



Domestic Debts and Private Lending in Nigeria: Is There a Crowding Out Effect?

by

Paul A. Orebiyi and Samuel E. Isaac
Department of Economics
University of Uyo, Uyo
paulorebiyi@yahoo.com

Abstract

The impact of domestic debt on private sector credit was examined with the background of the Theory of Crowding-out Effect using annual data from 1981 to 2018. Co-integration regression and Autoregressive distributed lag error correction model were used to analyze the long run and short run relationships between Credit to private sector and various components of domestic debts. Findings showed that domestic debt held by commercial banks and non-bank public has significant positive long run effect on private sector credit while domestic debt held by the Central Bank had a significant negative long run effect on credit to private sector. In the short run, domestic debt held by commercial banks and the public had significant positive impact on credit to private sector at zero lag. But at one lag, domestic debt held by commercial banks and the public had significant negative effect on credit to private sector respectively, showing evidence of crowding-out effect, which was connected to the maturity period of government debt instruments. It was recommended that realized funds from government debt instrument should be used to finance projects that enhance private investment activities so that the crowding-out effect of private credit do not have adverse effect on private investment and that effort should be made to involve domestic private firms in the process of executing government projects through public-private partnership.

Key words: Domestic debt, Private sector, Credit, Crowding out

1. Introduction

Government domestic borrowing is common both in developed and developing economies. It is observed that even developed economies have relatively large share of such borrowing because their spending on the provision of public services is high while developing economies mostly borrow to finance infrastructure projects with longer gestation period due to the huge infrastructural gap that usually exists in these countries (Zaheer, Khaliq, and Rafiq, 2017). From the traditional neoclassical economics, there have been arguments that government expenditure through deficit financing which is

usually intended to bring about improved macroeconomic conditions could have a rather adverse effect on macroeconomic conditions (Nwaeze, 2017). One of such postulations is the crowding out effect of government borrowing within the domestic financial system to finance budget deficit.

While the traditional neoclassical theory gives less credence to government active participation in economic activities, extolling the virtues of the price system, Keynesian economics strongly recommend increase in government spending through deficit financing, which usually result in borrowing, arguing that the positive effect (crowding-in effect) of deficit financing through borrowing outweighs the negative effect (crowding-out effect). The monetarist postulations favour changes in monetary aggregate rather than government borrowing in managing the economy, arguing that the expansionary effect of fiscal policy is greater when the budget deficit is financed through money creation rather than through borrowing while rational expectation is largely a restatement of the neoclassical postulations, arguing that rational expectation by economic agents offsets the effect of government spending in the economy (McConnell and Brue, 2003).

In Nigeria, increase in government spending over the years coincided with the expansion in public borrowing, which commenced with the loan procured during the early periods of independence. Since then, deficit financing exercise became part of the budgetary culture in the country. It should be noted however that prior to 1960, it was believed that available resources and revenues were relatively able to sustain government expenditure outlays due to the impressive agricultural sector performances as the major contributor to output and a main source of foreign exchange earnings. With the present state of the economy where the private sector still operates below optimum due to low private initiative and some identified constraints, the rise in government borrowing over time in Nigeria is a matter of concern (Nwaeze, 2017).

The crowding-out effect of increase in government spending through domestic borrowing on the economy could be observed either directly or indirectly. Indirectly, crowding-out effect manifests in the form of increase in interest rates and prices as a result of the presence of government in the credit market. Directly, crowding-out is seen in the reduction of the financial resources available to the private sector as credit (Sen and Kaya, 2014). It is argued that government borrowing usually leads the commercial banks to earn impressive risk-free returns, making them captive to hassle free profit making and thus constraining their willingness to give credit to the private sector with higher risk (Zaheer, Khaliq, and Rafiq, 2017). Also, the non-bank public who lend to the government through bonds and treasury bills also withdraw a significant amount of funds from the financial sector to the government and this also reduce the amount of loanable funds available to banks to offer credit to the private sector.

On the other hand, it was also argued in the work of Zaheer, Khaliq, and Rafiq (2017) that lending to the government may make banks to become less conscious of risk. Consequently, they may lend more to the private sector as a result of which government domestic borrowing may not lead to crowding out but rather result in crowding in. But given the risk averse nature of firms, this argument may not hold. These opposing arguments makes it even more interesting to empirically verify whether there is crowding

out or crowding in effect of domestic borrowing in Nigeria. In doing this, it is important to pay attention to the process through which domestic borrowing affect macroeconomic activities. The first point of touch of the effect of domestic borrowing on the economy is its effect on the availability of private sector credit which leads to changes in interest rate, affecting investment and economic output. In order not to skip the first point of touch in the transmission mechanism, this paper uses credit to private sector as the dependent variable. As mentioned earlier, the crowding out effect of government domestic borrowing is directly manifested in its effect on private sector credit.

In Nigeria, government borrows domestically from commercial banks, non-bank public and the central bank. Therefore, in this study, domestic debt is disaggregated into these categories. As a result, the study focuses specifically on examining the effect of domestic debt held by; (i) commercial banks; (ii) non-bank public and (iii) the central bank on private sector credit.

Generally, crowding-out is a concept used to describe the possibility that a rise in a particular strand of economic activities may lead to a fall in others (Black, 2002). Its theoretical underpinning is that the issuance of government securities in the financial market attracts funds away from private lending, reducing the amount of credit available for private sector development, leading to a rise in interest rate and consequently a reduction in private investment spending and aggregate output. When government deficit financing crowd out equal amount of private investment, the crowding out effect is said to be complete, but when reduction in private investment due to government deficit financing is less than the amount of government deficit financing, the crowding out effect is said to be partial (Jhingan, 2008).

Neoclassical economics view of the effectiveness of expansionary fiscal policy through deficit financing is based on the stated understanding of the functioning of an economy. Among early classical economists, the economy was, thus, seen to be self-correcting and self-regulating. Neoclassical economics, thus, focuses on the behaviour of individual producers and consumers and, thus, reinforce the classical economic ideas that the self-interest of individual economic agents will guarantee the economic progress of the society. As a policy tool, neoclassical economics, therefore, advocate for the reliance on the price system for efficient allocation of resources among members of the society and very limited government intervention in economic activities. This is because prices (goods price, wages, interest rate and exchange rate) are believed to be flexible (upwards and downwards) and thus guaranteeing that the economy will adjust itself to full employment equilibrium when there is a distortion.

With the above assumptions about the workings of the macro economy, neoclassical economics are of the view that a rise in government spending through deficit financing (domestic borrowing) will dampen private investment. It is argued that increase in government spending through deficit financing (borrowing) will eventually lead to a rise in interest rate. The rise in interest rate leads to a fall in private investment and such fall will completely offset or crowd out the effect of increase in government spending in the economy. Crowding-out effect is, therefore, the fall in private investment that is associated with an increase in debt financed public expenditure. This happens because

government through its borrowing competes with the private sector for funds, thereby reducing the amount of funds available for private borrowing and raises the rate of interest (Udaba, 2002). The crowding out effect is, thus, an argument put forward to defend the position of neoclassical economics about efficiency of the price system in allocating resources.

In contrast with the neoclassical economics, Keynesian economics assumed that the economy is not always at full employment and that prices are not flexible but rather sticky downwards. It is argued that when the economy is less than full employment level of income, investment is less interest rate elastic, thus an increase in interest rates as a result of expansionary fiscal policy (an increase in government spending), would be minimal, and therefore investment level in the economy would expand. This means that although government spending through deficit financing would lead to a rise in interest rate, the reducing effect of such increase in interest rate on investment would be minimal leading to overall increase in aggregate output because the principle of fiscal policy multiplier would work, and thus, a change in the government spending would generate a greater change in the output level of the economy (Sen and Kaya, 2014)

Zaheer, Khaliq and Rafiq (2017) investigated the impact of government borrowing on the credit to private sector in Pakistan, using monthly data from 1998 to 2015. They used volume of government borrowing instead of using cost of government borrowing along with other explanatory variables. Their result showed that a one percentage point growth in government borrowing led to 8 basis points crowding-out of the private sector credit in four months. Although the impact appeared small, it was statistically significant and hence showed strong evidence of the negative impact of government borrowing on the private sector credit. In Nigeria, Musa, Yusuf and Kachalla (2017) studied the crowding-out effect of budget deficit on private investment using annual data from 1980 to 2014. Employing pair wise granger causality test to analyze data, their result showed that there exists bidirectional causality that runs from private investment to fiscal deficit, government expenditure and government revenue and same bidirectional causality from exchange rate to private investment. They recommended that deficit financing which is unavoidable in most less developed economies including Nigeria should be done in such a way that untapped human resources can be engaged to increase productivity and government revenue.

Omitogun (2018) investigated the crowding-out effect of government expenditure on private investment in Nigeria using annual data spanning from 1981-2015. Government expenditure was disaggregated into capital and recurrent expenditure. Econometric estimation of Auto Regressive Distributed Lag (ARDL) model was used for the analysis. The result showed that in general, the effect of government expenditure on private investment depended on the components of the expenditure. Evidence of crowding in and crowding out was found in the study. This implied that not all government expenditure is channeled in such a way that it attracts private investment in the economy. He recommended that policy should take into consideration the existence of private investors in expenditure plans.

2. Objectives of Study

This study examined the impact of domestic debt on the private sector, with the aim of finding out if domestic debts held by the commercial banks and the public could have adverse effects on credit to the private sector. These are to assist in establishing whether domestic debt could crowd out private sector investment in Nigeria.

3 Materials and Methods

In this study, a causal research design was adopted because the effect of the independent variables on the dependent variables was estimated and explained using secondary data.

3.1 Model Specification

The model of this theory is based on the neoclassical macroeconomics theory which learns support to the crowding out effect of domestic debt and the opposing Keynesian macroeconomic theory where deficit financing through domestic borrowing is identified as viable strategy to increase government spending to boost aggregate demand, investment and output. The argument of neoclassical economics is that government domestic debt will reduce the quantity of credit available for private sector investment. Thus, in our model, credit to private sector is expressed as a function of domestic debt as follows;

$$RCPS = f(RDD) \text{ ----- (1)}$$

Where:

RCPS= credit to private sector in real values

RDD= domestic debt in real values

Domestic debt in Nigeria is made up of various components such as government securities held by commercial banks, the non-bank public and the central bank, hence domestic debt (DD) was disaggregated as follows;

$$RCPS = f(RDDCB, RDDNP, RDCBN) \text{ ---- (2)}$$

Where

RDDCB= domestic debt held by commercial banks in real values

RDDNP= domestic debt held by non-bank public in real values

RDCBN=domestic debt held by the central bank of Nigeria in real values

The various components of domestic debt (DCB, DNP, DCBN) were expected to have negative effects on credit to private sector (CPS) in line with the crowding-out effect of neoclassical economic theory.

3.2 Estimation Techniques

Co integrating Regression was used to examine the long run relationship between variables in this study, which was informed by the result of unit root test. Long run relationship between variables was thought to exist when variables in a model were stationary at first difference, providing the basis for examining the existence of a long run relationship. The existence of a long run relationship among variables provided the basis

to specify economic relationships in an error correction model to be able to study the short run relationships between variables, depicting the short run adjustment to long run equilibrium.

For this study, the autoregressive distributed lag error correction model (ARDL-ECM) was adopted. In this model, the dependent variable was expressed as a function of the lag value of the dependent variable and the current and lag values of the explanatory variables and the error correction term. This estimation technique was adopted because it allowed us to study the effect of the current and lag values of the explanatory variables on the dependent variable. The general form of the ADRL model used in this study was expressed as follows;

$$Y_t = \beta_0 + \beta_1 Y_{t-i} + \beta_2 X_t + \beta_3 X_{t-i} + ECM_{t-1} + U_t \text{ ----- (3)}$$

Where

β_0 = constant term

Y_t = the dependent variable

Y_{t-i} = lags of the dependent variable

X_t = the explanatory variables

X_{t-i} = lags of the explanatory variables

$\beta_1, \beta_2, \beta_3$ = the model coefficients

ECM = the error correction term

U_t = error term

Augmented Dickey Fuller (ADF) test was used as pre-estimation test to check for stationarity of all variables. ARCH heteroscedasticity test, JB normality and LM test were used as post estimation test for heteroscedasticity, test for normality of the error term of the estimated model, and autocorrelation test respectively. These post estimation tests were necessary because absence of autocorrelation, absence of heteroscedasticity and normal distribution of the error terms were the important assumptions of regression analysis. The results indicated whether or not the estimated coefficients of the model were reliable.

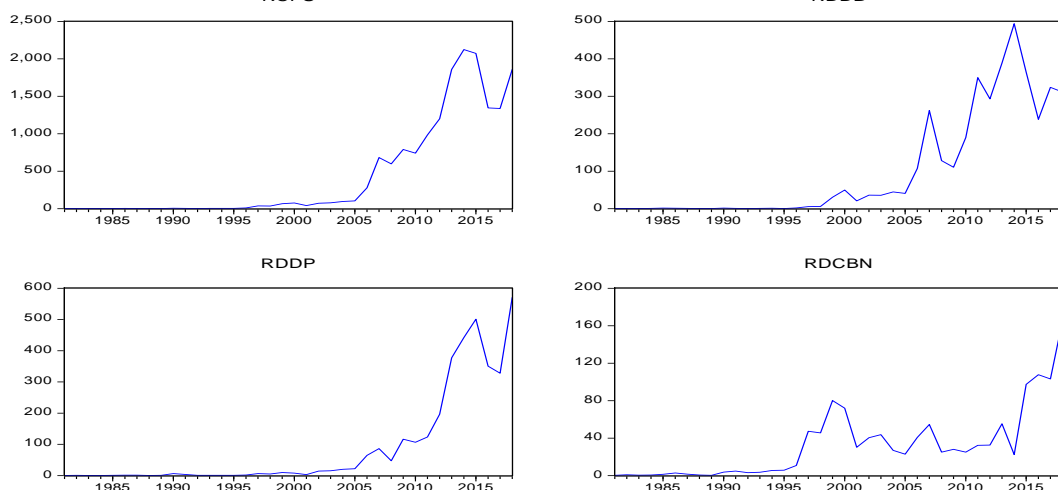
4 Results and Discussion

Data Visualization

The data of the variables used for analysis in this article is presented graphically to reveal trends and patterns as follows;

Figure 4.1: Trends of RCPS, RDDB, RDDP, RDCBN

Source: Author's computation using E-Views 9 (2020)



The above graph shows the trend of variables in real values. Credit to private sector (RCPS), domestic debt held by commercial banks(RDDB), domestic debt held by the public (RDDP) and domestic debt held by central bank(RDCBN) were generally low and almost at the same level from 1981 to 1995. From 1995 to 2018, RCPS, RDDB, RDDP and RDCBN showed increasing trend generally. During this period, RDDP trend was similar to RCPS while RDDB increases with significant fluctuations. RDCBN also rose with significant fluctuations to 2018 (see data as presented in the Appendix).

Unit Root Test

The result of unit root test carried out for the data of each variable included in the model of this study is presented and interpreted as follows;

Table 4.1: Unit Root Test Result

Variables	ADF stat	Critical Values			P Value	Remarks
		1%	5%	10%		
RCPS	-5.815204	-3.639407	-2.951125	-2.614300	0.0000	I(1)
RDDB	-6.625915	-3.632900	-2.948404	-2.612874	0.0000	I(1)
RDDP	-4.678900	-3.632900	-2.948404	-2.611531	0.0006	I(1)
RDCBN	-6.930591	-3.626784	-2.945842	-2.611531	0.0000	I(1)

The unit root test result, presented in Table 4.1 showed that all variables were stationary at first difference, forming the bases to examine the long run relationship among variables.

Cointegrating Regression Result

Following the result of unit root test which shows that all variables are stationary at first difference, giving a statistical justification for examining the existence of a long run relationship between the dependent and explanatory variables, cointegration regression was applied and the result is presented as follows;

Table 4.2: Cointegration Test Result

Dependent Variable: RCPS				
Method: Canonical Cointegrating Regression (CCR)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
***Rddb	2.709328	0.294122	9.211592	0.0000
***Rddp	2.059701	0.301414	6.833462	0.0000
*RDCBN	-1.176907	0.595677	-1.975748	0.0566
C	7.403933	21.01582	0.352303	0.7269
R-squared	0.984546			
Adjusted R-squared	0.983141			
Long-run variance	7290.685			

* indicates 10% statistical significant

** indicates 5% statistical significant

*** indicates 1% statistical significant

Note: Data used for Estimation is in the Appendix

The result of cointegrating regression showed that domestic debt held by commercial banks (Rddb), domestic debt held by the public (Rddp) have significant positive long run relationship with credit to the private sector (RCPS). It shows that a 1% increase in Rddb leads to a 2.7% increase in RCPS in the long run and a 1% increase in Rddp leads to a 2.06% increase in RCPS. Also, domestic debt held by central bank (RDCBN) had a significant negative long run relationship with RCPS. A 1% increase in RDCBN led to a 1.18% decrease in RCPS in the long run. The R^2 of 0.98 indicated that 98% of the long run changes in the dependent variable was explained by changes in all the explanatory variables in the model.

Table 4.3: ADRL-ECM Estimate

Dependent Variable: D(RCPS)				
Included observations: 36 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.372819	5.962882	-0.062523	0.9506
***D(RCPS(-1))	0.961289	0.137643	6.983938	0.0000
***D(Rddb)	1.782468	0.115201	15.47263	0.0000
***D(Rddb(-1))	-0.739033	0.197478	-3.742355	0.0009
***D(Rddp)	2.337456	0.135287	17.27770	0.0000
***D(Rddp(-1))	-3.173671	0.464926	-6.826180	0.0000
D(RDCBN)	0.009045	0.347293	0.026045	0.9794
D(RDCBN(-1))	0.307393	0.345894	0.888690	0.3820
***ECM(-1)	-0.428806	0.108100	-3.966752	0.0005
R-squared	0.981761			
Adjusted R-squared	0.976357			
F-statistic	181.6697	Durbin-Watson stat		2.149295
Prob(F-statistic)	0.000000			

* indicates 10% statistical significant

** indicates 5% statistical significant

*** indicates 1% statistical significant

Note: Data used for Estimation is in the Appendix

ADRL-ECM Regression Result

Given the existence of a long run relationship among variables as shown in the cointegration result, an autoregressive distributed lag error correction model (ARDL-ECM) is estimated to examine the short run relationship among variables and the result is presented as above:

The summary of post estimation test result, presented as Table 4.4 showed that there is absence of autocorrelation and absence of heteroscedasticity in the estimated model and thus implying that the error terms are normally distributed. This was because the p- values of the respective post estimation tests, which were more than the acceptable level of statistical significance, indicated that the null hypothesis of the LM and ARCH test could not be rejected. Also, the null hypothesis of the normality test procedure that the error was normally distributed could not also be rejected. This showed that the estimated coefficients were reliable because the estimated model met the underlying assumptions of regression analysis.

Table 4.4: Summary of Post Estimation Diagnostic Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.770014	<i>P Value</i>	0.1910
Obs*R-squared	4.465343	<i>P Value</i>	0.1072
ARCH Heteroskedasticity Test			
F-statistic	1.465279	<i>P Value</i>	0.2466
Obs*R-squared	2.936556	<i>P Value</i>	0.2303
Normality Test			
Jarque-Bera (JB) Stat.	3.039829	<i>P Value</i>	0.2187

The finding of this study showed that the various components of domestic debt have significant impact on credit to private sector. In the long run, domestic debt held by commercial banks and the non-bank public has significant positive effect on credit to private sector while domestic debt held by the CBN had a negative impact on credit to private sector. In the short run domestic debt held by the commercial banks and domestic debt held by the non-bank public has a positive and significant effect on credit to private sector at zero lag. This is in contrast with the a-priori expectation of this study. Although the theoretical argument that explained the transmission mechanism through which increase in domestic debt leads to increase in private sector credit may not readily be found, there are some possible explanations.

First, it could be argued that although the sign and size of regression coefficient is usually explained in terms of cause and effect, the observed significant positive relation may have no underlying causal behavioural principles, where for instance, increase domestic debt held by the public coincide with increase in credit to private sector overtime due to expansion of financial products and services overtime and the consequent awareness of such product and services by the public. Secondly, with respect to domestic debt held by commercial banks, the argument of Zaheer, Khaliq, and Rafiq (2017) referenced earlier is an important point here.

However, at lag one, domestic debt held by the commercial banks and the non-bank public have negative effect on credit to private sector showing the crowding out effect of government domestic debt on private sector credit. This may not be unconnected with the maturity period of the government securities. With respect to domestic debt held by commercial banks, this finding is in line with the earlier argument spotted in the literature that government borrowing usually allows the commercial banks to earn impressive returns that are less risky, affecting their willingness to give credit to the private sector with higher risk.

With respect to domestic debt held by the public, the possible explanation is that the non-bank public who lend to the government through bonds and treasury bills also withdraw a significant amount of funds from the financial sector to the government and this also reduces the amount of loanable funds available to banks to give credit to the private sector. Domestic debt held by CBN is not significant in explaining changes in credit to private sector in the short run. This could be because the purchase of government securities by the CBN does not have direct impact on private lending since the CBN do not deal directly with the private sector but through the commercial banks. In the long run, however, the impact is significant.

5 Conclusion and Recommendations

From the finding of this study in which evidence of crowding out effect of domestic debt on private sector credit is found, it is recommended that the funds realized from issuing government debt instrument should be used to finance projects that enhance private investment activities so that the crowding out effect of private credit do not have adverse effect on private investment. Effort should be made to involve domestic private firms in the process of executing government projects through public-private partnership.

There is evidence from this study of crowding out effect of government domestic debt on private sector credit. The findings showed that the holding of government domestic debt (government securities) by commercial banks and the non-bank public at lag one has significant negative (crowding out) effect on credit to private sector. It showed that the negative impact of domestic debt on private sector credit is not immediate but involves time lag and this could be explained in terms of the maturity periods of government debt instruments. While the state of the Nigerian economy may justify government deficit financing to increase its expenditure and affect macroeconomic outcomes to the desired level, domestic debt remains a reliable way of funding such deficit. The nature of government programs and projects embarked upon using these funds and the manner in which such programs and projects are executed determine whether the crowding out of private credit will have adverse effect on private investment and consumption expenditures.

References

- Asogwa, F. and Chetachukwu, O. (2013) The Crowding Out Effect of Budget Deficits on Private Investment in Nigeria. *European Journal of Business and Management* 5(20):161-165

- Akpansung, A. (2018) Analysis of the Impacts of Domestic Debts on Private Sector Credit, Lending Rate, and Real Output: Evidence from Nigeria. *Journal of Finance and Economics*, 6(3):111-123.
- Basar, S., and Temurlenk, M. S. (2007). Investigating Crowding-Out Effect of Government Spending for Turkey: A Structural VAR Approach. *IktisadiveIdariBilimlerDergisi*, 21(2):96–104.
- Black, J (2002) *Dictionary of Economics*, Second Edition. Oxford University Press, U K
- Majumder, A. (2007). Does Public Borrowing Crowd-out Private Investment? The Bangladesh Evidence. *Policy Analysis Unit (PAU)*. Working Paper Series: WP 0708. 2–26.
- Mbate, M. (2014). Domestic debt, private sector, and economic growth in Sub-Saharan Africa. *African Development Review*, 25(4), 434-446.
- McConnell, C and Brue, S (2003). *Macroeconomics*. McGraw Hill Publishers, USA
- Musa, G., Yusuf, A., and Kachalla, U. (2017) Does Budget Deficit Financing Crowd-in Private Investment in Nigeria? An Outlook of the Neoclassical Hypothesis. *Journal of Humanities and Social Science* 22(8):19-26
- Nweaze, C. (2017) Public Borrowing and Private Investment in Nigeria: any Crowding out Effect? *Jorind* 15(2) 21-34
- Obademi, O.E. (2012) An Empirical Analysis of the Impact of Public Debt On Economic Growth: Evidence from Nigeria 1975-2005. *Canadian Social Science*, 8(4), 154-161.
- Omitogun, O. (2018). Investigating the Crowding Out Effect of Government Expenditure on Private Investment. *Journal of Competitiveness*, 10(4): 136–150.
- Şen, H. and A. Kaya (2014). Crowding-out or Crowding-in? Analyzing the Effects of Government Spending on Private Investment in Turkey, *Panoeconomicus*, 61, 631-651.
- Shetta, S and Kamaly, A (2014) Does the Budget Deficit Crowd Out Private Credit from the Banking Sector? The case of Egypt. *Topics in Middle Eastern and African Economies* 16(2): 251-279
- Udaba, S.I (2002). *Introduction to Nigerian Public Finance*. Enugu: Linco Press Nig. Ltd
- Zaheer, S; Khaliq, F and Rafiq, M (2017) Does Government Borrowing Crowd Out Private Sector Credit in Pakistan. State Bank of Pakistan (SBP) Working Papers No 83.

APPENDIX

Data in Nominal Values

YEARS	CPS (N'Billion)	DDB (N'Billion)	DDP (N'Billion)	DCBN (N'Billion)	INF (%)
1981	8.57	1.84	4.83	4.52	20.81
1982	10.67	2.99	5.53	6.49	7.70
1983	11.67	5.53	6.29	10.40	23.21
1984	12.46	9.62	6.52	9.53	17.82
1985	13.07	11.39	6.65	9.91	7.44
1986	15.25	4.57	7.77	16.10	5.72
1987	21.08	7.86	11.28	17.65	11.29
1988	27.33	7.48	12.92	26.64	54.51
1989	30.40	3.70	27.70	15.65	50.47
1990	33.55	9.06	47.65	27.38	7.36
1991	41.35	7.49	46.42	62.29	13.01
1992	58.12	6.23	32.96	138.77	44.59
1993	127.12	38.88	32.52	202.43	57.17
1994	143.42	47.27	51.87	308.44	57.03
1995	180.00	22.30	41.15	414.29	72.84
1996	238.60	56.07	51.11	312.80	29.27
1997	316.21	45.10	53.35	403.30	8.53
1998	351.96	57.68	48.24	454.91	10.00
1999	431.17	201.49	62.89	530.42	6.62
2000	530.37	344.89	54.44	498.92	6.93
2001	764.96	386.45	61.02	569.51	18.87
2002	930.49	460.23	186.00	519.77	12.88
2003	1,096.54	500.43	215.46	613.79	14.03
2004	1,421.66	669.07	297.79	403.46	15.00
2005	1,838.39	726.23	391.26	408.42	17.86
2006	2,290.62	882.85	534.87	335.53	8.24
2007	3,668.66	1,410.04	466.00	293.58	5.38
2008	6,920.50	1,482.16	548.78	289.37	11.58
2009	9,102.05	1,274.58	1,345.55	323.18	11.54
2010	10,157.02	2,605.01	1,459.30	343.14	13.72
2011	10,660.07	3,790.90	1,336.61	348.84	10.84
2012	14,649.28	3,580.42	2,398.52	398.27	12.22
2013	15,751.84	3,293.83	3,197.69	468.86	8.48
2014	17,131.45	3,982.72	3,564.32	180.21	8.06
2015	18,675.47	3,284.01	4,513.49	877.30	9.01
2016	21,082.72	3,736.02	5,493.53	1,688.20	15.68
2017	22,092.04	5,351.80	5,415.50	1,703.80	16.52
2018	22,521.93	3,768.58	6,905.30	2,005.44	12.09

Data In Real Values

YEARS	RCPS (N'Billion)	Rddb (N'Billion)	RDDP (N'Billion)	RDCBN (N'Billion)
1981	0.41	0.09	0.23	0.22
1982	1.39	0.39	0.72	0.84
1983	0.50	0.24	0.27	0.45
1984	0.70	0.54	0.37	0.53
1985	1.76	1.53	0.90	1.33
1986	2.67	0.80	1.36	2.82
1987	1.87	0.70	1.00	1.56
1988	0.50	0.14	0.24	0.49
1989	0.60	0.07	0.55	0.31
1990	4.56	1.23	6.47	3.72
1991	3.18	0.58	3.57	4.79
1992	1.30	0.14	0.74	3.11
1993	2.22	0.68	0.57	3.54
1994	2.51	0.83	0.91	5.41
1995	2.47	0.31	0.57	5.69
1996	8.15	1.92	1.75	10.69
1997	37.07	5.29	6.25	47.28
1998	35.21	5.77	4.83	45.51
1999	65.15	30.44	9.50	80.14
2000	76.50	49.74	7.85	71.96
2001	40.53	20.48	3.23	30.17
2002	72.26	35.74	14.44	40.37
2003	78.15	35.66	15.36	43.74
2004	94.79	44.61	19.86	26.90
2005	102.91	40.65	21.90	22.86
2006	278.00	107.15	64.92	40.72
2007	681.62	261.98	86.58	54.55
2008	597.73	128.02	47.40	24.99
2009	788.90	110.47	116.62	28.01
2010	740.30	189.87	106.36	25.01
2011	983.40	349.71	123.30	32.18
2012	1199.01	293.05	196.31	32.60
2013	1858.44	388.61	377.27	55.32
2014	2124.83	493.98	442.09	22.35
2015	2072.89	364.51	500.98	97.38
2016	1344.96	238.34	350.46	107.70
2017	1337.00	323.89	327.74	103.11
2018	1862.13	311.59	570.93	165.81

Sources: CBN Statistical Bulletin (2018), World Development Indicators (2019)