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Impact of Financial Development on Economic Growth from the Perspective of BRICS

by

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degree of Master in Business Administration

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First of all, I am dedicating this thesis to my honorable mother, who loved me and taught me the value of life. I am also dedicating this thesis to my teachers and friends who support me throughout the process. I would particularly dedicate this thesis to my supervisor Dr. Jaleel Ahmed Malik for his guidance and support.



CERTIFICATE OF APPROVAL

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In the Name of Allah, The Most Gracious, The Most Merciful. Praise be to God, the Cherisher and Sustainer of the worlds. All thanks to Almighty Allah, The Lord of all that exist, who bestowed me with His greatest blessing i.e. knowledge and Wisdom to accomplish my task successfully.

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Abstract

The main purpose of this study is to determine the effect of financial development on economic growth. Data was collected from the World Bank website of the period 2000 to 2020. For this study, five countries of BRICS are selected named Brazil, India, Russia, China, and South Africa. Panel data analysis is used to determine the impact of financial development on economic growth. It is concluded that stock market capitalization and domestic credit to the private sector by banks, and export of goods and services have a significant positive effect on the economic growth of BRICS countries. School enrolment has a positive but insignificant effect on the economic growth of BRICS countries. Inflation has a negative effect on the economic growth of BRICS countries. Positive relationship between financial development and economic growth shows that policymakers should strive by taking necessary measures to develop banking sector and stock market for better economic growth.

Keywords: Economic Growth, Financial Development, Inflation, BRICS.

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Abbreviations

BRICS	Brazil, Russian Federation, India, China and South Africa
CPS	Domestic Credit to Private Sector by Banks
EP	Exports
GDP	Gross Domestic Product
INF	Inflation
SMC	Stock Market Capitalization

Chapter 1

Introduction

Developing the financial sector of a country is required to develop the economy of that country. When a country has economically developed the poverty in that country will be reduced. For the economic development of a country, developed financial institutions and for the development of financial institutions, a huge investment, and funds are required. To promote optimal allocation of capital and profitable investment, better information is provided by financial development. To effectively implement contact and transactions and in curtailing the cost of acquiring information, financial institutions help a lot. Through information and welfare gain the society, structural change was brought to the system.

In financial development, one of the most important elements is banking sector development, on which countries depend for economic growth. Between server and borrower, the role of the bridge is performed by banks. By providing highly risky illiquid investments and less risky liquid returns portfolios, banks offer insurance to savers. By holding a diversified portfolio, investors received high returns at low risk. Against liquidity risk on long-term investment, full insurance to clients is offered by banks.

Low transition and information costs are offered by banks to strengthen the financial systems. Industrial growth increased by efficient allocation of credit to the potential business and private sector. The economy of the country grows with the growth of industrialization. Innovation in a country is enhanced by the allocation of credit to potential businesses. A large number of financial instruments are

provided by non-bank financial institutions. Demand deposits are not accepted in non-bank financial institutions. For lending opportunities, there is strong rivalry between banks and non-banks in the financial system.

In an efficient market-based economy, the stock market is witnessed to play a role in the mobilization of resources and directed to productive outcomes. The stock market development presents the overall circulation of money, trade activities, and investment efficiency within the country. Stock market development remained the most important and debatable topic over years. It was analyzed by selecting different dimensions and factors to understand the pattern of the relationship prevailing within the economies.

1.1 Background

There are different perceptions of some economists about the relationship between financial development and economic growth. In an economic growth, the finance market plays a minor role. The total supply of credit is reduced when the Brower from the informal sector shifts to the formal sector. There is instability in economic growth due to reducing the supply of credit. In the economic development of an economy, the financial market plays very little role ([Ibrahim & Alagidede, 2018](#)).

Financial development causes the economic growth shown by the Asian economic crisis of 1997. The main cause behind these crisis of 1997 was that the financial market failed to an investment in profitable funds. Subprime mortgage lending causes the failure of the financial market in the global financial crisis of 2008. The global financial crisis of 2008 showed that the financial market failed in monitoring the rule and regulations of the financial market and this caused failure of the economy ([Guru & Yadav, 2019](#)).

[Erkişi \(2018\)](#) stated that along with increased access to a financial market, the development of size, efficiency, and stability of the financial market defined the development of the financial system. By well-developed financial market the cost of corporate governance and the cost of information is reduced. Along with the transaction of goods and services, risk amelioration, diversification, hedging, and

trading services are provided by financial intermediaries. The role of a channel between the financial and real sectors is played by the allocation of credit through the financial system. To invest in fixed capital and finance working capital requirement, this channel is used. Productivity in the real sector increased through this former.

Tan and Shafi (2021) stated that the financial instruments used within the economies are observed to have a positive impact on the financial activities of the country. However, the problem encountered is that despite having financial activities, the economies are not reporting a similar level of growth. Another study by Botev, Égert, and Jawadi (2019) revealed that emerging economies are witnessed to indicate the non-linear connection between financial development and economic development. The literature lacks evidence for supporting the facts that could highlight the reason behind the lack of positive and direct relationship between economic and stock market development.

Toward the development of the financial market, the developed financial system of countries is more focused compared to banks. In the growth and efficiency of a country, the financial market plays a very important role. As, Zakaria and Bibi (2019) stated that financial development is measured from the financial markets. In the economy, the direct flow of savings and investment is helped by the financial market. The demand of borrowers and lenders is best suited by a blend of a diverse range of financial products and services and a well-developed financial market. Government entities, industrialists, and corporate gain access to capital with the help of the financial market. Transfer liquidity and risk, raising capital and price for global trade are set by the development of the financial market. Securities, bonds, real estate, and banking services all are included in the financial market along with the stock market. By using the financial instruments, funds are transferred from the supplier to those who have deficit funds in the financial market. With varying price structures, risk, and maturity periods, diverse collections of financial products are offered by an efficient financial market. There is low transaction and search cost due to an efficient financial market. According to the need of borrowers and lenders, financial products are offered in the financial market. Expected return on investment and cost of financing are compared by

an investor at the time of investment decision. Funds are provided by the financial market in the case of an emergency of funds. Throughout the economy, the allocation of funds is regulated by the financial market.

1.2 Research Problem

Identified numerous factors, which were found to create an impact on the economic growth of emerging countries. Past studies revealed that the population trends, market activities, changes in innovation, and numerous other directly and indirectly related factors were affecting the economic growth. On the other hand, [Gordon \(2018\)](#) concluded that due to a rise in the trend of innovation, economic growth has been affected. [Pala \(2019\)](#) also supported the fact that innovation within the emerging economies' research and development is negatively affecting economic growth. The study provided evidence, of which inverse relationship of variables then developed economies.

These studies and others have provided supporting evidence that the trend of the economic growth of the developed and emerging economies is not similar. This shows the importance of conducting the study on each of the economies to understand the nature of growth and identify the factors, which are creating an impact on it. [Nizam, Karim, Rahman, and Sarmidi \(2020\)](#) argued that the strategies by the international agencies such as financial inclusiveness are the step toward sustainable economic growth. However, there is a need of looking into its impact on individual economies. [Alam, Hussein, et al. \(2019\)](#) conducted their study in the context of the capital market's role in economic growth. They argued that each economy is revealed to have a different impact. Thus, this study is conducted for understanding the role of financial development in the BRICS economies.

Based on the evidence gathered, he concluded that financial development and economic growth are not similar. There are numerous factors, which impact economic growth. This study will also focus on identifying those factors, despite growth in financial development are shrinking the economies. These problems will be discussed in this study as well.

1.3 Research Questions

- What is the impact of financial development on the economic growth of five major emerging economies (BRICS)?
 - What is the impact of banking sector development on economic growth?
 - What is the impact of stock market development on economic growth?
- What are the macroeconomic variables (specifically inflation, export and students enrollment in secondary education) that determine economic growth in BRICS?

1.4 Research Objectives

- To determine the influence of financial development on the economic growth of five major emerging economies specifically the impact of banking sector development and stock market.
- To identify the macroeconomic variables that determine the economic growth in BRICS.

1.5 Significance of Study

This study will be conducted on BRICS countries and the financial development of these five major emerging countries will be discussed. The findings will apply to the selected emerging economies and also help in proposing effective policies for the significant growth of these economies.

The completion of this study will help in conducting a detailed and critical analysis by cross-countries analysis. This study will help in identifying the role of financial development for the countries that are lagging in global economic competition. This study will provide strong practical as well as academic implications. The

practitioners can use the identified factors suppressing the impact of financial development on economic development and propose solutions. On the other hand, academicians can use the study for conducting detailed and critical analysis by developing different theoretical models and using different proxies and measures.

1.6 Thesis Outline

The thesis will comprise of five chapters, which will cover introduction, literature review, research methodology, data analysis and conclusion and recommendations.

In introduction chapter, the background of the study will be discussed along with revealing the scope and importance of the study. Furthermore, the research questions and objectives will be elaborated. In literature review chapter, a critical analysis of the past studies will be presented along with highlighting the gaps prevailing within the past studies. Furthermore, the theoretical model will be developed based on the context of the study. In the section of research methodology, research methods and techniques selected for the collection of the data and analysis will be revealed. It will help in understanding the nature and scope of the study. In the part of data analysis the test results will be presented and an elaboration of the findings will be included. The discussion will be made on the past and present study's findings by conducting a comparison and presenting the supporting evidence. And finally in the chapter of conclusion and recommendation, the conclusion to the study will be made based on the findings made by the researcher. Furthermore, the implications of the findings will be discussed. Along with this, a researcher will add recommendations for the conduction of the future study based on the limitations of the current study.

Chapter 2

Literature Review

There is an evolution and improvement in the financial system which is due to the development of economies. Goldsmith was the first man who research the relationship between financial development and economic growth. There are some limitations of Goldsmith's research, the relationship between financial development and economic growth is not fully indicated by his research. Goldsmith collected the data for his research before 1964 and data are about 35 countries. The result of the data revealed that there is a positive link between financial development and economic growth. From his graphical analysis, there are no causal interpretations. Cross-country data limitations are another limitation of Goldsmith's research.

After Goldsmith's (1969) work structuralist and repression are the two data sets of subsequent studies. Quantity, composition, and structure of financial variables are the main contentions of structuralists. By mobilization of saving, these contentions of structuralists promote economic growth. Capital formation is increased by increasing the mobilization of savings. So, this can lead to a decrease in poverty and the development of the economy (Ahmad, Ahmed, Yang, Hussain, & Sinha, 2022). Saci, Giorgioni, and Holden (2009) stated that there is a positive significant effect of stock market development indicators on growth. Economic growth is negatively influenced by banking sector development during the development of the stock market. Leitao (2010) took the data of 27 European Union Countries and Five BRICS countries from 1980 to 2006 and the result showed a positive relationship between financial development and economic progress.

2.1 Financial Development and Economic Growth

Osei and Kim (2020) stated that the economic growth of a country is positively affected by the size of the financial sector. In growth, financial institutions play a very important role. The first role of financial institutions is a mobilization of ideas or underutilization of capita. If capital in banks is not mobilized then all the deposits of banks remain in the liability column. Evaluating entrepreneurial projects is the second important role of financial institutions in growth. New ventures will be profitable, and managers of banks analyzed them before approving loans. In a project, the performance of the manager of the project is evaluated by banks is the third role played by financial institutions. A loan can be repaid only when the new venture will be profitable. So, banks monitor the performance of project managers. To pools of investment, the risk is managed by financial institutions that are the fourth role of financial institutions. To firms, depositary and transactional services are provided by financial institutions.

Olayungbo and Quadri (2019) stated that the economic growth of a country is positively affected by new business and favorably entry of small businesses. This is possible only when there is an increase in individual likelihood due to strong financial development. Per capita, the local output is positively affected by financial development. Through technological innovations, economic growth is contributed by financial development. Financial institutions provide sufficient funds to firms that positively affect the economic growth of a country. In firms, those funds are productively used.

At the early stage of economic development of a country, economic growth is led by financial system. The development of total factor productivity, GDP per capita income and financial intermediaries have large and significant relationships between them. Total factor productivity and resource allocation are improved by better functioning of financial intermediaries that positively affect the long-run economic growth. Financial intermediary development has a positive and significant effect on economic growth. The difference in financial development across the country

is due to variances in legal and accounting systems. In high-income economies, economic growth has been positively affected from financial development. In poor countries, this relationship is not too strong as in high-income economies. Four different proxies of financial development are used to identify the link of financial development with economic growth. In long run, there is a co-integrated relationship between banking sector development, insurance sector development, stock market development, and bond market development (Erdoğan, Yıldırım, & Gedikli, 2020).

Ibrahim and Alagidede (2018) stated that on the financial growth nexus, there is an issue of threshold and non-linearity. Up to a certain edge, financial development causes an increase in economic growth. Economic growth decline due to financial development when the expansion of the financial sector reaches that threshold. For the economic growth of a country, more finance is not good. In long run, the relationship between financial development and economic development is U-shaped. Whenever credit to the private sector reaches a threshold, there is a negative effect of financial development on economic growth. Bank regulation and supervision also affect the financial growth nexus.

2.2 Supporting Theories

2.2.1 The Theory of Economic Growth

Osiobe et al. (2019) stated that quality of life improved along with the increased capacity of production due to the economic progression of a country. Steady-state growth is positively affected by financial intermediation as mentioned in endogenous growth theory. The economic growth of a country is negatively affected by government interference in the financial system.

Sandberg, Klockars, and Wilén (2019) stated that an increase in real GDP can define economic growth. In the growth process, different factors affect it. This is the reason behind the economic growth as a complex problem. In the economic growth of a country, different factors affect it. The role of several factors on economic growth is discussed in various partial theories. Under the basic endogenous

growth model, economic growth is affected by the improvement of the financial sector in three ways. Productivity of investment can firstly increase financial development. Transaction costs can be reduced through the efficient financial sector is the second way. Liquidity of investment improves through an efficient financial sector. Saving can be increased or decreased through financial sector development the third way of it. Long-term economic growth can be affected by social advancement and investment in labor.

[De La Croix and Michel \(2002\)](#) mentioned that long-term financial development is made from machines. From the speculation on machines and labor, there is a possibility of economic growth according to Marx and Weber's theories. After World War 2, a fundamental principle of economic growth approach was designed by Harrod and Domar and employed that principle in Asia, Latin America, and Africa. Economic growth is stimulated through saving and efficiency in investment as indicated by Harrod-Domar Model. Two significant properties of growth are highlighted in the Ricardo principle model. The revenue of capitalists can be reduced by a restricted supply of land. This can lead to an increase in the rent of properties over time. Over time, there is an escalation of price due to wage goods from cultivation. The profits of corporations are reduced due to the escalation of prices. Neoclassical and endogenous growth theories are the main focus theories of this research.

2.2.2 The Slow Neoclassical Model

[Hahn and Matthews \(1964\)](#), presented the neoclassical developmental hypothesis, which [\(?\)](#) however took into account its generally normal model. Three notable cases have been made of neoclassical model of development by assuming capital and labor substitutability, exogenous innovation change and marginal efficiency decrease. There is an increase in capital to labor ratio which is key source of economic growth. Steady state of economy is when state is unable to expand capital. In conclusion, for a similar level of available capital, the less high-level economies would become faster than more developed ones until they reached a steady state, and as such economic convergence is attained.

In the growth equation, labor as a second factor and technology as an independent variable are added to expand the Harrod-Domar formulation. Reducing return to labor and capital combined and separately return to both factors are discussed by Domar (1946) and Harrod (1939). In total production, the involvement of growth is termed a slow residual, this is when the production function is evaluated empirically. In productivity, the upturn is measured by total factor efficiency indicated by slow residual. A variable quantity production function is used in the neoclassical growth model. Steady state of economy is when state is unable to expand capital. In conclusion, for a similar level of available capital, the less high-level economies would become faster than more developed ones until they reached a steady state, and as such economic convergence is attained. In production procedure, possibilities of replacement between capital and labor are ruminated by the variable quantity production function (Dykas, Mentel, & Misiak, 2018).

Q. H. Nguyen (2019) stated that through a high rate of saving and capital formation, there is an accomplishment of short-term growth of the amount produced. One limitation to economic growth is diminishing return to capital in this model. Diminishing return to capital and labor, there is an exhibition of constant rate to scale that is taken in the neoclassical growth model. Labour productivity is one of the key variables in the Solow growth model. Economy level of real GDP is taken to calculate the output per worker. After it divides the economic level of real GDP by the economic labor force. The level of prosperity of the economy and living standard best substitute is output per worker. In the economy, the government should not intervene according to the neoclassical model.

2.3 Theoretical Framework

To increase output growth, it is very important to commit to building the labor force. For output, steady-state development rate, and saving rate have not been focused on. For every capita wage, there is an expansion over the steady-state level. This is the reason behind not focusing on saving rates. For per capita income, there is a dedication to state rate development because it is a long-term development rate (Schlogl & Sumner, 2020).

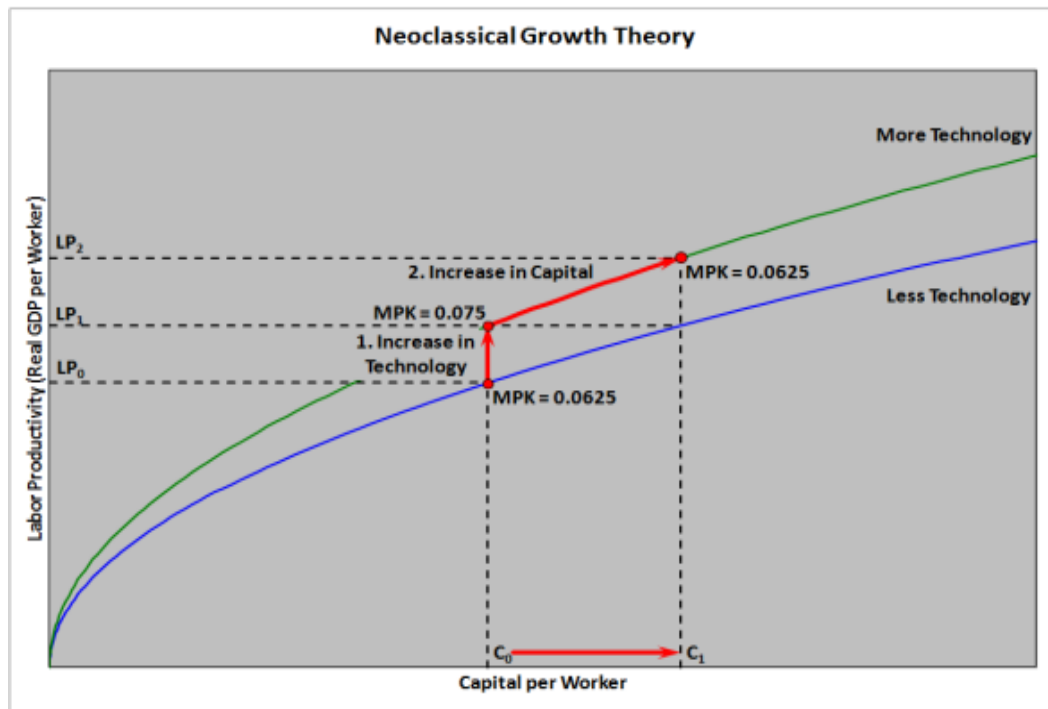


FIGURE 2.1: Neoclassical Growth Theory

2.3.1 The Endogenous Growth Model

Rumer (1994) and Lucas(1998) recognized endogenous growth theories. For self-sustained economic growth, new growth factors were pointed out in the endogenous growth model. By endogenous appeal of production technology, there is an initiation of increasing return to capital. Economic activities derived from the long-run growth enlighten in the endogenous growth model. Constructing new technology advancement is one of the economic activities that derive long-term growth of the economy. Because of technological advancement, new classical growth is an exogenous growth. Outside of the theorized objectives of the economy, there is growth in the economy because of technological advancement.

At the substance level, maintaining the wage is the theorist's objective for the economy. Economy exogenous growth brings by technology growth. To the subsistence level of endogenous response, return wages are increased with an increase in population. Economic growth is endogenous as stated by Freeman. In internationalizing economic movement, a very important role is played by foreign direct investment (FDI). One of the major sources of economic growth and technology transmission is internationalizing economic movement. There is several research

that presented that FDI and economic growth have a positive relationship between both of them ([Tamai, 2022](#)).

[Mamun, Rahman, and Khanam \(2020\)](#) stated that there is an endogenous phenomenon of economic growth explained by Adam Smith. Based on the activities of agents and decisions, a growth rate of an organization depends. There is an economic use of new knowledge which is created endogenously. New technological knowledge is an asset that after long years became public property. For growth, there is no limit. In the process of accumulation, there is a requirement for an additional workforce. Effective demand is regulated by the quantity of labor power.

Constant returns are mainly focused on endogenous growth theory. Because of ongoing growth generation and accumulated factors of production, constant growth rate are the main focus of endogenous growth theory. There is a higher output when production increases. Based on the growth rate of the total factor of productivity, a growth rate of output per person is measured to determine the rate of economic growth in the long term.

The rate of technological progress is measured to determine the total factor productivity. Through the scientific process, the degree of technological progress is determined. The scientific process is different from economical forces ([Gómez, 2021](#)).

Economic factors affect long-term economic growth and the rate of technological progress. This channel is proposed by endogenous growth theory. New economic geography is another recent element of economic study from different perspectives. Primarily Advantaged economies are favored by unbalanced procedures related to economic growth focused on NEG. Lacking competition, increasing return to scale and non-zero transportation costs are emphasized by the emerging courteous system.

Between practices and economies, there is a forward and backward relationship to increase positive externalities. Centrifugal special effects arise by strengthening competition and transport costs which are negative externalities. To alleviate dissimilarities, a major role is played by economic strategy. The position of economic activity is mainly focused on NEG ([Gómez & Monteiro, 2022](#)).

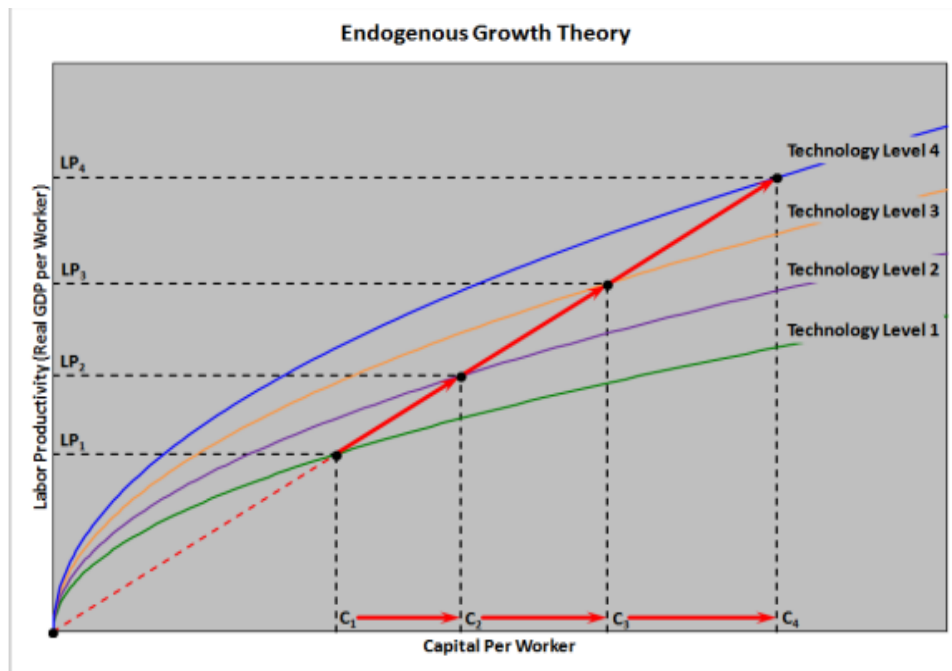


FIGURE 2.2: Endogenous Growth Model

2.3.2 Financial Development

On the significance of financial development in economic progression, economists have different points of view. England's industrialization is greatly affected by financial development. For immense work, mobilization of capital is a means through which financial development plays important role in England's industrialization.

(Sussman, 1993) disagreed that some well-functioning banks tend to be technical stimuli. Modernization by detecting and even funding select entrepreneurs who have better opportunities to successfully apply these innovative products and products processor. This could make banks one of the best effective engines created to drive economic growth. As suggested by Blackburn and Hung (1998), an Effective financial market and efficient intermediation lead by financial development. Institutions, factors, and policies defined financial development. Financial improvement and economic growth have been the subject of considerable empirical and theoretical research worldwide. In general, countries should increase or improve it efficiency of the current financial sector. In this way, we enable the financial sector regulating and coordinating appropriate policy reforms to stimulate a faster economy growth.

To provide a risk management system, mobilization and manage savings, exercise corporate control, and obtaining information about investments possibility, and facilitate of exchange of goods and services, there is a need for intermediaries and other organizations. Economists and the global economy need to discover the factors that are part of it. In understanding the difference in long-term economic growth rate There is an improvement in the financial sector. The living standards of people improved when the financial sector improved. Public policy advice is provided to countries by their financial sector ([Aghion, Howitt, & Mayer-Foulkes, 2005](#)).

Because of the importance of determining the determinants and measures of the financial determinants of a functioning financial system, there seems to be technology is one of the core factors underlying the differences. There are three ways of developing financial market sectors that can influence economic growth according to a basic endogenous growth model. First, it can upsurge the productivity of investment. Second, an efficient financial sector increased savings percentage due to reduced transaction costs. An efficient financial sector develops the liquidity of investments. Finally, the development of the financial sector can either encourage or discourage saving.

2.4 Financial System

In a modern economy, the allocation of resources is crucial in the financial system. In financial system, households save their money in financial institutions and financial institutions give that fund to businesses as a loan. Businesses invest that fund in different projects in this way, the risk is shared among households and businesses. In most developed economies, functions of this financial system are very common. There are different structures of these financial systems. On freedom of trade, countries' viewpoints are governed by the financial system. There are socialist financial systems in some countries like the Soviet Union. The reason behind the socialist financial system is that not everyone is allowed to trade. There is a centrally organized government that funded the trade ([Gourinchas, Rey, & Sauzet, 2019](#)).

2.5 Economic Growth Determinant

The neoclassical model and a few endogenous growth models considered that human capital is one of the focal causes of economic growth. Through education and training, workers gain knowledge and expertise. Proxies related to learning are used by some researchers to measure the eminence of human capital. School enrolment duties are one proxy related to learning. In economic growth, an educated population plays a very important role ([Fashina, Asaleye, Ogunjobi, & Lawal, 2018](#)).

Endogenous growth theory and neoclassical theories mentioned that one of the basic determinants of economic growth is an investment. The transitional period has been affected by investment according to neoclassical theory. There is a permanent effect of investment on economic growth as mentioned in the endogenous growth model. To determine the bond between investment and economic growth, there are several research. One important determinant of economic growth is openness to trade along with investment. Exposure to competition, diffusion of knowledge, increasing scale of economy, technology transfer and comparative advantage is due to openness to trade ([Saidi, Mani, Mefteh, Shahbaz, & Akhtar, 2020](#)).

[Nazarczuk and Umiński \(2018\)](#) stated that geography is another important determinant of economic growth. There are multidimensional effects of geography on economic growth. Long-run economic growth is affected by food productivity, resource endowment, population growth, and health. Geography characteristics are food productivity, population growth, and health. Agriculture productivity and human health are adversely affected by tropical climates. Per capita income decreased by low agriculture productivity and bad human health. It is expected that there is a high per capita income and faster economic growth in resource-rich economies because of the utmost importance of geography. It is expected that there is a low per capita income and slow economic growth in resource-poor countries because of the utmost importance of geography. But in reality, it is observed that situation is the opposite of it. In economic growth, research development played the most important role. Productivity is increased because of innovation and research development. New products and processes are introduced due to the

high use of technology. There is a large number of researchers who determine the connection between innovation and economic growth ([Nathaniel, Barua, Hussain, & Adeleye, 2021](#)).

[Tawiah, Zakari, and Adedoyin \(2021\)](#) mentioned that growth performance one of the major determinants is openness to trade. In an economic growth, openness to trade is extensively used. Between openness trade and openness to trade, there is a positive and strong relationship. Exposure to competition, diffusion of knowledge, increasing scale of economies, technology transfer, and exploitation of comparative advantage are different channels through which openness to trade affects economic growth. The export-to-GDP ratio is used to measure the openness to trade.

Economic growth and other determinants of growth are directly affected by the five key institutions. The name of these five key institutions is an institutions for conflict management, institutions for social insurance, institutions for macroeconomic stabilization, regulatory institutions, and property rights. The economic growth process, investment, technical changes, and human capital are the determinant of growth. In the presence of stable and trustworthy institutions, economic performance has not been affected by traditional factors ([Urbano, Aparicio, & Audretsch, 2019](#)).

2.6 Financial Development Measurement

2.6.1 Institutional Environment

[Le and Ozturk \(2020\)](#) stated that the financial system is developed by the institutional environment. Supervision, laws, regulations, and policies are included in the financial system. In financial development, one of the main barriers is dysfunctional institutions. A high level of financial development is accomplished by countries through a strong institutional environment and investor defense. To achieve a high degree of financial development, there is a need for continuous observing of the financial system with qualified international audits. By international rating system and international standards, there is an evaluation of banks. To strengthen their capital regulations, Basel rules are followed by many countries.

In increasing the financial system, a significant role is played by domestic financial liberalization and capital account openness. Intermediation between saver and investor increased with it. In the economy, the level of financial mobilization is increased with its help of it.

2.6.2 Business Environment

Business environment is one of the main determinant of economic growth. By skilled labours, advanced infrastructure and technological advancement, value can be added in the business activities. In this way, business environment positively effect the economy of a country. Financial services standards can be developed with the help of skilled labour. [Kratou and Gazdar \(2018\)](#) conducted research on fifty-seven countries to determine the impact of human capital on financial development. There is a strong and significant relationship between human capital and financial development as shown by the result of research. Employees in an organization achieve the goals of their work by taking training from the organization. Research and development education also help employees in achieving their objectives. Business environment plays very important role in achieving the financial development.

2.6.3 Financial Stability

Tradeoff between risk and return is called financial stability. For measuring financial development, there is a need of efficient financial system. There are the two types of risks faced by financial system of a country one is systematic risk and other is unsystematic risk. Organization develop strategies to deal with unsystematic risk and also develop strategies to reduce the loss of systematic risk. Some of systematic risks disturb the financial stability of a country. For example, the failure of a unit could fail the monetary system or market. In financial market, there is an issue of asymmetrical information. Seller mostly have more knowledge about the product and services they sell as compared to buyer. Government of every country develop certain rule and regulations to protect the interest of buyer.

Financial policies additionally assist to enhance the performance of the monetary device. A highly supervised and controlled monetary device can be very stable; however, any such controlled device can also additionally similarly impede monetary improvement and innovation. In contrary, a monetary device is modern and has excessive administration, and law also can become unbalanced and cause credit score booms inflicting an intense poor impact on growth. Financial soundness entails the danger associated with foreign money crises, systematic banking crises, and sovereign debt crises ([Ibrahim & Alagidede, 2018](#)).

2.6.4 Banking Systems

The money supply does not affect by lending from non-banks. In market debt, the amount of credit is increased by lending from non-banks. In the short term, non-banks take loans at a low-interest rate and invest that fund in long run at a high rate of interest. For bank operations, an excellent rating is required. The financial system is developed by increasing the competition for credit opportunities between banks and non-banks entities ([Acheampong, 2019](#)).

2.6.5 Financial Market

There are different types of the financial market that are:

Stock Market

In the smooth functioning of the economy, a major role is played by modern national economic infrastructure. Modern national economic infrastructure backbone is the stock market. Stock markets provide a platform for the public where they go and invest their capital in the company's stock. In this way, companies get the opportunity to gain fund from the public and invest in different projects, and the wealth of investor are maximized. More economic activities are possible when the wealth is maximized. In the analysis and technical field of the stock market, a large number of jobs are provided to people who analyzed the company's performance which is listed in the stock market. In such way, this market leads to economic growth ([Vaidya, 2021](#)).



FIGURE 2.3: Impact of Stock Market on Economic Growth

Money Market

In the financial market, the most liquid market is the money market. In the money market, there is short-term lending and borrowing. The safest money market instrument is treasury bills as they are risk-free. Lending money to the economy is boosted by financial intermediaries when there is a development in the money market. Economic conditions and social welfare of a country improved with the development of the money market (Okoyan & Eze, 2021).

Bond Market

Along with corporate bonds, government bonds are also traded in the bond market. The bond market is a debt market. For controlling the money supply and inflation in a market, bonds are used by the government. To predict the economy, the yield curve is used by investors. From holding or buying a bond, the return that an investor earns from it is called yield. The economy of the country is affected by bonds. For individual investors, a transaction cost is very high in the bond market (Harford & Uysal, 2014).

2.7 Rostow's Stages of Economic Growth

Cairncross (1961) stated that less developed countries and developed countries experienced the sequence of development mentioned in this growth model. To

generate an essential pre-condition to taking off to the self-sustaining economic development stage, the sequence of development plays a very important role.

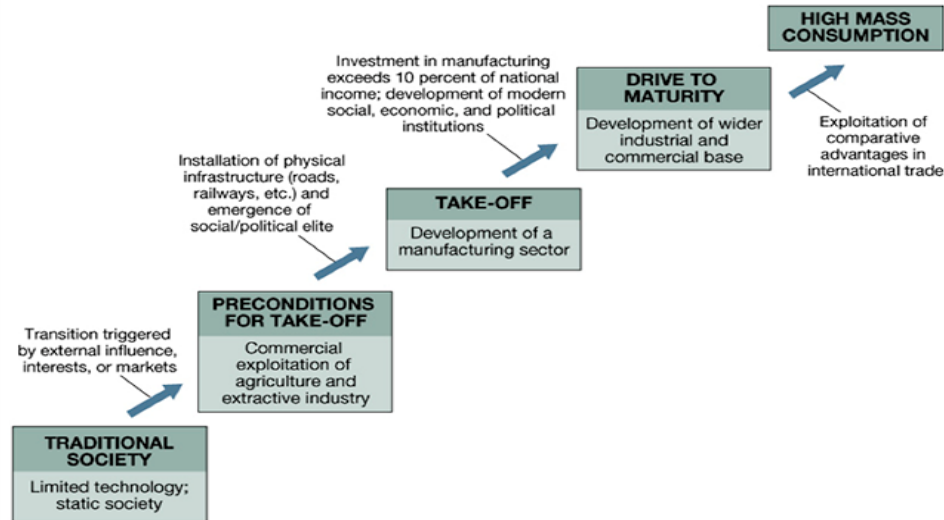


FIGURE 2.4: Rostow's Phases of Economic Growth

2.7.1 Traditional Society

Understanding the use of technology, mostly it is referred the understanding of traditional society. Subsistence activity dominated the economy. Outputs that are not traded are consumed by production consumers. There is an exchange of goods with other goods in a barter trade system. One of the most important industries is agriculture. A limited quantity of capital is used in production which is labor intensive. There is limited technology. By traditional methods of production, resource allocation is determined (Selwyn, 2020).

2.7.2 For Takeoffs, Preconditions

Through manufacturing and entrepreneurial development, there is an educational and capital mobilization establishment of currency and banks. Surplus for trading is generated by increasing specialization. To support trade, there is an emergency in transport infrastructure. There is a growth in saving, investment, and income by emerging entrepreneurs. Based on primary products, there is an occurrence of

external trade. Private enterprises are encouraged by a strong central government (Gumbis et al., 2019).

2.7.3 Take Off

When an economic process is driven by society, not by tradition, and sector lead growth becomes common then take-off occurs. When workers left the agriculture sector and come into the manufacturing sector it means there is an increase in industrialization. With one or two manufacturing industries region of a country is the main concern for growth. Country economic activity is measured through the gross national product (GNP). 10% of gross national products preceded by the level of investment. Within one year, nationals of a given country produced the value of finished goods and services referred to as a gross national product. Income increases with the growth of an investment. More savings to finance are generated by increasing the income (Cairncross, 1961). Countries that grow at a higher speed saved 15% to 2% of GNP. This is self-sustaining growth. National saving and investment are increased by the mechanism of economic growth and development. In most poor countries, a low level of capital formation is the main barrier to economic growth of that countries. 7% per year is a growth rate for those countries that wanted to grow. The final aggregate output ratio is 3 when the country fails in generating savings and investments at the rate of 21% of national income. Through foreign investment and foreign aid, a 6% saving gap can be filled. In terms of cold war politics, growth capital constraints to approach are rational. From developed countries to less developed countries, technical assistance and massive transfer of capital are opportunistic tools for growth. For an underdeveloped nation in the developing world, it acts as a Marshal plan (Soberón, 1961).

2.7.4 Drive to Maturity

In new areas, there is a diversification of the economy, diverse range of investment opportunities are provided by technological innovation. A wide range of goods and services are produced by an economy. The economy is less reliant on imports. There is a high use of technology and urbanization is increased (Rostow, 2015).

2.7.5 Age of High Mass Consumption

This discusses to the era of current ease provided by many western countries. Customers focus on durable goods and have little memory of their lives. The economy is oriented towards mass consumption and the level of economic activity is very high. The technology is widely used, but adoption is slowing. The service department is becoming more and more dominant. There is a completion of urbanization. Multinational corporations are on the rise. The income of many people exceeds basic food, housing, and clothing ([Shackle, 1962](#)).

[Hunter \(2012\)](#) argued that economies go through each of these stages linearly, the various situations that are likely to arise in the areas of investment, consumption, and social issues indicate the trends. From region to region and country to country, transition periods and stages may occur.

2.7.6 Criticism of Rostow Growth Stage Model

[Itagaki \(1963\)](#) stated that Some of the developmental mechanisms involved in the growth stage theory are not always working. For an accelerated rate of economic growth, more investment and savings are not a necessary condition, this is the main reason behind not always working growth models. For Europe, the marshall's plan worked. Aided European countries have the necessary structural, institutional, and terms of employment. For example, well-integrated product and financial markets, sophisticated transportation facilities, a skilled and educated workforce, incentives for success, and an efficient government bureaucracy that can effectively transform new capital higher output power. The Rostov and Harrod-Domar models indirectly assume the presence of similar approaches and arrangements in less developed countries. Still, Often, they are absent, as are complementary factors such as management competence, skilled workforce, and extensive planning and management capabilities for the development project. But at a more fundamental level, stage theory fails, today's developing countries are part of a highly integrated and complex international system in which even the best and most intelligent development strategies are thwarted by external forces beyond national control ([Khan & Slavador, 2017](#)).

2.8 Impact of Financial Intermediaries on Economic Growth

In theoretical and empirical research, it is mentioned that economic growth is affected by financial intermediaries. Total factor productivity and transaction cost which are the main driver of growth are stimulated by finance. The cost of capital accumulation is decreased by financial intermediaries. Saving is encouraged by financial intermediaries. By directing investment to the most profitable projects, total factor production is increased by financial intermediaries. Economic performance is affected by financial development through three channels.

The efficiency of investment is improved by financial intermediaries, this is the first channel through which financial development shakes economic performance. Saving is increased and transaction cost is decreased by an efficient financial system, this is the second channel through which financial development affects economic performance. Saving is increased and decreased by financial development, this is the third channel through which financial development affects economic performance ([Tweneboah et al., 2021](#)).

[Chen \(2006\)](#) mentioned that through risk minimization and risk sharing, along with monitoring profitable projects, productivity is increased by financial intermediaries. By diversifying and sharing risk between investors, risks are mitigated by financial intermediaries. By specialization, it became very risky to increase productivity with an insufficient financial market for producers and investors. By increasing total factor productivity, economic growth is increased by financial intermediaries.

Through capital accumulation, economic growth is increased by financial intermediaries. For economic growth, a transformation of saving into investment is necessary. For the transformation of saving to investment, there is a need for the growth of the financial market, financial market instruments, and financial service network. Through productivity, economic growth is affected by financial intermediaries. Based on the level of economic development of countries, the effect of the financial system on economic growth varies. Productivity is one of the major

factors for economic growth in industrialized countries. For developing countries, capital accumulation is one of the major factors that affect economic growth.

Economic growth is largely influenced by cost-efficient financial intermediaries. It means that when transaction cost is decreased by financial intermediaries then financial intermediaries positively affect the economic growth of countries. Regardless of the dominant structure of banks and financial intermediaries, economic growth is positively affected by financial development. Protection of investor rights and contract enforcement is conditional on economic growth by financial development. By legal origin, investor protection rights and legal enforcement are determined. After the threshold level, the financial system has no more positive relationships with financial development. Based on monitoring technology and level of development of production, there is an existence of optimal size of the financial system. The relationship between finance and economic growth is not linear but U-shaped. U-shaped showed that there is no linear association among finance and economic growth ([Efayena, 2014](#)).

Across the region, countries, and income levels, there is not a homogeneous impact on financial development o economic growth. Between finance and economic growth, there is a positive relationship in countries named China, Nigeria, and Greece. In government finance, distortion in the system caused the negative relationship between financial development and economic growth in Turkey. From financial development, there is less benefit gained by low-income countries and oil-exporting countries ([King & Levine, 1993](#)).

Measuring financial development through financial sector depth indicator has three deficiencies;

1. Financial intermediation does not reflect the quality
2. By improving the quality, only corporate lending has this capacity. Household lending has not this capacity. But both types of lending are included in financial intermediaries.
3. In other sectors, the talent drain is reflected in them.

The true relationship between economic growth and financial development is not revealed by using only financial depth indicators. Financial intermediaries' quality is reflected by stability, efficiency, and access to the financial system. The first deficiency of the financial dept indicator is solved by involving access, efficacy, and access dimension of financial development.

Financial Sector Development Indicator

Financial Depth

Financial sector development is widely described by financial depth. To measure the financial depth, deposits to GDP, assets to GDP, and private sector credit to GDP are taken.

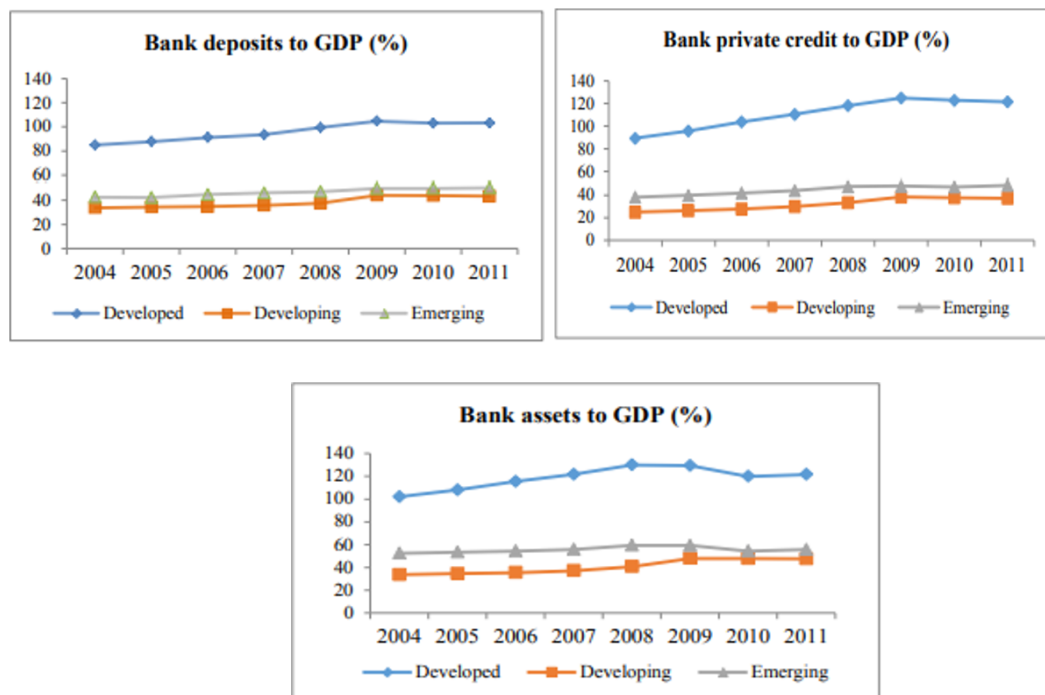


FIGURE 2.5: Financial Depth Indicator of Financial Development System

In terms of financial depth, there was a leading position in developed countries as shown by the graph. Until 2009, in all three financial depth variables, there was a consideration of expansion. There was a slight decline in all these variables after the financial crisis. In terms of the growth rate of these indicators, developed countries are ahead along with leading positions in lending according to the level of financial depth. Between 2004 to 2011, there was a 32% increase in private bank credits to the GDP of developed countries over 8 years. from 2004 to 2011, there

was a 12% increase in private bank credits to the GDP of developing countries over 8 years. Between 2004 to 2011, there was a 10% increase in private bank credits to the GDP of emerging countries over 8 years. In emerging, developing, and developed countries, there were 10, 8, and 18% growth rates of bank deposits to GDP over 8 years. In emerging, developing, and developed countries, there was a 14,3 and 20% growth rate of assets to GDP over 8 years. Over 8 years, there was no shrinkage of the gap between developed and developing countries.

Access to Finance

The aptitude of individuals and corporations to access and acquire financial services along with the size of financial institutions affects the financial sector. Inequality is reduced by extensive access to financial services. Lower-income people get more benefits from wider access to financial services. By strengthening competitiveness and demand for labor, economic development is stimulated by financial access. ATM per 100000 adults and branches per 100000 adults.

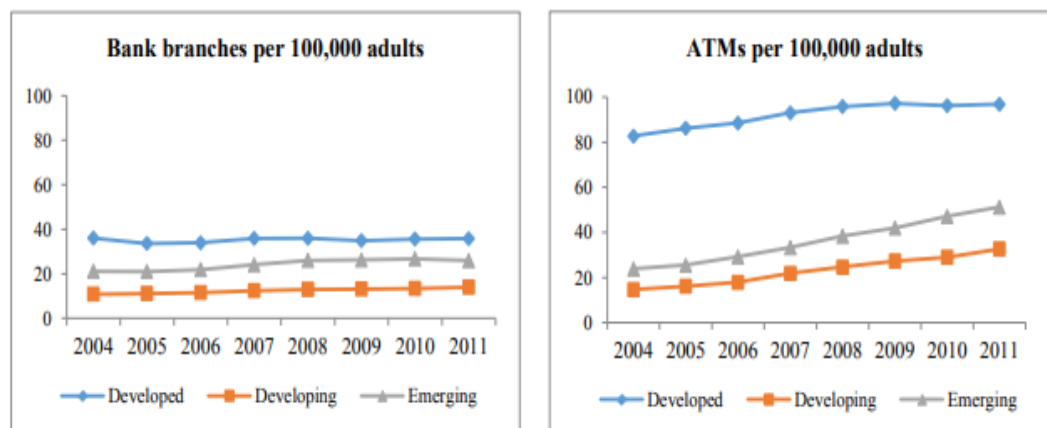


FIGURE 2.6: Financial Access Indicator of Financial Development System

The figure shows that regarding access to finance, there is a leading position of developed countries as compared to developing countries. By 30% to 23%, there was an increase in access to bank branches in developing and emerging countries. Although the increase in bank branches in developing and emerging countries still there was a gap between developed and developing countries in access to finance. 0.7% decrease in access to bank branches in developed countries while 17% increase in ATM coverages in developed countries. Since 2004, outside of office buildings, banks provide services through ATMs. In all three groups of countries

(developed, developing and emerging countries) there was substantial progress in access to ATMs. The reason behind the substantial progress in access to ATMs was that outside of office buildings, banks provide services through ATMs since 2004.

Efficiency

With high efficiency, there is an accomplishment of financial access. To gain expected benefits, there is a need for high efficiency. In a cost-efficient way, intermediary functions are performed by financial institutions. The Efficiency of financial intermediaries is reflected in ROA and low-interest margins.

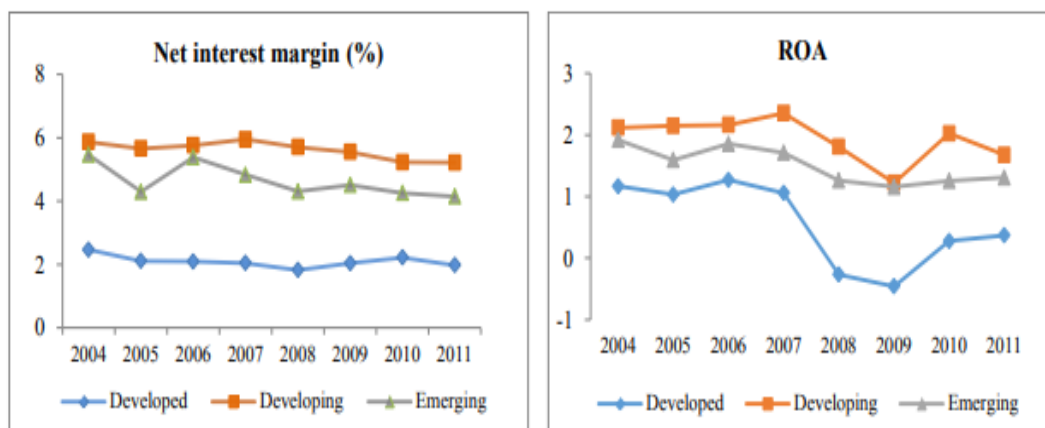


FIGURE 2.7: Efficiency Indicator of Financial Development System

Financial stress period and inefficiency of management of financial intermediaries are indicated by low profitability. As a result of the global financial crises, there was a shrinkage in ROA in 2008 and 2009. The low efficient financial market is indicated by ROA, net interest margin, and profitability. There is a need to add value to production by providing cost-efficient intermediary services. The figure shows that there was an efficient financial market in developed countries while in developing countries, the financial market was not efficient. Emerging countries lie between developed and developing economies.

Financial Stability

To support economic growth, the financial system has no ability if the financial system does not reflect volatility, liquidity, and interconnectedness. One of the biggest catalysts of economic crises was an efficient financial system. Long-term sustainable growth was not supported by an efficient financial system. Short-term

funding, liquid assets to deposit and capital adequacy ratio are the indicators of financial stability.

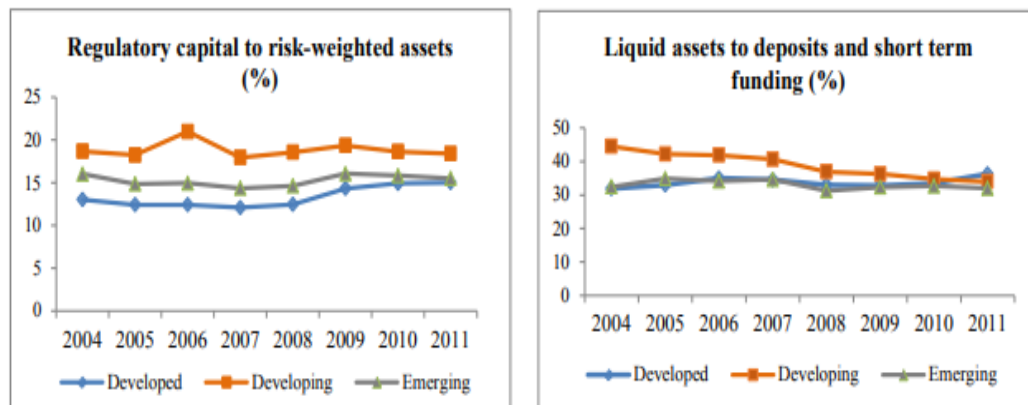


FIGURE 2.8: Financial Stability Indicator of Financial Development System

As required by international standards, the capital adequacy ratio is 2 times higher in developing countries as shown in the figure. Since 2008, there is increase in capital adequacy ratio in developed countries after the global financial crises. From 2004 to 2011, there is a decrease in the capital adequacy ratio in developing and emerging countries while there is a rise in the capital adequacy ratio in developed countries. There is 0.3% decline in capital adequacy ratio in developing countries. There is 0.5% fall in capital adequacy ratio in emerging countries. There is a 2% growth in capital adequacy ratio in developed countries. Due to low-interest rate policy after financial crises and Central Bank quantitative ease, as compared to emerging and developing countries are less liquid as compared to developed ones. Because of unfavorable economic conditions, banks prefer to hold money instead of deposit it in developed countries. This is a reason behind high liquidity in developed countries as compared to developing ad emerging countries.

In terms of debt, access, and efficiency, developed countries are ahead when summarizing these four financial indicators. Financial stability is not ensured by the high liquidity of developing and emerging countries. The high liquidity ratio of developing and emerging countries shows that in developing and emerging countries, assets are not properly utilized. There are two perspectives on liquidity. From one perspective, for sustainable economic growth, financial stability is very necessary. From another perspective, economic growth may hinder by improving financial stability. Financial stability is improved by liquidity and capital accumulation.

2.9 Impact of Stock Market on Economic Growth

Masoud (2013) stated that shares and stocks are traded in the sophisticated marketplace named the stock market. A strong and competitive economy is created by the stock market. In an economy, a stock exchange is key to a transformational structure. Investors can purchase and sell securities and long-term capital is raised by the government and industrialists in the stock market. Some stock markets have physical locations while some are traded online. Short-term and long-term capital is dealt with in the stock market. The confidence of businessman and investors are reflected by historically high prices of shares.

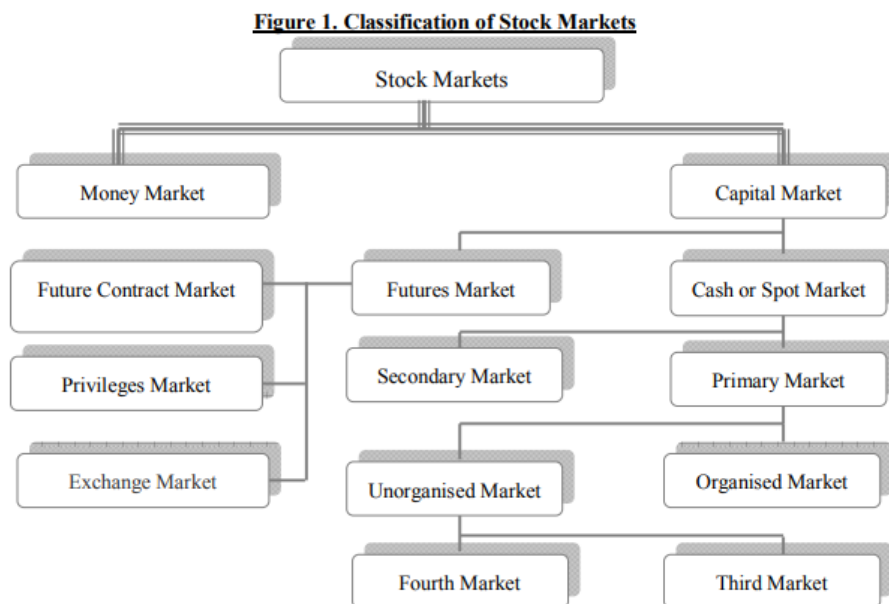


FIGURE 2.9: Classification of Stock Market

The GDP of a country is affected by the stock market. Spending and investment can derive the GDP of a country. By consumer confidence and financial condition, the economy is affected by the stock market. To raise the capital of a company, a company issues new shares. This capital is used to hire new workers, expand operations and invest in new projects. The GDP of a country is increased by expanding the operation activities of a company, hiring new workers, and investing in new projects. There is a high demand for equity in a bull market (when the equity market is rising). Consumers and investors have more wealth when there

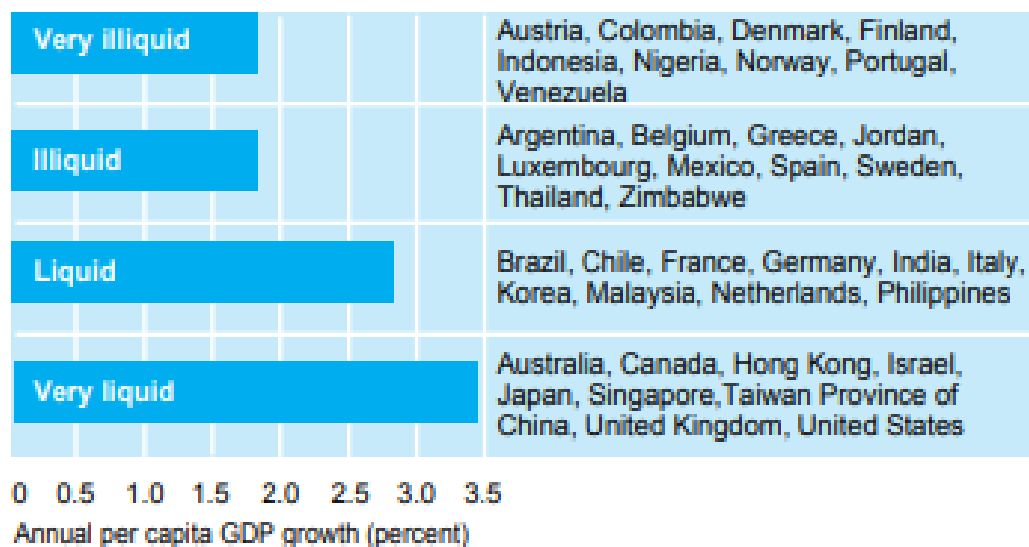
is an increase in share prices. Consumer and investor spending increase with this increase in confidence. When consumer spending increase, sales of companies increase which ultimately increase the GDP of a country (Choong, Baharumshah, Yusop, & Habibullah, 2010).

Osaseri, Osamwonyi, et al. (2019) mentioned that to prevent losses on the investment, an investor sells their stock when stock prices are down. In consumer spending, there is a pullback because of fear of recession. Negative GDP of two consecutive quarters refers to a recession. Sales and revenues of companies are negatively affected by the decrease in consumer spending. The unemployment rate also increased because companies cut their cost and fired employees from their job. To find a new source of financing, the business faced a lot of problems. It became very difficult for the management of companies to manage their existing debts. Business and consumer confidence declined because of all of these factors. In the stock market, there is very low investment. GDP is negatively affected by the loss of confidence of consumers and businessmen.

Through the creation of liquidity, economic activity is affected by the stock market. Less risky and more attractive investments are offered by liquid equity markets. If investors want to alter their portfolio and access their savings then they sell their shares in the liquid equity market. Allocation of capital is improved by the liquid equity market. Long-term economic growth improved by the allocation of capital. More investment is led by a liquid equity market which makes investment less risky and more profitable. Long-term economic growth is affected by the liquidity market. Investor myopia is encouraged by the liquid market. To exert corporate control by monitoring firm performance and potential and overseeing managers, reduce the investor incentives and weaken investor commitment in the liquid stock market. Economic growth is negatively affected by the increase in liquidity (Ake & Ognaligui, 2010).

Carp (2012) stated that economic progression is positively affected by the liquidity of the stock market. Three measures are used for stock market liquidity. On the country's stock exchange the worth of total share traded as a share of GDP is the first measurement of the stock market. At posted prices, the cost of buying and selling securities is not directly measured through this ratio. With the ease

of trading, the value of equity transactions as a share of national output varies. There will be very low trading if there is a high risk in a trade. On the base of the liquidity of the stock market, 38 countries are ranked by using this ratio into four groups. In the first group, there were nine countries with very low liquidity stock markets. In the fourth group, nine countries were included that had the most liquid markets. Countries that lie between these two extreme conditions are included in the second and third groups. The second and third groups included 10 countries in each group. In 1976, countries that had a liquid stock market and grew fastly over 18 years shown in chart 1.



Source: International Finance Corporation.

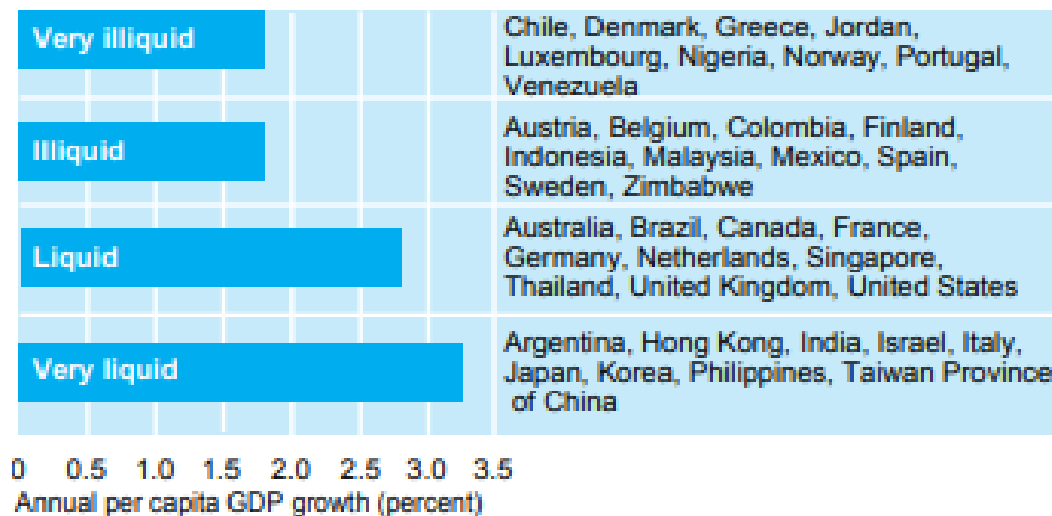
Note: Initial liquidity is measured as the ratio, in 1976, of the value of shares traded to GDP.

FIGURE 2.10: Initial Value Traded Ratio (1976) and Subsequent Growth (1976-93)

Value-traded shares as a percentage of total market capitalization were the second measure of liquidity. Faster growth is predicted by greater turnover as indicated in chart 2. From 1976 to 1993, their markets were liquid, and as a result countries grew faster.

The value traded ratio divided by stock price volatility was the third measure of liquidity. Without large price swings, heavy trading should be handled by a highly liquid market. Over the next 18 years from 1976, countries grow faster economically that have high trading volatility ratios. It was observed that those countries have highly liquid stock markets. Countries that have low liquid stock

markets have less economic growth as compared to those countries that have a high liquid stock market as shown in chart 3. While controlling other factors like political, social, economic, and technological factors, there is a strong positive relationship between the liquidity stock market and economic growth.



Source: International Finance Corporation.

Note: Initial turnover is measured as the ratio, in 1976, of the value of shares traded to market capitalization.

FIGURE 2.11: Initial Turnover (1976) and Subsequent Economic Growth (1976-93)

2.10 Impact of Inflation on Economic Growth

[Adaramola and Dada \(2020\)](#) taken Ninety three countries in their research to identify the influence of inflation on economic growth. By reducing rate of productivity growth and investment, economic growth is negatively affected from inflation as shown by the result of this research paper. Resource allocation is negatively affected from the inflation and when resources in an economy is not effectively distributed negatively affect the economic growth of a country. Effect of inflation on economic growth is determine by ([Tien, 2021](#)). Hudedred countries are targeted in his research and the research study period is from 1960 to 1990. Basic aim of his research is to determine the effect of inflation on economic growth. There is an 0.4% term 0.6% decrease of investment with the increase of 10% inflation. When investment in a country decreased it negatively affect the economy of a country.

There is 0.2% to 0.3% decrease of capita per income of country with increase of 10% inflation rate in a country. These all are the result which shows that inflation negatively affect the economic growth of a country. In this model to look at the result of inflation on the expansion rate of real GDP. The result shows a negative association between inflation and therefore the rate of growth of real GDP.

Umarov (2019) determined the effect of inflation on economic growth of developing and industrial countries. In the relationship between inflation and economic growth, there is an existence of threshold and this is new economic technique first developed by (Akinsola & Odhiambo, 2017). One hundred and forty countries are selected in this research to analyse the impact of inflation and economic growth. From 1960 to 1998, data of countries are collected. For developed and developing countries, value of threshold is 1-3 p.c. Result shows that threshold level for industrial countries is low as compared to developing countries. Inflation rate below the threshold level does not effect on economic growth as indicated by result. Economic growth is negatively affected from inflation that is above the threshold level. He found nine p.c threshold level of inflation and above this level inflation affects the economic process negatively. However, inflation below the calculable level is semiconducting for economic growth.

Madurapperuma (2016) stated that inflation has not any effect on economic growth. In long run, economic growth has not any relation to inflation. Below the threshold level of inflation, these two variables have an insignificant relationship. Above the threshold level, there is a negative affiliation between inflation and economic growth. A threshold level of inflation was 13%. Below the threshold level of inflation, there was no connection between inflation and economic growth.

Economic growth and inflation have a causal relationship. There was an unidirectional causality between inflation and economic growth. Economic growth, inflation, and investment casual relationship are determined in the short run and long term. From economic growth to inflation, there was no causal relationship. Instead of it, from inflation to economic growth there was a causal relationship. It means that inflation affects the economic growth of a country. Economic growth did not affect inflation (Adaramola & Dada, 2020).

Within a simultaneous equation framework, there was a causal interrelationship between inflation and economic growth. Over the 1975 to 2005 periods, 40 countries were used as cross-sectional data for this research. Between economic growth and inflation, there was a bilateral causal relationship as indicated by the result. It means that inflation negatively affects economic growth whereas economic growth positively affects inflation. Developing countries, low income, and high income were the groups of the data. As compared to high-income and developing countries, low-income countries' economic growth is more negatively affected by inflation as shown by the result of research (Kryeziu & Durguti, 2019).

Economic growth and inflation have no causal relationship. From 1963 to 2000, data were collected for this research about inflation and economic growth. The target population of this research was Kenya. In these two variables, there was no causality relation shown by the granger causality test.

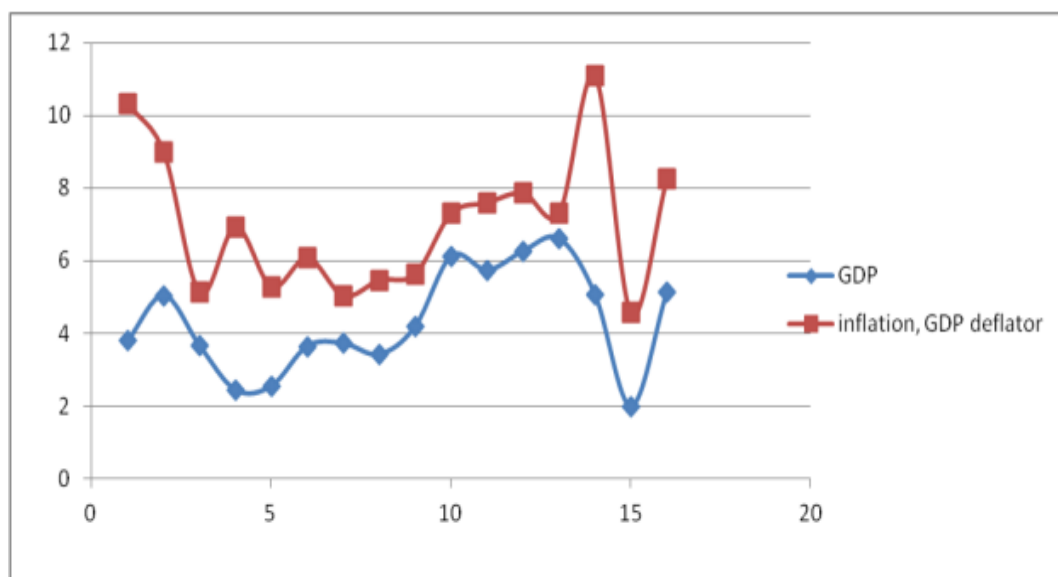


FIGURE 2.12: GDP and Inflation of SSA Countries

Due to the controversial nature of SSA countries, it's very interesting to determine the relationship among inflation and economic growth. In the contemporary world, SSA countries have high inflation rates. Between inflation and economic growth, there was a causality relationship. The targeted country in this research was Nigeria. The Granger causality test was used in this research. GDP causes inflation as the result of the study showed it. Inflation did not cause GDP. In the long term and short term, there was a difference in the casualty relationship

between inflation and economic growth. They are the direction of causality relationship in the short term. SSA countries economic growth caused inflation argued by SSA politicians (Bick, 2010).

Mallik and Chowdhury (2001) stated that there is a positive association between inflation and economic growth. Producers of products get benefits from inflation. At high prices, producers sell their products and earn high profits which ultimately has a positive effect on the economy of a country. More products and services are created when producers receive the right investment. Production of products and services increased with inflation. In this way, increased production of goods and services caused the economic growth of a country. Demand for a factor of production increased with the increase in the production of goods and services. During inflation, income and employment levels increased. A high employment rate causes the economic growth of a country. So, the relationship of economic growth and inflation is positive.

Eggoh and Khan (2014) mentioned that purchasing power of people who have fixed incomes declined due to inflation. When the purchasing power of customers declined then firms' sales are negatively affected. Firms fire employees to maintain the fixed cost of a firm when the sale of companies is reduced. In this way, the country faced an unemployment issue due to inflation. Results showed that inflation negatively affected the economic growth of a country.

Fakhri (2011) had a view that that there was an increase in prices of factors of production during inflation. More money is needed by the government to complete the projects taken in the planning process. Government expenditure on projects was very high during the inflation period. Through saving and taxation, financial resources are raised by the government. When the government's financial resources are less than the required financial resources for projects the project fails and the entire planning process is upset. During inflation, there is an increase in prices of export items which is due to increased prices of raw materials and factors of production. In foreign markets, demand for products might fall due to increased prices of goods and services. The export income of a country is negatively affected by a decline in demand for goods and services in a foreign market. This shows

that inflation negatively affected the export income of a country which lead to a decline in the economic growth of a country.

In an economy, inflation became chronic. Because of the reduction in the real value of money, people became less interested in saving. For future investment, the available amount of funds is reduced because of a lack of savings. There is an adverse relationship concerning inflation and economic growth. Because of inflation, people saving interest is reduced which causes a lack of investment. Lack of investment caused a decline in the economic growth of a country (Valdovinos, 2003).

2.11 Impact of Export on Economic Growth

Exports are the value of all those goods and services that are produced within one country and traded with another. Exports generate foreign currency earnings in the country that produces them. Exports comprise the value of commodities, cargo, insurance, transportation, royalties, license fees, and other services, such as business, construction, information, personal, communication, and government services. They don't include benefit of employees and investment income (formerly called factor services) and transfer payments. In local grocery stores and retail stores, products are from every corner of the World in today's global economy. Customers have more choices because of overseas products. When the export rate of a country is greater than its import rate it means that country produces more goods and these products are of good quality as they sell in a foreign market. Export and economic growth have a positive relationship because a high export rate means a high production rate in a country. When there is high production in a country then the employment rate also improved. So, the economy of a country grows with a high export rate. One of the biggest determinants of GDP and economic growth is the value of a currency. The everyday life of a country's citizens is greatly affected by the value of a currency (T. H. Nguyen, 2016).

The overall economic activity of the nation's measured by gross domestic products. In calculating GDP, the most important component is import and export. The

net exports figure is positive when the export of a country is higher than the imports of a country. A trade surplus of a country is shown by a positive net export value. Net export figure is negative when the export of a country is less than its import and it shows the trade deficit. The economic growth of a country is contributed by trade surplus. From a country's factories and industries, a high level of output is shown by the greater export of a country. The employment rate in a country also improved by increasing export of country because more export means high production. In high production, more labor is required. In this way, export helps the economy in reducing the unemployment rate. Export has a positive association with the economic growth of a country. Consumer spending also improved by increasing export of the country. When export increased, more people get jobs and their consumption patterns change with an inflow of funds. When consumer spending in a country increase it causes an increase in the sale of firms. When a firm's sales improved then its profit margin also increased which ultimately lead to economic growth (Ram, 1985).

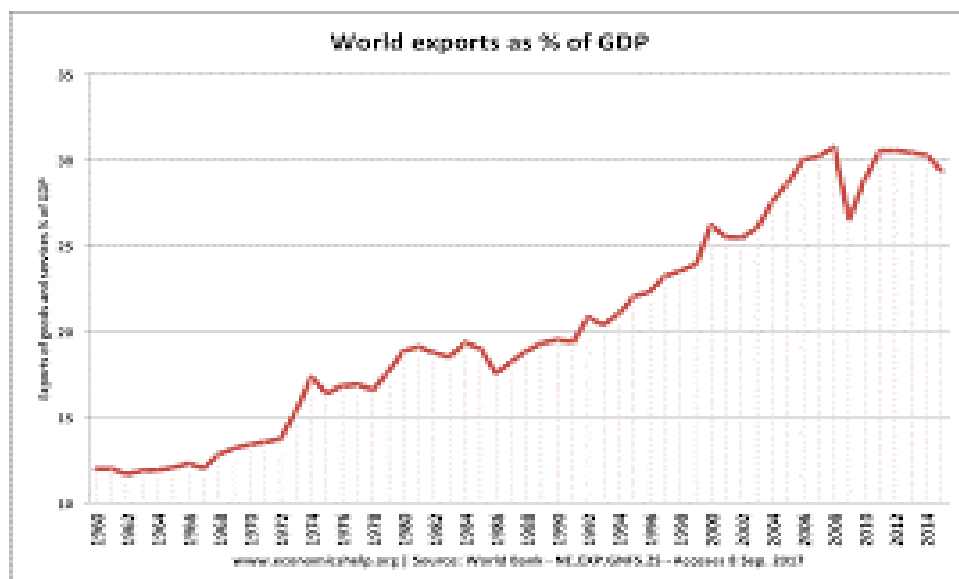


FIGURE 2.13: Impact of Export on Economic Growth

Foreign economies are in better shape than domestic economy shown if the export of a country is higher and its imports declined significantly. The domestic economy is far better than the foreign economy if country imports increase and exports of a country decline sharply. The result of this paper shows that the trade deficit of a country has a positive effect on the economy of a country (Lin & Li, 2003).

Between the way of country's currency is valued and its exchange rate, there is a loop of constant feedback due to which it's very complicated to determine the relationship between the country's import and export and currency exchange. Trade surplus and trade deficit have been affected by the currency exchange of a country. Imports became more expensive when the domestic currency is cheap. Export is stimulated by weakened domestic currency. Imports became cheaper when the domestic currency is strengthening. While exports became expensive when the domestic currency is strengthening. When the export of a country increase as compared to its import than the demand for the currency of that country also increased. When the demand for a currency increase it lead to the high price of a currency. As a result, currency appreciates when the export of a country increase. The exchange rate is one of the key indicators through which the economic growth of a country is determined. When a currency value of a country is high it means that the economy of that country grows. The export of a country affects the inflation and interest rate of a country. Higher interest rates are led by a high inflation rate (Ugochukwu & Chinyere, 2013).

2.12 Impact of School Enrolment on Economic Growth

Sankay, Ismail, and Shaari (2010) stated that at individual and societal levels, education and economic growth have a close relationship. For improving national economic growth and improving individual income, in forming the necessary human resources human capital played a very important role. By increasing the stock of human capital, there is micro and macro level economic growth. Economic growth is one of the vital tools in education. Two main components of economic growth are education and training according to human capital theory. For future individual earning, one of the most important investments in education as mentioned in human capital theory.

For individuals, economic benefits improved by expanding education. The level of education and one's wage has a positive relationship. There is a 6-10% increase in

individual earnings by adding additional years of schooling. At a national level, a return to education is significant. Education improved the productivity of an economy. In less developed countries, there is a more explicit effect of education on economic growth. When initial income is low, economic growth to human capital is more sensitive. According to education level, countries are categorized into three groups. Education positively affected the economic growth that is low or middle-income class. For economic development, secondary education is one of the main components. When people get an education, they learned skills. When the labor of a country is highly skilled they go for innovation and get a high market share in foreign markets. It leads to the economic growth of a country. In a long-run economic growth, one of the key factors is education (Tchamyou, Asongu, & Odhiambo, 2019).

Stevens and Weale (2004) stated that school enrolment rate and economic growth have a positive relationship. This research selected 98 countries and this is a cross-sectional study. For flexible enrolment rate, initial GDP per capita was negligible although school enrolment and economic growth have a positive relationship. Initial GDP and capital growth have a negative correlation when the enrolment rate is constant. Taşel and Bayarcelik (2013) mentioned that the effect of education on economic growth varies depending on the region of the country. From five different regions, 58 developing countries are selected as the target population for this research to determine the effect of school enrolment on the economic growth of a country. The result shows that for African and east Asian countries, primary education plays a very significant part in the economic progress of a country.

To function in new industries, there is a great emphasis on the education system of countries. In developed economies, old industries became less competitive. To get an education is the right of people, on the base of this belief basic education of the population is improved. Educated people improved the productivity of a country. Tasks that required critical thinking and literacy are more efficiently performed by workers who have an education. It's very expensive to get a higher education. In countries that have more education, people grow fast economically than in those countries that have low education. In human capital, education is an

investment. In developed countries, the school enrolment rate is high as compared to developing countries (Cooray, 2009).

One of the most valuable assets of a business is the intellectual ability of employees. In the creation of goods and services, there is a utilization of this asset. The theoretical production of a firm is increased when the firm has more well-trained employees in a firm. In a knowledge-based economy, employee education is treated as an asset for the firm workers, there is an opportunity cost of capitalizing in education. Over subsequent decades, the annual rate in the economy increased by increasing the school enrollment rate. There is a 0.37 percent rise in the economic growth of countries when the school enrolment rate of countries increases. The economic advancement of a country is positively affected by improving cognitive skills. Openness to international trade and defense of property rights are the two components that were considered while determining the influence of school enrollment on economic growth (Adeyemi & Ogunsola, 2016).

2.13 Theoretical Framework

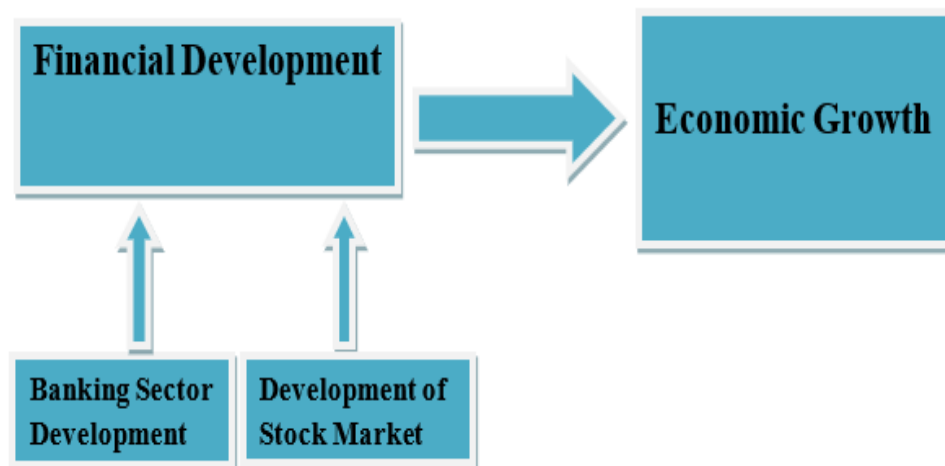


FIGURE 2.14: Theoretical Framework

2.14 Study Hypothesis

In the light of literature review and theoretical underpinnings, the current study introduces the following research hypothesis:

H₁: Financial development in BRICS leads to economic growth as they there is a positive relationship between them.

H₂: Development of banking sector leads to financial development, have a positive substantial effect on economic growth of BRICS countries.

H₃: Stock market development another indicator of financial development also have a positive association with economic growth.

H₄: Increase in exports and economic growth have a strong positive relationship

H₅: Inflation have a significantly negative relationship with economic growth.

Chapter 3

Research Methodology

By this chapter, the reader will understand the variables, sources of data collection, and techniques used to analyze the data. The population of the study and sample of the study are explained in this chapter. As there are two types of research i.e. qualitative research and quantitative research; this is quantitative research in which we deal with numbers and figures.

3.1 The Population of the Study

All countries are the population of this research. BRICS countries are selected to identify and analyze the impact of financial development on economic growth. For financial structure, political, culture and geographical region, these five countries selected for the research are largely heterogeneous in nature.

3.2 Data Collection

From the year 2000 to 2020, data of BRICS countries are taken for this research. From website of World Bank, data of selected variables are collected. Volatile world market, rapid economic growth and era of liberalization mainly cover in this research.

3.3 Measuring Variables

3.3.1 Per Capita Income Growth

Per capita income is macroeconomic variable used to measure the economic growth (Levine, 1997). In a country, amount of money earned by single person measure the per capita income. For an area, average income of per person is also measured through per capita income of a country. Quality of life and standard of living of a particular country is determined through per capita income of a country. To measure the economic growth of selected countries, GDP per capita income is used as a dependent variable in this research.

3.3.2 Domestic Credit to Private Sector (CPS)

A banking sector indicator such as CPS is a selected explanatory variable that measures the banking sector development. Domestic CPS refers to financial resources provided to the private sector by financial institutions, especially banks. Domestic CPS is an indicator of banking sector development of financial development and is measured as a percentage of GDP (Levine, 1997; Levine & Zervos, 1998; Saci et al., 2009; Adusei, 2013).

3.3.3 Stock Market Size/ Stock Market Capitalization (SMC)

In this research, to measure the financial development of selected countries stock market indicator is used. Stock market indicator is an independent variable in this study. SMC is all listed share of stock market, total value as a percentage of GDP (Levine & Zervos, 1998; Beck, Levine, et al., 1999; Saci et al., 2009). For listed domestic companies, number of share outstanding multiply with the price of share refer market capitalization.

3.3.4 Inflation

For a specific time period, any increase in price of goods and services is called inflation. In a country, overall increase in price of goods and services and increase

in price of cost of living also measured inflation rate in a country. Percentage change in consumer price is called inflation.

3.3.5 Exports of Goods and Services

When goods and services are produced within a country and export in another country, the value of all traded goods and services are called export of goods and services. Trade of these goods and services create foreign currency earning in a country. Financial information, value of transport, royalties, business, fees, services like construction, communication and government services all are included in export. Transfer payments, investment income and compensation of employees are excluded in trade.

Here exports of goods and services are taken as a percentage of GDP.

3.3.6 Students Enrollment in Secondary Education

The log of a gross percentage of student enrollment in secondary education each year is taken. Regardless of age of population, total enrolment of students in education is gross enrolment ratio. At primary level, provision of basic education began at the completion of secondary education. By using more specialized teachers, skill oriented training and education are offered to students to develop lifelong learning and human development among the students.

Inflation (INF), exports as percentage of GDP (EP) and enrollment in secondary education (LSE) are used in the model as controlled variables.

Except inflation all the IVs are expected to have a positive effect on growth rate.

3.4 Estimation Technique

3.4.1 Panel Data Analysis

The common effect model, random effect model, and fixed effect model are used to assess panel data analysis. Here the impact of financial development on economic

growth is to be assessed. Two dimensions of panel data are time series details and cross-sectional data axis. Time series data in panel data are shown by t and cross-sectional data is shown by n.

Due to other alternative estimation panel data estimators, the reliability of panel results increased. Because of the correlation between an independent variable and unknown variables, there is a contradiction in OLS pooled calculation methodology. By using a random or fixed estimator, we can quickly solve this economic difficulty.

TABLE 3.1: Description of Variables with Proxies

Variable	Proxy	Measurement	Nature of Variable
Per Capita Income Growth	DV	GDP per capita growth (annual %)	Dependent Variable
Domestic Credit to Private Sector	CPS	Domestic credit to private sector by banks (% of GDP)	Independent Variable
Stock Market Size/Stock Market Capitalization	SMC	Market capitalization of listed domestic companies (% of GDP)	Independent Variable
Exports	EP	Exports of goods and services (% of GDP)	Controlled Variable
Inflation	INF	Inflation, consumer prices (annual %)	Controlled Variable
Students' enrollment in Secondary Education	LSE	Log of School enrollment, secondary (gross)	Controlled Variable

3.4.2 Common Effect Model

The panel data approach is very simple because of a combination of time series and cross-sectional data in a panel data model. In this approach, individual dimensions and time are not considered. In this model, basic assumptions remain the same in various periods. A basic assumption of this model is corporate data.

3.4.3 Fixed Effect Model

For each cross-section, the intercept will be distinct and this is suggested by the fixed effect model. To demonstrate the degree of dissimilarity between each cross section's intercept, a separate dummy is used in this procedure. The fixed effect model can be the best estimator due to data intercepts being different for each unit.

3.4.4 Random Effect Model

When intercept is different for all cross-sectional and time intervals, the random effect model is used. To check whether or not the intercept fits a standardized pattern, a random effect model is used. Beta is not important as it is assumed that it takes a random path. By using this model, differences among different businesses are determined. Advantages of the random fixed model mentioned below:

- For prediction, fewer parameters are required in the random effect model as compared to the fixed effect model.
- In the random effect model, it is allowed to measure the additional independent variables of the same number.

To choose among the fixed effect model and the random effect model, the Hausman test is used. A fixed model will be used when the yield value is significant. The random effect model is applied when the yield value is not significant.

3.5 Econometric Model or Regression Model

A regression model is used to determine the link between financial development and economic growth in this research. In this study, below mention regression model is used

$$Y_{it} = \beta_0 + \beta_1 CPS_{it} + \beta_2 SMC_{it} + \beta_3 EP_{it} + \beta_4 INF_{it} + \beta_5 LSE_{it} + \epsilon_{it} \quad (3.1)$$

Y = GDP per capita growth

CPS = Domestic credit to private sector as percentage of GDP To choose among the fixed effect model and the random effect model, the Hausman test is used.

SMC = Market Capitalization of listed domestic companies as percentage of GDP (Indicator of stock market development)

EP = Exports of goods and services as percentage of GDP

INF = Inflation as annual consumer prices change

LSE = The log of gross percentage of secondary school enrollment

I = Country

T = time

3.6 Technique Data Analysis

E view 8 is used to determine the effect of financial development on economic growth. E view 8 is used to analyze collected data. To determine the impact of financial development on economic growth, and correlation analysis and panel data analysis are used. To show the nature, descriptive statistic is used.

Chapter 4

Data Analysis and Discussion

4.1 Descriptive Statistic

In table 4.1 descriptive analyses of all variables are shown. In terms of central tendency, variability, and frequency distribution, the nature of the data set is discussed in descriptive statistics. In the given table result of descriptive statistics is mentioned.

For change score, the general level of mean is average, from 3.003 to 85.276 values of the general mean vary. DV has the lowest mean value which is the GDP Per Capita Growth of BRICS countries. LSE has the highest mean value. LSE is an independent variable named school enrolment. Inflation has the lowest mean value which means that data on inflation has close to its mean. CPS has the highest standard deviation value. CPS is an independent variable which is domestic credit to the private sector by banks.

The mean value of GDP per capita growth is 3.004. It means that the whole data of GDP per capita growth is near this value of GDP per capital growth. The median value of GDP per Capital growth is 2.740. The minimum and maximum value of DV shows the range value of GDP per capita growth. The minimum value of GDP per capita growth of BRICS countries for 21 years is -7.020. The maximum value of GDP per capita growth of BRICS countries for 21 years is 10.100. The standard deviation value of GDP per capita is 3.271. It shows that data points are away from a mean value.

TABLE 4.1: Descriptive Statistic

	DV	CPS	EP	SMC	INF	LSE
Mean	3.004	58.283	22.045	43.183	6.097	85.276
Median	2.74	52.39	24.4	47.073	5.78	92.911
Maximum	10.1	156.22	32.6	88.04	16.8	109.444
Minimum	-7.02	16.82	10.85	4.39	1.13	44.872
Std. Dev.	3.271	30.544	6.253	26.351	3.165	18.14
Skewness	-0.019	1.795	-0.402	-0.327	0.913	-0.707
Kurtosis	3.084	6.064	1.807	1.841	4.037	2.248

Complete data of domestic credit to the private sector by banks around the value of 58.283 which is the mean value of domestic credit to the private sector by banks. The median value of domestic credit to the private sector by banks is 52.390. The minimum value of domestic credit to the private sector by banks is 16.820, this is the minimum value of CPS of BRICS data over the 2000-2020 period. The maximum value of domestic credit to the private sector by banks is 156.220, this is the maximum value of CPS of all BRICS data over the 2000-2020 period. CPS value lies between 16.820 and 156.220. The standard deviation value of CPS is 30.544. It means that data points of CPS are spread over a wide range of values. The skewness value of domestic credit to the private sector by banks is 1.795. CPS is positively skewed as indicated by the value of 1.795.

The mean value of export of goods and services is 22.045. It means that the whole data of EP is near this value of the export of goods and services. The median value of the export of goods and services is 24.400. The export of goods and services minimum value is 10.850 and its maximum value is 32.600. The minimum and maximum value of EP show the range value of export of goods and services of BRICS countries over the period 2000-2020. The minimum value of EP of BRICS for 21 years is 10.850 while the maximum value of EP of BRICS for 21 years is 32.600. The standard deviation value of the export of goods and services variable

is 6.253. It shows that data points are far away from a mean value. Export of goods and services are negatively skewed as indicated by value-0.402.

Complete data of market capitalization of listed domestic companies around the value of 43.183 which is the mean value of SMC. The median value of market capitalization of listed domestic companies is 47.073. The minimum value of SMC is 4.390, this is the minimum value of SMC of BRICS data over the 2000-2020 period while the maximum value of SMC is 88.040 of BRICS data over the 2000-2020 period. SMC value lies between 4.390 and 88.040. The standard deviation value of SMC is 26.351. It means that data points of SMC are spread over a wide range of values. The skewness value of market capitalization of all listed domestic companies is -0.327. SMC is negatively skewed as indicated by a value of -0.327.

The inflation rate of Brazil, India, China, South Africa, and Russia mean value is 6.097. The range of inflation value of all the selected countries lies between 1.130 and 16.800. The minimum value of inflation of selected countries over the period 2000 to 2020 is 1.130. The maximum value of inflation of selected countries over the period 2000 to 2020 is 16.800. The standard deviation value of inflation is 3.165. Inflation values are positively skewed as indicated by the value of 0.913.

The mean value of school enrolment is 85.276. It means that the whole data of school enrolment is near this value of LSE. The median value of school enrolment is 92.911. LSE's minimum value is 44.872 and its maximum value is 109.44. The minimum and maximum value of EP show the range value of school enrolment of BRICS countries over the period 2000-2020. The standard deviation value of the school enrolment variable is 18.140. It shows that data points are far away from a mean value. LPS are negatively skewed as indicated by the value of -0.707.

4.2 Correlation Matrix

A relationship between dependent and independent variables is determined through a correlation matrix. By correlation analysis, multi collinearity issues were explored among dependent and independent variables. In table 4.2, correlation

analysis among dependent and independent variables is shown.

The interdependence of multiple variables is explained through a correlation matrix. The degree of association between a dependent variable and an independent variable is shown by using a correlation matrix.

The dependent variable and independent variable are closely related if the correlation value is near +1. The dependent variable and independent variable are not closely related if the correlation value is near -1. To prove that there is no multicollinearity problem, the correlation between independent variables should not exceed 0.7. Table 4.2 shows the result of a correlation matrix. Multicollinearity problem is shown in data when the correlation value exceeds 0.7.

TABLE 4.2: Correlation Matrix

	DV	CPS	INF	SMC	EP	SE
DV	1					
CPS	0.678	1				
INF	-0.508	-0.701	1			
SMC	0.653	0.249	-0.109	1		
EP	0.286	0.362	-0.089	-0.275	1	
SE	-0.542	-0.161	0.072	-0.445	0.004	1

Relationships between dependent and independent variables are determined through correlation analysis which is shown in table 4.2. Domestic credit to the private bank sector has a positive relationship with GDP to per capita income which is indicated by the value of 0.678. It means that an increase in CPS causes an increase in GDP per capita income and any decrease in CPS causes a decrease in GDP per capita of BRICS countries. The value of -0.508 shows the negative relationship between inflation and GDP of per capita income. An increase in the inflation rate causes decreases in the GDP of capita income of BRICS countries. Any decrease in the inflation rate causes an increase in GDP per capita income. The stock market capitalization of all listed domestic companies positively affects the GDP per capita income of BRICS countries. Any increase in market capitalization causes an increase in GDP per capita income of BRICS countries and vice versa indicated by 0.653. The value of 0.286 shows that the export of goods and services has a positive relationship with the GDP per capita income of BRICS countries. School

enrolment has a negative effect on the GDP per capita income of BRICS countries. Any number of school enrolment of people causes a decrease in GDP per capita income as shown by the value of -0.543.

Inflation has a negative relationship with domestic credit to the private sector by banks which is shown by the value of -0.701. Any increase in inflation causes a decrease in domestic credit to private banks and vice versa. Domestic credit to the private sector by banks has been positively affected by a stock market capitalization of all domestic companies of BRICS countries as indicated by the value of 0.249. There is a positive relationship between the export of goods and services and domestic credit to the private sector by banks which is shown by the value of 0.362. Any increase in the export of goods and services caused an increase in domestic credit to the private sector by banks and vice versa. The value of -0.1615 shows that domestic credit to private sector banks negatively affected school enrolment. Any increase in the number of school enrolment of people caused a decrease in domestic credit to the private sector by banks and vice versa.

Stock market capitalization has a negative effect on inflation indicated by the value of -0.109. Any decrease in stock market capitalization causes an increase in the inflation rate. Any increase in stock market capitalization causes a decrease in the inflation rate. There is a negative relationship between the inflation rate and the export of goods and services of BRICS countries as shown by the value of -0.089. Any increase in the export of goods and services causes a decrease in the inflation rate. The value of 0.073 shows the positive relationship between the inflation rate of BRICS countries and school enrolment.

The stock market capitalization of domestic companies of BRICS countries has negatively affected the export of goods and services as indicated by the value of -0.275. Any increase in the export of goods and services causes a decrease in stock market capitalization. The value of -0.445 shows that there is a negative relationship between the stock market capitalization of domestic companies and school enrolment. There is a positive relationship between the export of products and school enrolment as shown by 0.004. Any increase in the export of products and services caused an increase in school enrolment and vice versa.

4.3 Panel Analysis

Table 4.4 shows the panel regression analysis of data. Panel regression analysis shows the effect of financial development on economic growth from the perspective of BRICS countries. First, the common effect model is applied to the dataset, assuming the intercepts for all banks are constant, and the results have been discussed in the following table.

TABLE 4.3: Common Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.1617	1.2352	0.1309	0.8962
CPS	0.0191	0.0078	2.4314	0.0175
SMC	0.0706	0.0068	10.314	0
INF	-0.2803	0.066	-4.2448	0.0001
EP	0.1862	0.028	6.6355	0
LSE	0.0578	0.0324	1.7811	0.0787
R-squared	0.8645			
Adjusted R-squared	0.8552	Akaike info criterion		3.3483
S.E. of regression	1.2445			
F-statistic	93.1816	Schwarz criterion		3.5283
Prob(F-statistic)	0			

As table 4.4 shows that the R-square value is 0.8645 which means that 86% of independent variables which included inflation, market capitalization, school enrolment, export of goods and services, and domestic credit to the private sector affect the GDP per capita of BRICS countries. All other variables that are not considered in this research affect the GDP of BRICS countries are only 14%. All the major variables that affect the GDP of BRICS countries (Brazil, Russia, India, China, and South Africa) are considered in this research indicated by the 0.84 value of R-square. The common effect model is used to determine the impact of financial development on economic growth from the perspective of BRICS countries.

In table 4.4, the 0.0191 value of CPS shows that any change in domestic credit to the private sector causes a 1.9% increase in GDP per capita in BRICS countries and this effect is significant as shown by the p-value of 0.0175. There is a 7% increase

in GDP per capita of BRICS by increasing the stock market capitalization of domestic companies listed as indicated by the value 0.0706 and this effect is highly significant with the p-value of 0. Any increase in inflation negatively affected the economic growth of BRICS as the collected data of these five countries from the period 2000 to 2020 showed. Any increase in inflation caused a 28% decrease in the GDP of BRICS countries. The effect of inflation on economic growth is significant as indicated by a p-value of 0.0001.

An increase in the export of goods and services causes an increase in the GDP of BRICS countries. The result of the data shows that there is a positive relationship between the export of goods and services and the economic growth of countries. Any increase in the export of goods and services caused an 18% increase in GDP per capita of BRICS countries. Export of goods and services impact on economic growth is significant as indicated by a p-value of 0.0000. School enrolment positively affects the economic growth of BRICS countries. Any increase in school enrolment of people causes a 5% increase in GDP per capita of BRICS countries. This means more people enrolling in schools cause beneficial for their countries' economic growth but the result shows that this effect is not significant. The impact of school enrolment on the GDP per capita of BRICS countries is insignificant as shown by the p-value of 0.07 as p- the value of 0.07 is greater than 0.05 which means that the impact is slightly insignificant.

The overall result of collected data of BRICS (Brazil, India, Russia, South Africa, and China) over the period 2000 to 2020 shows that domestic credit to the private sector, stock market capitalization, and export of goods and services has a positive effect on the economic growth of BRICS. School enrolment also has a positive effect on economic growth but this effect is not significant. Inflation is one of the single variables in this research that has a negative effect on the economic growth of BRICS countries. All these independent variables have an 86% effect on the economic growth of BRICS.

Usually large number of observations are required for panel data analysis techniques, as number of observations are not sufficient so panel data techniques are not applicable.

From the results of the data collected, research objective achieved. It is observed that financial development, here specifically banking and stock market development have a positive and significant impact on economic growth of BRICS economies and inflation and exports are the key macroeconomic variables that determine economic growth of BRICS.

Chapter 5

Conclusion and Recommendations

5.1 Conclusion

Analyzing the impact of financial development on economic growth is the basic objective of this research. For this purpose, data has been extracted from the website of the World Bank of the period 2000 to 2020. To measure economic growth, GDP per capita income is used as a dependent variable in this study. Domestic credit to the private sector by banks, the stock market capitalization of domestic companies, export of goods and services, inflation as increase in consumer prices, and the gross percentage of secondary school enrolment are the independent variables of this study to measure the financial development of BRICS countries.

As the result shows that domestic CPS have a positive strong effect on the economic growth of BRICS countries. By using a purchase of non-equity resources, account receivables, loans, and trade credit, financial corporations provide financial resources to the private sector this is called domestic credit to the private sector. For economic growth, the private sector plays an important role. When the financial resources are provided to the private sector they work more efficiently than the public sector. The successful private sector creates a large number of jobs for people. In this way, the unemployment rate is reduced. When companies get

more profit they pay high taxes to the government which helps countries to provide funds to more private sectors and the economy of the country improved. As in BRICS countries, financial corporations provide more loans to private sectors that cause the economic growth of that countries by creating jobs for the people, This supports the argument of [Sussman \(1993\)](#) that banks are the invented effective engines that drive economic growth.

Stock market capitalization has a positive effect on the economic growth of BRICS countries shown by the result data. The reason behind the positive relationship between stock market capitalization and economic growth is that they especially targeted specific customer groups and became successful and positively contribute to the export of goods and services. Most niche companies are highly expert in their products and services and when these companies go toward the global market and attract global customers it positively affects the economy of a country. When these companies expand their operations then it creates a large number of jobs that reduce the unemployment rate of a country. When these companies. When these companies sell their products and services in the global market it positively affects the currency value of the country. The study supports the argument of [Masoud \(2013\)](#) that stock market improvement leads to a strong economy.

Inflation has a negative effect on the economic growth of BRICS countries as shown in the result. Purchasing power of people who have fixed incomes declined due to inflation. When the purchasing power of customers declined then firms' sales are negatively affected. Firms fire employees to maintain the fixed cost of a firm when the sale of companies is reduced. In this way, the country faced an unemployment issue due to inflation. Results showed that inflation negatively affected the economic growth of a country. There was an increase in prices of factors of production during inflation. More money is needed by the government to complete the projects taken in the planning process. Government expenditure on projects was very high during the inflation period. When the government's financial resources are less than the required financial resources for projects the project fails and the entire planning process is upset. During inflation, there is an increase in prices of export items which is due to increased prices of raw materials and factors of production. In foreign markets, demand for products might fall

due to increased prices of goods and services. The export income of a country is negatively affected by a decline in demand for goods and services in a foreign market. This shows that inflation negatively affected the export income of a country which lead to a decline in the economic growth of a country. These all are the reason that shows the negative relationship between inflation and economic growth of BRICS countries and it supports the notion of [Adaramola and Dada \(2020\)](#) that economic growth is negatively affected from inflation.

In an economy, inflation became chronic. Because of the reduction in the real value of money, people became less interested in saving. For future investment, the available amount of funds is reduced because of a lack of savings. There is a negative relationship between inflation and economic growth. Because of inflation, people saving interest is reduced which causes a lack of investment. Lack of investment caused a decline in the economic growth of a country ([Valdovinos, 2003](#)). The result of the data also shows the positive relationship between the export of goods and services and the economic growth of BRICS countries. A high export rate means a high production rate in a country. When there is high production in a country then the employment rate also improved. So, the economy of a country grows with a high export rate. The employment rate in a country also improved by increasing export of country because more export means high production. In high production, more labor is required. In this way, export helps the economy in reducing the unemployment rate. Export has a positive relationship with the economic growth of a country. Consumer spending also improved by increasing export of the country. When export increased, more people get jobs and their consumption patterns change with an inflow of funds. When consumer spending in a country increase it causes an increase in the sales of firms. When a firm's sales improved then its profit margin also increased which ultimately lead to economic growth ([Lin & Li, 2003](#)).

5.2 Recommendations

- BRICS should work to improve the stock market capitalization of domestic companies.

- Policymakers in BRICS countries should develop policies that increase the domestic capital to the private sector for economic growth.
- BRICS countries governments should strive to develop such policies that improve and develop stock market.
- The government of BRICS countries should provide subsidies to the export companies because the export of goods and services improved the economic growth of the country.
- BRICS countries should control the inflation rate because inflation negatively affects the economic growth of BRICS countries.

5.3 Future Direction

As the panel countries were his heterogeneous in their nature in terms of location, religion, political views, government structure and economic conditions, so this model can be used for analyzing the relationship of financial development and economic growth of any country or groups of countries or existing blocs despite of their geographical location, political, militant or financial Blocs.

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