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The Effect of Capital Accumulation on Economic Growth in Somalia

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Abstract: This study aimed to determine how 1980-2020 capital accumulation in Somalia affected the country's economic development. This research uses the OLS technique to analyze the correlation between investment and economic expansion OLS technique is used to analyze the correlation between investment and economic expansion in this research. World Development Indicator and SESRIC data were mined for their time series information.

The researcher utilized FDI, GDP, and Inflation as covariates to examine how these factors affect unemployment, and we looked at total saving, GDP, and gross capital formation as independent variables. Unemployed workers were used to quantify unemployment, real GDP was used to evaluate production, foreign direct investment (FDI) was used to evaluate net inflows at constant prices, and the GDP deflator was used to quantify price increases. The study's primary conclusions are that gross capital creation and saving contribute positively to economic development, whereas foreign direct investment has a negative impact.

Keywords: Capital Accumulation, Foreign Direct Investment, Economic Growth

JEL Classification: O40

1. Introduction

Capital accumulation is a way of acquiring additional capital stock in the productive process. It can involve fixed physical capital (machines and factories), portfolio (shares, bonds, and cryptocurrencies), and other fixed assets such as housing. It may refer to either wealth growth or more riches development. It is possible to separate it from savings due to the fact that accumulation focuses on increasing the stock of required actual investments. In contrast, savings do not necessarily include any investments at all. Capital accumulation is the current value minus the amount invested (Aderemi, 2012). Figure 1 clearly illustrates capital accumulation. As the figure shows, with 5% of property growth and 6% of rental yield, the investor gained almost one million increases in wealth.

The term "capital accumulation" describes the process through which the value of an asset increases over time as a direct consequence of investments made or profits earned. The production of profits or other forms of income for an organization is the one and only purpose of accumulating capital. Therefore, the act of a company purchasing assets that will produce value or making investments that will generate profit may be referred to as capital accumulation. There are a variety of channels via which people and businesses may amass financial resources. For instance, a company might get value from an asset by collecting rent, capital gains, and interest payments. Increasing one's wealth may also be accomplished via the process of making investments.

This preamble is necessary because, historically, talks about capital accumulation and economic expansion have been naively misconstrued on several occasions. This study does not argue that the rate of growth may be induced simply by increasing the stock of capital. Additionally, it is not stated that a lack of money is the lone or even the biggest obstacle preventing economically developing nations from achieving their full potential. Due to the multifaceted nature of economic expansion, it stands to reason that any one cause or collection of variables may either foster or stifle expansion, depending on the specifics of the situation.

Foreign currency shortages, a lack of technically skilled personnel, a lack of entrepreneurial and management aptitude, and a failure of State initiative have been shown to be more substantial impediments in the national and international contexts of many of the under-developed economies. The current article wants nothing more than for attention to be paid to the importance of capital accumulation in the expansion of the economy.

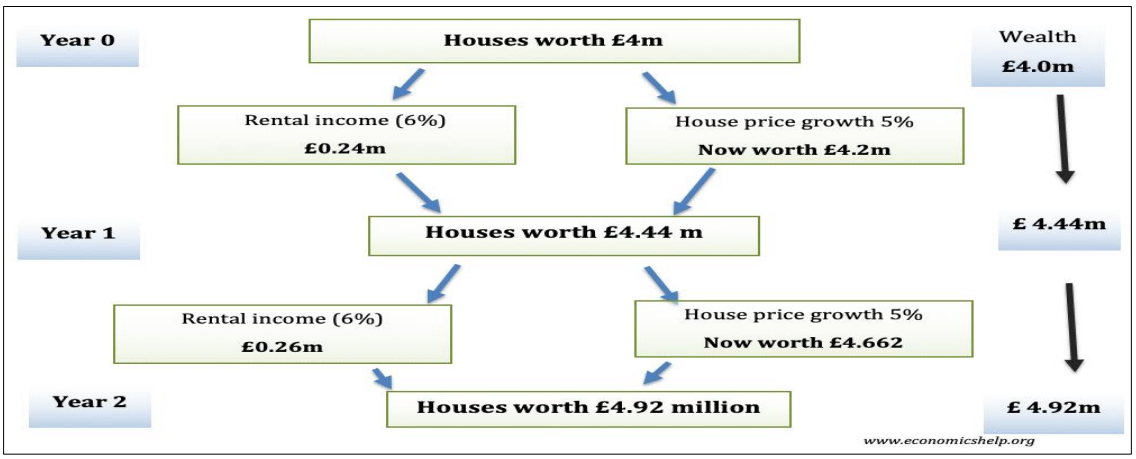

Figure 1. Economic growth

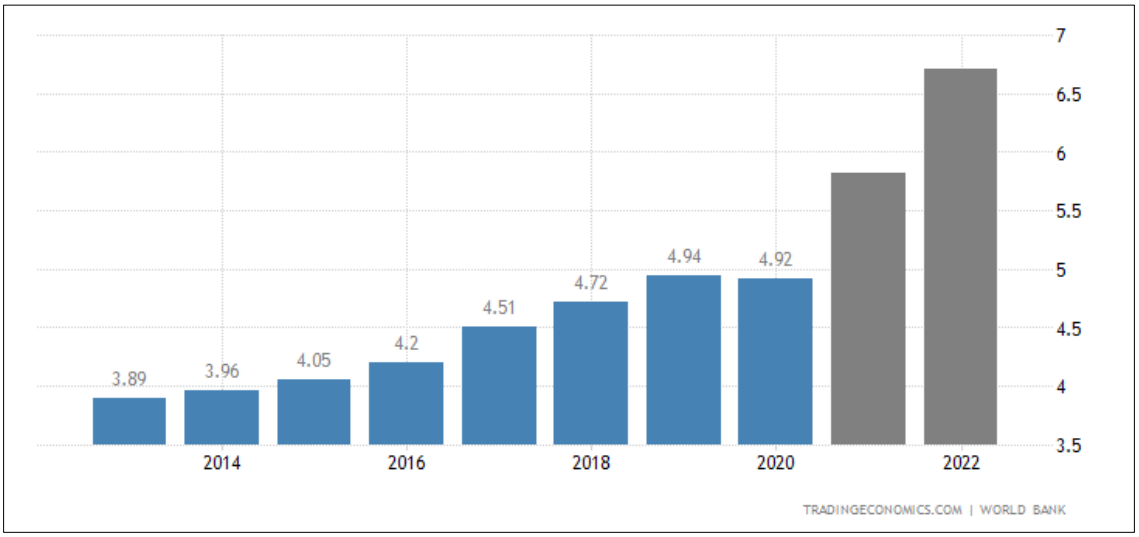

Figure 1. Real GDP – Data from World Bank

1.2. Problem statement

Capital investment, human capital formations, and savings rates have been studied extensively in an effort to determine how these variables affect long-term economic growth. Karl Marx's theory These features are crucial for long-term income progress, as supported by both external growth and internal growth. (Dennis Brown&Anuli Rejina, 2016). Because of Somalia's government's inability to engage in certification programs or produce accurate documents, the country's economy is having difficulty expanding. Instead, businesses are forced to develop novel, sometimes expensive, alternatives. Sesame was in high demand in Somalia before the Famine. According to Food and Agriculture Organization (FAO) regional director Luca Alinovi, a merchant informed him that he was forced to carry sesame from Somalia to Indonesia and nationalize it before selling it in Germany. Several dangers might impede progress. Despite signs of improvement, economic development in Somalia is still precarious, and the country's chronic security problems continue to hamper economic activity. Concerns over national security, an increase in oil prices, a lag in the implementation of structural reforms, and political and policy uncertainty are all potential risks that might impact economic expectations. Therefore, the researcher is interested in learning how capital accumulation contributes to the economy's expansion.

1.3. Purpose of the Study

This study aims to examine the effect of capital accumulation on economic growth in Somalia.

1.4. Objectives of the Study

The objective of this study is to measure the relationship between Capital accumulation on Economic growth in Somalia by evaluating certain variables, such as GDP, foreign direct investment (FDI), trade surplus (TS), and gross capital formation (GCF).

1.5. Scope of the Study

This research examines the link between capital accumulation and economic development by tracking changes in a number of different factors throughout the period 1980-2020. Only Somalia is the subject of this investigation.

1.6. Significance of the Study

A study will help financial sectors like banks know how capital accumulation is essential to economic growth. Also, it provides the country's private sectors with lots of information about capital accumulation in economic growth. They need to make more improvements because there is weak data on capital accumulation.

1.7. Organization of the Study

The remaining parts of this study will be organized as follows: the second part will provide an overview of the existing research, and the third section will discuss the data and methods. In the fourth section, the findings and their respective interpretations are discussed. The research outcomes are discussed in the last part, which brings the whole thing to a close.

2. The Empirical Literature Review

The research project on capital accumulation and economic expansion in Somalia has reached its second and last chapter with this one. Capital accumulation is one of the most important variables promoting economic progress. This research focuses on capital accumulation's influence on economic development in Somalia, even though several other factors cause economic growth. The topics in this chapter are arranged in a manner that is consistent with the themes. The build-up of financing, alternative energy production, and economic expansion is the primary topic of discussion in this chapter's first half. This part of the report is titled "Effects of Productivity Growth on Employment Generation. (EPGEG)"

Economic growth and the amassing of capital go hand in hand. The final section examines how investments in fixed assets contribute to economic growth. The accumulation of capital, adjustments, and structural shifts are all topics covered in the fourth sector, which focuses on the role of economic take. The fifth section will focus on the money and the expansion of the economy accumulation in Brazil. The sixth section will discuss growth, monetary growth, capital accretion, and permeability in Mozambique. According to the "Endogenous Growth Approach," Construction of a Capital Stock and Nigeria's economic growth are intertwined. After the chapter, a summary of the literature is provided.

2.1. Capital accumulation, renewable resources, and economic growth

A dynamic economic model that makes use of physical capital and renewable resources is proposed in this piece of writing. However, unlike most baroque productivity concepts with dispatchable assets, which most of the extravagant productivity concepts with dispatchable assets, that are premised on a partial equilibrium establishment and misuse of physical wealth generation, the model proposed in this study incorporates the complexities of clean energy assets and wealth creation and income development. On the contrary, these models don't require regular capital accumulation into account (Wei-Bin Zhang 2011).

Neoclassical growth theory and standard dynamic renewable resource models are combined with an alternative home behaviour method to create the model. Physical accumulation, resource change, and labour division are all dynamically intertwined in this paradigm. As a result of the study's enhanced economic structure, several interactions between economic factors may be uncovered that have not before been observed in the current literature on economic development using renewable resources. Models of dynamic systems may be simulated to show equilibrium points and motion.

2.2. Capital accumulation, productivity, and economic growth

The one that has been put to use is The Bureau of Economic Analysis generates estimates of each state's Gross State Product (GSP), and those estimates are used to calculate each state's total output (BEA). The most notable aspect of the Solow growth model is the forecast that all economies with the same investment and labor force growth rates would converge to an equal steady-state level of production per worker. The next section provides further detail on the types of factors that were considered: capital accumulation, economic growth, investment, saving, consumption, and productivity capital accumulation and economic growth by Nicholas Kandor, King's College, Cambridge capital accumulation and economic growth by Nicholas Kandor, King's

College, Cambridge In theoretical modeling, specific theories describing the causal interrelationships between different magnitudes or forces are referred to as "modeling components."

The chain of events that occurs as a result of their interactions with one another. Iare all in agreement that a fundamental condition for any model is that it should be able to describe the distinguishing aspects of the economic process as they appear in the actual world. This is a point on which are all in agreement. The Impact of Rising Productivity on the Formation of New Jobs, the Accumulation of New Capital, and the Expanding of the Ugandan Economy Jimmy Alani, Member, (acsit, 2012).

2.3. Growth, capital accumulation and economic porosity in Mozambique

With a 20-year average growth rate of 7.5%, Mozambique is one of the top three sub-Saharan African countries in terms of attracting foreign direct investment (FDI). To the advantage of private investors, this expansion has been achieved at the price of the common good. The problem is that it hasn't been very efficient in reducing poverty or laying a stable foundation for economic or social development. It is suggested that the three interrelated processes that dominate Mozambique's political economy are (1) the maximizing of inflows of foreign capital (either FDI or commercial loans) free of political conditionality; (2) the development of links between these capital inflows and the domestic process of accumulation and the emergence of national capitalist classes; and (3) the optimization of domestic resource usage. Reference: (Carlos Nuno Castel-Branco, 2015) and the perpetuation of a system of labor in which employees are paid less than their Expenditure on basic necessities as a social issue, and whose families must support (particularly feed) income earners per supplementing their pay or trying to have a huge idle reserve of labor available to keep the system running. (Carlos Nuno Castel-Branco, 2015).

2.4. Capital accumulation, financialization and the financial system

The federal bank's efforts to encourage a stronger imperialism economic strategy are highlighted, as is the contradictory reaction of the private financial services field, which has been steadfast in its opposition to these efforts. This discussion encompasses three facets of the issues surrounding Mozambique's economic advancement: the ways in which the interplay of asset accretion influences these issues are influenced by the interplay of asset accretion, the ways in which these advancement structures them are structured by this advancement, and the ways in which they are managed in the head of discrepancies across the various steps of economic strategy and among economic and taxation strategy.

By making it easier to get low-cost financing for businesses and other commercial endeavors, a larger banking sector is aiming to boost the monetary sector's impact on the growth of the industrial sector. The Bank of Mozambique has been cutting its interests rates since 2011 to push for lower borrowing terms at financial institutions to accomplish this goal. However, the reaction of financial institutions to the reduced policy percentages was far delayed than envisaged by the financial officials. There was a gap of nearly a year among the decline in source rates and the decline in industrial lending rates (which continued at approximately 14%). (Massarongo 2013). Who is to say, enterprises that rely on acquiring credit regionally are not benefiting from the improved circumstances for access to financing despite the banking platform's increased geographical presence. The authors of these two works (Amarcy and Massingue, Castel-Branco, 2012) .

2.5. Productivity Growth versus Capital Accumulation

Development in total production is clearly diverse among African nations, but the reasons for this are much more contentious. There has been a lot of studiess done to try to pin down what exactly led to their meteoric rise, but it hasn't put an end to the debate just yet. This ongoing discussion may be traced back to the challenges of employing cross-national studies to isolate the most important causal factors influencing the expansion of collective production. Particularly frustrating has been the volatility of findings in the predictor variables in response to apparently modest modifications in specifications. As a further complication, proliferation and its immediate drivers are all physiological factors.

The breakdown of labor productivity growth we provide, into asset formation and TFP increase, may also be called into doubt. Because of these two factors, it may be challenging to tell them apart. As a first step, technological progress may find expression in the form of monetary expansion. Second, higher interest rates on investment might encourage further investment if TFP growth is high enough. As a starting point, it's important to consider whether or not the development accountancy activity truly produces a significant segmentation and whether or not it permits one to state anything more definitive about the manner in which the East African nations vary from neighbors.

3. Data Description

This study gathered information from the World Bank and the World Development Indicators. Picked in the Somalia region. The link between capital accumulation and the economy's expansion is measured using data that is not balanced. The sample includes

observations made between the years 1980 and 2010. The rate of economic growth is the study's dependent variable, whereas the amount of capital accumulated is an explanatory variable. The GDP's value is measured annually, and its value depends on a variable. Foreign direct investment (FDI) is a measurement of capital intake, while national income is a measurement of savings. growth capital creation is another term for this.

3.1. Model specification

This makes it possible to determine the influence of capital creation on the expansion of the Somali economy from 1980 to 2010, using the Harrod–Domer model as a guide. And Iutilize OLS model the following components make up the model:

$$\mathrm{RGDP} = \mathrm{f(GCF, TS, FDI,)} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..Eq$$
$$InRGDP = \beta 1 + \beta 2GCF + \beta 3TS + \beta 4FDI + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots...Eq\ 10$$

Where:
GDP = Gross domestic product as a proxy for economic growth;
GCF = Gross Capital Formation which is a proxy for capital formation;
S = SAVING
FDI = Foreign Direct Investment
ε = stochastic term

4. Results and Discussion

Economic findings, including a test of the robustness of the model and estimates of its parameters, are presented and discussed in this, the fourth chapter of the research on the correlation between the Somalian shilling and the Consumer Price Index.

Descriptive Statistics

Table 1. Summary Statistics of the Variables

Variable	Mean	Std. Deviation	Maximum	Minimum
GDP	2.22E+09	3.33E+08	2.67E+09	1.67E+09
SAVING	3.31E+10	9.19E+10	4.10E+11	37993058
FDI	−97142.9	20368629	64340000	−43390000
GCF	24.18346	7.702953	42.39582	11.73501

Source: Author`s calculations using data from the world bank and SESRIC

As shown in table 1, the findings show that the mean value of the dependent variable GDP is 2.22E+09 with a standard deviation of (3.33E+08). The maximum value that the GDP reaches all the time is 2.67E+09, and the minimum value of GDP is 1.67E+09. The explanatory variables include FDI, GCF, and Saving. The mean value of FDI is -97142.86, with a standard deviation of 20368629. The highest FDI is 64340000 all the time, and the lowest FDI is -43390000 Furthermore, the average value of GCF is 24.18346 with a standard deviation of (7.702953), the highest and the lowest GCF during the observation is 42.39582 and 11.7 3501 respectively. Lastly, the mean value of Saving is 3.31E+10 with a standard deviation of 9.19E+10. The maximum value of Saving is 4.10E+11, and the lowest Saving is 37993058.

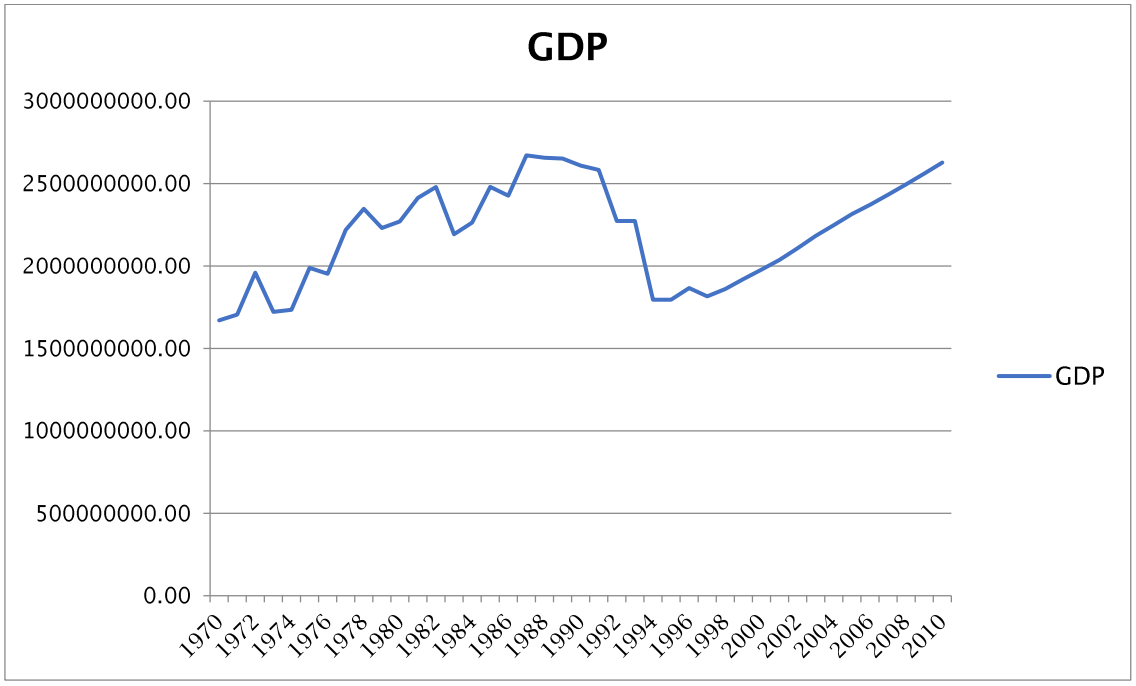

Figure 3. Growth Domestic Production

Figure 3 Started from 1970 up to 1991. The GDP was between 50 million and 270 million. This situation tells us that the country with economic stability was the best because, at that time, the country had existed good Government. Still, after 1992 the country explored a civil war that caused to decrease in economic growth. Somalia faced economic instability at that time because of the central government's collapse.

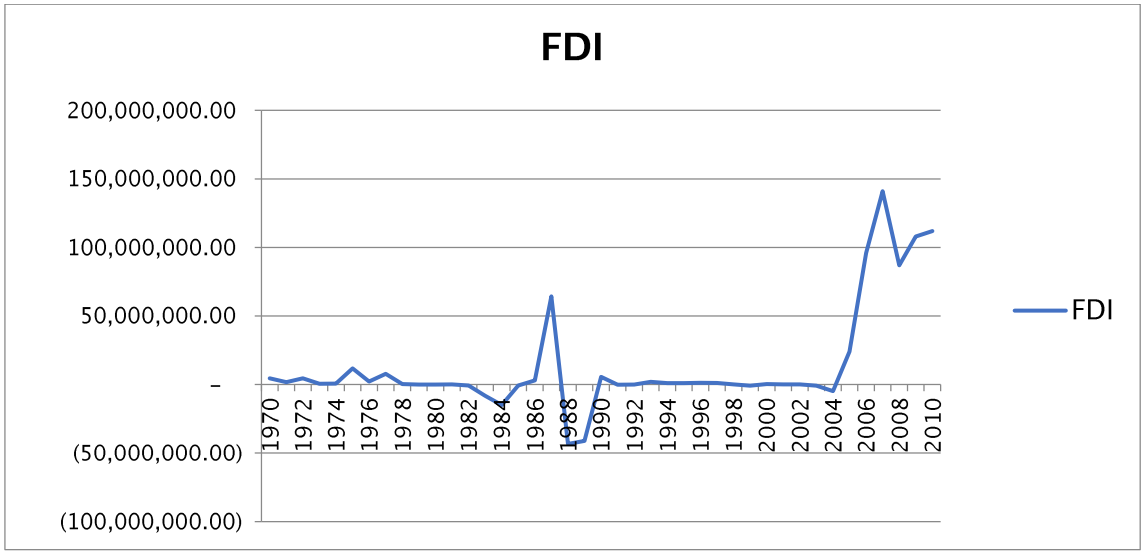

Figure 4. Foreign direct investment

Figure 4 shows the flow of FDI into Somalia from 1970 to 2010. Ican see that the flow has been very low and steady for the first decade. Interestingly, it went into a further low negative in the early 1980s to strikingly rise to over 50 million US dollars in the mid-80s. By 1988, the trend has quickly reversed. From 1990 to 2004 has experienced a steady flow of small amounts of FDI, just over one million US dollars. It then reached its highest peak from 2004 till 2006. However, that quick increase in FDI inflows was disrupted after the intervention of Ethiopian forces into Southern and Central Somalia.

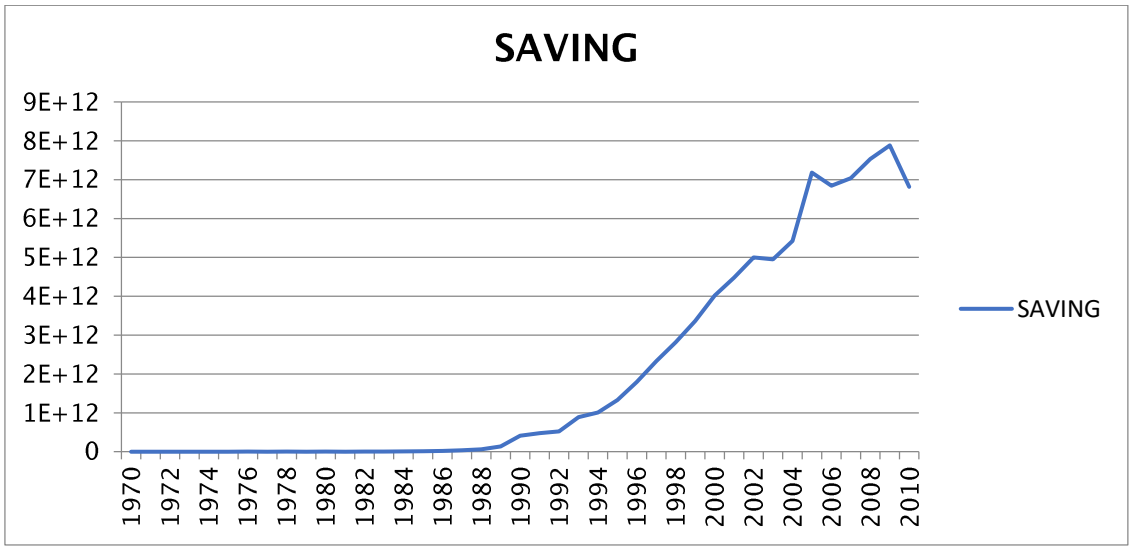

Figure 5: Saving

Figure 5 shows the amount of saving in Somalia from 1970 to 2010. Ican see that the amount of savings has been very low and steady for the first decade. Interestingly, it went into a further low negative in the early 1980s, and the trend quickly reversed. From 1990 to 2004 has experienced a steady flow of a large amount of savings. It then reached its highest peak from 2004 till 2006.

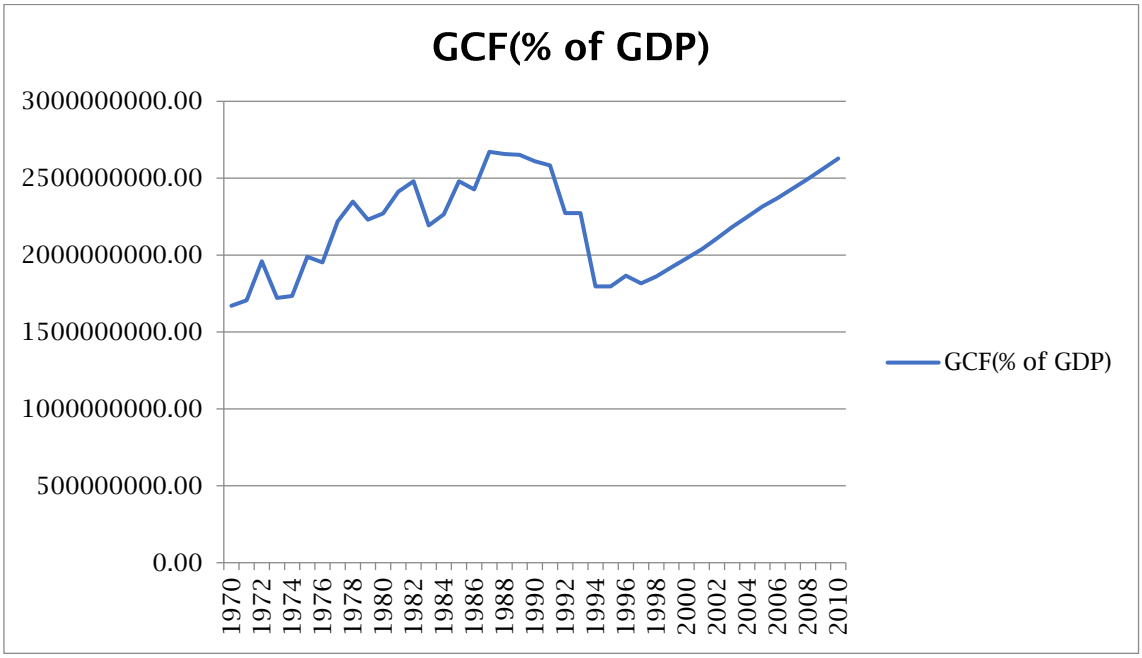

Figure 6: Gross Capital Formation

Figure 6: shows us that there was high gross capital formation b/w 1970 to 1990. By the way, the trend quickly went down in the mid-90s because of the collapse of the government, and finally, it peaked in 2010.

4.1. Estimation of the Model Parameters

After making descriptive statistics, the next useful step is to estimate the parameters of the model as well as their statistical significance. Since we want to know how much foreign direct investment, savings, and government stimulus spending all contribute to GDP growth, we may say that this is the focus of our research.

Table 2. Estimation of the Model Coefficients

Dependent Variable: LGDP
Method: Least Squares

Variable	Coefficient Std. Error	t-Statistic Prob.		
Log GDP	22E+09	3.33E+08	2.67E+09	0.012
LOG GCF	26482024	7048451.	3.757141	0.0016
LOG FDI	1.393635	2.640848	-0.527722	0.6045
LOG S	0.001913	0.000593	3.227716	0.0049
C	1.52E+09	1.82E+08	8.321715	0.000
R-squared	0.559774	Mean dependent var		2.22E+09
Adjusted R-squared	0.482087	S.D. dependent var		3.33E+08
S.E. of regression	2.39E+08	Akaike info criterion		41.59484
Sum squared resid	9.74E+17	Schwarz criterion		41.79380
Log likelihood	-432.7459	Hannan-Quinn criter.		41.63802
F-statistic	7.205500	Durbin-Watson stat		1.372684
Prob(F-statistic)	0.002500			

The results of the model show that the coefficient of GCF is significant to the GDP and also statistically significant through a 5 percent significance level, meaning the two things are positively correlated GCF and GDP. If there 1 is a unit increase in GDP, the GCF increases by 26482024. Furthermore, the coefficient of FDI also consistently remains positive and also statistically significant through a 5 percent significance level, meaning that there is a positive relationship between FDI and GDP.

This means that if FDI increases by one unit, GDP will decrease by (-1.393635) Lastly, the coefficient of Total Saving is consistently positive and statistically significant at the 5 percent significance level, meaning that there is a positive association between Total Saving and GDP position. This means that if GDP increases by one unit, TS will increase by (0.001913) Existence of unit root has been tested to check the stationary of the variables; Ihave used three explanatory variables to make estimation results.

Both tests found that most of the variables are non-stationary and thus cannot be regressed without making them stationary. However, all the concerned variables are stationary in the first and second differences. The OLS method has been conducted to check the validity of the model and the significance of the variables under investigation. In the literature, Ihave seen that there's a camp of economists who agree with my thesis about capital accumulation on economic growth. Therefore, they focus on increasing savings to make investments, which is how capital stocks increase. the there is negative

relationship between FDI and GDP and the positive effect of GCF, and SAVING on capital accumulation, respectively, supports the results of this study.

5. Conclusions and Policy Implications

The chapter is the last chapter of the study of about capital accumulation and economic growth and gives conclusion and policy implications.

5.1. Summary and Conclusion

The common wisdom is that a nation may break out of its poverty cycle of poverty via a combination of domestic savings and foreign direct investment. Long-term growth rates in emerging nations are commonly advocated to be increased via capital accumulation. Raising the savings rate, keeping the banking and credit systems in excellent shape, reducing the prevalence of corrupt practices, and providing an attractive investment environment are all crucial to fostering a culture of saving and investing.

5.2. Policy Implications

First, Capital stock investment is necessary for a nation to expand its capital accumulation. Second, having seen firsthand the benefits of both foreign direct investment and savings, I believe it is imperative that the Somali government facilitate both means of wealth accumulation. Foreign and domestic physical capital accumulation requires an enabling environment, security, legal frameworks, and supporting infrastructure. Last but not least, I propose that the government provide a favorable setting for both local and international investment. Human capital development via formal education and on-the-job training also merits boldness.

As a result of the shift to a network economy, there will be significant alterations to underlying structures and a rise in the demand for competent individuals with the right mix of academic credentials, professional experience, and technical know-how. Investing more time and money into educating and training a skilled labor force is the key to solving this issue.

Following is a brief summary of the findings and recommendations:

- The expansion of one's productive capacities and general maturation depend on one's ability to make good use of one's free time. Understanding the content and method of operation of the economic law of accumulation is crucial to the advancement of contemporary civilisation. The technological foundation for contemporary society is the global process of digitization. The category of

"information" best illustrates the connection between technological progress and societal advancement, namely the information economy and the proliferation of digital technology.

- The digital economy is the foundation for the new social order that has emerged as a consequence of the information society. This is due to the fact that in an information society, it is the knowledge that ultimately determines the outcome of reproduction. In the end, the implementation of network management's strategy of unifying the reproduction stages led to better judgments being made by management. Companies that have established their own ecologies may take full use of its primary features, which include network planning, network organization of the reproduction process, network incentive, and network accounting and control.

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