	2.46	3.39	3.86	3.13	1.19	1.51
Information and communication	13.39	14.20	13.10	12.87	14.75	14.83	14.50
Financial and insurance activities	10.88	9.64	10.66	12.43	12.39	10.90	10.85
Real estate activities	1.25	1.26	1.39	1.31	1.30	1.31	1.28
Public administration and defense	5.97	5.98	5.99	4.64	4.16	4.53	4.67
Education	3.07	2.47	2.19	2.07	2.41	2.56	2.55
Human health and social work activities	1.43	5.24	7.43	8.12	9.71	10.71	11.67
GDP at market prices	3.94	4.18	4.36	4.42	4.16	4.51	4.50

Source Author's Calculations

Table A 2 Data Description

Variable	Description	Year	Source
Multi-Dimensional Poverty Index (MDPI)	The Multidimensional Poverty Index (MPI) identifies multiple deprivations at the household level in education, health and standard of living. It uses micro data from household surveys to measure the proportion of people below a threshold level in these basic dimensions of human development.	2005 - 2015	Human Development Report 2016
Democracy (DEMOC)	A democracy is a political system with institutions that allow citizens to express their political preferences about alternative policies and leaders, has constraints on the power of the executive, and a guarantee of civil liberties. The Democracy indicator is an additive eleven-point scale (0-10).	2015	Polity IV (2016)
Government Effectiveness (GEFF)	Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	2015	World Governance Indicators 2017
HIV Prevalence (HIV)	Prevalence of HIV refers to the percentage of people aged 15-49 who are infected with HIV.	2015	World Development Indicators 2017
Unemployment Rate (UNEMPR)	It is the number of unemployed persons expressed as a percentage of the total number of persons in the labour force.	2015	ILOSTAT May 2017
GDP per Capita (GDP)	GDP per capita, PPP (constant 2011 international $) GDP per capita based on purchasing power parity (PPP). It is converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States.	2015	World Development Indicators 2017
Modernization (MODERN)	Percentage of employed workforce working in other sectors other than the agricultural sector.	2015	ILOSTAT May 2017

Table A 3 Heteroskedasticity Robust Empirical Results

Variables	Model 1	Model 2	Model 3
Democ	0.02	0.04	0.02
	[0.54]	[1.12]	[0.70]
Geff	-0.68	-1.312	-0.693
	[-1.75]*	[-4.59]***	[-1.82]*
Log(hiv)	0.26	0.332	0.253
	[3.11]***	[4.17]***	[2.97]***
Log(unempr)	-0.09	0.02	-0.019
	[-0.64]	[0.10]	[-0.12]
Log(GDP)	-0.99		-0.765
	[-4.55]***		[3.59]***
Log(modern)		-1.42	-0.659
		[-3.45]***	[-1.71]*
Constant	5.38	1.98	5.907
	[2.86]***	[1.32]	[3.00]***
Number of Observations	78	79	78
Adjusted R-squared	0.63	0.60	0.64
F-statistics	34.15***	27.50***	27.60***

NOTE: *Dependent variable is the Multi – Dimensional Poverty Index. ***, ** and * denote 1%, 5% and 10% level of significance, respectively. Values in square brackets are t-statistics.*