Private Sector Creditand Economic Growth Nexus in Nigeria: An Autoregressive Distributed Lag Bound Approach

Haruna Mohammed Aliero PhD

Department of Economics
Usmanu Danfodiyo University, Sokoto
Mobile: +234-8135219790, Email: harliero66@yahoo.com

Yahya Zakari Abdullahi PhD

Department of Economics
Usmanu Danfodiyo University, Sokoto
Mobile: 07031538760, E-mail: ayzakari@yahoo.com

Nasiru Adamu

Department of Economics
Isa Kaita College Of Education, Dutsin-Ma , Katsina State
Mobile: 08038213942, Email: adamun93@yahoo.com

Abstract

This paper analyses the relationship between private sector credit and economic growth in Nigeria, using time series data for the period of thirty-seven (37) years (1974-2010). In analyzing the data the paper used Autoregressive Distributed Lag (ARLD) bound F-test for cointegration. The results indicated that a long run equilibrium relationship exists between private sector credit and economic growth, when private sector credit was used as dependent variable. However, causality results indicate that there is no causal relationship between private sector and economic growth in Nigeria. Therefore the empirical findings of this research implied that while "demand following hypothesis" prevailed in the long run relationship between private sector credit and economic growth in Nigeria, non-causal impact between private sector and economic growth on the other hand indicates the prevalence of the Schumpeterian "independent hypothesis" on the Nigerian economy. Finally, the study recommends long-term investment loan to the productive private sector in addition to the need for comprehensive policies and strong legal framework for easy disbursement and quick recovery of private sector credit.

1. Introduction

Economic growth from whatever angle it is viewed indicates the ability of an economy to increase production of goods and services over a certain period of time using the stock of capital and other factors of production within the economy (Popkova et-al, 2008). However, theoretical discussions on the importance of finance and economic growth have occupied a key position in the financial economics literature. The theoretical benchmark of the early studies on the relationship between finance and economic growth may be traceable to Schumpeter (1934), Mckinnon (1937) and Shaw (1973). They strongly emphasized on the critical role of finance in economic growth. Their argument is centered on the role of banks in facilitating technological innovation through its intermediary role. This role according to them is performed through the process of channeling funds in the form of credit or loan for investment to those economic agents who need them and can put them into the most productive use. Thus, credit which is defined in this context, as the link through which resources are transferred for capital formation, facilitates investment which leads to economic growth.

There has been a renewed interest globally into the study of credit to private sector and its ability to generate economic growth. These studies stressed that firms that are able to generate external finance are more likely to grow than those limited to internal finance (Levine 2002; Beck, Rioja and Valen 2009). Moreover, recent empirical findings provided support for the existence of finance and economic growth relationship. These includes the works of Eatzaz and

Malik (2009) who undertake an empirical study of 35 developing countries over the periods of 33 years (1970-2003) on financial sector development and economic growth, their studies reported that domestic credit to private sector is instrumental in increasing per worker output and hence promoting economic growth in the long run. Their findings also explore the possible means through which domestic credit to private sector can contribute to the growth of the economy.

Specific research works on the nexus between private sector credit and economic growth in Nigeria have not been able to employ the use of a rigorous econometric analysis (Oluitan, 2008 and Josephine, 2008) and no research work on the relationship between private sector credit and economic growth have adopted the recently developed Autoregressive Distributed Lag (ARDL) bound test approach to the best knowledge of the authors. These reasons justify the relevance of carrying out this study which attempts to examine the relationship between private sector credit and economic growth in Nigeria, as well as to examine the direction of the relationship between private sector credit and economic growth in order to provide additional empirical evidence on the relationship between private sector credit and economic growth in Nigeria. This study seeks to contribute to the debate on finance-economic growth nexus which contains empirical gap, especially in the developing economies, that need to be filled.

The aim of this paper is to examine the relationship between private sector credit and economic growth in Nigeria using the recently developed Autoregressive Distributed Lag (ARLD) bound F-test for cointegration. The paper is divided into six sections. Section 1 is this introduction. Section 2 discusses theoretical and conceptual issues. Section 3 reviews related empirical studies. Section 4 presents our econometric models and methodology. Section 5 presents and discuses our empirical results. Finally, section 6 draws conclusion and offers policy recommendations.

2. Theoretical and conceptual issues

Theoretical propositions on the finance and economic growth relationship is traceable to the earlier Schumpeterian hypothesis which is categorized into supply-leading and demand following hypotheses. While supply-leading hypothesis suggested that financial institutions serve as a useful tool for increasing the productive capacity of the economy, the latter assumed banks as not a direct cause for economic growth, rather the growth of the real sector increases demand for financial services which stimulates the financial sector. Thus, "where enterprise leads, finance follows" (Schumpeter, 1934).

It is widely accepted that financial development is a multidimensional concept which constitutes an important mechanism for a long-run economic growth (Coricelli, 2008). The argument on whether finance causes economic growth dates back to Schumpeterian "supply-leading hypothesis" which believed that activities of financial intermediation serve as a useful tool for increasing the productive capacity of the economy. The theory presupposes that efficient allocation of savings through the identification and the extension of credit to entrepreneurs with the best chance of successfully implementing innovative products and production process increases national output and hence accelerates economic growth in the long-run (Schumpeter, 1934). This was further supported by the theoretical evidence established by Goldsmith (1969), Shaw (1973), McKinnon (1937); their works theorized that finance is a very essential and prime requirement for both short and long-run economic growth.

More recently, several theoretical and empirical studies further strive to investigate the validity of the theoretical assertions on finance and economic growth. These includes the works of Johannes et.al (2011), Levine (2002), Olofin and Afangideh (2006) and Beck, Riojan and Valen (2009), they all opined that a big, liquid and a well functioning financial market can accelerate and foster economic growth and profit incentives, enhance corporate governance and facilitates risk management. They further expressed that each of these financial functions effect economic growth through capital accumulation and technological innovation. Their argument is further supported by Coricelli (2008), who confirmed financial sector as a 'shock absorber' to economic growth and theorized that the underdevelopment of the financial sector is one of the reasons why poorer countries tend to show much larger falls in output than more advanced countries.

Alternative views on the link between private sector credit and economic growth focus on the key function of financial sector in saving-investment-growth relationship. These according to Azigkpono (2003) includes acting as an effective conduit, first, for channeling funds from surplus to deficit unit by mobilizing resources and ensuring an efficient transformation of funds into real productive capital and second, financial intermediation transform maturity of the portfolio savers and investors, while producing sufficient liquidity to the system as the need arises.

The specific role of bank credit to private sector in stimulating economic growth is opined by Ngai (2005), who reported that bank credit to private sector is the most important source of financing for firms, especially in countries where capital markets are not fully developed. Bank credit according to Josephine (2009) is one of the important aspects of financial intermediation that provide funds to economic entities that can put them to the most productive investment. Emphasizing on the relevance of bank credit to business firms, Plamen and Khamis (2009) opined that credit availability enables firms to undertake investments that they could not have otherwise made out of their own funds. They further

demonstrated the macroeconomic impact of higher credit availability; as credit availability increases, consumption and investment demand also increases, and this will raise the level of output and employment.

3. Review of empirical studies

Financial economics literature has provided support for the positive relationship that exists between finance and economic growth. Economies with efficient financial system are found to grow faster while inefficient financial system bear the risk of failure or negative growth (Adeniyi, 2006). Nnanna et.al (2004) held that there is a strong relationship between financial development of any country and its economic performance, with common notion that the scarcity of long-term finances in developing countries is the major obstacle to higher investment and output growth in these economies.

Eatzaz and Malik (2009) analyses the role of financial sector development in economic growth, their studies reported that domestic credit to private sector is instrumental in increasing per worker output and hence promoting economic growth in the long-run. This does not contradict the works of Levine (2004) and Franklin and Oura (2004) which testify to the presence of long run relationship between bank credit and economic growth.

Despite the fact that some empirical studies on the finance and economic growth relationship reported a one way causality, other research works reported a bi-directional relationship between finance and economic growth such as the work of Prakash (2009) who studied finance and economic growth nexus in India, the co integration test adopted found the presence of long-run equilibrium relationship between financial development and economic growth. Moreover, the Granger causality test in the same work found the existence of bi-directional relationship between bank credit and economic growth.

Vast majority of empirical literature on finance and economic growth suggested a positive and long-run relationship as expressed in the previous part of this section. By contrast, few research works reported either little or no relationship between finance and economic growth. To set a pace for this argument, Lucas (1988) argued that economists have overstressed the role of financial factors in economic growth. He opined that banks only respond in industrialization and not directly on economic growth. This was empirically proved by Levine, Loayza and Beck (2000), by the use of panel estimation techniques. They confirmed that financial development does not have a first order effect on economic growth. Mushin and Eric (2000) also lend support to this argument, as their causality test on the Turkish economy revealed that causality runs from economic growth to finance, arguing that economic growth seems to lead to financial development.

4. Econometric framework and methodology

To establish relationship between private sector and economic growth, the following model is adopted following the work of Shabri and Majid (2008):

$Y = \beta_0 + \beta_1 PSC_t + \mu_t$ . . . . *(1)*
Where:
Y = Real Gross domestic product
β_0 = Constant parameter
PSC_t = Private Sector Credit
β_1 =   Vector coefficient of private sector credit
μ_t = Stochastic disturbance term

Most of macro econometric time-series data are associated with the problem of non stationarity as the data set may have time-varying mean or time-varying variance or suffer from both (Gujarati, 2005). In essence, time series data have a unit root. The stationarity property of a time series data can be examined by conducting unit root test in order to ascertain the stationerity or otherwise of the series variables. To detect the presence or otherwise of unit root, we consider a variable y that has a unit root represented by a first order Autoregressive AR (1):

$y_t = \rho y_{t-1} + \mu_t$ . . . . *(2)*

Where y_t is the GDP at time t, μ_t is white noise error term assumed to be independently and identically distributed with zero mean and constant variance and also assumed to be serially uncorrolated. If the absolute value of the coefficient ρ is less than 1 ($|\rho| < 1$), then y_t is stationary. If on the other hand, the absolute values of the coefficient ρ is statistically equal to or greater than 1 ($|\rho| \geq 1$) then y_t is non stationary and unit root exists (Gujarati, 2005).

To make variables of this research stationary, the following Augmented Dickey-Fuller (ADF) unit root model is adopted:

$$\Delta y_t = \beta_0 + \beta_1 y_{t-1} + \alpha_1 \sum \Delta y_{t-1} + \mu_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where Δy_t = Differenced value of a given time series variable
β_0 = Constant parameter
β_1 = Coefficient of the first lag value of the series variable
y_{t-1} = First Lag value of a series variable
α_1 = Coefficient of the lag values of the differenced time series variable
Δy_{t-1} = Lag values of the differenced series variable
μ_t = Error term

The short and long-run dynamic relationship between private sector credit and economic growth in Nigeria was estimated by the use of the Autoregressive Distributed Lag (ARDL) bound testing approach which was initially introduced by Pesaran and Shin (1996). The ARDL has numerous advantages. The approach can be applied regardless of the stationary properties of the series variables and allow for inferences on long-run estimate which is not possible under the alternative cointegration procedure, meaning that the procedure can be applied irrespective of the order of integration of the series variable whether I(0), I(1) or even fractionally integrated (Pesaran and Pesaran, 2001). Thus, the ARDL approach avoids problems resulting from non-stationary time series data.
The Autoregressive Distributed Lag (ARDL) model to be used in this study is written as follows:

$$\Delta lnRGDP_t = \delta_0 + \delta_1 lnRGDP_{t-1} + \delta_2 lnPSC_{t-1} + \sum \delta_3 \Delta lnGDP_{t-1} + \sum \delta_4 \Delta lnPSC_{t-1} + \mu_{1t} \ldots \text{(4)}$$

$$\Delta lnPSC_t = \alpha_0 + \alpha_1 lnPSC_{t-1} + \alpha_2 lnRGDP_{t-1} + \sum \alpha_3 \Delta lnPSC_{t-1} + \sum \alpha_4 \Delta lnRGDP_{t-1} + \mu_{2t} \ldots \text{(5)}$$

Where GDP_t is growth rate of real output at time t as a measure of economic growth, PSC_t is the share of the private sector credit and e_t is the error term.

$\Delta lnRGDP_t$ = Differenced natural log value of the proxy of economic growth GDP
δ_0 and α_0 = Constant parameter
$\Delta lnRGDP_{t-1}$ = First lag values of the differenced natural log value of RGDP
$\Delta lnPSC_{t-1}$ = First lag value of the differenced natural log of Private Sector Credit
μ_t = Error term

The term with summation signs ($\sum$) in equation (4) and (5) represent the error correction dynamic of the model while the second part (term with δs) correspond to long-run relationship.

Description of Data

For the purpose of this research, secondary data in form of annual time-series data is used. The secondary data includes volume of aggregate private sector credit which was sourced from the Central Bank of Nigeria (CBN) statistical bulletin, statistical data from the publications of the Federal Office of Statistics and Bureau of Statistics which are considered as authentic and reliable sources of data for this research (Asika, 2009).

5.   Empirical results

In analyzing the relationship between private sector credit and economic growth in Nigeria, this chapter begins with descriptive analysis which is reported in table 1 below:

Table 1: *Descriptive statistics*

Variables	Obsv.	Mean	Std Dev.	Minimum	Maximum
Real GDP	37	12.22157	1.066871	9.675313	13.56130
Private Sector Credit	37	12.75874	2.639077	8.127434	17.47791

Source*: Author's Computation using EVIEWS software*

The data used in the research have been summarized in table 1, using descriptive analysis in the form of mean, standard deviation, minimum and maximum. The number of observations (37) represent the years covered by the study. 12.22175 was the mean for real GDP in billions of Naira, while 9.675313 and 13.56130 were the minimum and maximum amount of Real GDP within the period of analysis respectively. 12.75874 was the mean of credit to the core private sector in billions of Naira, while 8.127434 and 17.47791 were the minimum and maximum amount of private sector credit within the study period respectively.

In trying to analyze the relationship between private sector credit and economic growth in Nigeria, the study begins with the conventional test for stationerity of the series variable via the Augmented Dickey-Fuller (ADF) unit root test, the result is presented in table 2 below:

Table 2: *Results of Augmented Dickey-Fuller Unit root test*

Variables	Level Value	Differenced Value	Conclusion
LRGDP	-1.766750	-4.526212***	I(1)
LPSC	0.234323	-3.867729***	I(1)

Source*: Author's Computation using EVIEWS software*
Note: ****, indicates level of significance at 1%*

As earlier stated, time series analysis always begin with unit root test to satisfy the stationerity property of the series variables. Table 2 presents the result of Augmented Dickey-Fuller unit root test on both level and differenced values of the natural log of Real Gross Domestic Product (LRGDP) and natural log of Private Sector Credit (LPSC) as earlier stated in equation (3). The result indicates that all the variables are not stationary at their level values. However, stationerity property was found after taking the first difference of the variables and found to be stationary at 1%. The implication of the above result is that all the variables are not stationary at their level values, they are found to be stationery at first difference and this led to the conclusion that they are integrated of order one denoted by I(1) which gives room for cointegration test, which was performed and presented in the following section.

5.1 Bound F-test for Co-integration

After the achievement of stationarity, the next step is to conduct bound F-test for cointegration in equation (4) and (5) in order to establish a long-run relationship among the series variables. The results of the bound F-test for cointegration together with the asymptotic critical values are reported in table 3 below;

Table 3: *The Results of Bound F-test for Cointegration*

Dependent Variable	Function	F-Statistics
LRGDP	LRGDP(RGDP/PSC)	1.3296
LPSC	LPSC(PSC/RGDP)	5.6492**
Asymptotic Critical Values	5%	10%
Lower Bound	3.3559	2.5141
Upper Bound	4.4148	3.4180

Source*: Author's Computation using MICROFIT software*
Note: ***, indicates level of significance at 5%. Asymptotic critical values are derived from Narayan (2005) for k = 2 and n = 35.*

5.2 Interpretations of the results of Bound F-test for Cointegration

The results of the bound F-test for cointegration in table 4.3 indicate that cointegration is only present when LPSC is treated as the dependent variable. This is because the computed F-LPSC (PSC/RGDP) is 5.6492 which is higher than the upper bound critical value at both 5% and 10%, i.e. 4.4148 and 3.4180 respectively. Moreover, there is no cointegration when the computed F-LRGDP(RGDP/PSC) (RGDP treated as the dependent variable), 1.3296 is less than the lower critical values at both 5% and 10% levels of significance 3.559 and 2.5141 respectively. This implies that there

is only one single long-run relationship between private sector credit (PSC) and RGDP which is used as the proxy for economic growth.

5.3 Estimated long-run Co-efficient Based on ARDL approach

Owing to the fact that a cointegration relationship between the variables has been detected, Autoregressive Distribution Lag (ARDL) model is established to determine long-run relationship between private sector credit and economic growth in Nigeria, the result of ARDL test is presented in table below:

Table 4: *Estimated Long-run Co-efficient using ARDL approach*

Regressor	Coefficient	Standard error	T-ratio	P-value
Dependent Variable: LRGDP LPSC	-0.09661	5.5350	0.017464	0.986

Source*: Author's Computation using MICROFIT software*

5.4 Interpretation of the estimated Long-run Co-efficient using ARDL approach

Table 4 presents the results of the estimated long run coefficient using ARDL approach, the order of the ARDL is selected based on Akaike Information Criterion (AIC). Based on the result in table 4.4, the long run elasticities of RGDP is negative (-0,09661) which is contrary to apriori expectation, the long-run negative impact of private sector credit on real GDP is -0.10 and not statistically significant. The implication of this result is that a 1% decrease in private sector credit will lead to 10% decrease in Real GDP.

5.5 Causality test

One of the objectives of this study is to ascertain the direction of causality between private sector credit and economic growth in Nigeria. Table 5 below presents the results of Granger causality test.

Table 5: *Results of Granger Causality test*

Null Hypothesis	Lags	Obs.	F-statistics	P-Value
PSC does not Granger Cause RGDP	2	37	1.56441	0.22580
RGDP does not Granger Cause PSC	2	37	0.51759	0.60118

Source*: Author's Computation using MICROFIT software*

5.6 Interpretations of the results of Granger Causality test

Going by the Granger causality test presented in table 5, causality does not run in either of the directions between the two variables, this is because the probability values of both the natural log of private sector credit and the natural log of Real GDP which is 0.22580 and 0.60118 respectively, are not statistically significant at both 1%, 5% or even the weaker 10% levels of significance. Thus, the null hypothesis of no causation between Private sector credit (PSC) and Real Gross Domestic Product (RGDP) cannot be rejected.

6. Conclusions and policy Recommendations

Based on the findings of this study, it could be concluded tht a long run relationship exists between private sector credit and economic growth in Nigeria. Secondly, there is no causality stemming form either of the variables studied (PSC and RGDP), this testify to the Schumpeterian "Independent hypothesis" which argued that economist have overstressed the role of finance in achieving economic growth and suggested that finance has no first-order effect on economic growth.

We therefore recommend that, since a long run equilibrium relationship between private sector credit and economic growth has been established, this implies that promoting economic growth in Nigeria in the long run calls for the provision of long-term investment loans to the productive private sector. This is because private sector credit is identified as one of the forcing variables for achieving economic growth in the long run.

Secondly, as the two variables studied (PSC and RGDP) were reported to have no causal impact, Nigerian banks are burdened with excess liquidity and these banks are very cautious in providing credit to the private sector (See Adeniyi, 2006), this research recommends for comprehensive policies and strong legal frame-work that will facilitate the disbursement and recovery of private sector credit, especially to the preferred agricultural and manufacturing sectors of the Nigerian economy.

References

Adeniyi, O. M. (2006), 'Bank Credit and Economic Development in Nigeria: A Case of Deposit Money Banks' Jos Journal of Economics.

Asika, N. (2009), 'Research Methodology in the Behavioural Sciences' Ikeja lagos, Longman Nigeria Plc

Aziokpono, M. (2003), 'Financial intermediation and economic growth in economic intergration: A case of South African Custom Union SACU' retrieved on 7/7/2011 from www.google.com

Beck, T., Rioji, F. and Valen, N. (2009), 'Who Gets the Credit? And does it Matter?' European Banking Center Discussion Paper No. 2009-12

Coricelli, F. (2008), 'Finance and Growth: When does Credit Really Matter?' Vol. X; Research-based Policy Analysis and Commentary from Leading Economist; Retrieved on 5/7/2011 from http://www.voxeu.org/index

Eatzaz, A. and Malik, A. (2009), 'Financial Sector and Economic Growth: An Empirical Analysis of Developing Countries' Journal of Economic Cooperation and Development Vol. 30, 1, 17-40.

Franklin, A. and Oura, H. (2004), 'Sustained Economic Growth and the Financial System'; Institute for Monetary and Economic Research (IMES), Bank of Japan, Discussion paper No. E-17 also available at http://www.imes.boj.or.jp

Goldsmith, R. W. (1969), 'Financial Structure and Development' Yale University Press, New Haves City

Gujarati, D. N. (2005), 'Basic Econometrics' Fifth Reprint, New Delhi, Tata McGraw-Hill, India Pp 801-820

Johannes, T. A., Njong, A. M. and Cletus, N. N. (2011), 'Financial Development and Economic Growth' Journal of Economics and International Finance; Vol. 3 (6) Pp 367-375

Josephine, N. O. (2009), 'Analysis of Bank Credit on the Nigerian Economic Growth (1992-2008). Jos Journal of Economics, Vol. 4, NO.1, Pp 43-58

Levine, R. (1997), 'Financial Development and Economic Growth: Views and Agenda" Journal of Economic Literature, 35(2) 688-726.

Levine, R. (2002), 'Bank-based or Market-based Financial System: Which is better' Journal of Financial Intermediation, 11 (4) 398-428

Levine, R. (2004), 'Finance and Growth: Theory and Evidence' NBER Working Paper NO.10766

Levine, R., Loayza, N. and Beck, T. (2000), 'Financial Intermediation and Economic Growth: Causes and Causality' Journal of Monetary Economics No. 46, Pp 31-77.

Lucas, R. (1988), 'On the Mechanic of Economic Development' Journal of Monetary Economics Vol.22 Pp 2-42

Mckinnon, R. (1937), 'Money and Capital in Economic Development'; Washington, Brookings institute

Muhsin, K. and Eric, J. P. (2000), 'Financial Development and Economic Growth in Turkey: Further Evidence on the Causality Issue' Centre for International, Financial and Economic Research. Department of Economics, Loughborough University

Narayan, P. K. (2004), 'Reformulating Critical Values for the Bounds F-statistics Approach to Cointegration: An Application to the Tourism Demand Model for Fiji'; Discussion Paper 02/04, Department of Business Economics, Monash University, Australia.

Nnanna, O. J., Englama, A. and Odoko, F. O.(2004), 'Finance, Investment and Growth in Nigeria' A Central Bank of Nigeria Publication, Kas Arts Services. Also available at www.centbank.org

Ngai, H.(2005), 'Bank Credit and Economic Growth in Macao' Monetary Authority of Macao. Retrieved on 21/05/2011 from www.amcm.gov.mo/publication

Olofin, S. O. and Afangideh, U. J. (2006), 'Financial Structure and Economic Growth in Nigeria: A Macro Econometric Approach' Ibadan, Centre for Econometric and Allied Research. Retrieved on 02/05/2011 from http//:www.cear.ng.org

Oluitan, R. (2007), 'Bank Credit and Economic Growth: The Nigerian Experience' retrieved on 12/04/2011 from www.google.com

Plamen, K. and Khamis, A. (2009), 'Credit Growth in Sub-Saharan Africa: Sources, Risks and Policy Response' IMF Working Paper wp/09/180

Pesaran, H. M. and Shin, Y. (1996), 'Autoregressive Distributed Lag Modeling to Cointegration Analysis' DAE Working Paper Series, No. 9514, Department of Applied Economics, University of Cambridge. Retrieved on 14th December 2011 from www.eprg.org.uk/faculty/pesaran/ardl.pdf

Pesaran, H. M., and Pesaran (2001), 'Bound Testing Approach to the Analysis of Level Relationships'; Journal of Applied Econometrics 16, 284-326

Popkova, E. G., Shakhovskaya, L. S., Mitrakhovich, T. N. (2008), 'New Quality of Economic Growth Concept'; International Journal of Economic Policy Studies; Pp 01-10

Prakash, P. R. (2009), 'The Nexus between Financial Development and Economic Growth in India: Evidence from Multivariate VAR Model'; International Journal of Research and Reviews in Applied Sciences. Vol. 1, Issue 2

Rodriguez, F. and Rodrik, D. (1999), 'Trade Policy and Economic Growth: A Skeptic's Guide to Cross-national Evidence' NBER Working Paper 7081

Schumpeter, J. A. (1934), 'The Theory of Economic Development'; Cambridge Mass. Harvard University Press

Shabri, M. and Majid, A. (2008), 'Does Financial Development Matter for Economic Growth in Malaysia: An ARDL Bound Testing Approach'; Journal of Economic Cooperation 29, 61- 82

Shaw, E. S. (1973), 'Financial Deepening in Economic Growth'; New York, Oxford University Press