

DIGITALES ARCHIV

ZBW – Leibniz-Informationszentrum Wirtschaft
ZBW – Leibniz Information Centre for Economics

Ubom, Uduak B.

Article

Bank portfolio structure and absorption theory of economic development

Provided in Cooperation with:

Expert journal of finance

Reference: Ubom, Uduak B. Bank portfolio structure and absorption theory of economic development.

This Version is available at:

<http://hdl.handle.net/11159/441>

Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics
Düsternbrooker Weg 120
24105 Kiel (Germany)
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)
<https://www.zbw.eu/econis-archiv/>

Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte.

<https://zbw.eu/econis-archiv/termsfuse>

Terms of use:

This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence.

Bank Portfolio Structure and Absorption Theory of Economic Development: A Theoretical Proposition

Uduak B. UBOM^{1*}, Emmanuel I. MICHAEL¹ and Joseph Michael ESSIEN²

¹University of Uyo, Nigeria

²Ken Saro Wiwa Polytechnic, Nigeria

The focus of this article was on theoretical proposition of Bank Portfolio Structure and Economic Absorption Theory of economic development. Specifically, this work sought to establish the basis of bank portfolio rigidity and to identify the causes of economic absorption problems and their implications on economic development. The theoretical and conceptual research designs were used. Existing literatures were reviewed using archival retrieval approach, library search and internet exploration. The information obtained was judgmentally, logically and qualitatively analyzed. It was discovered among other aspects, that, bank portfolio rigidity stems from regulatory policy defects using inconsistent monetary policy tools such as high liquidity ratio and cash ratio, etc. and compelling the banks to adhere to the regulatory requirement, as well as lack of adequate and quality stock of infrastructure and technology as the basic causes of economic absorption problems. Above all, low level of economic absorption has been discovered to hinder effective contributions of banks to economic development. Following from above, it was therefore recommended that regulatory tools used by Central Banks should be aligned with the development needs of the economy and the direction of governments. The monetary policy tools such as liquidity and cash ratios should also be moderated and stabilized for stable bank portfolio performance as well as aggressive improvement in the stock and quality of infrastructure and technology within an economy. With the new theory, it is expected that policy formulations and adjustments concerning bank portfolio structure and management would be designed with adequate flexibility and focus on long term loans and investments coupled with improved stock and quality of infrastructure to enhance economic development. This theory therefore provides another frontier of research on bank portfolio structure and contributions to economic development.

Keywords: Bank portfolio structure, Structural rigidity, Economic absorption, Economic development

JEL Classification: G11, O10

* Corresponding Author:

Uduak B. Ubom, Department of Banking and Finance, University of Uyo, Uyo, Nigeria

Article History:

Received 15 September 2016 | Accepted 22 November 2016 | Available Online 29 November 2016

Cite Reference:

Ubom, U.B., Michael, E.I. and Essien, J.M., 2016. Bank Portfolio Structure and Absorption Theory of Economic Development: A Theoretical Proposition. *Expert Journal of Finance*, 4, pp. 44-51.

1. Introduction

In his work on “The Impact of Bank Portfolio Structure on Economic Development in Nigeria”, Ubom (2006 p.191) identified structural rigidity in bank portfolios and low level of economic absorption as the major causes of low impact of bank portfolios on economic development in Nigeria. This was based on the observations that from 1970-2000 (i.e. 31 years) banks in the country had channeled increasing volume of credits into the economy through loans and investments but without any remarkable level of economic development.

The above observation was a marked departure from the assertion of many researchers including Mbat (1995 p.56) and Jhingan (2004 p.136) who see banks as economic development agents. For instance, Mbat (1995 p.56) expressed that as economic development agents, the financial institutions carry out important economic functions. Their lending activities stimulate and sustain domestic economic growth and development. This was in consonance with the views of Jhingan (2004 p.136) who noted that: “Besides performing the usual commercial banking functions, banks in developing countries play effective role in stimulating economic development. The majorities of people in such countries are poor, unemployed and engage in traditional agriculture. These economies are characterized by lack of initiatives and enterprise by potential entrepreneurs. Means of transport are undeveloped and industry is depressed. This scenario provides commercial banks with many opportunities to help in overcoming these obstacles and promoting economic development.”

It is quite expedient to note that most developed countries of the world achieved their level of development as a result of effective and efficient financial system in which banks play predominant role. For instance, Japan and Germany witnessed high level of industrialization and economic development through the contributions of banks. This should raise the concern of curious researchers on how to address the problem militating against effective role of banks and their portfolio structures in contributing to economic development in developing countries of the world and Nigeria in particular. It is evident that the study of economic development and the validity of research findings in this direction are based on theories.

Although there are series of theories of economic development such as the Todaro migration theory, Harris-Todaro model and Harrod-Domar growth model (Todaro and Smith, 2006 pp.105-108 and 360-362), among others, none seeks to establish the link between bank portfolio structure, economic absorption and economic development in developing countries such as Nigeria. This article is therefore an attempt to make a theoretical proposition of Bank Portfolio Structure and Economic Absorption theory which seeks to establish the relationship between the level of economic absorption and the impact of bank portfolio structure on economic development and growth.

Specifically, the work seeks to establish the basis of bank portfolio rigidity, causes of low level of economic absorption, and their implications on economic development. It also aimed at making some presumptions and theoretical constructs, to highlight the anchors of Bank portfolio structure and economic absorption theory and to develop models of Bank Portfolio Structure and Economic Absorption Theory.

In order to facilitate effective discussion, this paper is structured into five sections. Section one is the introduction followed by the conceptual and theoretical review which form the second section. In section three, the research methodology is presented while some analytical constructs are made in section four. The work is summarized, recommendations made and conclusion drawn in section five.

2. Conceptual and Theoretical Reviews

2.1. The Concept and Effect of Bank Portfolio Structure

Banks as financial intermediaries mobilize savings (or deposits) and channel them into the economy for consumption and investments. This is done through lending. Banks give out loans of short term, medium and long-term durations to different categories of customers for personal consumption, business operations, industrial and agricultural activities. These various types of loans granted by the banks to their customers for different purposes form their loan portfolios.

In the same vein, banks invest in both short and long term marketable securities issued by the government and industrial organizations. This category of assets held by banks is another form of bank portfolios known as investment portfolio. Thus, two portfolios; namely, the loan and investment portfolios dominate the assets portfolios of commercial banks (Ubom, 2006, p.25).

As pointed out above, the asset components of loan and investment portfolios are the short term, medium and long term loans and securities, respectively. In terms of the loans, the beneficiaries include

individuals, corporate organizations and the government. On the other hand, the securities held by the banks are issued by industrial entities and governments.

The components of the loan and investments portfolios held by the financial institutions as highlighted above constitute the portfolio structure. The extent to which banks may impact on economic development of a country depends mainly on the compositions of the portfolios they hold. For example, when the assets components of investment portfolio of the banks are predominantly short term, economic development is not likely to be promoted. Similarly, when the medium and long term loans and investments are channeled into the public sector at the detriment of the industrial and agricultural sectors, economic development will not be enhanced especially when the government is not using the facilities to provide the basic infrastructures to support investment, business and economic activities. Therefore, the extent to which banks contribute to economic development depends on the portfolio structure of the banks. In the section that follows, economic development is discussed.

2.2. Nature and Focus of Economic Development

Economic development and growth remain one of the major macroeconomic objectives of every country in the world. According to Byrns and Stones (1992, p.398), most people expect higher standard of living than their parents enjoyed and hope for even greater prosperity for their children.

Economic development therefore used to describe the process of improvement in the various aspects of the economy and the society it supports (Akpakpan, 1999, p.208). Such improvement is usually in the kinds of desirable changes; including: reduction in the level of unemployment, degree of personal and regional inequalities, absolute poverty and increase in real output of goods and services, literacy level, housing, health as well as production capacity.

Investment is one of the major factors affecting economic development. This is because it affects the economy's ability to produce goods by changing both the quantity and quality of capital stock available (Lipsey and Steiner, 1983, p.802). Investment increases the economy's potential.

Banks are the agents of investments and economic development. They invest directly by themselves and indirectly through lending and securities holding. As observed by Steiner, et al (1963, p.134), bank loans and investment are important to the economy because they affect the level of economic activities which it supports in two ways; namely:

- i. Expansions and contraction of loans and investments alter the nation's money supply and
- ii. The type of economic activities supported by the extension of loans and purchase of securities influences what is purchased, how much of each product is produced as well as where the products are turned out.

Even when the loan and investment portfolios are expanded, it may not contribute positively to economic development because of lapses in the structure of such portfolios. For instance, a loan portfolio that is predominantly of short term with the medium and long term skewed mainly in favor of the government produces very little or no positive impact on economic development. Bank loans and investment portfolios need to be structured in such a way that there exists a reasonable blend of the short term, medium and long term facilitates with emphasis on the productive sectors of the economy. These sectors include manufacturing and agriculture, among others.

The productive sectors of the economy as pointed out above can only respond to improved bank portfolio structure leading to economic development and growth depending on absorption capability of the economy. The level of economic absorption in an economy depends to large extent on the stock and quality of infrastructure. In other words, infrastructure deficits make it difficult for the economy to absorb the funds made available through bank lending activities. When such funds are not easily absorbed and transformed into physical outputs of goods and services, the level of inflation in the system increases and the economy in terms of development and growth is in shamble.

2.3. The Theory of Economic Absorption

Traditionally, the state of development of an economy affects the level of technology and the stock and quality of infrastructure. Infrastructure as used here includes roads, electricity, and communication and transportation facilities. Others are water, education and health care facilities. With adequate stock and high quality of infrastructure mainly electricity, communication and transportation facilities as well as good road network, the economy is strengthened to absorb credit facilities extended by financial institutions to it. For instance, with good supply of electricity, entrepreneurs and business firms can make use of the credit facilities to produce various kinds of products at reduced cost and minimum delay.

The products produced need to be made available to consumers. This is facilitated by good road networks and communication systems. By implication, road and communication infrastructures are needed for effective distribution and marketing activities. The stock of these infrastructures makes possible for the economy to be fertile, open and more absorptive.

To a large extent, the level of economic absorption in any given society defines the level of economic development. This is because economic absorption tends to influence the structure of business, market and their performances. High business and market performances lead to business expansions, increased in real output of goods/services, reduced product prices, creation of more employment opportunities, improved welfare and reduction of poverty within the society. Economic development and growth anchor on increased real output of goods and services, stable prices, employment creation (or generation) and poverty reduction among others. These are the desirable changes theorized by Development Economists including Akpakpan (1999, p.208).

3. Research Methodology

3.1. Research Design

This work is based on the conceptual and theoretical approaches. It became obvious to use these approaches considering the need to conceptualize and develop theoretical models to establish the link between economic absorption and the contributions of bank portfolios to economic development.

3.2. Research Questions

The following research questions were put forward in this article:

- i. What are the bases of bank portfolio rigidity?
- ii. What are the causes of low level of economic absorption in an economy?
- iii. What are the implications of poor absorptive capacity of an economy on the contributions of banks to economic development?
- iv. How useful is the theory in explaining the relationship between bank portfolio structure, economic absorption and the contributions of banks to economic development?

3.3. Types and Sources of Data

The data used in this work were in the forms of conceptual and theoretical details extracted from secondary sources. These sources include journals, articles, and publications of the Central Bank of Nigeria (CBN) (including bullion, bulletin and annual reports) and internet based sources, among others. The archival retrieval method was used in collecting the data.

3.4. Method of Data Analysis

The methods adopted in analyzing the data in this work were qualitative and judgmental approaches. A sequential process was used in the arrangement of facts and materials noting the problem and the main object of the work with focus on the development of Economic Absorption Theory of Economic development.

4. Analytical Perspective and Construct

4.1. Theoretical Bases and Empirical Facts

Theoretically and empirically, from the early works of Walter Bagehot (1873), John Hicks (1969), Schumpeter (1912) and even to the contrasting views of Joan Robinson (1952, p.86) reported by Levine (1997, p.688) there is no contradictions in the role of finance, financial institutions, markets and financial system as a whole in industrialization, economic development and growth. In aggregating the various views on the role finance and financial system (in which banks and their portfolios play significant parts) Levine observed that: "There is even evidence that the level of financial development is a good prediction of future rate of economic growth, capital accumulation and technology change. Moreover, cross country, case study, industry-and-firm-level analyses document extensive periods when financial development—or the lack thereof—crucially affects the speed and pattern of economic development."

Financial developments as expressed here include portfolio structure formation and adjustments in banks, among other financial institutions.

Even the mathematical models developed by John Gurley and Edward Shaw (1955), James Tobin (1965) and Ronald McKinnon (1973) in their study of finance and economic growth, the development function of credit facilities and money were highlighted. However, these experts never considered the fact that poor

stock and quality of infrastructure hinder the receptive or absorptive capacity of the economy. In this case, the facilities injected into the economy could not be put into productive uses. It can only be recycled nominally, creating distortions and inflations as it multiplies without supportive increases in real output of goods and services.

Although, Okafor (2010, p.70) was not explicit in his assertion in terms of the connection between economic absorption and economic development, by implication however, he established this when he noted that: “Infrastructure and firm performance interact in several ways. Established firms already connected to utilities are affected by the quality of the service while new firms or those hoping to expand are concerned with the difficulties in connecting to utilities. In Nigeria, infrastructure provision has been the preserve of the government until very recently. The government provides water, electricity, roads, petroleum products, telecommunications, etc.”

With infrastructure as stated here, business operations become much easier and credit facilities are easily transformed into physical products. The economy is therefore adjudged to have high absorptive capacity. High absorptive capacity is required for economic development and growth of a nation.

In the light of the above, bank portfolios fail to contribute to economic development when the economy lacks the capability to absorb the funds injected into it through lending. Lack of absorptive capacity therefore stems from inadequate stock and poor quality of infrastructure. This makes it difficult for the money channeled into the economy to be transformed into physical output of goods and services (i.e. real outputs) but rather recycled nominally. This creates inflationary effects and excess liquidity making inflation and interest rates to rise. These are counter economic development features.

4.2. Theoretical Postulates and Presumptions

Bank Portfolio Structure and Economic Absorption Theory of Economic Development states that: “structurally lopsided portfolios of banks operating in an environment with poor state of infrastructure would not make any serious impact on economic development of that economy”.

The theory recognizes portfolio rigidity of banks to stem from the regulatory requirements of agencies (such as the Central bank) supervising and regulating banks using cash liquidity ratios (i.e. the reserve ratio) to ensure stiff liquidity position of the financial intermediaries. To this end, the banks form portfolios predominantly with short term assets in order to satisfy the requirements of the regulatory agencies at the detriment of profitability and development aspirations of the economy. In an economy with poor state of infrastructure, low absorption capacity ensures and the credits extended to the economy cannot be converted into finished products but rather rebound and recycled normally. The rebounding effect of the credits in the face of low absorptive capacity create distortions and high inflation in the economy instead of supporting increased output of goods and services, business expansion, employment generation and price stability, among others. These are the needed ingredients of economic development.

On aggregate, the Bank Portfolio Structure and Economic Absorption Theory of Economic Development anchors primarily on the analysis of the relationships that exist between bank portfolio structure, quantity and quality of infrastructure and the contributions of bank portfolios to economic development. In this sense, economic development is identified as a development variable while bank portfolio structure and absorptive capacity are independent variables. Hence, models of economic development shown below are developed:

$$E_{cd} = f(B_{ps}, E_{ap}, Ab_{cp}) \quad (i)$$

$$B_{ps} = f(C_r, L_r, M_{pr}) \quad (ii)$$

$$Ab_{cp} = f(Q_{inf}, q_{inf}, L_{tech}) \quad (iii)$$

$$E_{ap} = f(R_p, F_{pc}, R_{gl}) \quad (iv)$$

where:

- E_{cd} = Economic development (measured by GDP, unemployment rate, capacity utilization and inflation rates, etc.)
- B_{ps} = Bank portfolio structure
- E_{ap} = Economic adjustment potentials
- Ab_{cp} = Absorptive capacity
- C_r = Cash ratio
- L_r = Liquidity ratio
- M_{pr} = Monetary policy rate
- Q_{inf} = Quantity of Infrastructure
- q_{inf} = Quality of infrastructure
- L_{tech} = Level of technology in an economy

- R_p = Regulatory policy
 F_{pc} = Frequency of policy changes
 R_{rgl} = Regulatory rigidity level

From the above, it is possible to establish economic development equation based on Bank portfolio structure and Absorption theory of Economic development as follows:

$$E_{cd} = VF (MP) + EAP + ABCP - PRM$$

where:

VF = Volume of funds injected into the economy by banks which is the sum of the loan and investment portfolios of banks.

MP = Money Multiplier (i.e. $1/MR$)

MR = Reserve Margin (i.e. $C_r + L_r$)

EAP = Economic Adjustment Potentials

PRM = Portfolio Rigidity Margin

ABCP = Absorptive capacity

Schematically, the bank portfolio structure and economic absorptive theory can be explained in a flowchart or model as in figure 1 below:

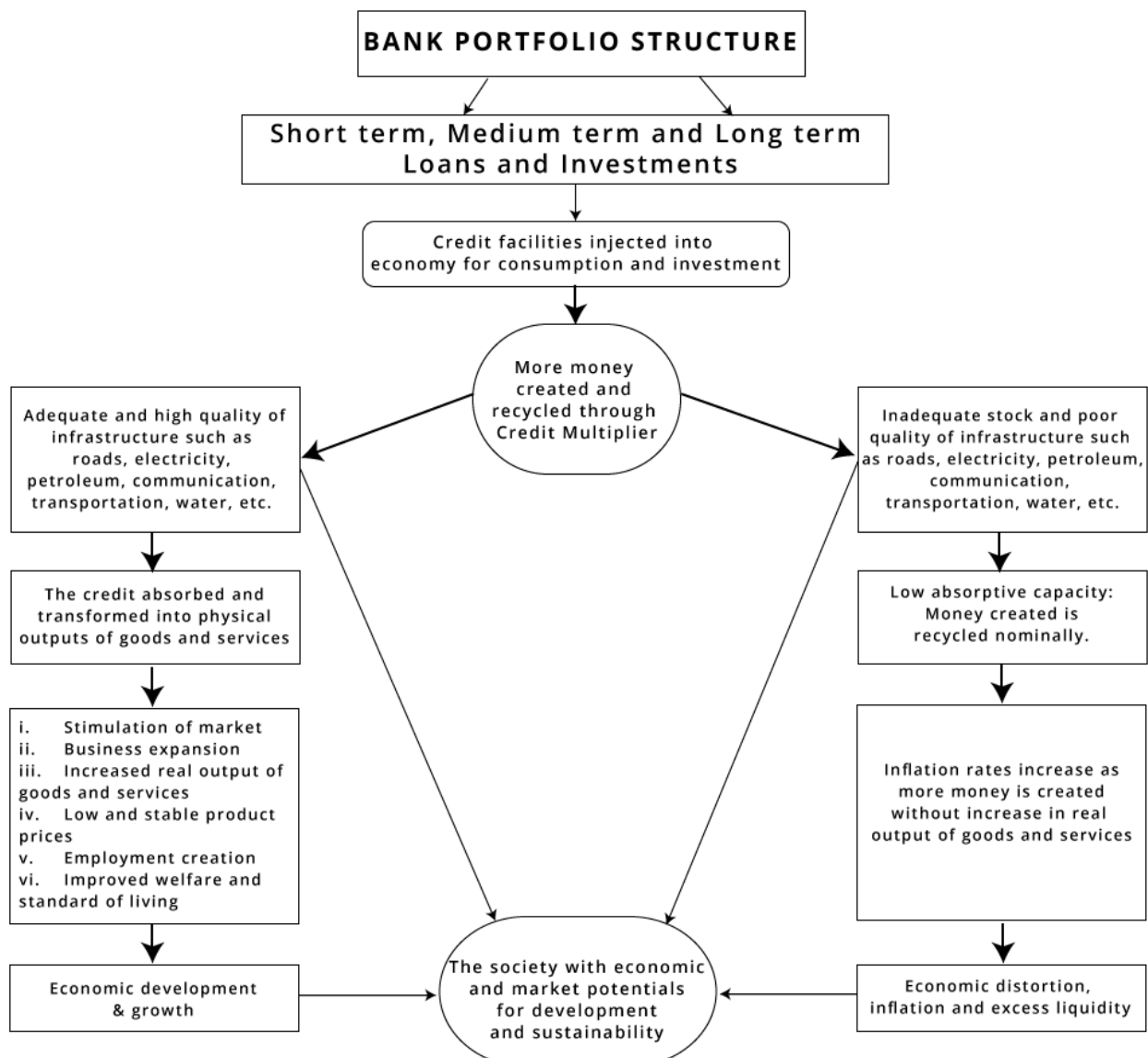


Figure 1. Flowchart of Bank Portfolio Structure and Absorption Theory of Economic Development

In figure 1 above, it is indicated that bank portfolios are made up of short term, medium and long term loans and investments. This loans and investments are the channels through which credits are extended to the

economy. By the nature of the sources of the loans and investment funds (i.e. deposits), the portfolios of these financial institutions are dominated by short term assets. As the facilities are injected into the economy, they are easily absorbed and converted into physical output of goods and services in an economy with high absorptive capacity. In contrast, the funds when injected into an economy with low absorptive capacity will only be recycled nominally. The level of absorption is influenced by the stock and quality of infrastructure and technology.

The low absorptive capacity exerts negative influences on the economy as it creates hardship making it difficult for bank lending to create serious impact on socioeconomic development and growth. The absorption problem alongside structural rigidity of bank portfolios caused by regulatory requirement and directives hinder business expansion, increased output of goods and services, employment generation, improved welfare and standard of living.

5. Discussion, Recommendations and Conclusions

5.1. Discussion

Economic development is one of the major macroeconomic issues. Series of researches and other efforts initiated to achieve it are targeted at the realization of three key objectives of development. These objectives according to Todaro and Smith (2006: 22) include:

- i. "To rise the availability and widen the distribution of basic life sustaining goods such as food, shelter, health and protection.
- ii. To raise the levels of standard of living including, in addition to higher incomes, the provision of more jobs, better education and greater attention to cultural and human values, all of which will serve not only to enhance material well-being but also to generate greater individual and national self-esteem.
- iii. To expand the range of social and economic choices available to individuals and nations by freeing them from servitude and dependence not only in relation to other people and nation-states but also to the forces of ignorance and human misery."

Indeed, as noted in this work, a number of research findings have established strong and positive correlation between bank portfolio structure and economic development. However, there exists a missing link in their assertions. Bank credits extended to the economy alone cannot make any significant impact on economic development and growth without the economy being soft and open to assimilate or absorb the facilities provided by the financial intermediaries and transform them into real output of goods and services. This depends on the stock, quality and distribution of infrastructure within the economy. This is in line with the reasoning of Ekpo (2013) when he observed that: "The countries in the BRICS (Brazil, Russia, India and China Concert) developed over time robust infrastructure, both hard and soft. In BRICS, there is regular power supply, a necessary ingredient for growth. South Africa has first (developed) country infrastructure built during years of apartheid. The infrastructure is still well maintained. China invested huge sums in infrastructural development. Its establishment of specialized banks, like the bank of infrastructure, played a crucial role in the development of infrastructure in the country."

The implication of the above exposition is that bank portfolios with structural defects coupled lack of adequate stock and quality of infrastructure fail to promote economic development. The structural defects in bank portfolios identified here are caused by inconsistent regulatory policies and high inclination to liquidity maximization. Hence, there is a strong link between the portfolio structure of banks, economic absorption capabilities and economic development.

Available theories of banking and economic development have not incorporated portfolio structure into the study of economic development. Therefore, the Bank Portfolio Structure and Economic Absorption Theory of Economic Development put forward here have the potentials of providing a new focus of research on economic development and sustainability.

5.2. Recommendations

In this work, it was discovered among others, that, bank portfolio rigidity stems from regulatory policy defects using inconsistent monetary policy tools such as high liquidity ratio and cash ratio, etc. and compelling the banks to adhere to the regulatory requirement, as well as lack of adequate and quality stock of infrastructure and technology as the basic causes of economic absorption problems. Above all, low level of economic absorption has been discovered to hinder effective contributions of banks to economic development.

Following from above, it was therefore recommended that regulatory tools used by Central Banks should be aligned with the development needs of the economy and the direction of governments. The monetary policy tools such as liquidity and cash ratios should also be moderated and stabilized for stable bank portfolio

performance as well as aggressive improvement in the stock and quality of infrastructure and technology within an economy.

5.3. Conclusion

With the new theory, it is expected that policy formulations and adjustments concerning bank portfolio structure and management would be designed with adequate flexibility and focus on long term loans and investments coupled with improved stock and quality of infrastructure to enhance economic development. This theory therefore provides another frontier of research on bank portfolio structure and contributions to economic development.

References

- Akpakpan, E.B., 1999. *The Economy: Towards a New Type of Economics*. Port Harcourt, Nigeria: Bellport Publishers.
- Bagehot, W., 1873. *Lambard Street: A Description of the Money Market*. London: Henry S. King & Co.
- Byrns, R.T. and Stone, G. W., 1992. *Economics (5th ed.)*. New York: Harper Collins Publishers, Inc.
- Ekpo, A.H., 2013. The BRICS Concert and Nigerian Economic Development. *Tell Magazine*, No. 15, April, 15, p.27.
- Gurley, J. and Shaw, E., 1955. Financial Aspect of Economic Development. *The American Economic Review*, 45(4), pp. 515-538.
- Hicks, J., 1969. *A Theory of Economic History*. Oxford: Clarendon Press.
- Jhingan M.G., 2004. *Money, Banking, International Trade and Public Finance*. New Delhi: Vanda Publications Private Ltd.
- Levine R., 1997. Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature*, 35(2), Vol. xxxv, pp. 688-726.
- Lipsey, R.G. and Steiner, P.O., 1983. *Economics (6th ed.)*. New York: Harper and Row Publishers.
- Mbat, D. O., 1995. *Money, Banking and Financial Markets*. Calabar: University of Calabar Press.
- McKinnon, R., 1973. *Money and Capital in Economic Development*. Washington DC: Brookings Institution.
- Mordi, C.N.O., 2010. *The Link between the Financial (Banking) Sector and the Real Economy*: CBN Economic and Financial Review, 48(4), pp.7-30.
- Okafor, B O.N., 2010. Investment Climate Reform in Nigeria: Challenges and Prospects. *CBN Economic and Financial Review*, 48(2), pp.59-90.
- Robbinson, J., 1952. *The Generalization of the General Theory: The Rate of Interest and Essays*. London: McMillian.
- Schumpeter, J.A., 1912. *Theory of Economic Development*. Cambridge MA: Harvard University Press
- Steiner, W.H., Shapiro, E. and Solomon, E., 1963. *Money and Banking: An Introduction to Financial System (4th ed.)*. New York: Holt, Rinehart and Winston, Inc.
- Tobin, J., 1965. Money and Economic Growth. *Econometrica*, 33(4), pp.671-684.
- Todaro, M. P. and Smith, S., 2006. *Economic Development*. (9th ed.). London, England: Pearson Education.
- Ubom, U.B., 2009. *Economic Absorption and Banks' Contribution to Economic Development in Nigeria*. *Journal of Business and Finance*, 2(1), pp.229-241.
- Ubom, U.B., 2006. *The Impact of Bank Portfolio Structure on Economic Development in Nigeria*. Ph. D. Thesis, Department of Banking and Finance, University of Calabar, Calabar, Nigeria.
- Ubom, U.B. and Ubom, A.U., 2009. *Due Process Public Accountability and Sustainable Development in Nigeria*. *International Journal of Multi-Disciplinary Scholarship*, 2(1), pp.191-202.
- Ubom, U.B. and Ubom, A.U., 2014. *Investment in Infrastructure and the Growth of Entrepreneurship in Nigeria*. *LWATI. A Journal of Contemporary Research*, 11(1), pp.92-104.

