LAGOS BUSINESS SCHOOL
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SUSTAINABLE + INCLUSIVE
DIGITAL FINANCIAL SERVICES

THE NEXUS
OF FINANCIAL INCLUSION, COST OF FUNDS AND INFLATION RATE
IN NIGERIA

THE NEXUS SERIES

Authors: Adedoyin Salami, Ikechukwu Kelikume, Faith Iyoha

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Executive Summary

Financial inclusion, now defined as access to and use of diverse financial services at an affordable cost, has gained prominence in the policy agenda of many countries. To harness the benefits of greater financial inclusion, Nigeria has set various goals and targets aimed at achieving greater financial inclusion by 2020. However, achieving the broad goal of financial inclusion may be undermined by the current high cost of funds and the double digit inflation. According to EFinA (2016) increase in financial exclusion to 41.6 percent was ascribed to the fallout of loss of jobs, lower disposable income and increasing inflation in Nigeria.

Employing vector autoreggresive (VAR), the paper set out to ascertain the nexus between financial inclusion, cost funds and inflation in Nigeria with focus on the demand side digital financial inclusion ecosystem. Specific questions raised in the report include; does cost of funds and inflation significantly influence variation in financial inclusion? Does the prohibitive cost of funds slow down financial service use and adoption rate which invariably translates into financial exclusion? Or does financial inclusion influence variations in cost of funds and inflation? The multivariate VAR contains four variables in a linear form. These are financial inclusion (FI) defined from the demand side, inflation rate (measured by the month-on-month change in the consumers price index), average deposit rate (ADR) and lending rate (specifically, maximum lending rate (MLR)) of Deposit Money Banks (DMBs) in Nigeria. Secondary data of monthly frequency over the period 2008-M01 to 2016-M12 were sourced directly from the Central Bank of Nigerian Statistical Bulletin (CBN), the National Bureau of Statistics (NBS) and EFInA. However, financial inclusion data in monthly frequency were generated by splicing annual data using appropriate techniques. The choice of the period was informed by the availability of financial inclusion data since 2008 with the most recent being 2016.

The results obtained reveal the existence of a bi-directional or feedback relationship between financial inclusion, cost of funds and inflation in Nigeria. This feedback relationship suggests that costs of funds and inflation drives financial inclusion, however the impact is stronger on formal financial inclusion. Thus, rising inflation may lead to increase in cost of credit (lending rate) and therefore discourage formal inclusion and even lead to exclusion. Furthermore, activities in the informal financial sector are likely to increase inflation. Whilst some articles conclude that interest rate does not spur saving, cost of funds (increase in deposit/decrease in lending rate) may overtime increase inclusion.

On the basis of the implication of the nexus between financial inclusion, cost of funds and inflation, efforts aimed at boosting financial inclusion especially through the provision of credit to MSMEs by development institutions (CBN, BOI, BOA, DBN etc) should be sustained. Access to finance will bring those mostly informal businesses into the formal financial system and help the financial service providers to mobilize deposits resulting in an increase in the supply of loanable funds and a decrease in lending rates.

To **harness the benefits of greater financial inclusion,** Nigeria has set various goals and targets aimed at achieving greater **financial inclusion by 2020**

Section 1
Introduction

Financial inclusion, now defined as access to and use of diverse financial services at an affordable cost, has gained prominence in the policy agenda of many countries given financial inclusion's ability to help eliminate the problem of leakages from subsidy and welfare distribution, boost saving, increase credit availability, and break the vicious circle of poverty of a nation (Ellis, Lemma, & Rud, 2010) with the ability to improve the circulation of money, intensify the rate of investment and reduce the rate of inflation (Bhatia & Chowdhury, 2017; Kumar, 2017).

To harness the benefits of greater financial inclusion, Nigeria has set various goals and targets aimed at achieving greater financial inclusion in the country by 2020. However, achieving the broad goal of financial inclusion may be undermined by the current high cost of funds and double digit inflation. Cost of funds, which refers to the interest rate paid by financial institutions for the funds that they deploy in their business (this includes deposit rate) and received by financial institutions for the funds that they deploy to other businesses (lending rate), is likely to pose a challenge to achieving the 2020 target.

Studies on the effect of financial inclusion have focused on distributional, growth and poverty reduction issues (Jeanneney & Kpodar, 2011; Aker, & Mbiti, 2010; Mehrotra, & Yetman, 2015; Inoue, & Hamori, 2012; Manji, 2010; Gretta, 2017; Kelkar, 2010; Dabla-Norris, Townsend & Unsal, 2015). None of these papers addressed the relationship between financial inclusion, rising cost of funds and changes in the general price level. Arguably, the extent of access to financial services (specifically saving and borrowing at market interest rate), is relevant for monetary policy as it underlines the strength of the monetary transmission mechanism.[1] Also, Inflation targeting policy utilizes a policy interest rate as the main policy instrument (MPR in Nigeria). The rationale for the use of this instrument is that aggregate demand is inversely related in the short term to the real interest rate.

The aim of the paper is to ascertain the nexus between financial inclusion, cost funds and inflation in Nigeria. The method used is the vector autoreggresive (VAR) and the focus of the technical report is on the demand side digital financial inclusion ecosystem. The financial inclusion data were sourced from EFInA while the macroeconomic aggregates used in the study were sourced from National Bureau of Statistics (NBS). Specific questions raised in the report include; does cost of funds and inflation significantly influence variation in financial inclusion? Does the prohibitive cost of funds slow down financial service use and adoption rates which invariably translates into financial exclusion? Or does financial inclusion influence variations in cost of funds and inflation? Following the introduction, Section 2 presents stylized facts concerning cost of funds and inflation rate in Nigeria. Section 3 reviews the theoretical relationship and empirical evidence while section 4 explains the framework that guides the paper. Section 5 is the methodology and data. In Section 6, results of the econometric estimations are given. Section 7 summarizes the paper with recommendations.

[1] *Monetary Transmission mechanism is the process by which monetary policy decisions affects the overall economy and the general price level.*

Section 2

Overview of Cost of Funds and Inflation rate in Nigeria

Cost of funds refers to the interest rate paid by financial institutions for the funds that they deploy in their business and the funds received by financial institutions for rendering services (providing loans and advisory services) to the general public. For a deposit money bank, this is usually the interest that it gives on deposits and the lending rate charged on credit. For other institutions it could be the cost of wholesale funds, or a subsidised rate for credits provided by government or donors. Other MFI's might have very cheap funds from charitable contributions.

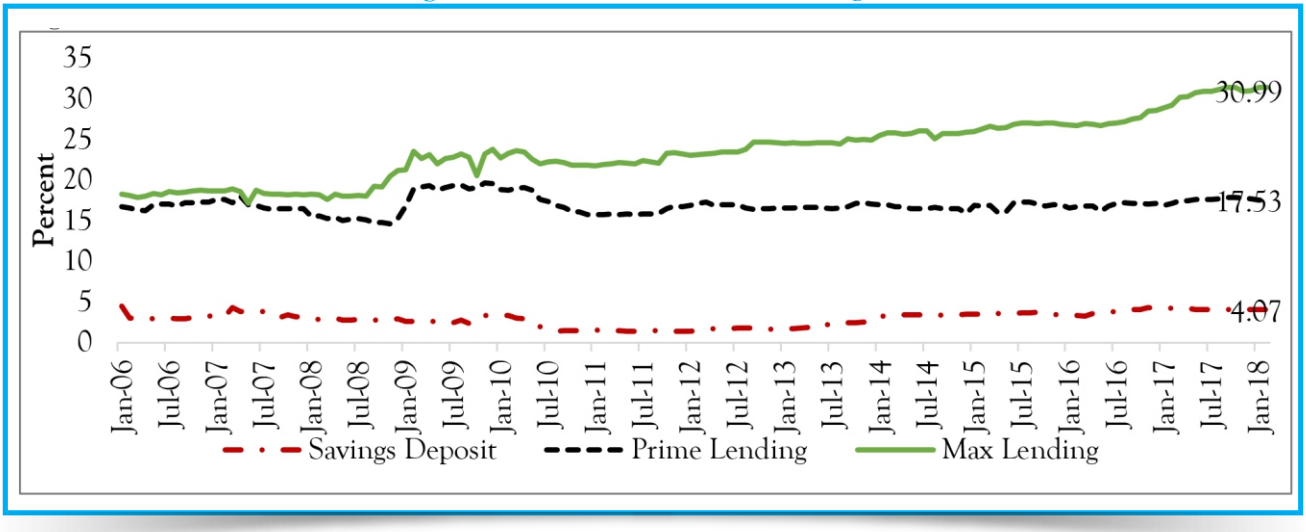
In Nigeria, there are two major lending rates in the financial service sector - the prime lending rate and the maximum lending rate. The Prime Lending Rate (PLR) represents the average lending rate charged to customers perceived as having lesser risk while the Maximum Lending Rate (MLR) represents the average lending rate charged to customers perceived as having higher risk with or without a history of generating consistent cash flows.

Figure 2.1 shows the monthly trend movement of savings deposit rates, prime lending rates and maximum lending rate from January 2006 to February 2018.

Between January 2006 and January 2008 there was a thin gap between prime lending rate and maximum lending rate in Nigeria but the gap began to widen out from 2009 reaching an all-time high differential of about 13.4 in February 2018. The implication of the current gap between the prime lending rate and the maximum lending rate is that small and medium scale enterprises perceived to have higher risk profiles are often offered the maximum lending rates while large corporate multinational with consistent cash flow and lower risk profiles are offered the prime lending rates. Given that more businesses operate within the small and medium scale enterprise sector, they are generally excluded from financial services because of the prohibitive costs of funds.

An examination of savings deposit rate shows a relatively stable and low deposit rate put at a value of 4.07 percent for March 2017. This rate is too low to attract savings mobilization and when savings is low, investment and output growth tends to be low.

Fig. 2.1 – Trend in Interest rate in Nigeria

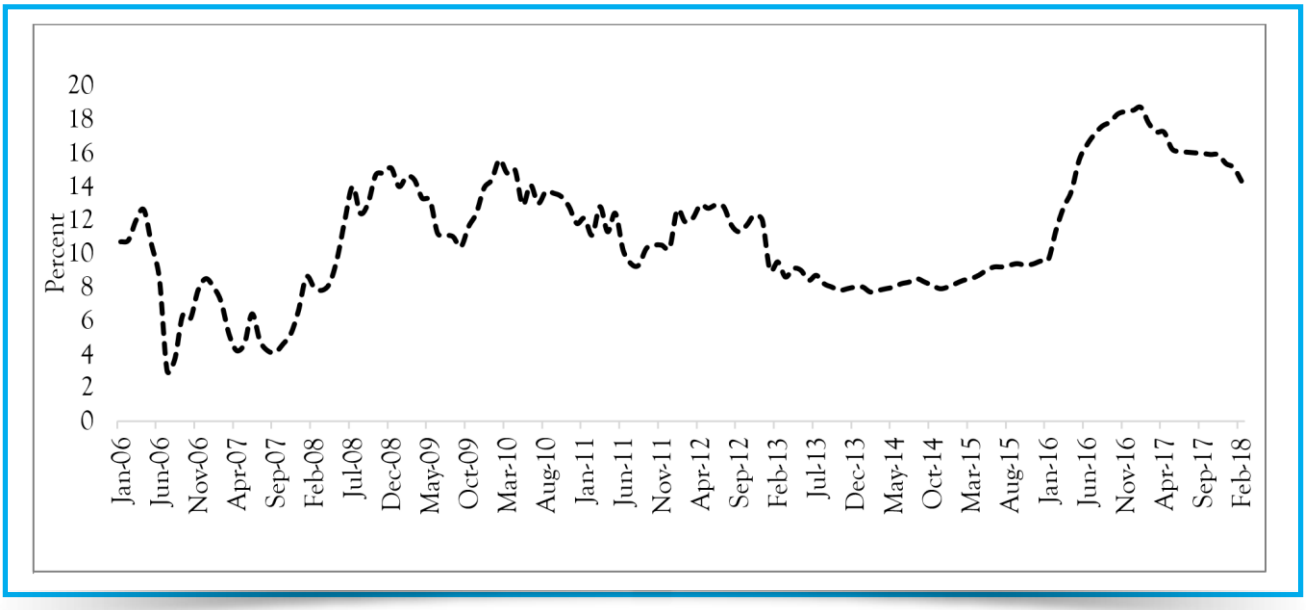


Source: Authors' computation, 2018 (Data sourced from Central Bank of Nigeria Statistical Bulletin, 2016)

Figure 2.2 shows the movement in the general price level between the periods 2006 and 2018. In the periods between 2006 and 2008, inflation was more volatile but maintained a single digit on the average. Beginning from December 2008, inflation spiked to a double digit and maintained the double digit up until February 2016 where it spiked out of control to 18.72 percent in January 2017. Factors responsible for the sudden upward trend in price level since February 2016 include rising price of food, weak exchange rate and high and erratic cost of transport resulting from incessant petrol shortages. Current inflation, stands at 12.48 percent as at April-2018, representing a 0.86 percentage points decline from 13.34 percent in the preceding month and fifteen consecutive months decline from 18.72 percent as at January-2017.

The rising and volatile price movements associated with the devaluation of the Naira and the falling crude oil price in 2016 may have affected the gains of financial inclusion in Nigeria since 2009. Current EFinA report (2016) shows that financial exclusion increased by 2.1 percentage points to 41.6 percent following the effect of recession (loss of jobs, lower disposable income and increasing inflation).

Fig. 2.2 – Trend in Inflation rate in Nigeria



Between January **2006** and January **2008** there was a thin gap between **prime lending rate and maximum lending rate in Nigeria** but the gap began to widen out from **2009** reaching an all-time high differential of about 13.4 in February 2018.

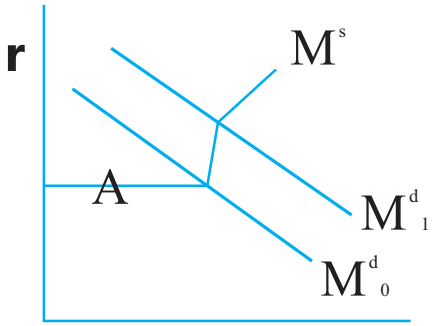
Section 3

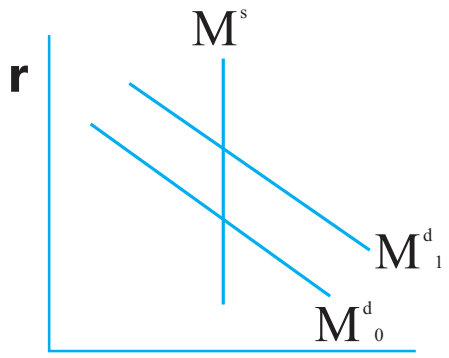
Financial Inclusion, Cost of Funds and Inflation Rate- What the Literature says

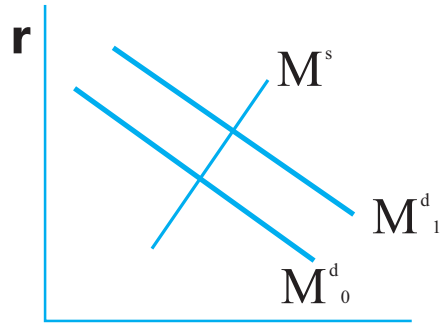
The relationship between financial inclusion, cost of funds and inflation rate can be explained by the interaction between money supply and money demand. Essentially, financial inclusion will lead to increase in the demand for money given that businesses have more access to credit (Kelkar, 2010; Sarma & Pais, 2011), but, the effect of the demand on interest rate depends on the position of money supply (Keynes, 2016).

Figure 3a represents the liquidity trap – a situation of interest rate insensitivity, where an increase in the money supply aims to match increase in money demand (from M_0 to M_1) as a result of greater financial inclusion, but will have a neutral effect on lending interest rate and thus output and inflation rate remains the same. In fig. 1b, when money supply (M_s) is exogenously determined, an increase in money demand drive by financial inclusion will lead to an increase in lending rate. The Taylor's rule translates increase in interest rate to decline in inflation. However, an increase in lending rate that depresses the level of output will lead to an increase in price level (inflation).

Finally in fig.1c when the money supply allows for flexibility, the effect of an increase in money demand driven by financial inclusion will have three (3) effects depending on the responsiveness of money supply and output; (i) when change in money demand is greater than change in money supply, lending rate will increase and this will lead to a decrease in output and thus increase in inflation rate. (ii) when change in money supply equals change in money demand, lending rate will remain unchanged and inflation rate remains the same (iii) when change in money supply is greater than change in money demand, lending rate will decrease, output is expected to increase and this will lead to a decrease in inflation rate.







When money supply (M_s) is exogenously determined, an **increase in money demand** drive by financial inclusion will lead to an increase in lending rate.

EMPIRICAL EVIDENCE

A review of the literature revealed that most studies have focused on determinants and the distributional effect of financial inclusion (Dabla-Norris, Townsend & Unsal, 2015; Karmakar, Banerjee & Mohapatra, 2011; Prasad, 2014), and that there exists a wide research gap that speaks to the relationship between financial inclusion, cost of funds and inflation.

One way to explain the relationship between financial inclusion, cost of fund and inflation is to examine Taylor's rule. Taylor's rule states that monetary policy will stabilize inflation provided that, when inflation rises, the central bank raises the nominal interest rate by more than the rise in inflation so that real interest rates rise, and vice versa when inflation falls (e.g. Woodford, 2001). However, the validity of the Taylor principle is undermined if private sector spending, and hence aggregate demand, is not interest elastic (Brownbridge, Bwire, Rubatsimbira and Tinyinondi; 2017). Hence, the issue of the nexus between financial inclusion, cost of funds and inflation has important consequences for policy in Nigeria.

Mbutor and Uba (2013) estimated a VAR model to ascertain the relationship between financial inclusion and monetary policy for Nigeria using data covering the period 1980 to 2012. The key result was that a 1 percent increase in the ratio of total loans and advances by the commercial banks reduced inflation by 0.01 percent suggesting that financial inclusion supports the attainment of low inflation. Lenka and Bairwa (2016) developed a structural model to estimate the effect of financial inclusion on inflation in 8 countries in the South Asian Association for Regional Cooperation (SAARC). The result suggests that a 1 percent increase in financial inclusion reduced inflation by 0.28 percent. Furthermore, Olaniyi and Adeoye (2016) set to examine the determinants of financial inclusion in Africa for the period 2005 to 2014, using the dynamic panel data approach. The study finds deposit interest rates and inflation having insignificant impacts on financial inclusion.

Section 4

A Framework to analyse the Financial Inclusion, Cost of Funds and Inflation Rate Nexus

Financial inclusion has declined in recent times. However, one way to increase inclusion, especially formal financial inclusion (FFI), is the adjustment of the cost of funds (interest rate - both lending and deposit rates). However, these rates do not affect the informal financial sector (the unbanked and the under-banked) where lending rate is far above lending rate in the formal sector.

Specifically, an increase in financial inclusion stimulants (that is drivers of financial inclusion such as financial education (increase in financial literacy) and availability of financial infrastructure) that leads to increase in financial inclusion will;

- In the formal domain (FFI), such increase will lead to increase in deposits (which translates to increase in the supply of loanable funds/bank liquidity) and increase in economic activities (which translates to increase in the demand for loanable funds).

- On the informal side, some individuals (actors) in the informal financial sector may be formally included, since the informal sector is highly liquid, and this will lead to increase in economic activity. According to the loanable fund theory of Dennis H. Robertson, interest rate is determined by the intersection of the demand for and the supply of loanable funds. Thus, a positive net supply of loanable funds (comparative higher supply of loanable funds than demand for loanable funds) will lead to a decrease in lending rate whereas a negative net supply of loanable funds will lead to an increase in lending rate.

Furthermore, basic economic theory suggests that a decrease in lending rate will lead to an increase in output and therefore a decline in inflation rate. Whereas, an increase in lending rate will lead to a decrease in output and therefore an increase in inflation rate. However, it is possible that lending interest rate (specifically the maximum lending rate) will not change because of the uncompetitive nature of the Nigeria banking industry and if the net supply of loanable funds is zero so that output and price level (inflation rate) remains the same. Thus there may be a threshold before lending rate can influence formal financial inclusion. Also, people may be willing to pay the rate so the problem (reason for exclusion) could be access rather that rate.

Finally, decrease in lending rate that leads to excess money supply but not matching with increase in output will increase price level (inflation rate). The indirect relationship between financial inclusion and inflation is further strengthened from the view that movement of money from boxes and under mattresses to the financial sector (precisely banks), could pose a challenge to the central bank regarding the quantity of money supply. Central Bank (CB) could supply a quantity of money which becomes higher than what the economy needs due to the new flow of money to banks (which was not expected by the CB) thereby creating lower interest rate and inflation when money supplied are not channelled to productive ventures.

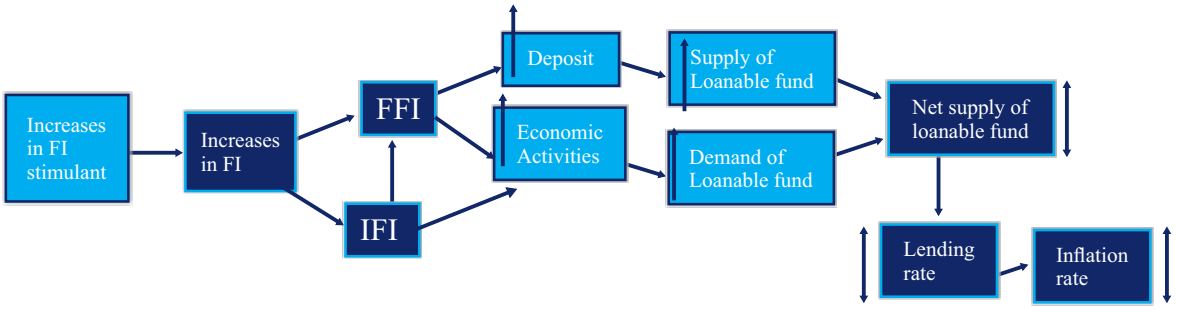


Fig. 1a: Supply side Hypothesis: Financial inclusion leads cost of funds and inflation

NOTE:

the rate in the formal financial sector does not apply to the informal sector so the direction of impact or indicators to be used is yet unclear.

Also, autonomous change in interest rate (lending and deposit rates) is expected to have an impact on financial inclusion. Theoretically, increase in deposit rate and decrease in lending rate matched with a reduction in the criteria for accessing loanable fund will attract more savings with the formal financial sector and will cause a movement from the informal to the formal financial sector. However, it is identified in the literature that what motivates savings is not the deposit rate but purely security reasons (De Nardi, French & Jones, 2010; Sherraden & McBride, 2010).

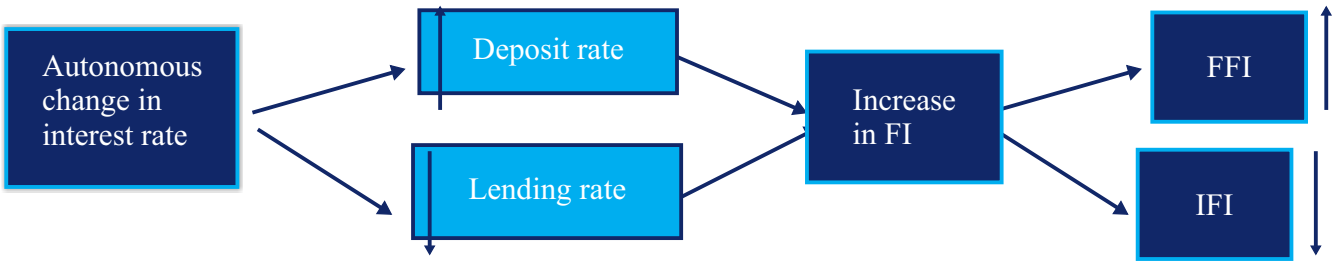


Fig. 1b: Supply side Hypothesis: Cost of funds leads to financial inclusion

Section 5
Model, Method of Estimation and Data Resources

Following the analytical framework discussed above, we employ vector auto-regressions (VAR) and Granger causality tests to attempt to empirically ascertain the relationship between financial inclusion, cost of funds and interest rate. This modelling procedure is flexible and allows endogenous interactions between variables and displays the delayed effects with a presumptuous bi-directional causal relationship between variables. The multivariate VAR contains four variables in a linear form. These are financial inclusion (FI) defined from the demand side, headline inflation rate (measured by the month-on-month change in the consumers price index), average deposit rate (ADR) and lending rate (specifically maximum lending rate (MLR)) of Deposit Money Banks (DMBs) in Nigeria.

The MLR was used as a proxy for high rate at which fund is accessed in the informal financial sector. Rates in the Microfinance banks (MFB's) would have been appropriate but the average is not a true reflection to proxy informal financial service rate because the MFB's rate are staggered.

DATA

Secondary data of monthly frequency over the period 2008-M01 to 2016-M12 were sourced directly from the Central Bank of Nigerian Statistical Bulletin (CBN), the National Bureau of Statistics (NBS) and EFInA. Specifically, data on financial inclusion measures on the demand side was sourced from the EFInA and it is the proportion of adult population that have access to both formal and informal financial service.

However, financial inclusion data in monthly frequency were generated by splicing annual data using appropriate techniques. The choice of the period was informed by the availability of financial inclusion data since 2008 with the most recent being 2016.

The unrestricted VAR is in the form:

$$\beta(U)Z_t = \mu_t$$

Where

$$\beta(U) = \sum_{i=0}^{i} \beta_i U_i \quad \text{..... 1}$$

Z_t is a column vector of the endogenous variables, that is

Z_t = [FI, INF ADR, MLR];

β (U) is a 3 × 3 matrix polynomial in the lag operator U and μ is a column vector of serially independent errors:

$$\mu_t = (\mu_t^{FI}, \mu_t^{INF}, \mu_t^{ADR}, \mu_t^{MLR})$$

Section 6
Discussion of Results, Implication and Recommendation

Below is the summary of the correlation and scattered plots as well as the results of pairwise Granger Causality tests, the forecast error variance decomposition and the impulse-response functions. The Granger causality test examines the causal relationships between financial inclusion, new jobs created and per capita income. Results of the variance decomposition and the impulse-response functions illustrate the short-run dynamic properties of the variables. On the understanding that stationarity tests are not necessary for VAR simulations, we do not test for the presence of unit roots in our variables.

PRELIMINARY FINDINGS FROM CORRELATION AND SCATTERED PLOT

First, we found that higher deposit rate attracts and increase formal inclusion to the detriment of informal inclusion. There exists a weak but pro-cyclical relationship between aggregate financial inclusion and savings deposit rate. This was also true for formal inclusion although with a correlation of 26 percent. On the other hand, lower level of deposit is associated with higher level of informal inclusion and the correlation of -49 percent suggests a counter-cyclical relationship.

Second, higher MLR decreases formal inclusion and increases informal inclusion. Lower levels of MLR are associated with lower level of aggregate financial inclusion with a correlation of 79 percent suggesting a pro-cyclical relationship – this was also true for formal financial inclusion although with a correlation of 91 percent. On the other hand, lower level of maximum lending rate is associated with higher level of informal financial inclusion and the correlation of -95 percent suggests a counter-cyclical relationship.

Finally, **h**igher inflation rate is detrimental to formal inclusion but increases informal inclusion and a generally weak relationship was notable. Higher rate of inflation is associated with lower level of aggregate financial inclusion and the correlation of -11 percent suggests a weak counter-cyclical relationship. The disaggregated analysis shows lower inflation to be associated with lower formal inclusion and higher informal inclusion albeit, with a counter-cyclical -8 percent correlation and a pro-cyclical 5 percent correlation respectively.

Table 1 below, presents the results of the Granger Causality tests (which establish the existence of a demand-side, feedback and neutral causation) between financial inclusion, cost of funds and inflation rate in Nigeria.

Variables	Driver	Remark
FI and *DINT*	**FI ← *DINT***	**Unidirectional**
---FFI and DINT	*FFI ← DINT*	*Unidirectional*
---IFI and DINT	*IFI ← DINT*	*Unidirectional*
FI and *MLR*	**FI ← *MLR***	**Unidirectional**
---FFI and MLR	*FFI ↔ MLR*	Bidirectional
---IFI and MLR	*IFI ↔ MLR*	Bidirectional
FI and *INF*	*Nil*	Neutral
---FFI and INF	*Nil*	Neutral
---IFI and INF	*Nil*	Neutral

Table 1: Granger Causality Tests

An examination of the results reveals feedback causality between lending rate and financial inclusion whereas the causation was unidirectional running from deposit to financial inclusion. On the other hand, there was neutral causality between inflation and financial inclusion lending credence to the likely indirect relationship as discussed in the theoretical framework.

Figures 1a–3b in appendix represents the short run dynamic properties and variance decomposition of financial inclusion, cost of funds and inflation rate in Nigeria. The forecast error variance decomposition displays the proportion of forecast error variance for each variable that is attributable to its own innovation and to innovations in the other endogenous variables. The result suggests that the predominant source of variation in financial inclusion is due to existing level of financial inclusion attained (indicating reflexive shocks). Inflation was as stronger driver amidst a one month delayed and incomplete contribution of cost of funds and inflation to variation in financial inclusion. When financial inclusion is disaggregated, the results suggest that variation in formal inclusion was mainly driven by existing level of formal inclusion with a marginal contribution from average deposit rate and inflation rate. However deposit rate was a stronger driver of variation in formal inclusion. On the other hand, cost of funds and inflation accounted for 10 percent of the variation in informal inclusion while maximum lending rate was a stronger driver. It is worthy to note that the variation in inflation has a stronger effect on informal inclusion compared to formal inclusion.

Furthermore, variation in cost of funds was driven by financial inclusion, however the effect was stronger on average deposit rate. Whilst formal inclusion had a stronger effect on deposit rate compared to maximum lending rate, informal inclusion was a strong driver of both components of cost of funds.

Although the level of inflation, 95 percent reflexive, gives credence to the fact that current inflation is predominantly driven by existing level of change in prices, financial inclusion (both formal and informal) and deposit rate contributes marginally to variations in monthly inflation rate. Despite the neutral causation between financial inclusion and inflation rate, increased financial inclusion is immediately and completely transmitted to inflation.

Section 7

Policy, Implication, Recommendation and Condition

This report analyzed the nexus between financial inclusion, cost of funds and inflation in Nigeria using vector autoregressions to ascertain the nature of the interactions and Granger causality tests to establish the existence and the direction of causal relationship between financial inclusion, cost of funds and inflation. The results of the forecast error variance decomposition analysis showed that innovations in the variables are mostly explained by reflexive shocks of the variables themselves with marginal contribution from other endogenous variables. This finding was consistent with the implications of the impulse-response functions. Based on the results obtained, the hypothesis of a positive feedback relationship between financial inclusion, cost of funds and inflation in Nigeria is validated.

Following the results obtained, inflation rate drives financial inclusion, however the impact is stronger on informal financial inclusion. Thus, rising inflation may lead to increase in cost of credit (lending rate) and therefore discourage formal inclusion and even leads to exclusion. Furthermore, activities on the informal financial sector are likely to increase inflation. Whilst some articles conclude that interest rate does not spur saving, cost of funds (increase in deposit/decrease in lending rate) may over time increase inclusion.

On the basis of the implication of the nexus between financial inclusion, cost of funds and inflation, efforts aimed at boosting financial inclusion especially through the provision of credit to MSMEs by development institutions (CBN, BOI, BOA, DBN etc) should be sustained. Saving rate should be made attractive whilst underlying factors responsible for the high lending rate should be investigated and tackled. Furthermore, government can intervene by establishing social investment schemes. Access to finance will bring many informal businesses into the formal financial system and help the financial service providers to mobilize deposits resulting in an increase in the supply of loanable funds and a decrease in lending rates. Financial service providers should further be encouraged, through the existing/new policy guidelines, to adopt low-cost channels including electronic, mobile and agency banking in the provision of credit to customers. This approach reduces the cost of providing credit resulting in a reduction in lending rates and an improvement in financial inclusion.

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Appendix

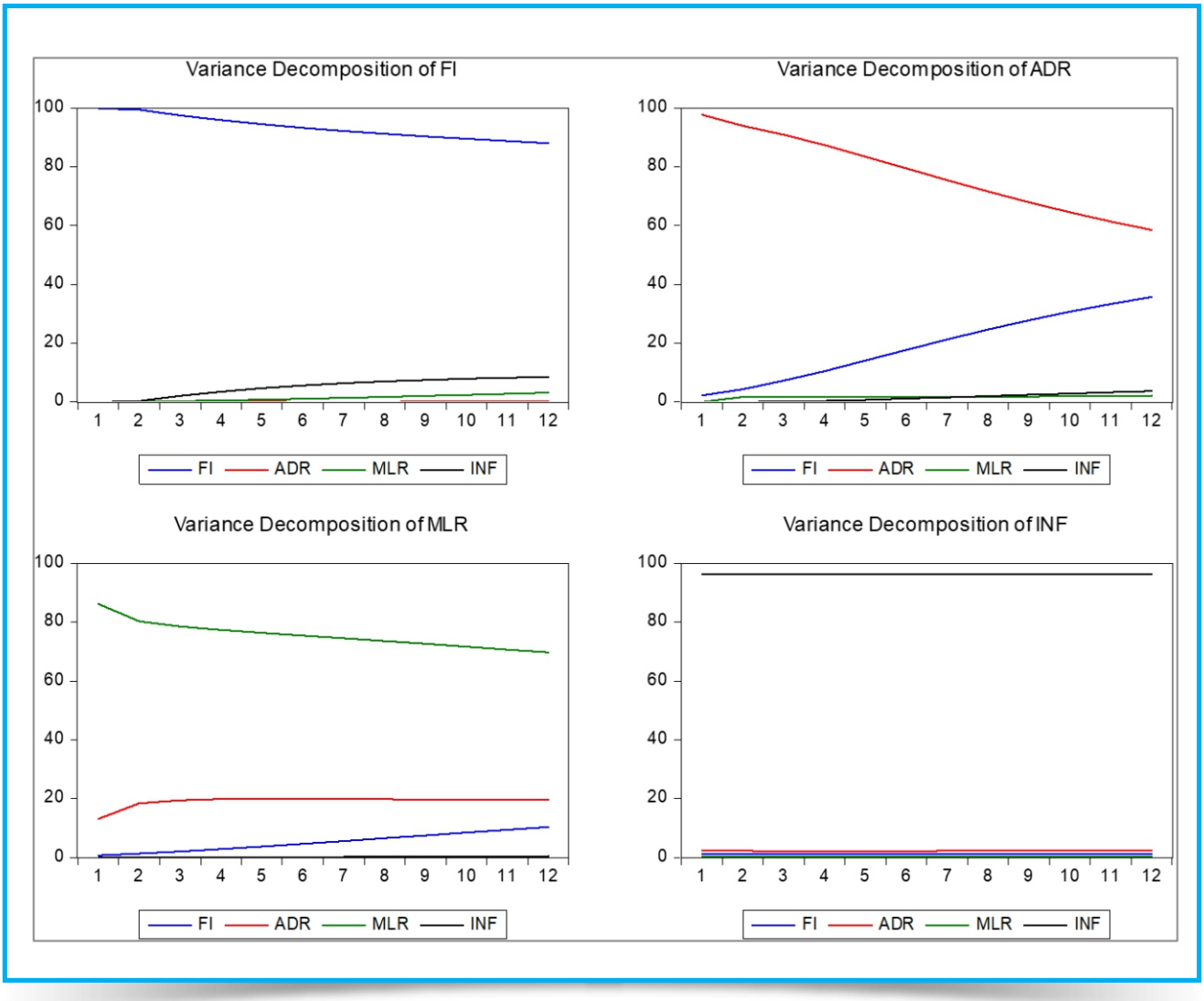

Fig 1a: Monthly Variance decomposition of financial inclusion, costs of funds and inflation rate

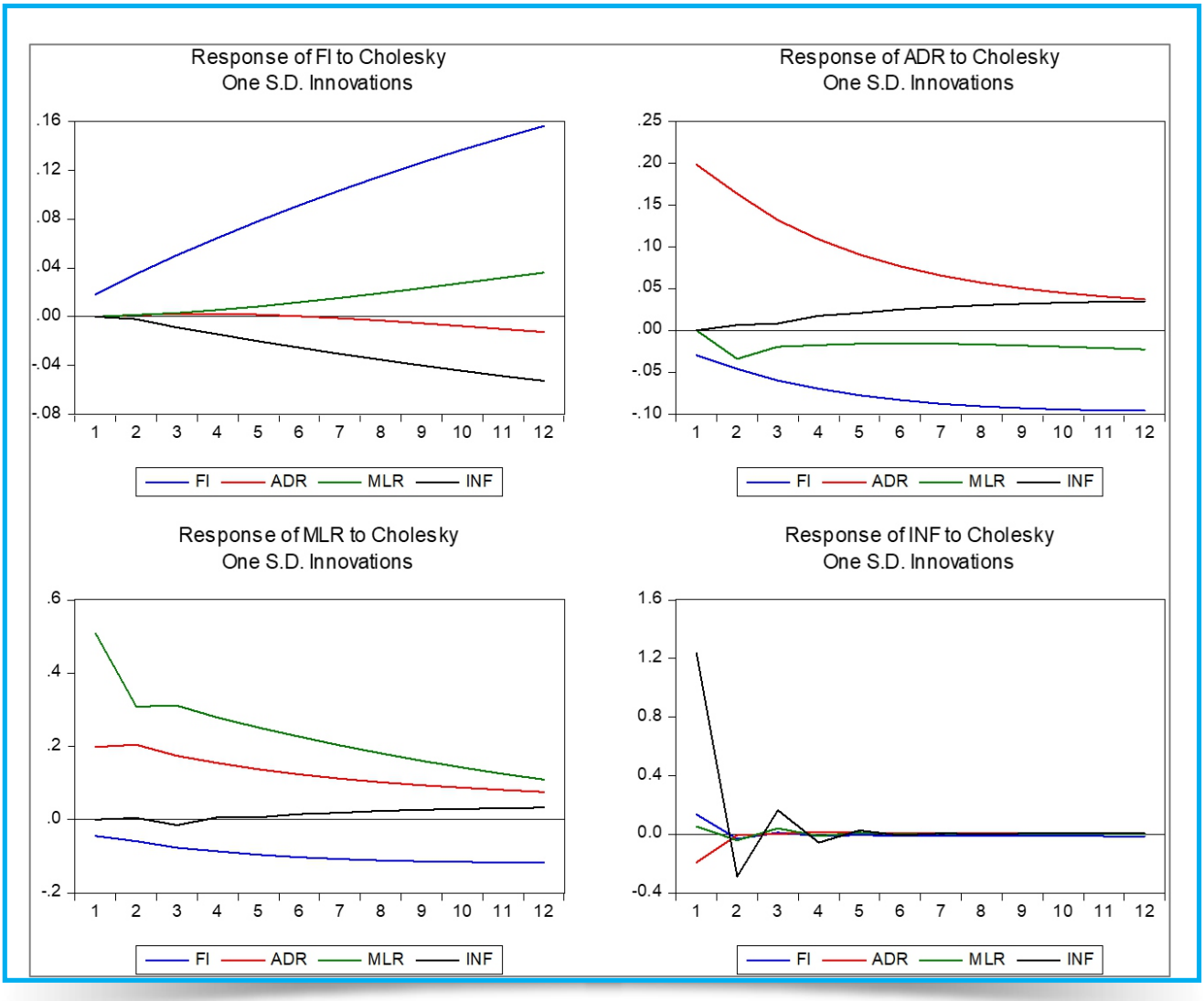

Fig 1b: Monthly Impulse Response of financial inclusion, costs of funds and inflation rate

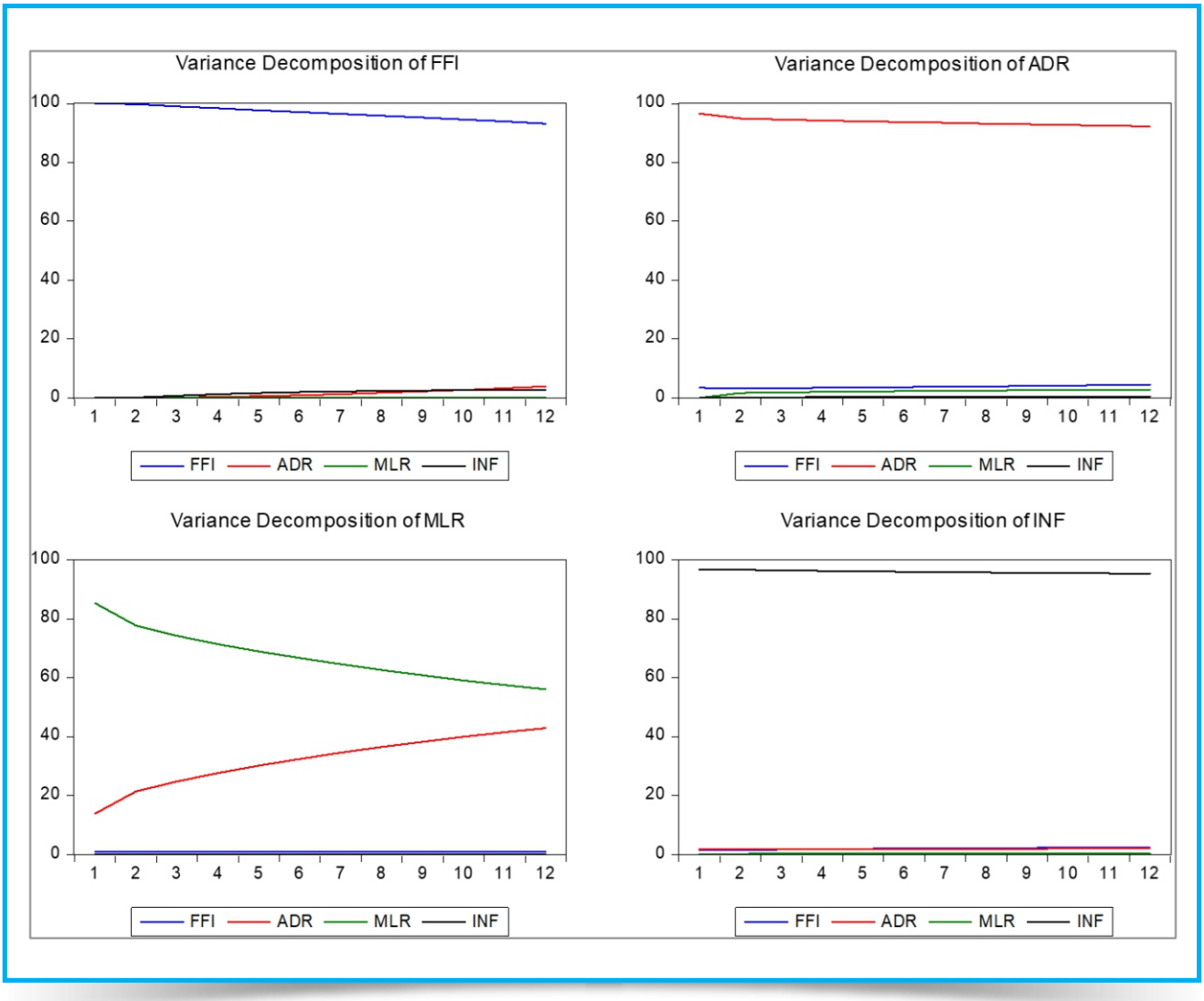

Fig 2a: Monthly Variance decomposition of formal financial inclusion, costs of funds and inflation rate

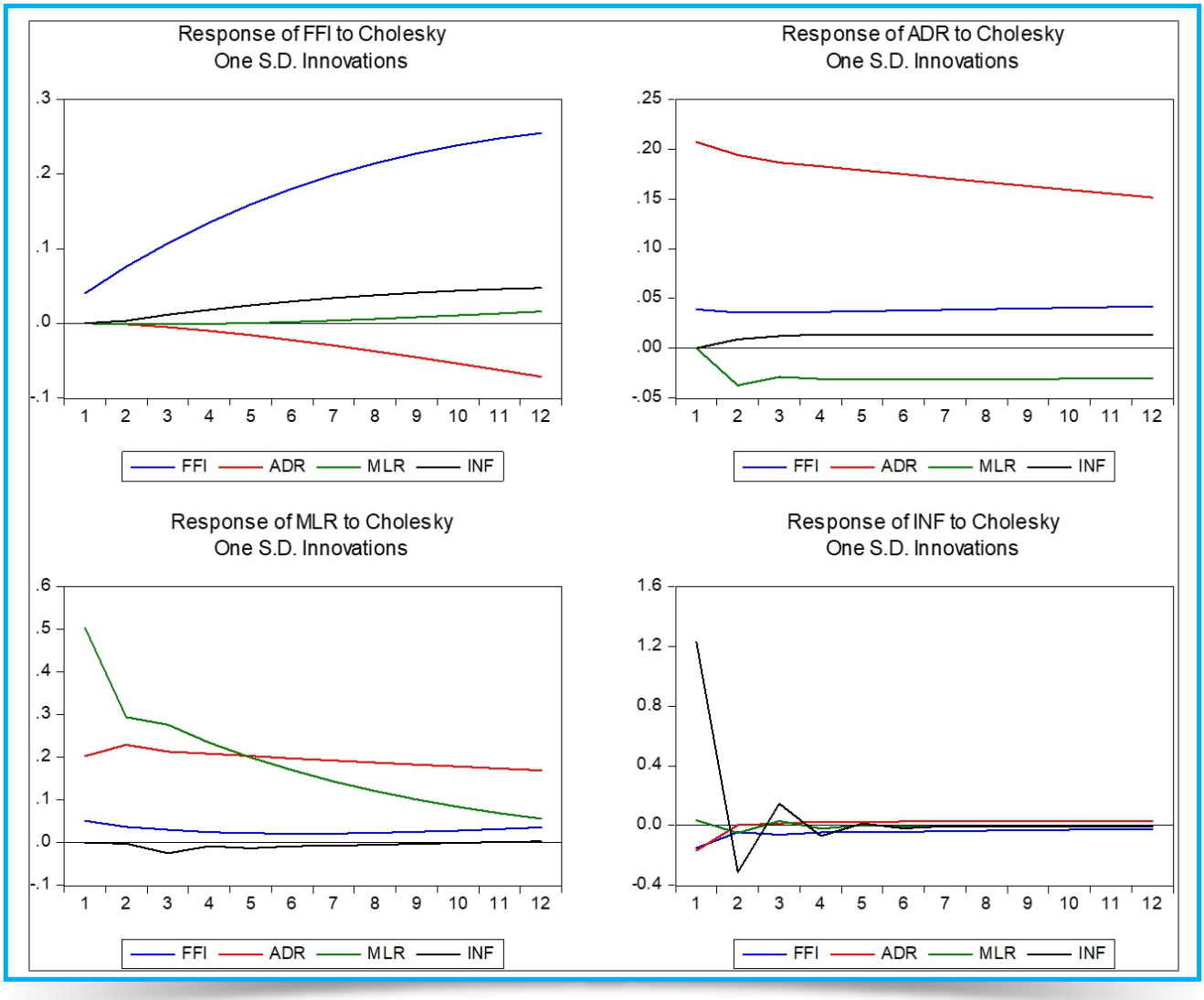

Fig 2b: Monthly Impulse Response of formal financial inclusion, costs of funds and inflation rate

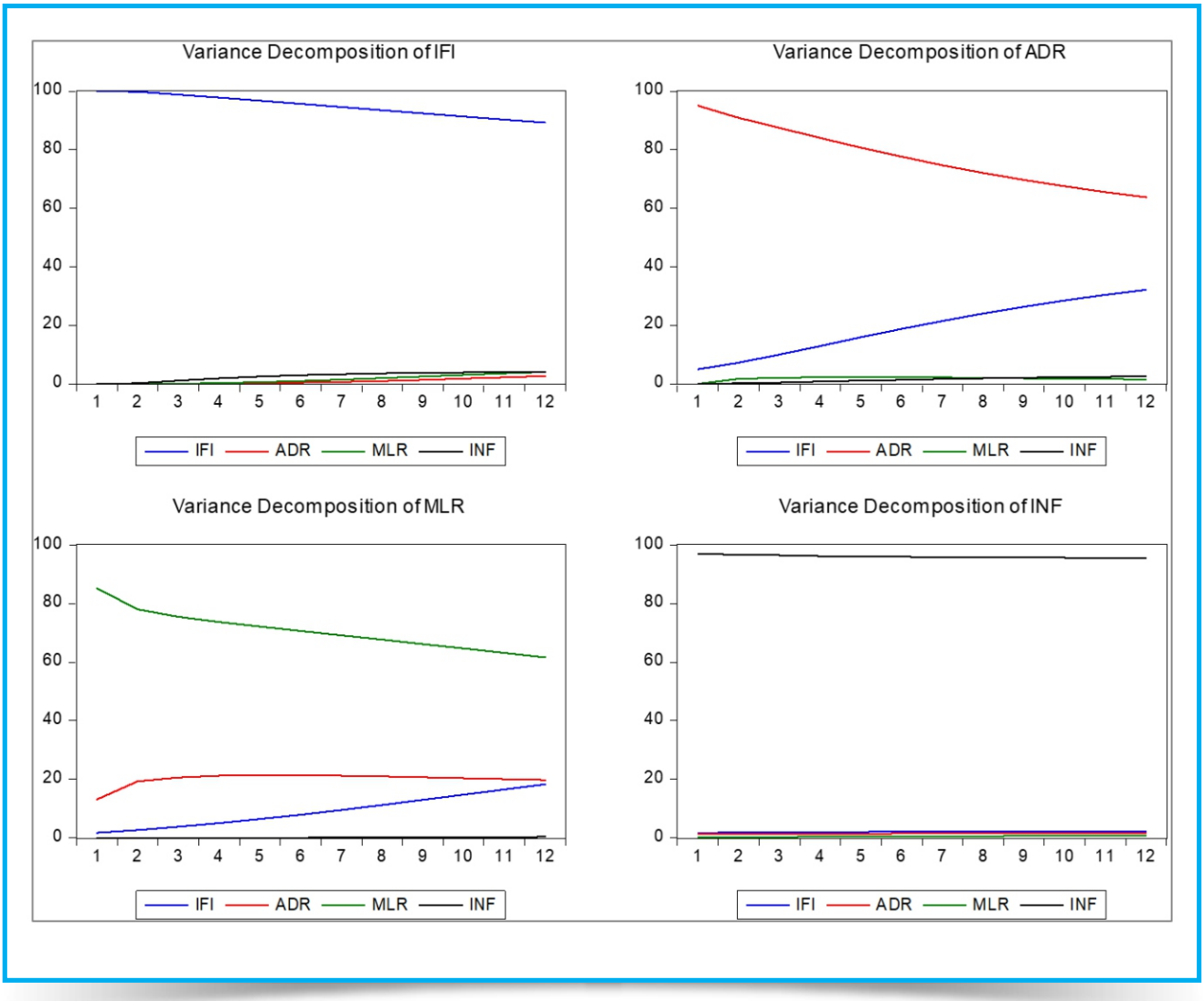

Fig 3a: Monthly Variance decomposition of informal financial inclusion, costs of funds and inflation rate

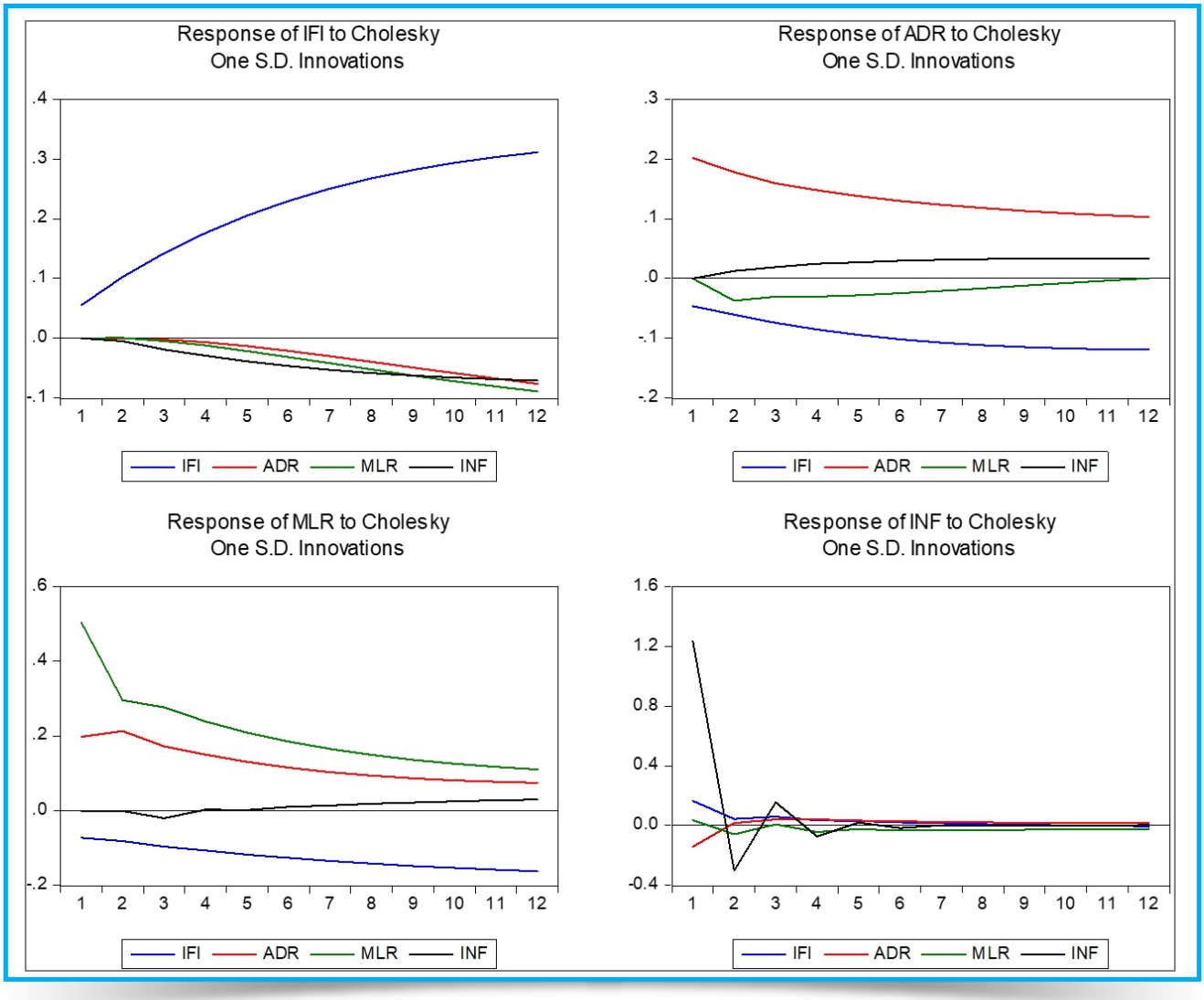

Fig 3b: Monthly Impulse Response of informal financial inclusion, costs of funds and inflation rate

About SIDFS

The Sustainable and Inclusive Digital Financial Services (SIDFS) initiative of the Lagos Business School engages in research and advocacy projects with the goal of creating an inclusive ecosystem for financial services. The initiative seeks to gain an in-depth understanding of the digital financial services and financial inclusion landscape while providing thought leadership on sustainable business models to deliver digital financial services to the unbanked poor. Our overall objective is to support the development and promotion of sustainable solutions to Nigeria's financial inclusion challenges and help more Nigerians access the financial services they need to improve their lives.

Founded in 2015, the initiative combines rigorous research (which informs a pragmatic approach to responsible market development) with an evidence-based advocacy platform (to inform policy and influence key decision makers in the industry).

The Nexus Series consists of six technical papers exploring the relationship between financial inclusion and macroeconomic indicators

LAGOS BUSINESS SCHOOL
PAN-ATLANTIC UNIVERSITY

SUSTAINABLE +INCLUSIVE
DIGITAL FINANCIAL SERVICES

KM 22 Lekki-Epe
Expressway Ajah-Lagos

@SustainableDFS
SustainableDFS
LinkedIn.com/company/11201289