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Regional differentiation of social and economic development in developing countries

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Monika Čápová

PODĚKOVÁNÍ

Na tomto místě bych ráda poděkovala vedoucímu mé diplomové práce, prof. Ing. Jaroslavu Mácháčkovi, CSc., za jeho pomoc při jejím vypracování, zejména za vstřícnost a užitečné rady. Také bych chtěla poděkovat své rodině za podporu během celého studia.

ANOTACE

Tato diplomová práce se zabývá regionální diferenciací rozvojových zemí ze sociologického a ekonomického pohledu. Je v ní uvedena problematika rozvojových zemí všeobecně a poté se zabývá konkrétními případy, jejichž jsou Jihoafrická republika a Botswana. Cíl této práce je definovat sociální a ekonomické rozdíly mezi Jihoafrickou republikou a Botswanou. V závěrečné části je provedena statistická analýza, která zkoumá korelaci mezi jednotlivými sociologickými a ekonomickými ukazateli vůči indikátorům ekonomické aktivity.

KLÍČOVÁ SLOVA

Jihoafrická republika, Botswana, rozvojové země, sociální vývoj, ekonomický vývoj.

TITLE

Regional differentiation of social and economic development in developing countries

ANNOTATION

This diploma thesis focuses on social and economic development in developing countries. There is an introduction of the individual socio-economic issues in developing countries in general, and subsequently, there is a focus on the case of South Africa and Botswana. The aim of the work is the definition of the differences in the social and economic sphere between South Africa and Botswana. The statistical analysis, which analyses the correlation between social and economic factors and indicators of economic activity, is implemented in the final part.

KEYWORDS

South Africa, Botswana, developing countries, social development, economic development.

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List of abbreviation

GDP	Gross Domestic Product
GNI	Gross National Income
HDI	Human Development Index
FDI	Foreign Direct Investment
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organization
SA	South Africa
UK	United Kingdom
NL	The Netherlands

Introduction

The last century brought for African continent many challenges. Through the process of decolonization that began at the close of World War II. In the decades that followed after gaining the independence, they worked to shape the cultural, political, and economic character of the postcolonial states. The nations and regions of Africa experienced it with varying degree of success. Some of the countries are still politically and economically unstable. However, the legacy of European dominance remained evident in education systems, national languages, economies and trade networks.

Sub-Saharan region varies in economic and social development. Democratic Republic Congo experiences the biggest war conflict since World War II. On the other hand, there are South Africa and Botswana which are the most prosperous countries in the Sub-Saharan region. However, there are still some unsolved issues.

The main goal of this diploma thesis is uncovered social and economic differences between Botswana and South Africa and determine the indicator of economic activity which is relevant to measure their economic situation.

Growth theories and indicators of growth and development will be introduced and commented in the first theoretical part. Subsequently, there will be mentioned the definition of developing countries and their common characteristics. At the end of the theoretical part, particular socioeconomics issues, which are typical for South Africa and Botswana, will be presented.

The aim of the empirical part will be defining social and economic issues and characterizing regional differences between South Africa and Botswana. The statistical analysis, which analyses the correlation between social and economic factors and indicators of economic activity, will be implemented in the final empirical part. The indicator of economic activity, which is related with all of the chosen social and economic measurements and reflects the real socio-economic situation, will be determined by using that statistical analysis.

1 Growth and development

Economic development implies economic growth plus fundamental changes in the economic structure, a rise in the share of a national product originating in the industrial sector, urbanization, participation by the citizens of the country itself in the process by which these changes are brought about.

Economic growth and development are necessary, but not sufficient, conditions for improving the physical well-being of a large number of people. If there is no growth, then some people can be made better off only by taking income and assets from others. In developing countries, even if a few people are very rich, the potential of this kind of redistribution is severely limited.

1.1 Growth theories

Growth theories explain determinants for growth processes. Thus, these theories are also of relevance for development policy. A first model originates from Thomas Robert Malthus, who identified population growth as an obstacle to growth.

Growth is a supply-side originated phenomenon. It is a matter of production potential. Numerous factors determine an economy's supply side. Different theories address different determinants. The most well-known theories are Harrod/Domar model, Solow's model, and new growth theory.

1.1.1 Harrod/Domar model

The model shows that the growth rate of the economy is a constant, determined by the economy's rate of savings and the technical capital output ratio. Hence, as long as investment increases the stock of capital, growth will continue indefinitely. The model assumes that there is an unlimited stock of factors available to combine with capital so that there are constant returns to scale. The model belongs to the group of Keynesian's models (9).

Economy's output, Y , is formed in equation

$$Y = C + I \tag{1}$$

where C is consumption goods, and I stands for investment.

The assumption for this model is that investments are defined as the change in the stock of capital K .

$$Y = C + \Delta K \quad (2)$$

The assumption that the change in the capital stock is equal to investment implies that the capital stock is unlimited or becomes obsolete, that there is no depreciation. It is not applicable for a long term because depreciation of capital appears in the long term. Harrod and Domar also assumed a constant capital-output ratio $K/Y = \gamma$, which effectively makes output proportional to the stock of capital. The production function can be written as

$$Y = (1/\gamma)K = AK \quad (3)$$

where $A = (1/\gamma)$. There are no diminishing returns to capital in this model. An important implication of a constant capital-output ratio is that the change in output is proportional to the change in the stock of capital

$$\Delta Y = (1/\gamma)\Delta K = A\Delta K. \quad (4)$$

For the economy to invest in capital, there must be saving. The constant fraction of savings is σ , where $0 < \sigma < 1$, of their income, then the change in capital stock is

$$\Delta Y = A\sigma Y \quad (5)$$

$$\Delta K = I = S = \sigma Y \quad (6)$$

Dividing both sides of equation by Y and recalling that the ratio of the change in the level represents the rate of growth of Y and G , we find that

$$\Delta Y/Y = G = \sigma A = \sigma/\gamma. \quad (7)$$

The Harrod-Domar model is an example of a model that attributes economic growth exclusively to factor accumulation (9).

It suggests that if developing countries want to achieve economic growth, the government need to encourage saving, and support technological advancements to decrease the economy's capital output ratio. Increasing the savings ratio in lower-income countries is not easy. The majority of developing countries have low marginal propensities to save. Extra income gained is often spent on increased consumption rather than saved. Many developing countries suffer from the lack a security of the financial system. Increased saving by households does not necessarily mean there will be greater funds available for firms to borrow to invest. Another issue is that efficiency gains (which reduce the capital/output ratio) are difficult to achieve in these countries due to weaknesses in human capital, causing capital to be used inefficiently. There is also underfunded R&D, which is necessary for technological development.

1.1.2 Solow model

The Solow model is one of the neoclassical growth theories. The assumption is that institutions do not play any role in growth. A Cobb-Douglas production function with exogenous technological progress is taken as a basis. The model is comprised of a production function and a capital accumulation function. The production function refers to the input of capital and labour. It is given by

$$Y = F(K,L) = K^a L^{1-a} \quad (8)$$

where $0 < a < 1$. This production function shows constant return to scale. An output per worker and capital per capita. It is given respectively by

$$y = Y/L \quad k = K/L \quad (9)$$

Which gives $y = k$. With more capital pre-worker increase output per worker. But, there are diminishing returns to capital per worker, so each additional unit of capital increases the output per worker is less than the previous unit of capital. The capital accumulation equation is given by

$$\dot{K} = sY - dK \quad (10)$$

The change in the capital is equal to the gross investment minus depreciation. Another assumption relates to the depreciation of the capital stock that occurs during production, which is a constant d of the capital stock. Depreciation is not dependent on an output of production (21).

The capital accumulation equation in per worker terms

$$K = sy - (n+d)k \tag{11}$$

This equation represents that capital per worker in each period is determined by three main factors. The first is investment per worker, sy , increases capital while depreciation per worker, dk , reduces k . There is also a reduction in the capital because of population growth, nk . If there were no new investment and no depreciation, capital per worker would decline because of the increase in the labour force. This theory applied to industrial countries is showed in following figure (21).

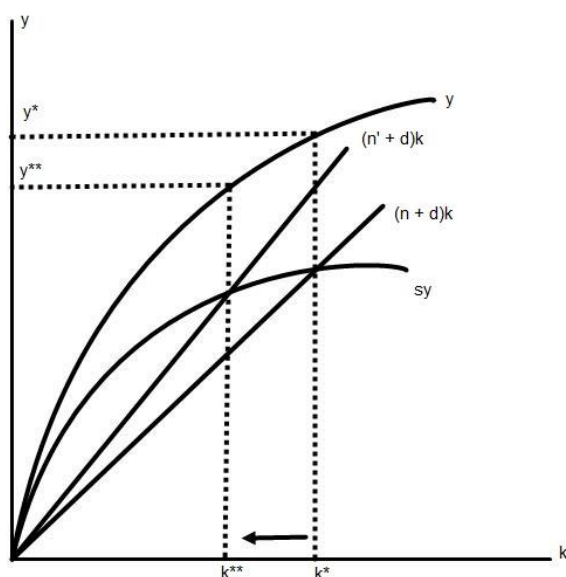


Figure 2 Solow model

As a result, the aggregate equilibrium growth rate depends on the growth rate of the labour force, which is dependent on population growth and exogenous technological progress. An increase in the saving rate increases the level but not the rise of the growth path.

The Solow model says that, due to diminishing returns to capital, developing countries will catch up with developed countries regarding GDP. At a low level of capital stock,

the potential returns on investment are high. As the stock of capital increases, the returns to investment decrease and the growth rate of a country balances out. Hence, all countries will converge to a similar long-term growth rate. There is assumed only convergence in the economic development. Nonetheless, there was pointed out that there is necessary to assume also divergence in development (8). Furthermore, as it was stated in the first paragraph, governance does not play any role in Solow model. However, governance plays a major role in economic growth (19). Therefore, this model is more applicable to advanced economies.

1.1.3 New growth theory

New growth theory is an extension of neoclassical growth theories by positive spillovers such as investment into R&D or human capital. It holds that real GDP per person grows because of the choices people make in the pursuit of profit and that growth can persist indefinitely. Paul Romer developed this theory during the 1980s, but the ideas go back to work by Joseph Schumpeter during the 1930s and 1940s. It is also assumed that institutions do not matter. Discoveries result from choices, bring profit and competition decline profit, and they are public capital goods, and knowledge is capital that is not subject to the law of diminishing returns (20)

Unlike in neoclassical theory, the productivity curve in the new growth theory never stands still. The pursuit of profit means that technology is always advancing, and human capital is always growing. The result is an ever upward-shifting PC curve (20).

As of these spillovers, private gain from investments are smaller than social gains. This situation leads to underinvestment. This type of model seems to be relatively not applicable for developing countries since it can not be assumed that positive spillovers from these countries lead to underinvestment and lower equilibrium growth.

1.2 Indicators of growth and development

There are several methods which are used to measure the economic activity and social and economic issues of the country. In many studies, Gross Domestic Production (GDP) is used as the main indicator of economic development. GDP is easy to measure, and this is its biggest advantage. However, there are many disadvantages of GDP. GDP does not take into account

work that people do voluntarily, rebuilding after a disaster or war would be positively reflected in GDP, and it does not account for the quality of goods available on the market. GDP does not reflect social reality in the country.

National income

The indicator which is commonly used by World Bank to measure the degree of development of a country is national income per capita. It can be calculated in three different ways:

- 1) The sum of all incomes – wages, profits, interest, dividends, and rent in a given year (the income approach, national income),
- 2) The sum of all value added in an economy in a given year (national product),
- 3) The sum of all expenditures in a country (consumer spending + investment + government expenditures + the value of exports – expenditures on imports) in a given year (national expenditure).

In theory, national income, national product, and national expenditure should be equal. In reality, there are statistical differences. Another distinction is between gross national product (GNI) and gross domestic product (GDP). The difference lies in the net balance of foreign income accruing to nationals of a country, deriving from factors of production abroad and payments to other countries for factors of production within. This distinction is crucial for developing countries since they are dependent on Foreign Direct Investment (FDI). That cause an annual net outflow of profits and dividends. Logically then GNI will be less than GDP (47).

Income Distribution

The income distribution measurement is the most common way to evaluate the effect of development. The two type of income distribution is the functional distribution and size distribution. The functional distribution refers to the division among the factors of production identified as labour, capital, and land. The size distribution refers to the distribution of income among individuals (4).

There are many practical problems involved in this measurement. The average income over several years should be used since earners experience wide income fluctuations. It is a result of the vagaries of nature, markets, and governmental decisions. Cumulated lifetime income would be an even better measure because earnings also vary systematically with age (4).

The most common method of measuring is the Lorenz curve. The Lorenz curve itself shows the percentage of total income accounted for by any cumulative percentage of recipients. The shape of the curve shows the degree of inequality in the income distribution. If all recipients have the same income, the Lorenz curve will lie along the 45° degree line (Line of perfect equality). Otherwise, it would trace the lower and right-hand borders of the diagram (4).

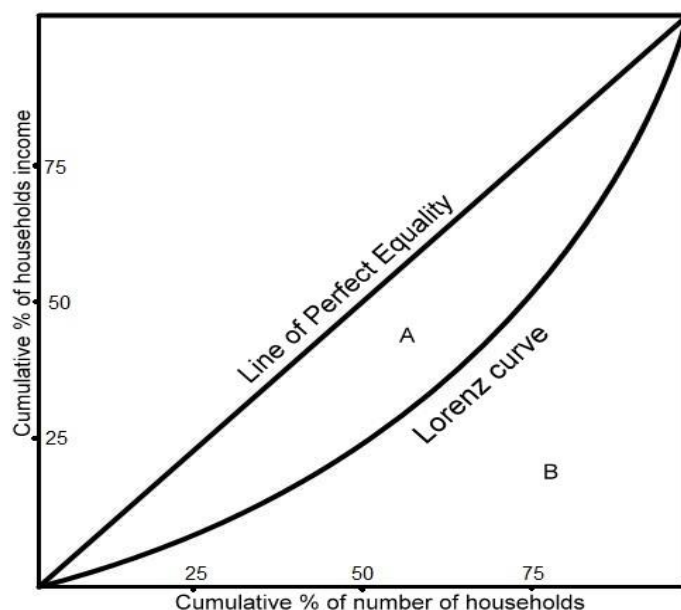


Figure 2 Lorenz curve

Inequality Measures

The most common used method to measure inequality is the Gini concentration ratio which is derived from the Lorenz curve. The theoretical range of the Gini ratio is from zero to one. In practice, values measured in GNI per capita distributions have a much narrower range (4).

This ratio has one problem. For one thing, Lorenz curves can intersect so that curves of different shapes could generate the same Gini ratio. It happens because one distribution is unequal in one part of its range from the bottom to around the middle. Meanwhile, another is unequal in a different part regarding the income shares of the very rich individuals (4).

Poverty Measures

The concept of poverty implies that households are poor in an absolute sense. Fundamentally, poverty is usually defined in social terms. The "poor" are those who must live below the poverty line which is defined as the minimum acceptable standard in a given time and place.

This line should be defined regarding household income per capita. The simplest measure of the extent of poverty is the percentage of poor households in the total (1).

A better measure would take account of the extent to which the incomes of the poor fall below poverty line. Reduction of poverty would, therefore, be measured through a fall in the percentage of poor households in the total and also through increases in the absolute incomes of the poor. World Bank publications sometimes refer to the quantity and distribution of the absolute poverty in the world (1).

Human Development Index

The Human Development Index is a composite of life expectancy, education, and income per capita indicators. The indicator was developed by Mahbub ul Haq and Amartya Sen. First It was published by the United Nations Development Programme in 1990. It combines three dimensions:

$$\text{Life Expectancy Index (LEI)} = \frac{LE - LE_{min}}{LE_{max} - LE_{min}} \quad (12)$$

LE_{max} is the maximal life expectancy from all of the countries and LE_{min} is minimal life expectancy from all of the countries.

$$\text{Education Index (EI)} = \frac{MYSI + EYSI}{2} \quad (13)$$

$$\text{Mean Years of Schooling Index (MYSI)} = \frac{MYS}{15} \quad (14)$$

Fifteen is the projected maximum of this indicator for 2025.

$$\text{Expected Years of Schooling Index (EYSI)} = \frac{EYS}{18} \quad (15)$$

Eighteen is equivalent to achieving a master's degree in most countries.

$$\text{Income Index (II)} = \frac{\ln(GNIpc) - \ln(100)}{\ln(GNIpc_{max}) - \ln(100)} \quad (16)$$

GNI_{pc} is Gross National Income per capita of the country and GNI_{pc_{max}} stands for the maximum of Gross National Income per capita on the world.

$$\text{Human Development Index (HDI)} = \sqrt[3]{LEI * EI * II} \quad (17)$$

The HDI simplifies and captures only part of what human development entails. It does not reflect on inequalities, poverty, human security, empowerment, etc. The HDRO offers the other composite indices as a broader proxy on some of the key issues of human development, inequality, gender disparity and human poverty (25).

2 Developing countries

After the Second World War was, used the term Third World for the first time. This Third World was contrasted with the First World of the advanced capitalist countries and the Second World of the socialist countries in Eastern Europe. The Third World designation was the apt name for countries which did not want to be connected with capitalism nor socialism. The term became outdated after Soviet Union disintegration when the Second World countries have started incline to capitalism (47).

Labeling a specific group of countries of the world economy - Developing countries - had spread around the world since 1964, when it was officially used during the first meeting of the United Nations Conference on Trade and Development (UNCTAD). In the meantime, the so-called colonialism and the subsequent post-war wave of decolonization, for these countries mostly used the term Backward Countries. This designation, however, was rejected. One reason for their negative attitude was that some economic theories associated backwardness with a colour of skin and ethnicities. The term of Developing Countries was acceptable. Hence, it is conventionally used (1).

2.1 Definition of the developing countries

The developing world represents the heterogenic unit that causes difficulties to formulate the universal definition of the developing countries. There is no WTO definition of developing countries. Developing countries in the WTO are designated by self-selection although this is not necessarily automatically accepted in all WTO bodies (60).

UNCTAD assemble criteria according which developing countries are arranged:

Per capita income, based on a three-year average estimate of the per capita gross national income (GNI), with a threshold of \$992 for candidate countries for addition to the list, and a threshold of \$1,190 for graduation from LDC status;

Human assets, involving a composite index (the Human Assets Index) based on the following indicators: (i) nutrition (percentage of the population that is undernourished); (ii) health (child mortality ratio); (iii) school enrolment (gross secondary school enrolment ratio); and (iv) literacy (adult literacy ratio);

Economic vulnerability, involving a composite index (the Economic Vulnerability Index) based on the following indicators: (i) natural shocks (index of instability of agricultural production; and the percentage of victims of natural disasters); (ii) trade-related shocks (index of instability of exports of goods and services); (iii) physical exposure to shocks (proportion of population living in low-lying areas); (iv) economic exposure to shocks (share of agriculture, forestry and fisheries in gross domestic product (GDP); index of merchandise export concentration); (v) smallness (population in logarithm); and (vi) remoteness (index of remoteness) (52).

Organizations such as International Monetary Fund and World Bank consider GNI per capita in USD as the main criteria. As of 1 July 2015, developing countries are defined as those with a GNI per capita less than \$12,736 calculated using the World Bank Atlas method. World Bank using more detailed categorization of developing countries because to this group of countries belong more than 150 countries. Low-income countries with GNI per capita of \$1,045 or less in 2014; middle-income economies are those with a GNI per capita of more than \$1,045 but less than \$12,736; high-income economies are those with a GNI per capita of \$12,736 or more. Lower-middle-income and upper-middle-income economies are separated at a GNI per capita of \$4,125 (58).

2.2 Common characteristics of developing countries

As it was said before, it is difficult to classify such a heterogenic area. Nevertheless, there is a need for scientific specialisations focusing on the problem of development, based on knowledge of condition in these countries. The development studies have a function in integrating the insights from a wide range of disciplines.

Despite the diversity of circumstances and development, developing countries do have many important characteristics and problems in common. They were justifying a specialized professional focus on development. All of following problems may not occur everywhere (20).

Common characteristics of developing countries:

- Poverty and malnutrition,
- Poor health condition of population,
- Poor education conditions,
- Weak institutions and political instability,
- Environmental degradation,
- Dualism,
- Explosive urbanization,
- Low level of technological capabilities,
- Political instability,
- Factor shortage – capital market,
- Weak public finances,
- Labour market,
- Problematic resources utilisation.

Poverty and malnutrition

According to the most recent estimates, 12.7 percent of the world's population lived at or below \$1.90 a day in 2012. That's down from 37 percent in 1990 and 44 percent in 1981. It means that 896 million people lived on less than \$1.90 a day in 2012 (61). The headcount is the simplest indicator. An amount of people with incomes or expenditures lower than a given poverty line. A more complex indicator is the poverty gap. The amount of money needed to bring person above the poverty line (39).

Poor health condition of population

A pressing problem is the increasing spread of epidemic diseases, e. g. Ebola, Malaria, HIV contagion. Women are particularly endangered, approximately 75 percent of HIV-infected women in the world living in Sub-Saharan Africa. Reasons for this situation are low income, no access to medicine, low education level and low social status of women. Subsequently, it causes low life expectancy, income losses for private households, destruction of families and increasing the number of orphans, productivity decline, weak administration of courts and health care, a decrease in human capital and loss of know-how (20).

Poor education conditions

A quality of education suffers from a lack of a human capital and underfinancing. The indicator of education quality is mostly taking into account years of schooling, but cognitive abilities are more relevant to the level of quality. That leads to underestimation of the education problem (22). Through Education development can be reached Millenium Development goals such as beating poverty, reduction child mortality, improving maternal health, combating HIV, malaria and other preventable diseases, promotion gender equality, encouragement of environmental sustainability and helping global development (20).

Weak institutions and political instability

Many developing countries are affected by ethnic or religious conflicts. The rule of law is poorly developed. There are not guarantees of civil liberties and political rights. Institutions have a weak status. *“Institutions are the rules of the game in a society, or more formally, are the humanly devised constraints that shape human interaction, reduce uncertainty by providing a structure to everyday life”*(35). Another problem is a high level of corruption. Corruption can be defined as taking advantage of a principal-agent problem: the agent and a third party deceive the principal. It is measured by CPI, which is calculated by Transparency International (20).

Environmental degradation

Pollution laws are lax. In countries where an industry is growing rapidly, waste water, toxic substances, and effluents influence the environment. The high concentration of inhabitants in cities with inadequate sewerage and sanitation imposes burdens on the environment. Expansion of agricultural land, logging and the use of fuelwood results in rapid deforestation. Finally, population pressure, intensive cultivation lead to land degradation, desalination, and desertification (56).

Dualism

The major problem of dualism is the absence of technological diffusion from the modern advanced sector towards the rest of he economy. Other forms of dualism can also occur such as regional dualism, cultural dualism, and ethnic dualism. When all dualism coincides, the problem can escalate to social conflicts or even to civil wars (24). Dualism also causes a high level of income inequality (47).

Explosive urbanization

In the most of developing countries is significant migration from rural to urban areas as well as rapid growth of existing urban population. It results in the collapse of the urban labour market and the urban infrastructure which is not able to handle this capacity. In turn, the growth of the cities and the relative depopulation of the rural areas underpin existing dualism (47). All of these negative factors have a high impact on a life standard and level of criminality in urban areas which are reshaped into slums.

Low level of technological capabilities

Technological innovations are still generated in the advanced economies. Developing countries import much of their technology from abroad. The successful use of these technologies depends on the technological efforts and capabilities of individuals organisations and adequate schooling, training and experience (27). Low level of technological capabilities limit the rate of technological change and economic growth and keep developing countries dependent on outside knowledge and expertise (47).

Factor shortage – capital market

Duality in developing countries characterizes capital markets. In rural areas free capital and urban areas formal credit sectors exist. Also, in many countries is no or only an incomplete cadastral land register. Public regulation and industrial policies distort formal capital markets. Facilitation of rural areas with low-interest rates decreases savings. There is also the problem of the lacking credit facilities for small enterprises and households, favoritism of large-scale investors and against small local businesses. Instruments are interest rate subsidization, bailouts, interest rate fixation at the expenses of savers. It results in the very small capital market, insufficient savings, and lending. The market for micro-credits could not solve that problem either (20).

Weak public finances

The public revenue situation in developing countries depends on economic cycle, the level of debt, possibilities for savings, quality of tax and fiscal authorities, attitude towards taxation, structure of taxation and monetization of the economy. A poor revenue situation leads to indebtedness under the assumption of constant expenditures and the need to refer to foreign lenders. Possible lenders are an international organization, international banks, and other private creditors, national public, and private banks or financial institutions and national

central banks through its monetization. In general, public debt needs not to be rejected as long as it is sustainable, e.g. used to finance long-run investment. However, excessive debt without investment-related purpose decreases future public scope for measures (20).

Labour market

The labour market in developing countries is not organized well or at all. Unemployment insurance and employment service are not existent. Skillfully improved labor conditions, like known in advanced economies, are not observable. This situation causes dualistic economic structure with the traditional sector, migration from rural areas into cities and high capital intensity of many investments. As of the lack of statistical measure, unemployment rates are less convincing in developing countries (20).

The role of entrepreneurship in economic development is undeniable. Its capability is needed to guarantee market efficiency. The entrepreneurial initiative is influenced by economic order, religion, motivation and commitment to minorities. An entrepreneurial spirit often is stemming from minorities, which may cause ethnic problems (47).

Problematic resources utilisation

The abundance of commodities and minerals is often regarded as beneficial. However, instead of providing prosperity and wealth, natural resources cause poverty and conflicts. The resource curse is caused by corruption, civil conflict, conspicuous consumption, lack of education investment and lack of innovation. Another problem is called Dutch Disease. It results in sales of resources cause a revaluation of domestic currency and subsequently deindustrialization.

3 Economic issues in developing countries

Economic growth provides the resource which can potentially be invested in development such as better health care and education, reduction of poverty and inequality, and environmental sustainability. Whether the development potential of growth of productive capacity is realised depends on the nature and effectiveness of socio-economic policies and the underlying ultimate characteristics of society. In turn better health care, high level of education and lower levels of poverty and inequality feedback into the sources

of economic growth in the form of human capital. All of the economic issues in developing countries are listed in the previous chapter. In this chapter will be considered only issues which are relevant to this thesis.

3.1 Capital accumulation

The term “capital” has two different meanings, one concrete and another financial. The word “capital” in its concrete sense refers to the physical stock of machines, buildings, implements, and devices used in the process of production. The financial meaning refers to a hoarded amount of financial means and securities. The important aspect explaining economic growth is the growth of physical stocks of capital per person. Capital accumulation in both senses is only possible if people are voluntarily willing or are involuntarily forced to refrain from present consumption to free resources for investment in future production. This refraining is known as saving.

The critical role of capital and savings in creating income growth has been well established in industrial societies. As it was stated in the first chapter, the Harrod-Domar model assumes that savings and accumulation capital is an essence of the economic growth. Analyses of the relative contribution of capital to growth in developing countries are neither as numerous as in advanced countries. However, the available sources of growth calculation suggest that the impact of the capital formation of growth is considerable in those countries as well, particularly in the early stage of development; at higher levels of income, productivity growth appears more important.

3.1.1 Forms of savings and investment

For a country, the total supply of available savings is simply the sum of domestic and foreign savings. Domestic savings may divide into two components: government (public sector savings) and private domestic savings. Government savings consists primarily of budgetary savings that arise from any excess of government revenues over the consumptions. It is important to note that a country could still have actual public savings even when the government budget is in deficit due to expenditures including capital outlays such as investment. Private domestic savings arise from two sources: corporate and household savings. Corporate savings include the retained earnings of enterprises. Household savings is

a part of household income which is not consumed. Foreign savings also come in two forms: official foreign savings (foreign aid) and foreign private savings. The first is external commercial borrowing (debt financing). The second major component of foreign private savings is a direct investment. It represents equity financing. In a subsistence economy, without a developed financial system of banks, financial institutions, and money circulation, there is hardly any difference between saving and investing.¹

There are also financial flows from and to abroad. Capital accumulation and industrialisation may be speeded up by Foreign direct investment, bank loans and aid flows from abroad. FDI usually comes in a package that may include not only equity finance, but often much larger amounts of loan finance, management expertise, modern technologies, technical skills, and access to world markets. The other elements of the package are perceived to be as important as the equity finance itself. The second advantage is that this package is controlled by multinational corporations, whose size and influence often match and sometimes outstrip that of the recipient country governments. An invitation to a multinational corporation raises the spectre of interference by foreign economic powers that seem beholden to a foreign government, or to no government. However, the pace of capital accumulation may also be delayed if resources drain away abroad (7).

3.1.2 Capital accumulation in closed and open economy

The process of capital accumulation in the modern sector of developing countries can be studied either in the context of a closed or an open model of the economy. In a closed economy, there are no economic ties with other countries; there is no international trade, flows of profits, loans, investment nor migration. All savings need to be earned and mobilised within the boundaries of the domestic economy. The most extreme example is a subsistence agriculture economy.

This model is on a theoretical basis. On the contrary, in open economy models, attention is paid to the relations with the international economy. Many of the interactions between agriculture and industry take place via the international trade. Agricultural exports can earn revenues and foreign exchange, which are potentially available for reinvestment in the industrial sector. Once the mining sector has developed, mineral export revenues can, in turn, provide resources for other areas such as manufacturing. The mining industry is

¹ If an agricultural household saves part of its harvest as seed, rather than consuming, this represents saving and investment at the same time.

extremely capital-intensive. But within industry, manufacturing is considered to be the most dynamic sector. The dramatic increase in labour productivity and income per capita was in today's advanced economies since the mid-eighteenth century, and it is primarily the result of processes of capital accumulation and associated processes of technological development in manufacturing.

Capital accumulation is a dynamic process, which not only consists of more capital goods but also of incremental and radical changes in production techniques. There are also other ways how to increase labour productivity such as more efficient working methods, a division of labour, specialisation in production, economies of scale, schooling or investment in health and technological change.

An important difference between open and closed models is that there is less need to focus on the balance between sectors in open models. If the necessary inputs for a given sector are not produced domestically, they can be imported and can be paid for by the revenues from exported products. For an analysis of economic development in developing countries from the mid-nineteenth century to 1929, an open model is most useful. Most developing countries started their modern economic development after Second World War by exporting primary agricultural and mining products. Export revenues and foreign investment served to finance capital accumulation in infrastructure. For an understanding of industrialisation strategies from 1930 to 1985, the closed model is more helpful. It was a reaction to the financial crisis in 1929. Export revenues had created an urban market for manufactured imports. Developing countries tried to reduce their dependence on international trade and primary exports and to replace manufactured products imported from advanced economies by products manufactured on the domestic market. Subsequently, since the mid-1990s, the emphasis has been put to more open export-oriented policy stance. But since 2000, the market-oriented Washington consensus has been under renewed attack following the disappointing economic development in Sub-Saharan Africa and Latin America (45).

In the case of the open economy, capital flowing from abroad is denoted as a foreign direct investment (FDI). Benefits of FDI to a recipient country is that the international capital flow serves many needs. In 1999, the UNCTAD argued that FDI is a reliable source of stable funding as it gives recipient country the confidence to adopt long-term views towards their economic plans. FDI also is coming with needed know-how. Also, FDI plays the role of plugging gaps in funding where there is a mismatch between domestic savings and investment needs.

It was explained why FDI is important to a country, and what influences its attraction in the African context. African countries with a high unemployment rate may place more value on the employment creation aspect of FDI. Since high unemployment rates characterize economies in Africa, FDI in search of minerals and access to the abundant, low-cost labour, will have to ensure job creation (2).

3.2 Natural Resources

The abundance of commodities and minerals is often regarded as beneficial. However, instead of providing prosperity and wealth, natural resources can cause poverty and conflicts. Developing countries face a challenge regarding right utilization of natural resources. The biggest issues refer to the ownership of natural resources, rent capture, sustainability of using natural resources, consumption and exporting taxes on resource exports which graduate in problems such as resource curse or Dutch disease. For this thesis, the stress will be put on Dutch disease problem.

3.2.1 Dutch Disease

The phrase “Dutch disease” was coined by The Economist in 1976 to explain the negative effects that North Sea oil and gas revenues had on Dutch industrial production. The terms “Dutch disease” and “resource curse” are frequently thought to be synonymous. In reality, Dutch disease is a much narrower term than the resource curse (17). In essence, the Dutch disease simply denotes an economy that features the coexistence within the traded goods sector of progressing and declining, or booming and lagging, sub-sectors (15).

As it is applied in cases where the booming sector is resource extractive and the lagging sectors are manufacturing and agriculture, the Dutch disease results from the hard currency inflows associated with surging resource exports leading to an appreciation of the real exchange rate. It leads to a sectoral reallocation of economic growth. Capital and labour are drawn away from agriculture sector to the manufacturing sector, and they flow into the extractive sector. The prices of non-tradable goods, mainly services, rise.

The result is higher costs and reduced competitiveness in the tradable agricultural and manufacturing sectors which face competitive international price. Natural resource boom, in effect, crowds out other important sectors of the economy and render them uncompetitive.

This results in countries with resource-dependent economies that are heavily exposed to the inherent volatility of commodity prices (24).

3.2.2 Dutch Disease Effect

According to economic theory The production possibility boundary shifts outwards, when there is a resource discovery. In case it is an exportable commodity, the boundary becomes steeper than the original one at each level of tradable output. The non-tradable production stays without any change. The production possibility frontier shifts asymmetrically from Q_1 to Q_2 in Figure 3. It is assumed that terms of trade are fixed. This enables an aggregation of the booming tradable and the non-boom tradable resources into a single composite traded well. Thus, allowing an analysis of a two-good sector, consisting of the traded and non-traded sectors (15).

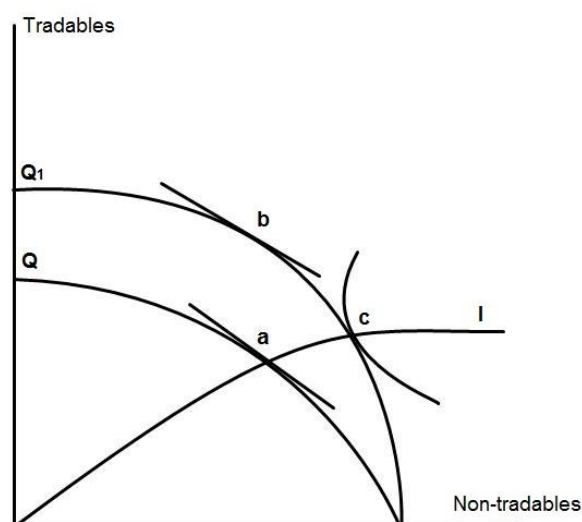


Figure 3 Effect of the Boom on the Goods market

The effect of Dutch disease is divided into a resource movement effect and a spending effect. In case there is not a spending effect, a resource boom means that the booming sector expands, which leads to an increase in the demand for labour in that sector and it causes a rise in the relative wage rate of this sector and vice versa other sectors. Labour then moves from the non-boom tradable and the non-tradable sectors to the booming sector. Subsequently, the production in both sector declines. This leads to direct de-industrialisation. In case, the tradable sector is agricultural it caused so-called de-agriculturalization (32).

If the real exchange rate is fixed at the initial level, regarding production possibility frontier barrier, the shift from $Q1$ to $Q2$ means a decline in the output of the non-tradable sector as we move from point a to point b Fig. 3. This creates excess demand for the output of the non-tradable sector. Then prices in the non-tradable sector increase (26). It is causing output in the non-tradable sector to increase, but not enough for the non-tradable sector to expand beyond original level (15).

A resource boom can also result in spending effects. In this case is assumed that there are no resource movement effects, and, therefore, the shift of the production possibility frontier barrier would mean that point b lies vertically above point a Fig. 3. The boom causes an increase in income and assuming that the non-tradable good is normal, demand for it rises. It causes an excess demand for non-tradable and thus a rise in the relative price of non-tradable sector. Equilibrium is at c along the income consumption curve. A movement from b to point c means that the non-boom tradable sector inevitably contracts. This refers to indirect de-industrialisation (15).

Both of these effects leads to a real exchange rate appreciation. The resource movement effect results in a contraction of the non-tradable sector while the non-tradable with the spending effect sector expands. The overall effect of non-tradable sector depends on the relative strengths of these effects.

The spending effect can express by Equation

$$X_n\left(\frac{q}{w}\right) = C_n(q, y) \quad (18)$$

Where q is a ratio of price of tradable good and price of non-tradable good, w stands for wage rate, y is for real income and X_n and C_n are the supply of and demand for the non-tradable output; q/w is positively related to X_n and y have positive and negative effects on the demand. The equation shows how rising wage rates and a real appreciation affect output of the non-tradable sector (34). The non-booming tradable sector contracts because of the expansion of the non-tradable sector as the real exchange rate appreciate (32).

Equation analyses the spending effects on the non-tradable sector. That boom results in an increase in real incomes, which creates excess demand for not-tradable. This, in turn, causes wage rate to increase, as the demand for labour is a higher response to the excess demand for the non-tradable commodity. At the same, the ratio of the price of non-tradable

and tradable commodity increase and it causes a decrease in demand for non-tradeable, and an increase in supply. Wage rate increases, but it acts as a disincentive to employment creation and thus cause the supply in the goods market to decline. Thus, when w increases, q must increase to counteract the excess demand, and thus keep the non-tradable commodity market in equilibrium.

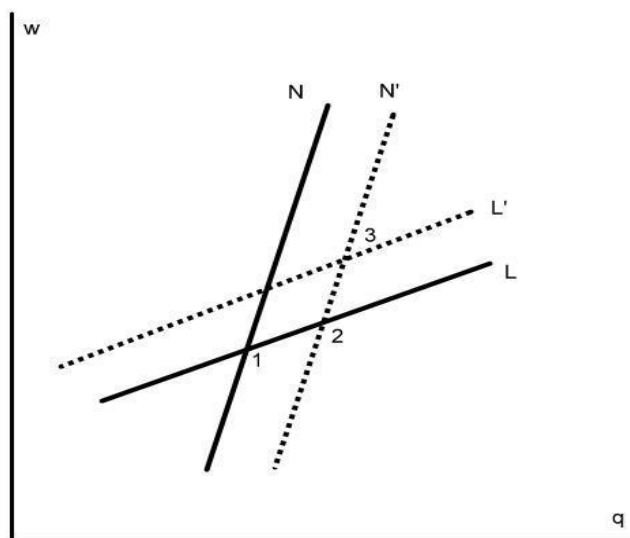


Figure 4 Spending and Resource Movement Effects

Derivation gives the slope of a non-tradable commodity N line

$$\frac{dw}{dq} > 1 \quad (19)$$

It shows equilibrium in the labour market, indicating how the labour market is affected by an increase in wage and a real appreciation.

$$Mn\left(\frac{q}{w}\right) + Mm(w) + Mb(w, b) = L \quad (20)$$

Where Mn represent non-tradable sector, Mm stands for manufacturing sector, and Mb is the booming sector, labour is L . Wage increases in each sector have a negative effect on the demand for labour in that sector, meanwhile, a real appreciation has a positive effect on employment in the non-tradable sector, through its effect of boosting non-tradable output.

$$\frac{dM_i}{dw} < 0 \qquad \frac{dM_n}{dq} > 0 \qquad (21)$$

Where M_i represents demand for labour in the sector. An increase in wage rates causes a reduction in employment in all sectors, thus creating an excess supply of labour. To maintain equilibrium in the non-traded sector, q , has to increase. The equilibrium in the labour market is a positively sloping curve. But a proportionate increase in the wage rate and the real exchange rate leads to a reduction in employment in the booming and non-booming tradable sector. Hence, the overall excess supply of labour is created. Thus, equilibrium in the labour market requires that q must increase by more than the increase in wage rate (32).

Through the spending effects, excess demand for the non-tradable output is created, and this leads that N shifts to the right. If there are no resource movement effects, the increase in wage rates and the real exchange rate appreciation are denoted by the movement from the point 1 to the point 2 in Fig. 4. The demand for labour increase in the booming sector and wage rates have to rise. The situation will shift from the point 2 to the point 3 in Fig.4. For the non-boom tradable sector, however, the combined effects of the rise in wage rates and a real appreciation cause the sector to contract (15).

In case, there are structural imbalances such a shortage of skilled manpower. Then an increase in wage rates may not cause a decline in output, rather, it may attract more skilled labour from other sectors to itself. That is the reason the wage rate needs to increase together with a real appreciation for the non-tradable sector to expand. For the non-boom tradable sector, a decline in its relative wage rate to that of the non-tradable sector would cause the sector to contract as the sector loses skilled labour to the non-tradable sector. But because of a labour surplus in the economy, more labour will be attracted from the agricultural sector to the industrial sector. The lower skilled labour is less productive, and it causes a decline in output of the sector (32).

3.2 Growth and Corruption

Corruption reduces public revenue and increases public spending. It contributes to larger fiscal deficits, making it more difficult for the government to run a fiscal policy. It leads to the growth of income inequality because well-positioned individuals take advantage of the government activities at the cost of the rest the population.

Corruption distorts markets and the allocation of resources because it enables to controls and inspections of the market failures. In case, the government does not perform well, its regulatory role in banks, hospitals, transport, financial market, and food distribution does not have a big effect. Corruption also distorts incentives. Individuals allocate their energies to rent seeking and to corrupt practices and not too productive activities.

Corruption acts as an arbitrary tax. Especially when corruption is not centralised and its random nature creates high excess burdens, because to the cost of paying a bribe must be added the cost of searching for the person whom the bribe must be paid. It also reduce the fundamental role of the government and the legitimacy of the market economy and democracy and increase poverty because it reduces the income earning a potential of the poor. Subsequently, It reduces economic growth (53).

In most countries, small and medium enterprises are the main engine of the economic prosperity. When they do not grow, economies languish, and unemployment grows. This is the case in most countries and especially in developing countries and, ever more, in economies in transition. All of the obstacles to the creation of these enterprises can be particularly damaging. Large companies can protect themselves more easily from these problems. From the Econometrics point of a view, the corruption reduces the incentive for investment, expenditure for education and health, the productivity of public investment, taxes revenue and foreign direct investment (53).

Measuring level of the corruption is very complicated since it is an illegal act. While there are no direct ways of measuring corruption, there are many indirect ways of getting information. Information can be obtained from reports on corruption from published sources including newspapers, case studies of corruption agencies such as tax administrations, police and other institutions and questionnaire surveys. The information obtained from surveys for many countries are widely used by researchers and business people. The Transparency International created the most well-known index. The index assesses the perception of corruption on a scale of 100. Hundred refers to a corruption-free environment. It is important to realise that the indexes reflect perceptions and not objective quantitative measures of actual corruption.

4 Social issues in developing countries

Social issues in developing countries are mostly specific for each region. These issues have a historical, cultural, geographical and ethnical roots which strongly affect the economy of the region. The whole economic situation and activity depend on social atmosphere within the region. The biggest problems which hobble the discussed region are poverty and inequality, population growth and health condition of inhabitants.

4.1 Poverty and inequality of income

The concept of poverty implies that households are poor in some absolute sense. Poverty can be identified through its specific manifestations: starvation, severe malnutrition, illiteracy, substandard clothing, and housing. Fundamentally, poverty is usually defined in social terms. The poverty analyst can apply similar standards across differing times and places. World Bank publications sometimes refer to the quantity and distribution of absolute poverty in the world; these calculations are made using a single global poverty line.

Simon Kurzets put forward the proposition that the relationship between the level of per capita GNP and inequality in the distribution of income may take the form of an inverted U. Kuznets has stated that income inequality will have a tendency to increase in the course of industrialisation, but then it will have a tendency to decrease as societies become more prosperous.

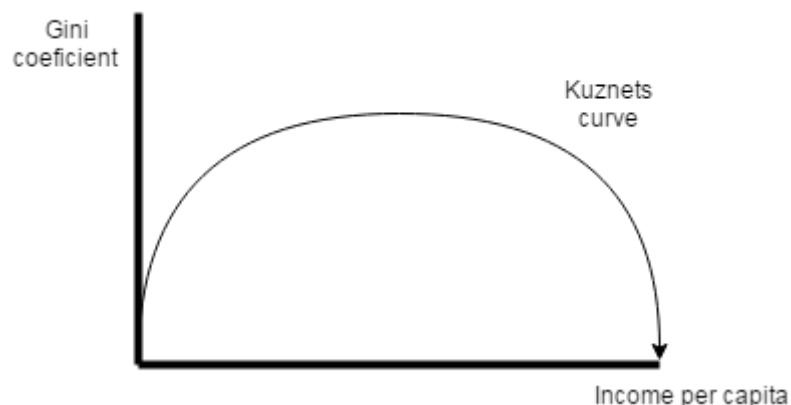


Figure 5 The Kuznets curve

Nowadays, the high degree of inequality is in developing countries. On average, the bottom 40 percent of the population had 19 percent of total income, while the top 10 percent had 33 percent². The degree of inequality in developing countries is much higher than in the advanced economies – as measured by the Gini index as well as by the shares of the top 10 percent and bottom 40 percent. This is consistent with cross-section research on the Kuznets hypothesis.

The question of poverty and inequality and their relationship to economic growth have been emphasized in some periods in the history of economic thought and relegated to the background during other periods. Most older economic theories of backwardness emphasise the positive economic function of inequality, in line with Keynesian economic theories. As the poor consume most of their incomes, while rich can save a part of their income, increasing inequality will increase aggregate savings. Higher savings rates contribute to the growth of per capita incomes and a reduction of poverty (in the longer run). As income per capita increases, the bargaining power of the poorer section of the population will increase, and income inequality will start to decline.

The dominant theory used today to explain income distribution in developing countries was worked out in the late nineteenth and early twentieth centuries. This is the neoclassical theory, so-called marginal productivity theory. The theory postulates that all factors of production are in scarce supply that their rates of return are set equal to their marginal products in competitive factor markets. This theory, although heavily criticized, has yet to be supplanted in analyses of developed countries.

4.2 Population growth

Apart from population growth, size and density are also important demographic variables. Many countries in Latin America and Africa have rapid population growth but low population density. Low population density discourages large-scale investment in infrastructure. Population size affects the absolute volume of required investment and the size of domestic markets. It is distinguished into eight types of relationships between demographic and economic developments:

² World Bank 1980

- 1) Population growth supplies the labour, which is available as an input into economic production. The availability of labour with various qualifications and levels of education and health influences the productive potential of society,
- 2) On the other hand, it also gives rise to employment challenges,
- 3) A rapidly growing population can stimulate the growth of production by providing an expanding market for goods and services,
- 4) The level of consumption in a society depends in part on the relationship between population growth and growth of production,
- 5) A growing population creates opportunities for productive investment and there is possibility to stimulate savings,
- 6) The size and growth of the labour force are one of the determinants of the need for savings and investment. In case that investment lags behind the growth of the workforce, then labour productivity will have a tendency to decline,
- 7) Growth of population increases the pressure on the national environment if there is an absence of technological change,
- 8) The growth of population and increasing pressure on scarce resources can stimulate technological change.

Socio-economic consequences of population growth can differ from the point of view. Thomas Malthus is a proponent of the pessimists believe that population growth threatens the human welfare and that there are physical limits to the increase in production, such as availability of land, scarcity of energy and raw materials and the carrying capacity of the global environment. Optimists argue that scarcity provides a challenge to human creativity. In this view, people will always find new technological solutions to the problems of scarcity. Optimists and pessimists not only differ in their analysis of causal mechanisms but also in their empirical estimates and projections.

In the 1950s, Leibenstein and Nelson wrote that developing countries were in danger of getting caught in equilibrium at a low level of economic development. This low-level equilibrium is known as the Neo-Malthusian Trap.

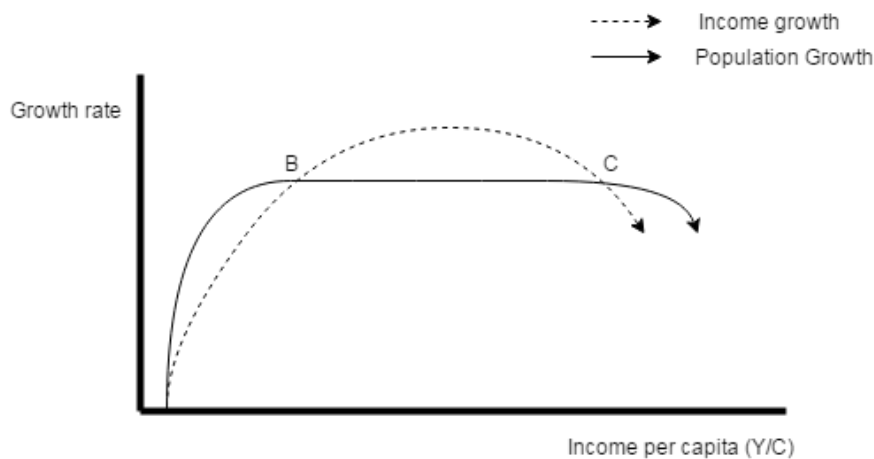


Figure 6 The Neo- Malthusian trap

Analogous as in classical Malthusianism, the neo-Malthusian model ignores technical change. As production techniques change, line Y will shift upwards. It can cause that the intersection point B may even disappear. On the contrary, the poorest developing countries are those with the highest population growth rates. Birth rates and fertility rates tend to decline rather than increase, as per capita income goes up.

4.3 Diseases and illnesses

One of the biggest challenges in developing countries is increasing the spread of epidemic diseases. Apart from the humanitarian tragedy, the spread of the virus and high mortality rates are a major disadvantage for development and also for healthy part of the population. Recently, spreading of Ebola on the coast of West Africa was very highlight the topic in media. Despite such a popularity of this topic, there are diseases such as malaria, cholera or HIV/AIDS which cause more death per year every single year. Especially, HIV/AIDS is a big problem in the southern part of Sub-Sahar Africa. Because in this thesis is consider in most of the cases countries of South Sub-Sahar region. Next chapter will focus on the issue of AIDS.

Many of the theoretical contributions predict that AIDS have a large impact then it was expected. For example, The simulation model of the economy of Cameroon conclude that AIDS can cut the rate of GDP growth by up to 50% (26). The potential for large effects of the AIDS epidemic on macroeconomic outcomes is also confirmed in more disaggregated frameworks (3).

There are several channels through which the AIDS epidemic can potentially influence economic growth:

- 1) AIDS decreases life expectancy and hence the incentive to invest.
- 2) The AIDS creates a huge number of orphans. In all likelihood human capital accumulation by orphans faces more obstacles than if parents were present.
- 3) Potentially large medical costs associated with the treatment of AIDS patients can divert public resources from productivity-enhancing public expenditures such as education or infrastructure investment and other investment which are desperately needed.
- 4) Firms might be reluctant to hire and invest in training of workers if there is a high probability of workers dying.
- 5) The AIDS is more prevalent among highly skilled workers, and that high labour is complementary to capital, the AIDS epidemic can influence the rate of return on investment, savings and capital accumulation (16).

5 Sub-Saharan region

All of the issues mentioned in a previous chapter are occurring in the Sub-Saharan region. The attitude of leaders of countries to solve these problems is different. It is a highly connected with the historical development of the region and quality of institutions. Most of the countries in this region were colonies except countries such as Ethiopia. The bottom line came when the people wanted to be free from repression and gain self-determination. The colonial era of this region extends from about 1845 to 1995.

Sub-Saharan Africa is a very diverse region with extensive natural wealth, great human potential, and a rich history. Nonetheless, most of the countries are among the poorest in the world and about half of its 973 million inhabitants live in poverty. The Sub-Saharan region produces only 2.3% of the world's GDP.³ The region's export remain dominated by primary goods such as fuels, ores, and agricultural products. The roots of the region's economic weakness and instability lie variously in the past colonial relationships with European countries and unjust global trade patterns as well as in misuse of power by ruling political elites in the post- independence era. Many of civil wars and other conflicts have fragmented the sub-Saharan countries into many factions and parties fighting for domination.

³ World Bank, 2014

The region is lagging behind developed countries because of corruption, lack of infrastructure, weakness of its institutions, heavy indebtedness, lack of education and health services, and unfavourable natural conditions. Agriculture is the source of livelihood for most Africans. However, average yields per hectare are low and heavily dependent on climatic conditions. In the previous decade, life expectancy in sub-Saharan countries has fallen due to the spread of HIV/AIDS, and it remains below fifty.

5.1 Integration of the regions in Sub-Saharan Africa

The Sub-Saharan region, respectively, the entire African continent is intensely politically and economically integrated region. Africa also spread phenomenon multi-speed integration. Varying degrees of involvement of individual economies to economic integration is a common practice in Sub-Saharan Africa. The most economically and politically important organizations are CEMAC, ECOWAS, ESA, and SADC.

CEMEX

The economic and monetary organization of the Central Africa CEMAC⁴ were founded in 1994 as a successor to the Customs and Economic Union of Central Africa (UDEAC) founded in 1964. The Community has six members (Chad, Gabon, Cameroon, Congo, Equatorial Guinea and the Central African Republic), to which the European Union (EU) ranks Saint Tomas and Prince Island.

Regarding GDP per capita is the most powerful economy in Gabon and from the second half of the 90s, it very rapidly catching up with Equatorial Guinea. Both economies are characterized by large oil reserves and a high proportion of carbohydrates on exports. In the 80s, the political system in Gabon had in the 80s of democracy closer than Guinean, student uprisings and coup attempts in the first half of the 90s led to a hardening of the regime of President Omar Bongo and the outflow of foreign investment. The investment was partially positioned to Equatorial Guinea. The volatility of oil prices presents a cause for concern. An oil price decrease will hurt the competitiveness of CEMAC countries and will worsen external and fiscal balances. Thus, there is a major need to restrain spending and monitor oil resources carefully to achieve fiscal discipline and successful macroeconomic convergence in the coming years. From the social point of view, steady economic growth has done little to

⁴ Communauté Economique et Monétaire d'Afrique Centrale

dent rampant poverty in the region. In Congo, 70 % of the population lives on less than \$ 1 a day. In Cameroon and Chad, the percentages were 46 % and 64 % respectively. While 30% of the population of CEMAC suffer hunger and nutritional deficiencies (31).

ECOWAS

Economic Community of West African States (ECOWAS) was established in Lagos, Nigeria in 1975. The creation of economic integration in West Africa was discussed since the mid-60s. In 1993, a new treaty aimed to establish a common market and monetary union. Member countries are Benin, Burkina Faso, Gambia, Ghana, Guinea, Buena-Bissau, Cape Verde, Liberia, Mali, Mauritania, Niger, Nigeria, Ivory Coast, Senegal, Togo and Sierra Leone.

Ivorian were long-term economic community leaders. The Ivorian economy is significantly differentiated from other economies, primarily because of the amount of FDI. Although, FDI does not always lead to prosperity. In the case of Nigeria, FDI, which was in large volumes, did not help. Nigeria has become very dependent on its oil deposits.

In the second half of the 70s, there has been a reversal in the economic situation in Ivory Coast. Ivory Coast fell into a deep recession. After rapid growth in Ivory Coast - the world's largest exporter of cocoa, the largest African exporter of pineapples and palm oil and fastest growing African economies – came the recession in the world economy. Prices of the sugar fall on world markets as a consequence of the recession. Its foreign debt has tripled, and adverse economic developments resulted in the 90s political instability, ethnic intolerance, and conflicts.

ECOWAS significantly lags in the area of political rights. Organization Freedom House attributes this situation to the volatility of indicators of political rights and civil liberties, and also to the large differences between countries. There are frequent civil wars, coups, and authoritarian regimes, and therefore, not temporary or longer-term deterioration in the political situation is no exception in the development of law and democracy.

ESA

The Economics Organization of Eastern and South Africa ESA⁵ is part of the integration group COMESA, which was founded in 1994. Member countries are Burundi, Democratic

⁵ Eastern and South Africa

Republic of Congo, Eritrea, Ethiopia, Kenya, Comoros, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Uganda, Zambia and Zimbabwe.

In this group, there are two economies, which greatly excel. These are the Republic of Seychelles and Mauritius. Seychelles is a democratic country over 40 years. The economy of Seychelles is based largely on tourism. However, the country is heavily dependent on imports. It must import 90% of all primary and secondary inputs. The economy of the Republic of Mauritius has undergone in the last two decades. There is the average annual growth in real GDP 6%. Mauritius is focused on sugarcane, textile industry, tourism and the private sector. The economy offers favorable conditions for entrepreneurs, which, especially in recent years, attracting financial and telecommunications companies. Nowadays, Mauritius is one of the most robust developing economies with an extremely dynamic and competitive private sector. The textile industry and sugar industry is processing undergoing upgrades. Recently, Mauritius has started increasingly focusing on ICT development.

SADS

The first impulse to the establishment of the Southern African Development Community SADC came from a conference in Gaborone, Botswana, in 1979. Member countries pledged to harmonize its development programs in the Treaty of Lusaka, Zambia, in 1980. Then SADS was officially founded at a conference in Windhoek, Namibia, in 1992. SADS has aimed to deepen economic cooperation of its members and create a common market with free movement of factors of production, goods, and services. Member countries are Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland and United Republic of Tanzania, Zambia and Zimbabwe (43).

At first glance, it might seem that the strongest economy of the community is in South Africa. However, since the early 80s in South Africa has a downward tendency of GDP per capita. In the 90s, Botswana overtook the leading position and currently Botswana's economy is the most powerful economy of south part of the Sub-Saharan Africa.

Since declaring independence in the mid-60s, Botswana has become the fastest growing economy in the world with an average real GDP growth of around 9%. Botswana government consistently maintain adequate fiscal and foreign policy. Income from diamond mining is

reasonably used to foster economic development and increasingly also in the fight against HIV / AIDS. Botswana has the highest credibility rating among African countries, negligible foreign debt, and long-term surplus trade balance. Botswana maintains the closest trade ties with South Africa and Namibia.

However, all SADC economies struggling with the rapidly increasing prevalence of HIV/AIDS, which is reflected in the declining values of HDI. The only exception is Mozambique, whose HDI is the tenth lowest in the world. Mozambique regarded 8 % growth achieved the growing trend of human development index. It is mainly the result of political and economic stabilization of the country. Currently, Angola is considered the most problematic country in the region. Angola is heavily indebted, and it is slowly recovering from the civil war which lasts almost thirty years. The economy is driven by revenue from exports of diamonds, unhealthy dependency on oil and foreign direct investment.

5.2 Selected regions of Sub-Saharan Africa

There will be discussed two countries of the Sub-Saharan Africa which are specific in their economic situation. Botswana is former British colonies and has many in common in their history. It is one of the most mineral-rich countries in Africa. South Africa is part of the international cluster BRICS⁶. It is the group of countries with the high ambitions. They have an aspiration to become leading countries in the world by 2050. South Africa is the newest member who has joined the group in 2011. The economic growth of South Africa is not as high as other countries in the cluster.

Currently, Botswana is number one in the economic growth in the African continent. Botswana has one of the world's highest known rates of HIV/AIDS infection, but also one of Africa's most progressive and comprehensive programs for dealing with the disease. This country also combats corruption very well and has the best ranking⁷ in Africa. The ranking is even better than in the Czech Republic. Botswana is also the most politically stable country in the continent.

⁶ BRICS – Acronym for Brazil, Russia, India, China and South Africa

⁷ According to Transparency International

5.2.1 Botswana

Botswana is formerly the British protectorate of Bechuanaland; Botswana adopted its new name at independence in 1966. The Capital is Gaborone. The Republic of Botswana is surrounded by four countries which are Namibia, South Africa, Zambia, and Zimbabwe. The area of Botswana is 581 730 sq km; the region is slightly smaller than Texas. The population is only 2 182 719⁸ people; most of them speak Setswana language. Botswana's ethnic groups are Tswana (79 %), Kalanga (11 %), Basarwa (3 %) and other, including Kgalagadi and white (7 %). There are natural resources such as diamonds, copper, nickel, salt, soda ash, potash, coal, iron ore, and silver. Agricultural land covers 45.8 % of soil (arable land 0.6 %; permanent crops 0 %; permanent pasture 45.2 %), forest area is 19.8 % of the land and another land⁹ is 34.4 % (13).

History

When the region north of the Molopo river is made the British protectorate of Bechuanaland, in 1885, the expectation is that it will merge eventually with Cape Colony to the south or with Rhodesia¹⁰ to the north. This intention is frustrated by the resolute action of a tribal chief who sees the implicit dangers for his people. Khama III, king of the Ngwato, converted to Christianity and travelled to Lond with two other local chieftains. They persuaded the colonial secretary, Joseph Chamberlain, to protect their interests. In return, he extracts a strip of their territory for a construction of the railway.

Inevitably, the tribal areas became dependent economically on their rich neighbours, providing migrant labour for both the Transvaal and the Cape Colony. Then there was pressure from Cape politicians to annexe Bechuanaland to the Union of South Africa. However, the British government held to Chamberlain's pledge and confirmed that no transfer of sovereignty will take place without the agreement of the people of Bechuanaland and British government. This agreement was signed in 1935. Nevertheless Westminster's tacit collusion in the politics of South Africa.

The grandson of Khama III, Seretse Khama, inherited one of the eight principal chieftaincies positions of Botswana. Seretse, while studying at Oxford, married a British woman. This caused consternation in South Africa, where two years previously the new Nationalist

⁸ In July 2015

⁹ Other covers deserts, savannah and urban areas

¹⁰ Contemporary Zimbabwe

government had introduced apartheid law against sexual relationships between different races so-called anti-miscegenation law. British authorities expelled him from the country. He could return to his country until 1956. Then he gave up the position of the chief under pressure from British, South African, and South Rhodesia government. In 1962, he established Bechuanaland Democratic Party. Three years later, he won the first election based on the principle of universal suffrage. In 1966, he became the first president of Botswana.

During the 1970s Botswana allies itself with other independent nations of the region such as Zambia, Tanzania, Mozambique and Angola; to put pressure on Rhodesia and South Africa to introduced majority rule. In the 1980s, Botswana faced the floods of white refugees who were politically active in South Africa. Seretse Khama died in 1980. His deputy overtook Ketumile Masire, who was a president for almost two decades.

Ever since independence, a majority of seats in the national assembly has been won by the Botswana Democratic Party, founded in 1965 by Seretse Khama, and the Botswana National Front (also dating from 1965) has provided a genuine opposition. Botswana's relative wealth, from the export of diamonds, and the wise leadership of two long-serving presidents have given the republic unusually stable record.

Economy development

Botswana is a development success story. It was one of the poorest countries in Africa with GDP per capita of about 70USD when it became independent in Britain in 1966. Subsequently, Botswana has been on of the fastest growing economies in the world supported by the discovery of diamonds in 1981. Real GDP showed robust growth of average 5% per annum over the past decade.

In contrast to Botswana's economic growth, prudent macroeconomic, fiscal management, and good governance, the country faces poverty and inequality. While poverty rates declined from 50 % to 19.4 %, the situation in rural areas is still unfavourable. Education expenditure is among the highest in the; at around 9% GDP and includes the provision of nearly free primary education. However, Botswana suffers from the low-skilled workforce and needs to diversify its economy.

Continued uncertainty in global markets and the slow pace of economic recovery in advanced countries¹¹ continue to act as a drag on Botswana's economic outlook, mainly due to

¹¹ After financial crisis in 2008

the country's heavy dependence on diamond exports. A low global demand for minerals and metals in 2012 slow down the growth real GDP growth to 4 %. Nonetheless, the economy bounced back in 2013 and 2014, with real GDP growing by 5.8% and 5 %. The main driver of the recent growth was the diamond sector; the real mining value added up to 24 %. The non-mining sector grew by 7.4%. Latter year, the demand for rough diamonds declined, and mining grew by a modest 4.5%. Due to weakening economic activity, lower credit growth, lower fuel and commodity prices, inflation has remained around 3% in 2016 Q1. The outlook for 2016 is modest with expected growth 3.8%. The value for GNI per capita growth in Botswana was 8.5% in 2007. Then the value dropped to -5.8% in 2009. Afterwards, the value for GNI per capita is 3.9% in 2013.

Botswana faces a new policy dilemma of struggle with the predicted decline in diamond revenues. While diamonds may not be fully exhausted for another generation, the output is already well past its peak. Botswana has made some progress in reducing its dependence on diamonds. However, the level of economic diversification needed to offset diminishing mineral revenues will remain a challenge.

Social development

Poverty has fallen sharply, with the national poverty rate down from 30.6 % in 2003 to 19.4 % in 2014 and extreme poverty has fallen below 14 %. Poverty is still high in rural areas, remote communities, and in households headed by females and by those with a low level of education. Most notably, poverty is concentrated among children and youth, which has important implication for inclusion and inter-generational transmission of poverty.

The Gini coefficient has fallen from 64.7 in 2002 to 60.5 in 2011. Nevertheless, this still leaves Botswana among unequal societies in the world. Substantial regional convergence has driven decreasing inequality – inequality in Botswana is no longer simply a spatial issue. It is explained primarily by within-group differences; most importantly by access to productive livelihoods. One of the most important drivers of poverty and inequality reduction has been employment. The unemployment reached 20 % in 2014.

Botswana has one of the world's highest HIV/AIDS burdens. HIV/AIDS has had profound human welfare, fiscal and governance impacts. Nowadays, Botswana has the third highest HIV prevalence in the world. Prevalence has declined from 25.4% in 2005 to 21.9 % in 2013. Despite this progress, HIV knowledge among young people remains dangerously low, with

fewer than 50% of people aged 15-24 able to answer correctly basic questions relation to HIV¹². Botswana has demonstrated a strong national commitment in responding to its HIV/AIDS epidemic. Continuing this approach will be critical in the year to come with the country facing significant financial cuts to their HIV funding and support.

In summary, Botswana has a genuine opportunity to eliminate extreme poverty in the coming years. But the real challenge will be making this sustainable and, most critically, to reduce the extreme levels of inequality that still hinder macroeconomics level growth and microeconomics level inclusion. This will require a change in Botswana's growth model build on an export-looking private sector and higher skilled and more productive individuals, households and firms. Another challenge will be combat high percentage of HIV/AIDS prevalence. It has a significant impact on social development, labour market, and economy prosperity itself.

5.2.2 South Africa

South Africa is formerly the British protectorate of Union of South Africa. South Africa reached its independence in 1961. The Capital is Johannesburg. The Republic of South Africa is surrounded by six countries which are Namibia, Botswana, Lesotho, Mozambique, Swaziland, and Zimbabwe. The area of Botswana is 1 219 090 sq km; the region is slightly less than twice the size of Texas. The population is 53 675 563 people. South African's ethnic groups are Black African (80.2 %), white (8.4 %), colored (8.8 %) and Indian/Asian (2.5 %). There are natural resources such as gold, chromium, antimony, coal, iron ore, nickel, tin, uranium, diamonds, platinum and natural gas. Agricultural land covers 79.4 % of soil (arable land 9.9 %; permanent crops 0.3 %; permanent pasture 69.2 %), forest area is 7.6 % of the land and another land¹³ is 13 % (13).

History

The British captured Cape Colony (South Africa) in 1795. They handed it back to the Dutch in 1803, but they took it again in 1806. The treaty confirmed British ownership of Cape Colony in 1814. The British founded Grahamstown in 1812 and approx. 4,000 Britons

¹² Botswana Ministry of Health (2014), Botswana Country Progress Report 2013

¹³ Other covers deserts, savannah and urban areas

were granted land by the Great Fish River in 1820. The Boers¹⁴ in South Africa resented British rule. When slavery was abolished in 1834, they were antagonized still more. Finally, the Boers began a mass migration away from the British called the Great Trek. The Boers fought and defeated the Zulus at the Battle of Blood River in 1838. Eventually, the Boers founded two republics away from the British, Orange Free State and Transvaal. In the 1850s, the British recognized the two Boers republics.

However, the situation changed in 1867. The first diamonds were found in Northern Cape, and gold was discovered at Guang in 1886. Meanwhile, the British fought The Zulus and were badly defeated by them at the Isandhlwana. In the end, the British won the war. Increasingly the British were keen to bring all of South Africa¹⁵ under their control. In 1984, Lesotho became a British protectorate. Ten years after, the Kingdom of Swaziland met the fate.

Cecil Rhodes was Prime Minister of British South Africa from 1890 to 1895 and in 1895, he plotted a rebellion by British settlers¹⁶ in the Transvaal, which was supported by force from South Africa led by Leander Starr Jameson. The aim was to overthrow the government of Paul Kruger, President of the Transvaal. However, Jameson was captured by the Boers. The two Boer republics formed an alliance and hostility between them.

Finally, the war between the Boers and the British began in South Africa in 1899. At first, the Boers were successful, but the Boers were pushed back in 1900. The Boer republics were annexed to the British in 1902. United South Africa was given a constitution, and it became known as the Union of South Africa in 1910. From the start, black Africans were very much second-class citizens in South Africa. Most lived in tribal reserves and laws on 1913 and 1936 prevented them owning land outside certain areas.

In 1914, South Africa joined the First World War against Germany. That year there was a rebellion by the Boers, which was pushed back. Subsequently, South Africa joined the Second World War against Germany in 1939. Six years later, the National Party came to power in South Africa. They set the anti-miscegenation laws. This strict policy segregated different races. Nonetheless, people representing all races in South Africa formed the Congress Alliance in 1955. They adopted the Freedom Charter. Then some of the members broke away from ANC¹⁷, and they formed PAC. Robert Sobukwe led PAC. Both of Congresses planned

¹⁴ The Boers were Dutch settlers

¹⁵ Including Boers republics

¹⁶ The Boers called them Uilanders (foreigners)

¹⁷ Africanist National Congress

demonstrations against the pass laws, which restricted the movements of African original inhabitants. Sobukwe led thousands of people in a demonstration on March 21, 1960. Subsequently, The government banned the ANC and PAC. The Union came to an end when the 1961 constitution was enacted. On May 31, 1961, the country became a sovereign republic, under the new name Republic of South Africa.

Rioting began in Soweto on June 16, 1976. The riots spread, and they continued until 1977. One year later, P.W. Botha became prime minister. He was determined to continue apartheid, and he introduced a new constitution with a tri-cameral parliament in 1983. The tri-cameral parliament was formed to represent each race in the country, except black African. Meanwhile, other countries were increasingly imposing economic sanction on South Africa and inside the country resistance to apartheid grew. Botha was made to resign in 1989 and was replaced by Willem de Klerk, who pledge to end apartheid in 1990. De Klerk introduced a new constitution with rights for all. The first democratic elections were held in 1994, and Nelson Mandela was elected president. He retired in 1999 but the ANC continued to hold power.

Economic development

South Africa's peaceful political transition was one of the most successful political deeds of the past century. The African National Congress (ANC) has been driving the policy agenda since 1994. A sustainable record of macroeconomics prudence and a supportive global environment enabled South Africa's GDP to grow at a steady pace for the decade up to the global crisis. Improvement in the public budget management system played an essential role in the restoration of the macro fundamentals. South Africa has been able to tap into international bond markets with reasonable sovereign risk spreads due to consistent budgetary policies.

South Africa's growth is stuck in low gear with real GDP growth estimated at 2% and the same for 2016 because of a combination of domestic constraints and external headwinds arising from the fall in commodity prices and a slowdown in the Chinese economy. The weak performance caused high unemployment, inequality and macroeconomics vulnerabilities. The growth of GDP was 3.9% in 2008; subsequently, GDP growth rate fell to -7.8% in 2009. Latter year, the growth of GDP increased to 8.5%.

The weak economic outlook has made the fiscal outlook more challenging. The Government announced an adjustment package of expenditure saving and tax measures to reduce the budget deficit from 4%GDP to 2.5% in 2017/2018 and stabilize the gross debt burden at about 50% GDP.

Social development

The poverty rate is extremely high. Over half of South Africans live below the national poverty line, and more than 10% live in extreme poverty, on less than \$1.25 (R15.85) per day. The wealthiest 4% of households receive 32% of total income while 66% of households receive only 21% of all income. The poorest citizens are often those least likely to contribute to such environmental stresses as, for example, 24% of the population have no access to electricity.

Despite a high level of poverty and extreme poverty, the Gini coefficient is not so much different from Botswana. The Gini coefficient was 63.1 in 2011. The lowest level of Gini coefficient was logged in 2000. The value of the coefficient drops down to 57.8. The high unemployment rate also causes bad living standards. The unemployment rate was 24.5% in March 2016.

South Africa also combat HIV/AIDS as the rest of Southern African countries. In South Africa is 19.1 % HIV/AIDS prevalence. It means 6.3 million people in total. South Africa has the largest antiretroviral treatment programme globally, and these efforts have been largely financed from its domestic resources. The country now invests more than \$1 billion annually to run its HIV and AIDS programmes.

6 Regional differentiation of selected countries in Sub-Saharan region

Regional differentiation of Sub-Saharan Africa¹⁸ will be examined in many areas of economy and social fields. The main focus will be on Botswana and South Africa. Botswana and South Africa are one of the most prosperous countries¹⁹ and differ from most of the countries in the

¹⁸ All of comparism made between Botswana and Sub-Saharan Africa average excludes South Africa.

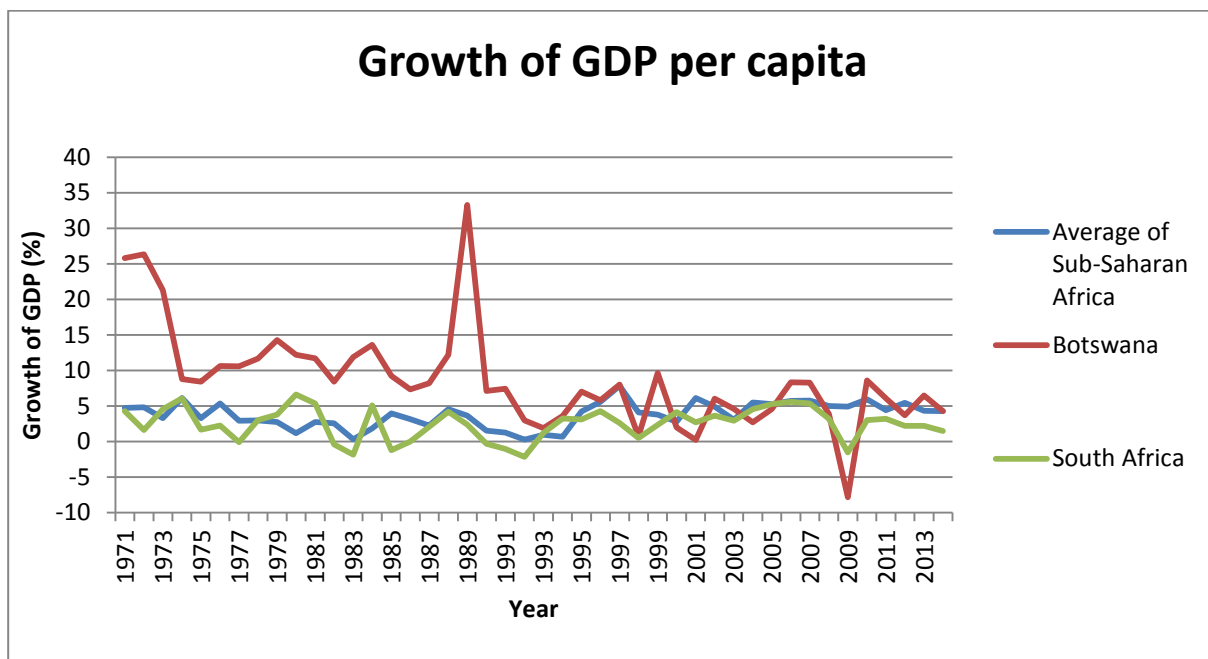
¹⁹ According to The Legatum Prosperity Index 2015

region. Botswana will be compared in many aspects with South Africa because of their economic strong bond.

First of all, there will be examined the impact of capital accumulation on the economy growth. Subsequently, there will be shown a comparison of economic indicators and deal with the biggest economic challenge of economies focused on mining industry – Dutch Disease. In the end, there will be examined the impact of poverty, income inequality of income, population growth on the economic situation. Nowadays, Botswana and South Africa belong to middle-develop countries and not into the group of developing countries. Although, the period that this thesis takes into account is around 50 years. Within this time, countries developed from developing the countries to middle-develop countries.

6.1 Overview of economical situation in Botswana and South Africa

Gross domestic product per capita is one of the main economic activity measurement; nonetheless, it is not a complete measurement. It only accounts for final output or value added at each stage of production. However, it does not include total output or sales along the whole production process. The measurement does not cover B2B transaction in the early, and intermediate stages of production nor sales of used goods and work are done for free – especially in agriculture. The exclusion of these factors can rapidly change the view on the economic situation. These excluded factors can have a significant role in less developed countries.



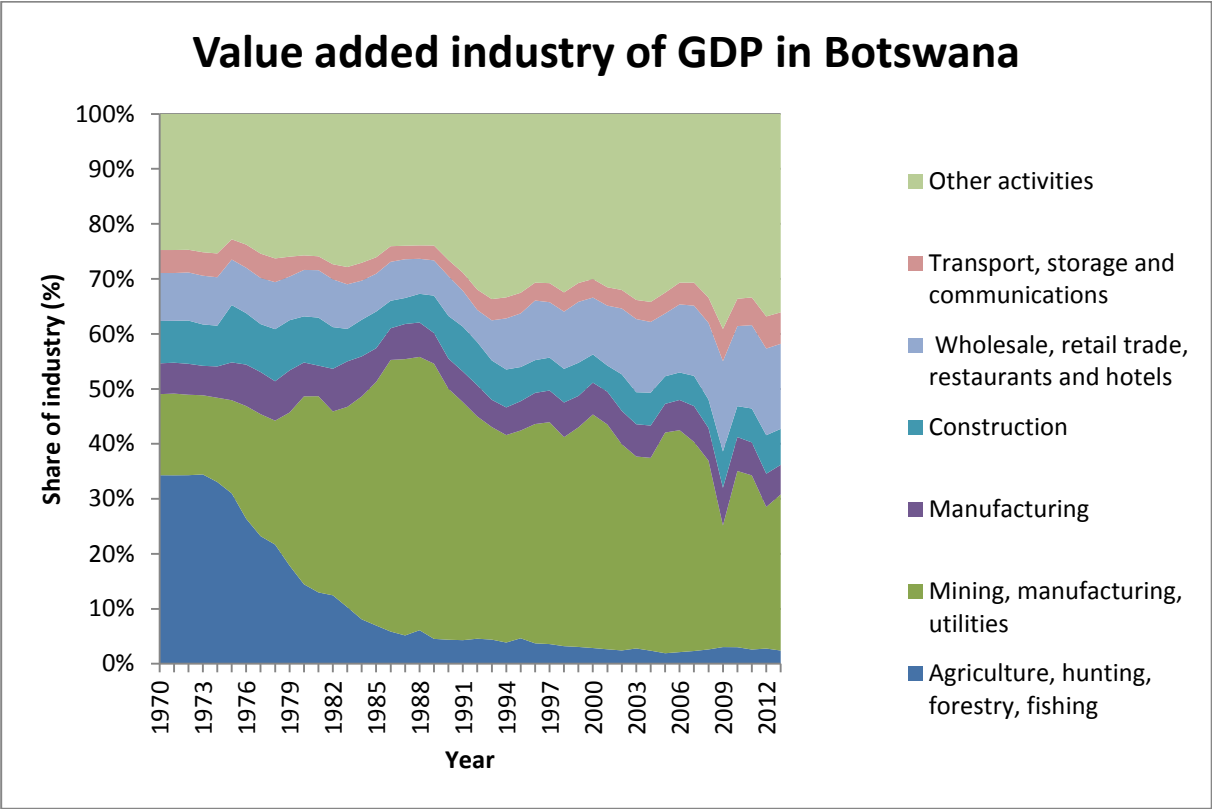
Source: UNCTAD

Figure 7 Gross Domestic Product rate per capita

Botswana's GDP per capita grew right after gaining the independence. The growth of the economic activity dropped down when the country established own governance and stabilized it. Subsequently, the big boom came in 1981. Diamonds has been found in Botswana, and its economy was profiting from mining (this issue of natural resources and Dutch disease is examed in the next chapter). The lowest decline of GDP was registered in 2009. The economic crisis of advanced economies had a huge impact on natural resources trade. It signaled the need for a diversification of Botswana's economy.

The growth of South African GDP is more stable than in Botswana. Nonetheless, there is a decline of GDP in past four years. The first discovery of gold was in 1970. Since then there continuously found new places of discovery of gold, diamonds and platinum. There was not any particular natural resource boom.

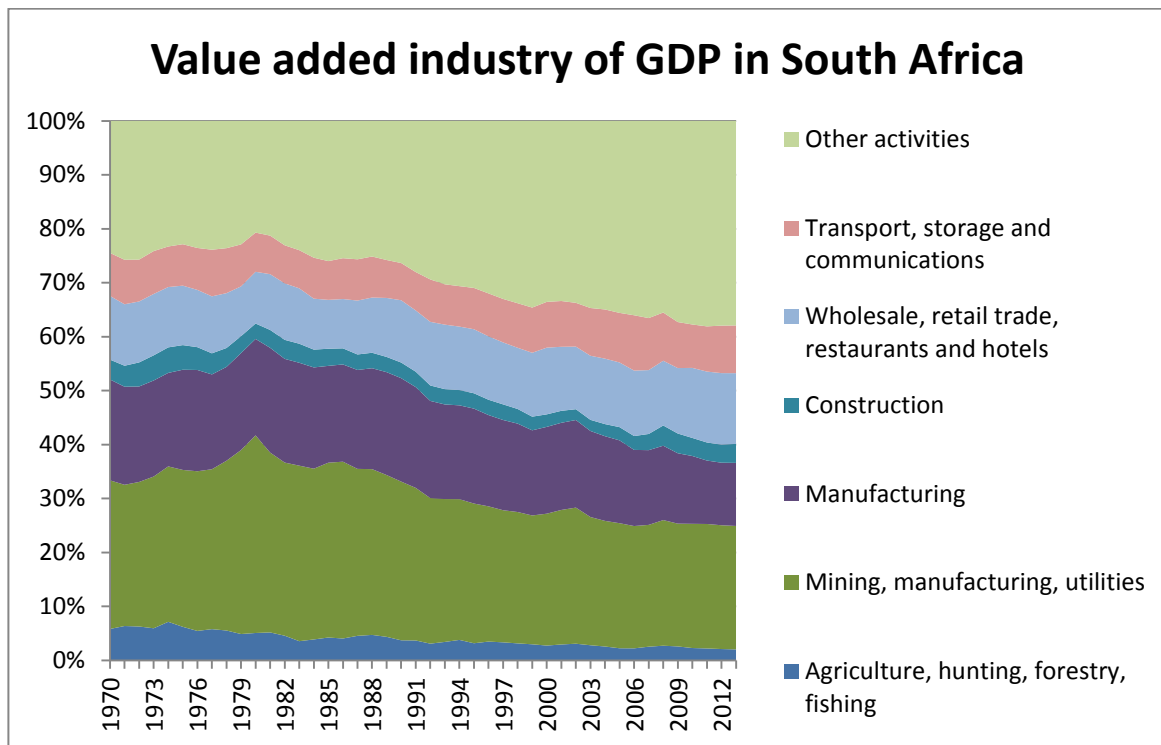
From the Fig. 8, it is apparent that agriculture is having the minimal share of value added industry. This is exceptional result in Sub-Saharan countries. Agriculture usually has over 20% of value added industry of GDP. Services which includes wholesale, retail trade, restaurants, hotels, transport, storage, communication and other activities represent more than 60 % of GDP.



Source: UNCTAD

Figure 8 Value added industry of GDP

Overall, agriculture accounted only 3 percent of GDP, industry (including mining) accounted 57, and services participated 40 percent in domestic production in 1987. The policies the government has followed since diamond mining began have been aimed at avoiding a build up of debt and stabilising growth. During times of exceptionally high diamond prices, the government saved a substantial portion of the windfall gain in government revenues in the form of foreign reserves rather than increasing expenditures. This type of policy buffers consumers from shocks due to changes in commodity prices. In 1989, it was registered one of the extraordinary growth of Botswana. The GDP growth reached 33.2 percent. The central government expenditures on education, health, and social services have increased rapidly since 1972.

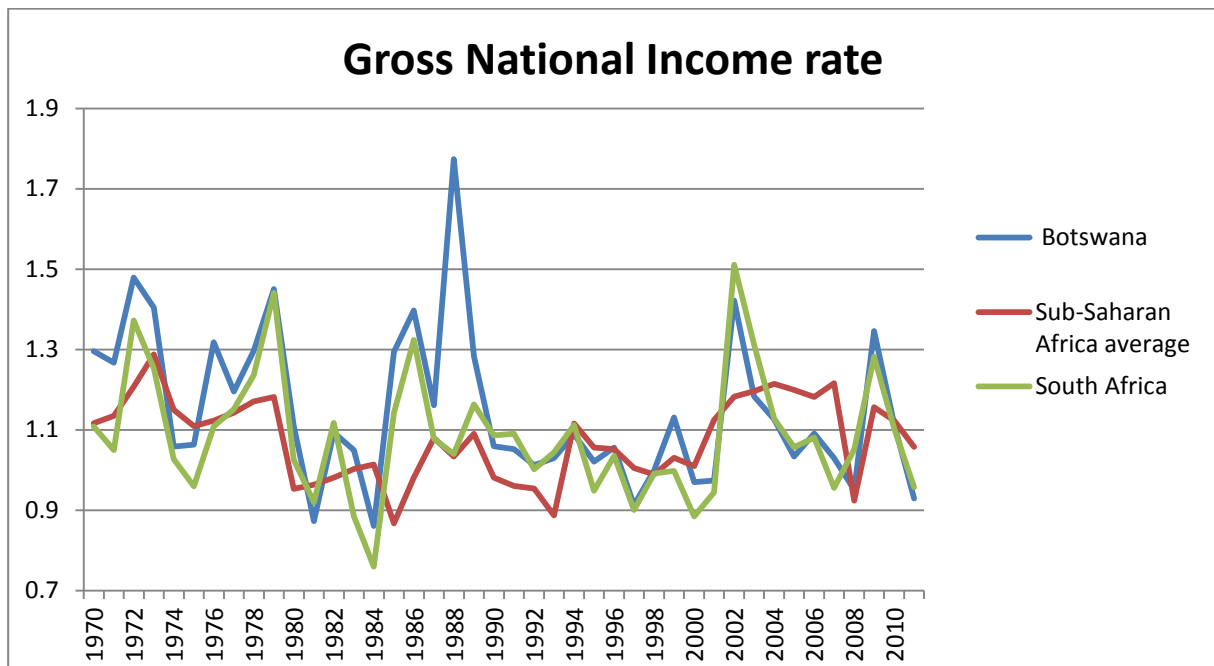


Source: UNCTAD

Figure 9 Value added industry of GDP in South Africa

Recently, the largest value added industry of GDP is so called other activities (Fig.9) which include financial intermediation, real estate, public administration and education. The mining industry is slightly shrinking as the manufacturing sector. This is caused by growing amount of FDI invested in the financial sector. What the FDI flow into mining sector was 6% lower than into financial sector. The various portfolio of industry and development trial sector is a good sign of progress in economic development.

As it was stated in Chapter 2.1, Growth of GNI is the main criteria of the development for many international organizations. Nowadays, both of countries do not belong to the group of low-income countries anymore. Nonetheless, the time span on which is put emphases in this thesis reaches to the time when these two countries were still developing.



Source: UNCTAD

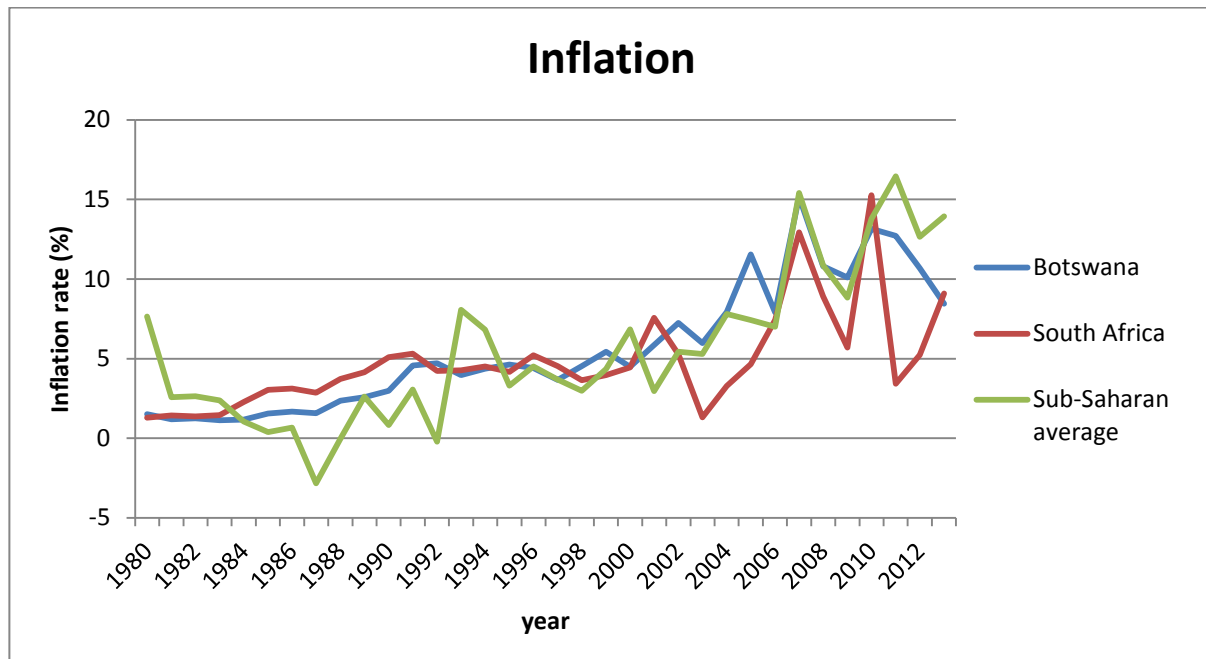
Figure 10 Gross National Income rate

The maximum GNI value of 22.1 was reached in 1988. Fluctuation in the price of diamonds caused the fluctuations in the income of Botswana. Because of the high degree of heterogeneity of diamonds, no standard price series is available. According to an index of real unit value for diamonds, diamonds prices rose between 1978 and 1980, fell for the next two years, and then again rose rapidly between 1982 and 1985. The slowing of Botswana's income in the first years of the 1980s, along with the sharp increase in GNI in 1985, reflects these movements in diamond prices.

In the real numbers, Botswana's GNI per capita was \$14 015 in 2012. On the other hand, South Africa's GNI per capita amounted to \$375 785 in the same year. In that year, Botswana's GDP per capita amounted to \$14 411, and South Africa's GDP was \$397 388. It indicates that the gap between GDP and GNI per capita is -2.75 % in Botswana.

The gap between GDP and GNI is -5.5% in South Africa. Compare to other countries of the Sub-Saharan region, the gap between GDP and GNI is -2.5% in Angola and -46% in Nigeria. The value of GNI decline and it was on the lowest level in the last ten years in 2012. Otherwise, the development is very similar.

The inflation rate is a problem in many countries of Sub-Saharan Africa. Neither Botswana has avoided this issue. Stable rate of inflation lasted only by 1990. Since then Botswana's inflation is growing and very unstable, especially in last 12 years.

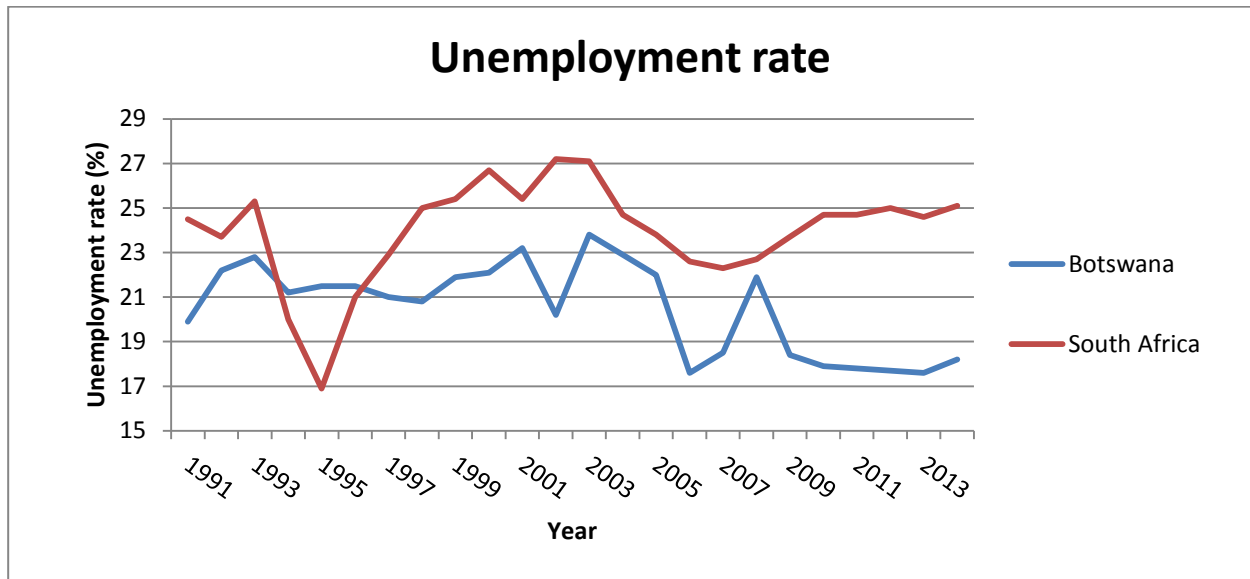


Source: UNCTAD

Figure 11 Inflation

The value of capital is very unstable, and it makes the situation worse off for potential investors. Botswana is a small country which is import oriented. The majority of imports both originate and pass through South Africa. The direction of causality between South Africa and Botswana is almost unidirectional regarding price influence. Hence, while Botswana's prices have very limited influence, that of South Africa will continue to exert its pressure on price movements in Botswana.

Another issue typical for Sub-Saharan countries is unemployment rate. Before the economic crisis, unemployment rate rapidly declines in both of countries. However, the crisis affected labour market; especially labour market in the mining industry in Botswana and manufacturing industry in South Africa. Next years, the situation on labour market better off in Botswana. In 2014, the rate reached only over 18 %. It is very decent result in comparison with South Africa. Inflation had recorded enormous slump and subsequently the indicator had growing tendency. However, currently, the rate of inflation is comparative similar.



Source: UNCTAD

Figure 12 Unemployment rate

Since the crisis, the labour market in services sector extended and it has caused such a decline. Nonetheless, the government is still criticized for difficulties in founding a business which demotivates domestic and foreign businessman. These administration obstacles also influence the accumulation of capital in Botswana.

South Africa's mass unemployment dates back to the 1980s. Unemployment has increased substantially since the African National Congress came to power in 1994, going from 16.6% in 1995 to 27.3% in 2001. The Labour Force Survey 2005 found that 40% of unemployed individuals have been unemployed for more than three years while 59% of youth have never had a job at all.

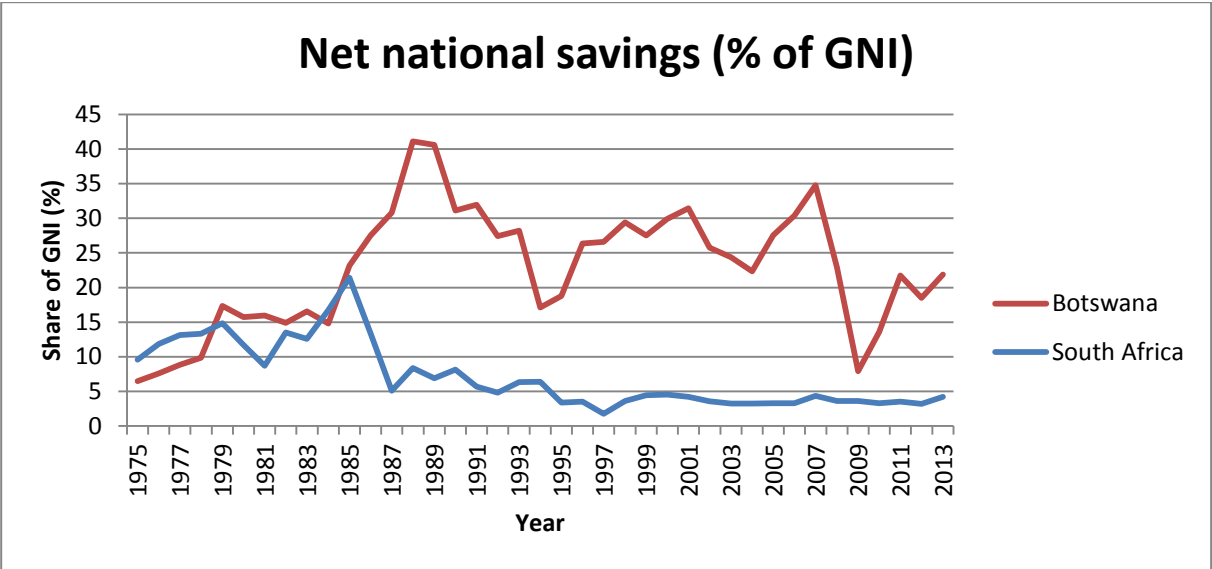
6.2 Accumulation of capital

The main attributes of accumulation of capital on macroeconomics level are national savings and investment; especially foreign direct investment in developing countries. Accumulation of capital is the core of Harrod-Donar growth model.

Savings

In simple economic models, the national savings is assumed to be the same as national investment, which is the total amount spent on securities, funds, and similar investment

instrument. A high national savings rate indicates lower levels of debt, and it is positive. However, in an economy driven by consumer spending, a high savings rate may indicate uncertainty or lack of consumption, which can lead to a slowdown or recession; this is a case of advanced economies, not developing economies.



Source: UNCTAD

Figure 13 Net National Savings

Botswana experienced natural resource boom in 1981. Nonetheless, the government had started to save income from diamonds and created funds from which has been financing mostly education and health care. The attitude of the government and its policy was crucial and injudicious expenditures could become one of Dutch trigger Disease.

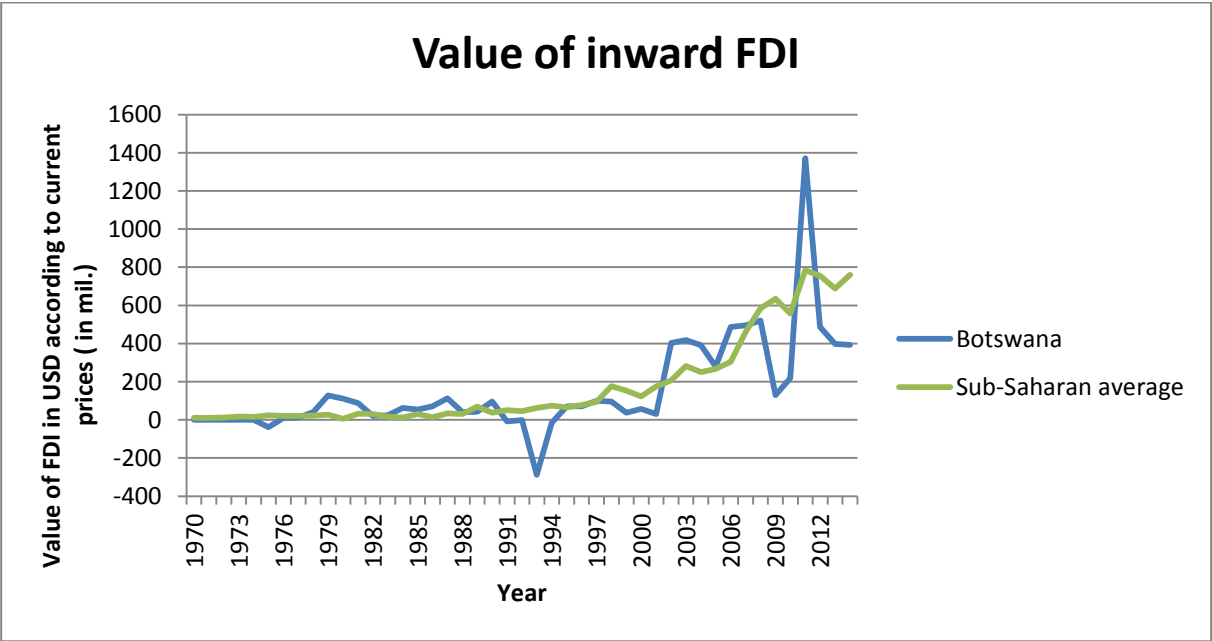
In contrary, South Africa rapidly shrink its national savings between years 1985 and 1987. During the period 1979-1984 the saving rate was at a higher average level of 13.7 % of GNI and 26,7 % of GDP, but saving policy was strongly influenced by the windfall profits of gold-mining companies when the price of gold reached exceptionally high level during this period. After this gold boom, the national saving got to 4,4 % GNI in average.

Foreign direct investment

Botswana is a small economy, and domestic capital is very limited. On the other hand, there are a lot of opportunities for investment; especially in the mining industry and recently in the communication sector. This increases the importance of FDI. Likewise in South Africa, where

The scenario of which was stated in chapter 3.1.2 is the status quo in Botswana, where the majority of FDI reaching the country is concentrated in the diamond mining sector of the economy. However, the investments have not translated to job creation as the sector only contributes 5 % to employment; whereas unemployment remains high over 18%. This situation is similar in South Africa due to similar percentage of value added industry of GDP of the mining industry.

Between 1870 and 1914 investment in developing countries increased rapidly, as FDI developed harbours, roads, and infrastructure to exploit the possibilities of primary exports. The real value of foreign capital in developing countries as the world economy slowed down. In real terms, the value of foreign capital in 1950 was only 27 percent of that in 1914. The value of inward FDI dropped from 235.4 billion to 63.2 billion dollars As a proportion of GDP It was down to half its 1870 level. After 1950, there was an explosive increase in the value of foreign capital from 63.2 billion dollars in 1950 to 7 884 billion dollars in 2012. In 1970, the value of inward FDI was only 833 million dollars in Sub-Saharan Africa. Nowadays, the total value of FDI is approx. 43 billion dollars in the whole Sub-Saharan Africa.



Source: UNCTAD

Figure 14 Value of inward foreign direct investment

Despite the stable politics situation in Botswana and safe financial system, the amount of inward FDI is not exceptional. Foreigners companies wishing to invest in Botswana are required to register their enterprise under the Companies Act and are likely to be required to obtain a license given current Trade Act enforcement trends. Recently, Botswana’s

performance on the “Starting a Business” indicator declined in the World Bank’s Doing Business 2011 report. Especially, because Botswana has been slow to streamline procedures required to start a business while other countries have bolstered their ranking. The time needed to start a business in Botswana is long by international standards. The time span is around 61 days. One of the step to fix this inconvenience is to allow fully on-line company registration and the legalization of electronic signatures.

A license is required to operate a variety of businesses in Botswana. These include banking, non-bank financial services, transportation, medical services, mining, energy provision, and the sale of alcohol. Botswana’s license requirements for these businesses are justified on public interest grounds and are consistent with international best practice.

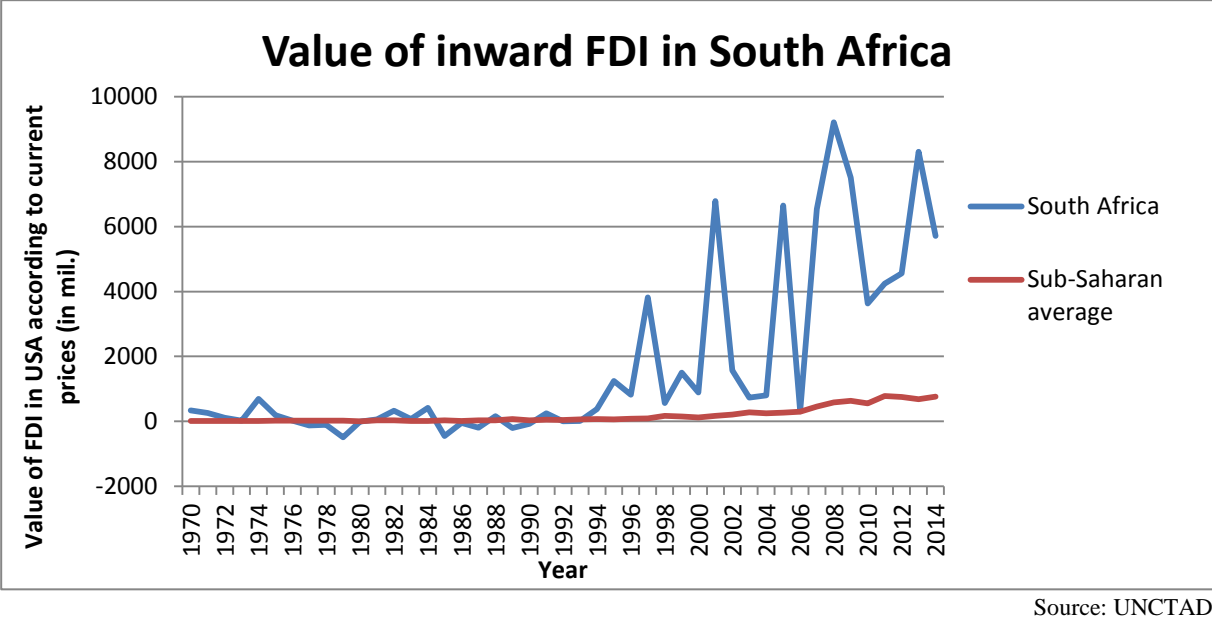


Figure 15 Value of inward FDI in South Africa

South Africa remains constrained by some legislative uncertainties that discourage foreign investors. However, in December 2015, the Government passed the Protection of Investment Act, which strengthens the legal safeguards for foreign investors. Despite this, South Africa has dropped by a large number of places in the rankings of the Doing Business report of the World Bank (placing 73rd out of 189 countries in 2016 compared to 43rd of 189 in 2015). Moreover, the country is looking for foreign investors for its energy infrastructure projects. With this aim, the country has been strengthening its partnership with China. FDI flows to South Africa dropped sharply in 2015 according to the annual report on FDI issued by UNCTAD.

Table 1 Main invested sectors by FDI

Main invested sector	Share (%)	
	Botswana	South Africa
Mining	71	30,9
Manufacturing	1,2	17,9
Finance and real estate	22,6	36
Retail and wholesale	2,5	5,3
Transport and storage	1,5	9,4
Other	1,2	0,5

Source: South Africa Reserve Bank 2014

The largest share of FDI in Botswana is concentrated in the capital-intensive mining sector. It is the investment by Debswana Diamond Mining Company, as a result of the 50/50 joint venture between De Beers of South Africa and GoB. The mining sector is followed by the financial services and retail sectors. This is due to the presence of foreign ownership in the top banks in Botswana; for instance Barclays (UK), Stanbic (UK), Standard Chartered Bank (UK), FNB (SA), Investec (SA) and Bank of Baroda (India). Stanbic and Bank of Baroda are 100% foreign-owned; country of domicile indicated in parentheses.

Most of the inward FDI go to finance and real estate in South Africa. There are also many foreign ownerships in the top financial institutions such as Barclays (UK), Lloyds Banking Group (UK), HSBC (UK) and Mercantile Bank (USA). Nearly all the business sectors are open to foreign investors. Any special government approval is required, and there are almost no restrictions on the form or the extent of foreign investment. Other measures taken by the government are simple tax rules, investment incentives, a better regulatory policy on competition, protection of intellectual rights.

Table 2 Origin of FDI

Origin of FDI (%)						
Region	North and Central America	Europe	Asia Pacific	Africa	Middle East	Other
Botswana	1,01	75	1,1	21,9	0,31	0,69
South Africa	7,9	73,5	6,2	11,2	0,9	0,3

Source: South Africa Reserve Bank 2014

This Tab. 2 affirms the previous Tab. 1. The largest share of origin of FDI in Botswana is from Europe. As it was stated, investments from the United Kingdom are very common. It is

caused by the closed relationship between Botswana and the United Kingdom from history. Then, Africa has the second large share in FDI. Especially South Africa is investing into Botswana's economy.

The biggest share of FDI flow from the United Kingdom (45,6%) and the Netherlands (18,6%) to South Africa. South Africa has robust business bound since the United Kingdom and the Netherlands colonized SA in the last century. South Africa is the third largest FDI recipient in Africa, after Nigeria and Mozambique, and the largest FDI provider.

6.2.1 Symptoms of Dutch disease in Botswana

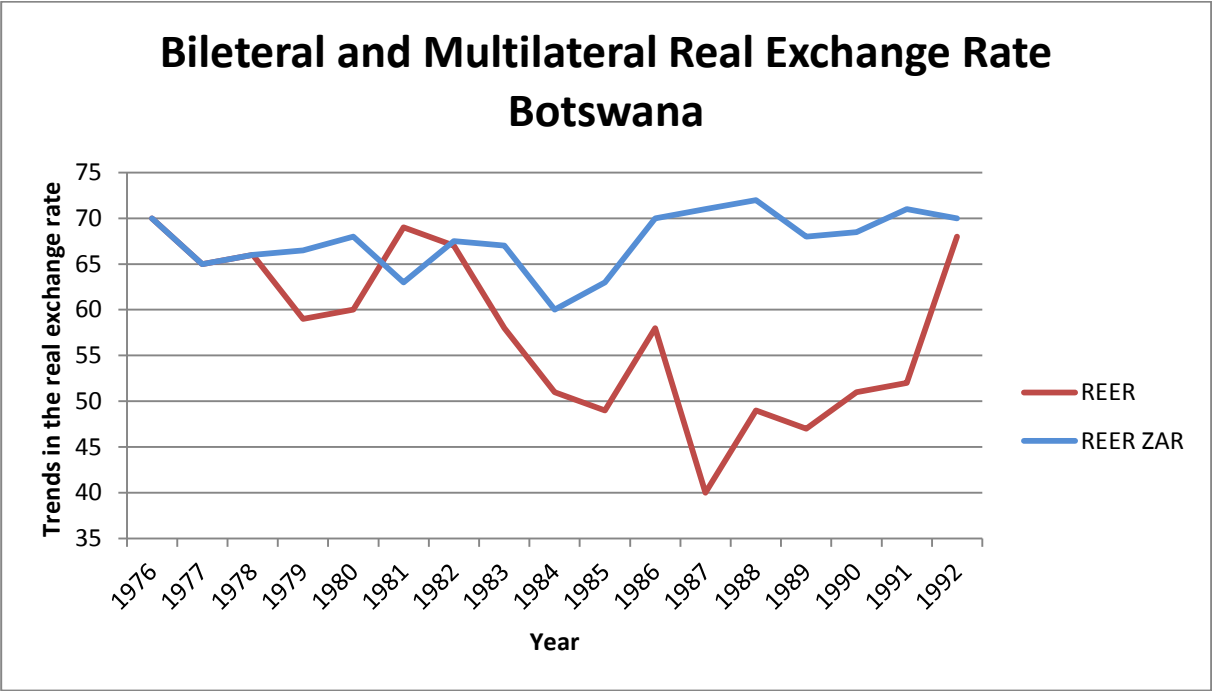
The economy of Botswana highly depends on natural resources. This dependence often causes Dutch Disease. This long-term economic issue has affected many countries in the Sub-Saharan region. As theory predicts, a Dutch disease is normally identified by an appreciating real exchange rate, and by a rise in wage rates of the non-tradable sector. Subsequently, the increase in the value of the nation's currency, making manufactured goods less competitive with other nations, and it caused increasing imports and decreasing exports.

It is evident that the discovery of diamonds had a huge impact on Botswana's economy. Nevertheless, the economic growth declines at the beginning of the 90s. Botswana's economy did not suffer from Dutch disease according to studies²⁰. Nonetheless, Botswana experience symptoms of Dutch disease such a real exchange rate appreciation. Fig. 16 shows both the multilateral real exchange rate (REER²¹) and bilateral real exchange rate with South Africa (REER ZAR²²). The latter is chosen for comparison since South Africa is a major trading partner. The effect of which was a decline in some manufacturing industries, most notably textiles. Overall, the sector did not decline in absolute terms, although there is evidence of a diminishing growth rate during the boom period.

²⁰ "Botswana's diamonds boom: Was there a dutch disease?" by Imogen Mogotsi or "Botswana: is the Economic Miracle Over?" By Charles Harvey

²¹ Real Effective Exchange Rate – it is weighted a country's currency to a basket of other major currencies adjusted by the effects of inflation.

²² Real Effective Exchange Rate of South African Rand

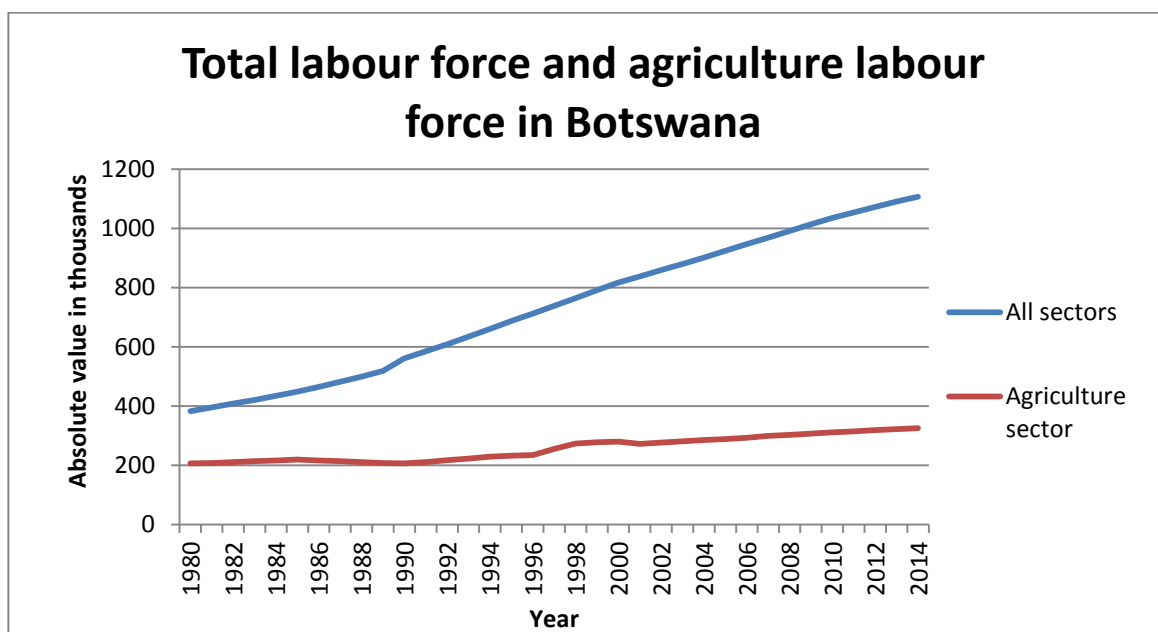


Source: IMF

Figure 16 Bilateral and Multilateral Real Exchange Rate

It is obvious from Fig.16 that mining raises the value of currency. An appreciation of the currency was biggest in 1987. However, Pula depreciated against the South African Rand due to relatively lower domestic inflation rates, the bilateral real exchange rate with South Africa depreciated during the boom period, as Fig. 6 shows. The appreciation of the currency is the first symptom of Dutch Disease.

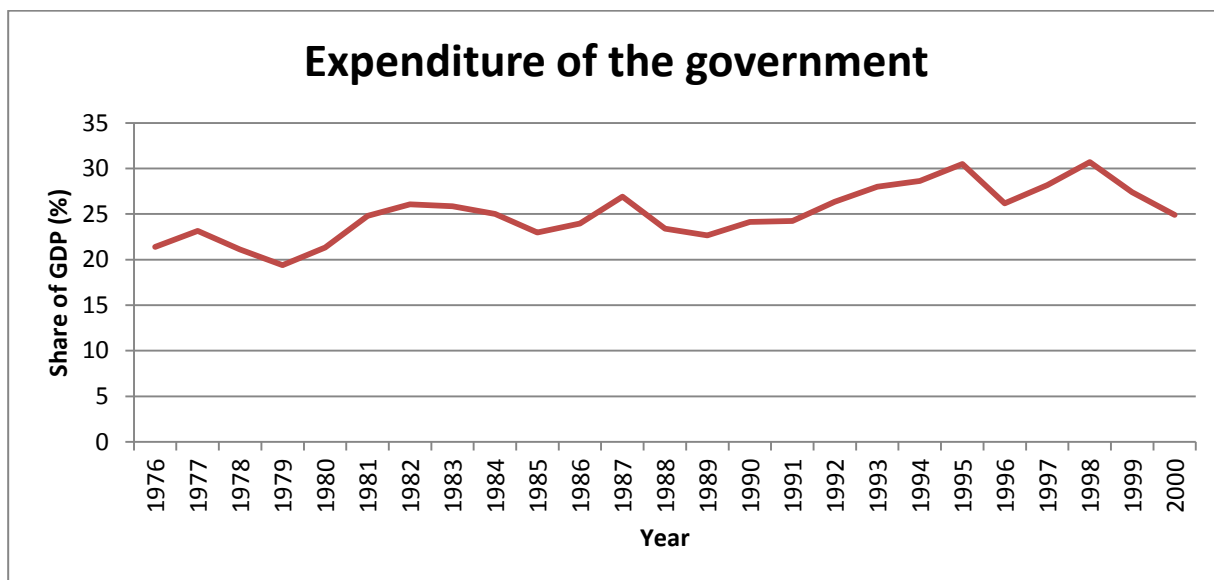
It goes along with shifting labour force from agriculture sector to mining sector. From the following figure, it is evident that amount of labour force in agriculture stagnated. However, there was not any significant decline.



Source: UNCTAD

Figure 17 Total labour force and agriculture labour force

A Dutch disease tends to be associated with excessive spending, whether public or private. Thus, this becomes a symptom of the disease. The central government expenditures rapidly increased on education, health, and social services since 1972. For example, the share of GDP allocated to public health expenditure rose from 2.02 percent in 1972 to 2.80 percent in 1987. Furthermore, since the early 1980s, the government has run a large-scale food security program that aims to insulate rural households from the adverse effect of drought, as well as generally to improve the nutrition of poor rural children. According to evidence, rural living standards have risen. Nevertheless, any conclusions about how well various groups are doing await more comprehensive information on the distribution of both private incomes and government expenditures.



Source: World Bank

Figure 18 Expenditure of the government in Botswana

As indicated in Fig. 16, during the post-boom period, the real exchange rate started to appreciate. However, the government continued the same spending policy and did not adapt to the new conditions. There is the evident difficulty of slowing down government expenditures and spending when the boom era was over. These results indicate that Botswana seems to experience Dutch disease symptoms.

The effect of Dutch disease is a decline in manufacturing industries. The manufacturing sector is taken to represent trades and not-tradable goods which are represented by transport, electricity, water and construction sectors.

In an economy characterised by unemployment, as booming sector wage rates together with those of the non-tradable rose about those of manufacturing, there was no decline in manufacturing employment, contrary to Dutch disease theory.

According to Collier (2009), however, the decline in agricultural production did not affect economic growth because agriculture has been dynamically developing the sector of the economy, which had many opportunities to develop technology and productivity growth.

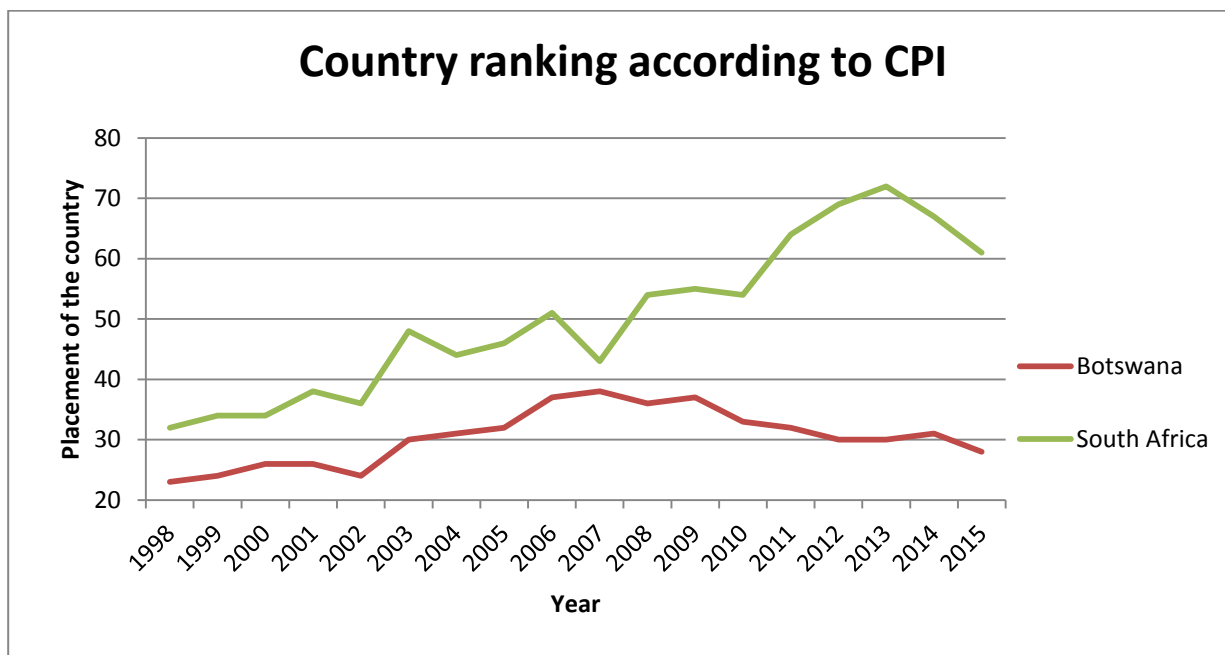
Neither the work of economists Sala-i-Martin and Subramanian (2003) was not confirmed in this case, the direct effect of mineral resources on economic development. In his work, the authors did a research conducted on this topic, but recently with the experience of Nigeria. Conducted empirical research, which detects the main reason for stagnation in GDP growth after the discovery of oil. Three ways that can affect economic development are exaggerated

by currency appreciation, volatility of commodity prices and the quality of institutions. These factors have added conditional variables, which of the possible selected seventy-five: the initial income, the number of students enrolled in primary schools, the relative price of investment goods, the incidence of malaria and population living within 100 kilometers from the coast.

The results of their calculations refute the direct influence of mineral resources. But for sure, they confirm their indirect influence over the negative effect of well-run institutions. However, if the institutions are effectively controlled, the impact will be negligible natural resources.

This conclusion stresses the importance of high standard of governance. One of the most common indicators of right functional governance is the level of corruption. Some authors concede certain positive effects on corruption, as inefficient structures might be overcome “*Grease in the wheel*” (34). However, corruption can strongly influence development, as crucial institutional prerequisites for development do not emerge. It refers to “*Sand in the wheel*”. But the positive effect of corruption is only short term (5).

Causes of corruption are various. It can be direct or indirect factors. Among direct factors are included regulations and authorizations, taxation, spending decisions, provision of goods and services at below market prices, financing parties. Indirect factors of corruption are the quality of the bureaucracy, level of public sector wages, penalty systems, institutional controls, transparency of rules, law and processes or examples by the leadership. These problems are very common on the African continent. However, this is not a particular problem of Botswana. Botswana combat corruption very well. On the following figure is shown a comparison with South Africa.



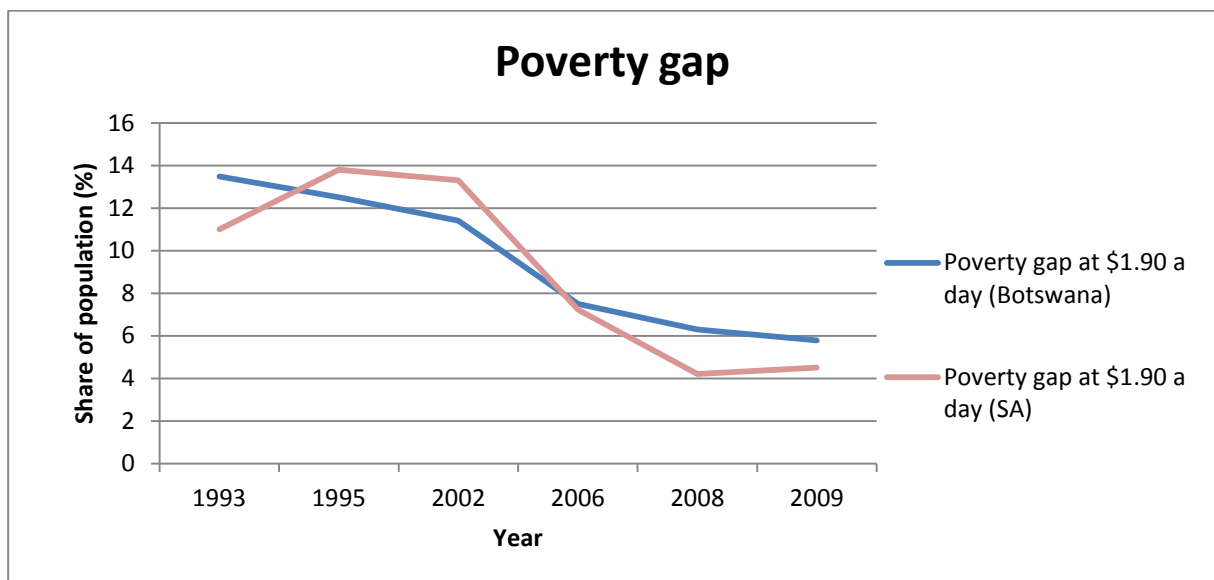
Source: Transparency International

Figure 19 Corruption Preception Index

Botswana does not have many issues considering corruption. Botswana is approx. 30 places above South Africa in the ranking. This result is the best on the African continent. This aspect together with the reasonable expenditure of government caused that Botswana did not get into economic recession despite the depreciation of the exchange rate and shifting labour to mining.

6.3 Poverty, inequality and population growth

The poverty gap is defined below \$1.90 per a day or \$3.10 a day. However, there is a significant difference between living standard for \$1.90 per a day or \$3.10 a day in rural area or agglomeration. The poverty profile defines poverty among various socio-economic and demographic groups. They are helpful in understanding which groups should be targeted for poverty reduction policies. The risk of being poor is greater in rural areas, compared to urban settlements. For example, the poverty incidence in urban and urban villages is 10.8 percent and 29.9 percent, respectively in 2002-2003, whereas the incidence is 44.2 percent in rural villages. Inhabitants in rural area are mostly depended on agriculture instead of money. Inhabitants living in the agglomeration and slums depend on their financial income and absence of money cause social problems and rises criminality.



Source: World Bank

Figure 20 Poverty gap

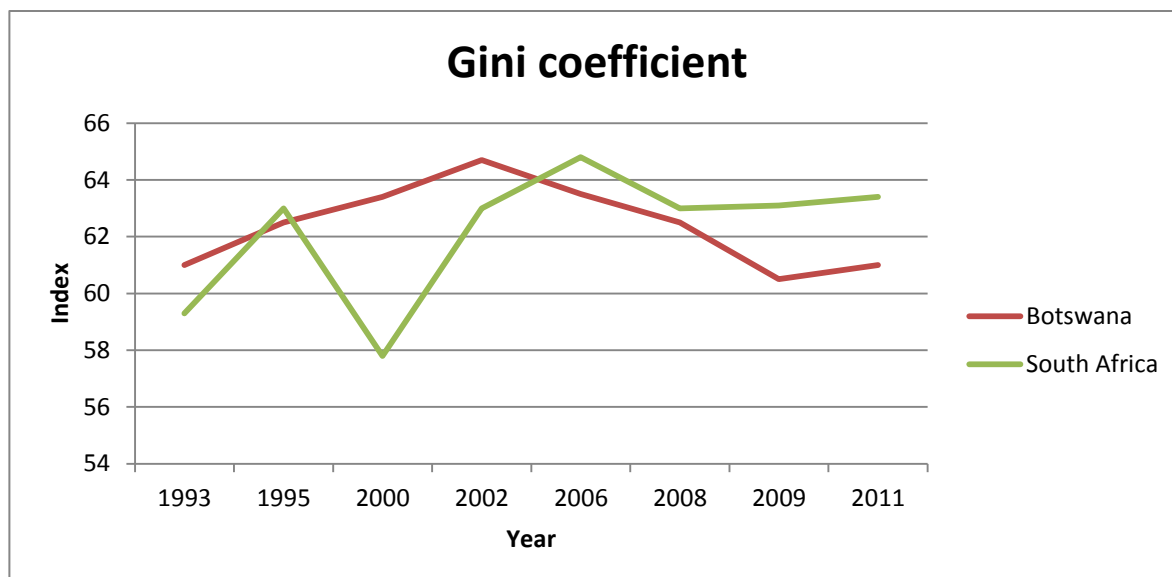
Before the National Strategy for Poverty Reduction was adopted in 2003, poverty reduction initiatives were somewhat fragmented, without a clear and concise policy framework or guidelines for addressing poverty. The result was uncoordinated interventions which yielded insignificant results regarding reducing poverty. It is evident from the Fig. 20, that since 2003, the slope of poverty gap has been decreasing faster.

The amount of inhabitants living in poverty rapidly declines in Botswana. Nonetheless, there is a significant difference between the living standard in rural and urban areas. Despite this difference, there is not strong tendency to move from rural areas to larger agglomeration. This is crucial fact. Therefore, it causes absolute absence of slums in agglomeration.

According to World Bank, 4.7 percent of South Africans live in extreme poverty, not being able to pay for basic nutritional requirements; 37 percent of people don't have enough money to purchase both adequate food items and non-food items. Regrettably, the urban structure is different than in Botswana. There are many slums around big agglomeration where live millions of South Africans. Extreme poverty and high concentration of slums made South Africa country with one of the biggest criminally rates in the world.

The poverty goes with income distribution and inequality. There are three groups of variables which have a significant impact on income inequality. The first group contains secondary school education, training, VAT, the number of paid employees and number of children. The second group includes household residents in the urban areas. It also depends whether the household is headed by a male or female because the unemployment rate of female is

higher than male. There is higher probably of poverty in a household which are headed by a woman. The third group comprises primary education, age, ownership of cattle and social safety nets. According to Okatch (2012), the first group of the variable has the biggest impact.



Source: World Bank

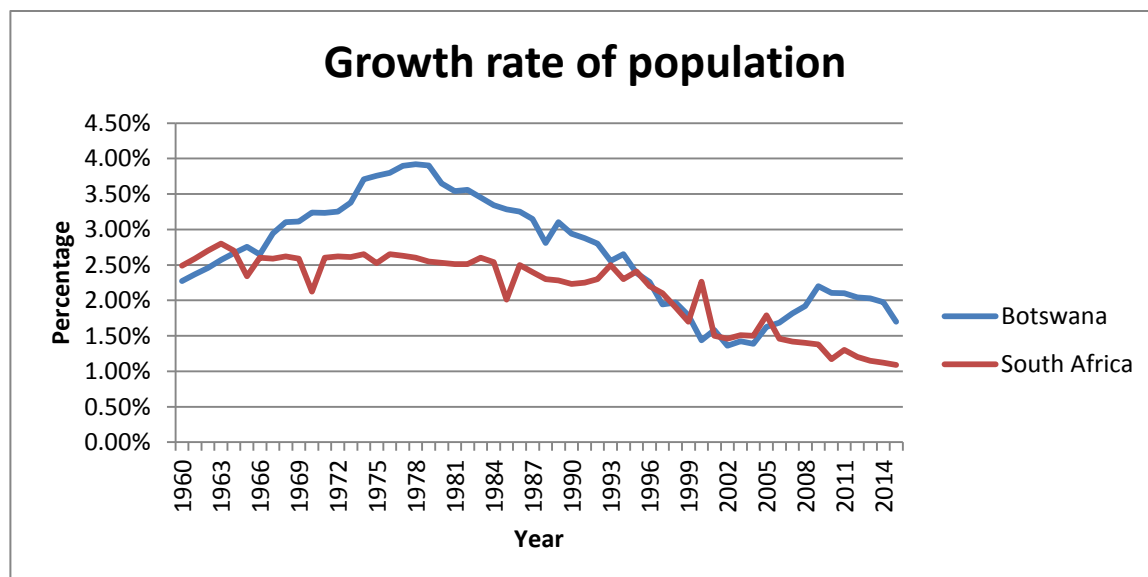
Figure 21 Gini coefficient

The Gini coefficient of Botswana was 61 in 2011. The value of the coefficient is still high, although it is evident that there is an improvement since 2003. As it has been already stated, in 2003 government created combat strategy poverty. Dealing with poverty had also impact on reducing inequality among Botswanians. However, this is an absorbing phenomenon because Botswana's CPI is very low and corruption is usually one of the main factors which cause income inequality.

South Africa has the highest income inequality in the world. The CPI is relatively high. It is placed in 61st place in world ranking. Also, the existence of the slums split the society. Population living in slums is mostly separated from the education system, and this increases the probability of unemployment, criminality, and poverty.

The population of Botswana is over 2 million. It is fourth times more that in 1966 when Botswana has become independent. The growth rate of the population declined between years 1979 and 2003. In 2006, the total population of Botswana was estimated at 1,773,240. Age distribution shows that 35.4 percent of the population is below the age of 15 years while 59.5 percent is aged between 15-64 years and 5.2 percent above 64 years. The estimates for life expectancy at birth stand at 54.4 years for the national population, while it is at

55.2 and 52.4 years for urban and rural populations respectively. Overall, fertility in Botswana has been stable in recent years, following a sustained decline since the 1980s. From a total fertility rate of 6.6 births in 1981, the rate fell to 3.2 births in 2006.



Source: World Bank

Figure 22 Growth rate of population

The decline in fertility was caused by HIV/AIDS epidemic. Currently, almost every fifth person struggle with HIV/AIDS infection. Botswana has the third highest HIV prevalence in the world, right after Lesotho and Swaziland at 21.9%. South Africa has the fourth highest HIV prevalence. Prevalence had declined in recent years from 25.4% in 2005 to 21.9% in Botswana in 2013, and there is 19,1% HIV prevalence in South Africa.

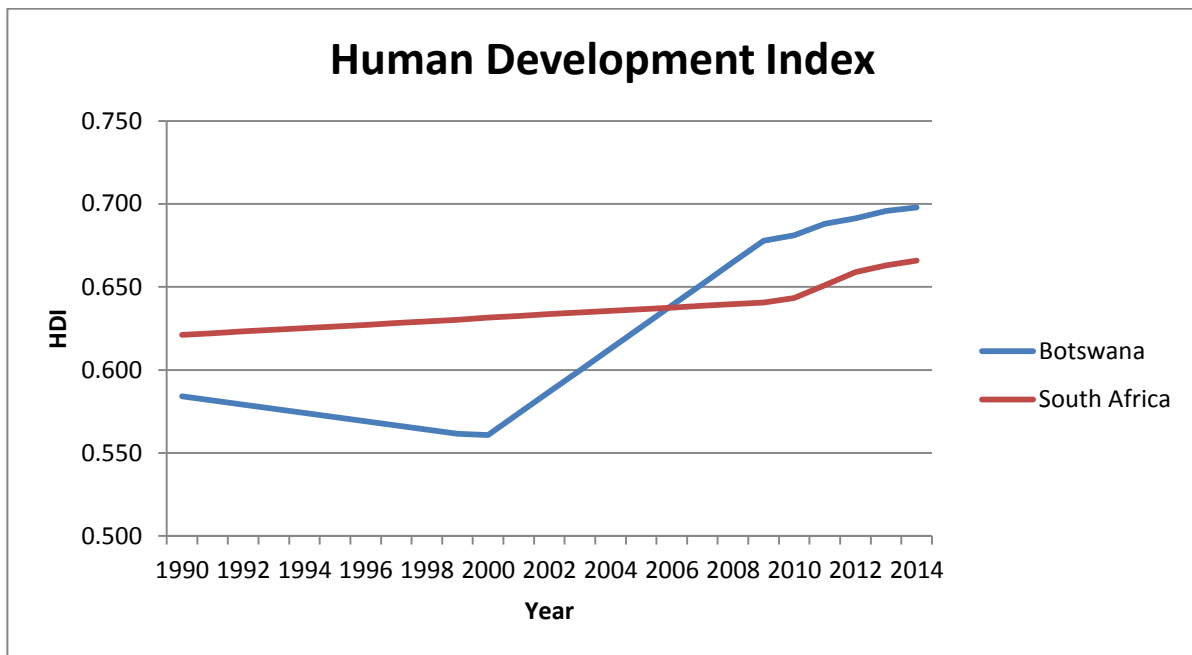
The close relationship between the government and private sector permits a high level of health expenditure in Botswana. Almost 7 percent of public expenditure is in healthcare; a number which has risen from \$69 million to \$165 million between 2001 and 2005. As it was stated, Botswana is uncorrupt country. This raised the question why HIV/AIDS has become such a burgeoning problem when money are concentrated in healthcare. One of explanation is the last of practical education in preventative measures. World Health Organization study showed that only 33 percent of Botswanan men and 40 percent of Botswanan women could identify two ways to prevent transmission of the virus. However, the Botswanan government has taken steps. Employers are required to provide their workers with comprehensive AIDS education.

According to Statistics South Africa, in 2014 6,3 million of the population was living with HIV; including about one-fifth of South African women in their reproductive ages. In April 2010, the government launched its HIV Counselling and Testing campaign, which offers free testing to all patients at public hospitals and clinics across the country. The HIV/Aids prevention and treatment plan for years 2012-2016 aims to reduce the rate of infection in the country by 50 percent. While providing free antiretroviral (ARV) treatment to 80 percent of those who need it by 2016, a major extension to an ARV programme that is already the biggest of its kind in the world.

There are several channels through which the AIDS epidemic can potentially influence economic growth AIDS rapidly decreases life expectancy and hence the incentive to invest. AIDS also creates a huge number of orphans. In all likelihood human capital accumulation by orphans faces more obstacles than if parents were alive. The third issue is that potentially large medical costs associated with the treatment of AIDS patients can divert public resources from productivity-enhancing public expenditures such as education or infrastructure investment and other investment which are desperately needed. It also affects private sector directly; firms might be reluctant to hire and invest in training of workers if there is a high probability of employees dying. And last but not least, the AIDS is more prevalent among highly skilled workers, and that high labour is complementary to capital, the AIDS epidemic can influence the rate of return on investment, savings and capital accumulation (30).

Human Development Index

HDI is reflecting a long and healthy life, being knowledgeable and have a decent standard of living. Since the average life expectancy was 59 years in 2014, average primary education completion rate was 69 %, and average GNI was USD 1,638 per capita in Sub-Saharan Africa, the HDI is in average below 0.4. However, this is not the case of Botswana and South Africa. They have together with Namibia and Gabon the best ranking in Sub-Saharan Africa.



Source: Human Development Index

Figure 23 Human Development Index

The growth of human development is stable in South Africa. In the case of Botswana, there was a decline in HDI by 2001. Subsequently, there was the steep growing tendency of HDI. This cause especially the fast growth of GNI and higher mean years of schooling. GNI grew from USD 8,939 in 2000 to USD 12,290 in 2010. Mean years of schooling rose from 7,5 years in 2000 to 8,9 years in 2010. However, years of schooling does not reflect the quality of education.

In summary, the regional differentiation is not significant since the economic activity is similar and both of countries face same challenges. The only aspect which was different was a threat of Dutch Disease for Botswana. Despite some syndromes, the issues itself did not develop in any particular issue which would negatively affect the economy system. Another very positive factor in Botswana's economy is a function of the public sector in which is the corruption perception very low considering Sub-Saharan countries. On the other hand, South Africa is attempting to create strategy without relying on the mining industry and focus on service areas such as finance and real estate.

7. Correlation of socio-economic indicators

All of the mentioned social and economic indicators should correlate with each other because of such a strong influence on the overall development of the country. As main indicators of the economic activity were chosen GDP and GNI, which reflect the development of the economy situation. There were compared the correlation of variables in both countries. By previous insight in chapter 6, there was stated hypotheses:

$H_0: \rho = 0$ There is always a correlation between GDP and choose socio-economic variables in South Africa and Botswana.

$H_1: \rho \neq 0$ There is not always a correlation between GDP and choose socio-economic variables in South Africa and Botswana.

The correlation coefficient (a value between -1 and +1) tells how strongly two variables are related to each other. A correlation coefficient of +1 or -1 indicates a perfect positive correlation. As variable one increases, variable two increases. As variable one decreases, variable two decreases. A correlation coefficient near 0 indicates no correlation. Pearson correlation coefficient (ρ) interpreting the significance. For this case, there was chosen 95 % probability. A low p-value 0.05 is taken as evidence that the null hypothesis can be rejected.

Table 3 Correlation

Variable 1	Variable 2	Botswana		South Africa	
		r	p	r	p
GDP	Population	0.9123	0.0000	0.9986	0.0000
GDP	Gini coefficient	-0.1641	0.5153	0.6125	0.0069
GDP	FDI	0.6629	0.0002	0.7216	0.0000
GDP	Poverty	-0.9136	0.0000	-0.9639	0.0000
GDP	CPI	0.5779	0.0151	0.9500	0.0000
GDP	HDI	0.9592	0.0000	0.9265	0.0000
GNI	Population	-0.7738	0.0000	-0.8994	0.0000
GNI	Gini coefficient	-0.2503	0.3164	0.6505	0.0035
GNI	FDI	0.6317	0.0005	0.6916	0.0000
GNI	CPI	-0.6727	0.0060	-0.8922	0.0001
GNI	Poverty	-0.9736	0.0000	-0.9094	0.0000
GNI	HDI	0.9590	0.0000	0.9048	0.0000
FDI	Poverty	-0.6384	0.0004	-0.5141	0.0873
Poverty	Gini coefficient	0.2544	0.3083	0.5054	0.2554

Source: World Bank, UNCTAD

According to Tab. 3, there is one dissimilarity in correlation. Gini coefficient is not correlated with GDP or vice versa in Botswana. These two variables are independent. On the other hand, there is a high dependence of these two indicators in South Africa. Despite there is the economic situation and structure similar in Botswana and South Africa.

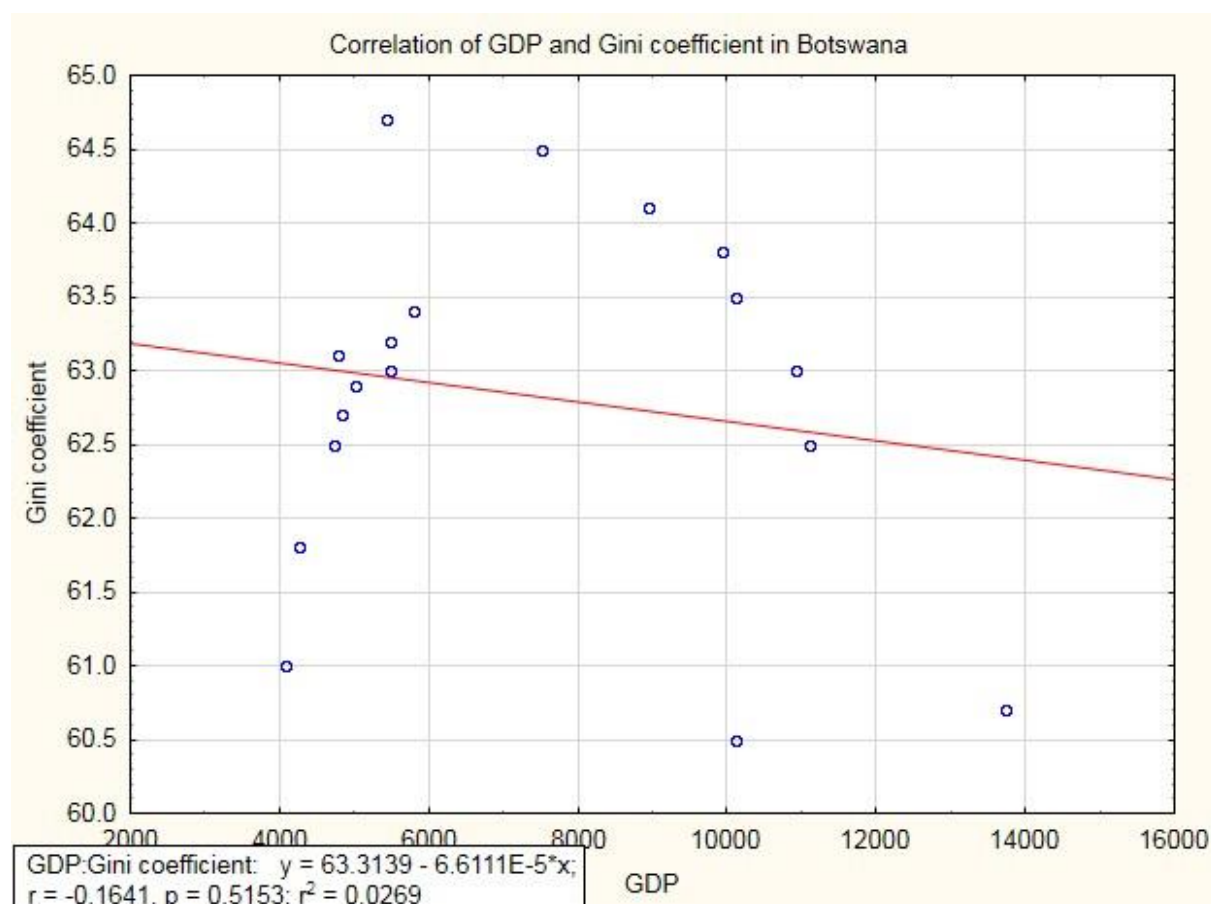


Figure 24 Correlation of GDP and Gini coefficient

As it was stated in the previous chapter, Gini coefficient has unpleasant value in Botswana, although all other indicators have very decent value. Dutch Disease did not strike the economy on a significant level. The government created funds are direct into education and health care development. Through this two major fields can be reached decline of Gini coefficient. High level of literacy and high standard of education decrease unemployment. Healthcare together with education prevent HIV/AIDS prevalence; this can decrease the number of orphans and incomplete families.

It also refers to the fact that GDP does not reflect the relation of economic activity and income inequality in every case. There would be assumption that there is some dependence between these two variables. On the other hand, GNI reflects the relation with income inequality because it proves the correlation between GNI and Gini coefficient. It reveals another

weakness of GDP which is the most common indicator of economy development. The social factors play an important role in economic activity and development as it is shown in Tab. 3. GDP can be considered as an overestimated indicator.

8. Conclusion

In summary, there was not found any significant difference between Botswana and South Africa when the heterogeneity of Sub-Saharan region is taken into consideration. South Africa and Botswana are facing similar issues. It is influenced by common history and very tight economic, especially import and export, bound. The biggest challenges are dealing with HIV/AIDS, income inequality and diversification of the economy.

In both of countries is a high prevalence of HIV/AIDS which negatively affect society and economy. The percentage of people infected with HIV/AIDS is raising in South Africa. In contrary, the prevalence of HIV/AIDS has declined in recent years in Botswana. Another social problem is a high level of the income inequality. Despite the stable political and relatively stable economy situation, the income inequality is one of the highest in the world. The only difference, considering income inequality, is an absence of slums in Botswana. This is a unique situation in Sub-Saharan Africa. It prevents society from segregation.

Last but not least, there is a need for a diversification of the economy. Natural resources caused many problems in the most of the countries in the world. South Africa did not suffer from any particular natural resources curse. On the other hand, Botswana experienced symptoms of Dutch Disease. However, decent governmental expenditure, low corruption and an absence of shifting labour force caused that Botswana avoided negative effects of the windfall.

In the second part of the empirical research was used statistical analyses - correlation. There was not found out any dissimilarity in the correlation between social and economic variables and indicators of economy activity, except a correlation between the income inequality and GDP in Botswana. It is a remarkable result. It proves that not all of social factors influence GDP. In contrary, the correlation between the income inequality and GNI was positive and shows the relation between these two variables.

In this case, GNI reflects better the socio-economic situation in Botswana. This result could be considered as the base for the next research and analysis across the wider spectrum of economies.

The main goal of this diploma thesis was to uncover social and economic differences between Botswana and South Africa and determined the indicator of economic activity which is relevant to measure their economic activity. The aim of this thesis was accomplished.

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