TheGuardian
www.ngrguardiannews.com
Conscience, Nurtured by Truth

Microeconomics of Banking and High Lending Rates

By Temitope Oshikoya*

Introduction

It has generally been observed that lending rates in Nigeria are very high. Maximum lending rates to productive sectors of agriculture and manufacturing, in particular, small and medium enterprises (SMEs), are as high as 30%. The issue of high lending rates has been a subject of much public discussion especially in the context of macroeconomic and monetary policy.

This article brings a perspective relying on the microeconomics of banking, micro-foundations of finance and financial economics and their implications for bank behavior to the public discourse on high lending rates. The article also draws from expertise as an economist and a chartered banker with hands-on banking experience, and high level policy exposure, having interacted with governors of central banks of several African countries.

Macroeconomic Consequences of Financial Imperfections

Based on the foregoing expertise and experience, the first observation is that economics tends to abstract from the real world, while banking and finance face the real world. There is an implicit economic model behind every macroeconomic policy and aggregate economic behavior, whether it is explicitly stated or not; and whether the policy makers or the general populace understand it or not.

Macro-modeling analyses aggregate economic components including consumption, investment, export, and imports; their determinants and response to fiscal, monetary, exchange rate and trade policy instruments, as well as data constraints and statistical estimation methods. Macro-economists in government and in academia, including a few doctoral students, spend considerable time in building various forms of macro-models. I, myself, also built one for the Nigeria economy. The process of building a macro-model is a very intensive and extensive exercise.

A macroeconomist also examines aggregate products, labour, and financial markets. In each of these markets, it is assumed that the markets function well and that buyers buy less when prices rise (a downward sloping demand curve), while sellers sell more when prices rise (upward sloping supply curve) until the market clears with buyers and sellers reaching equilibrium prices.

In abstracting from the real world, what is important, in the case of financial markets within macroeconomics, is the aggregate amount of funds for investment in the economy. Different financial instruments (equities, loans), markets (banks, securities), and structures do not matter and are aggregated within the investment and savings, money- demand and money- supply paradigms.

In the real world financial markets, the response to policy instruments and shocks may differ among bank loans, bonds and equity. Within the banking industry, economic agents from different sectors—consumer, corporate, SMEs, public sector ---facing different constraints will also respond differently to shocks and policy. Commercial banks are also not passive aggregate agents. As a result, the aggregate supply, demand and price for investment loans will not be properly defined and behave in accordance with the traditional macroeconomic framework.

Credit Market and High Lending Interest Rate

The second observation is that high lending rates may serve as a signaling mechanism and barrier to entry in the credits market. Bank interest rates may be sticky, varying less than market interest rates, due to information asymmetries, adverse selection, and moral hazard leading to backward bending supply of credit, unlike an upward sloping supply curve found in macroeconomics. In this context, the market does not clear and credit rationing emerges as the supply of credits by banks is far lower than the demand for credit even at high lending rates.

In the real world, banks ration credits by randomly selecting their loan applicants, even when there is high demand for loans at higher lending rates. Information asymmetry occurs because borrowers know much more about their projects or business prospects than the lenders. Banks use screening to solve the problem of adverse selection—distinguishing good credit from bad credit, or not knowing which customers will pay back their loans; and monitoring to resolve moral hazard—that those who take loans will actually pay it back.

Banks maximize their profits by choosing their level of risks and setting their lending rates, taken as given the rates set by other banks in the credit market, while they set the quantity of deposits in the deposits markets, taken as given the return demanded by depositors (See Xavier Freixas and Jean-Charles Rochet: Microeconomics of Banking). The seminal works of Joseph Stiglitz on information asymmetries contributed to his winning the Nobel Prize in economics.

The CBN published data on lending rates charge by Nigerian banks actually conform to this microeconomics of banking framework. For the sake of analysis, Nigerian banks are classified into three groups: the first tier group comprises of the six largest banks; the second or mid-tier group consists of the next six largest banks; and the third tier group is the bottom six banks. Three banks are excluded as two of them are foreign-owned, with small retail network, while one is a new entrant.

The average savings deposits rate among all tiers is about 3.6%, which mirrors the average cost of funds, as demand deposits rate is generally negligible. The 3rd tier banks' cost of funds will be higher due to relatively more reliance on fixed deposits.

There is, however, a marked differentiation in lending rates among the three tiers. The average prime and maximum lending rates to manufacturing among the 1st tier bank group are 15% and 24% respectively; for the mid-tier banks, they are 18% and 25% respectively; and for the 3rd tier banks, they are 24% and 30% respectively. The lending rates differentiation is a reflection of the higher cost of funds to 3rd tier bank, low deposits volume capacity due to lack of economies of scale, economies of scope, network externalities, and required higher return for higher risk appetite.

These lending rates differentiation also reveal three other key points. The prime rate among the 1st tier banks can be considered as the underlying true reflection of optimal lending rates given the current inflation rate and Monetary Policy Rate (MPR). The prime rate of 15%, given that demand deposits rate is negligible, can be derived as the weighted average sum of savings deposits rates (3.6%) and time deposits rate (8.4%), which mirrors the inflation rate, and a mark-up margin of about 3 to 4% for operating costs. Alternatively, the prime rate of 15% is the sum of the MPR (12%), which is set above inflation rate, plus the mark up for operating costs of 3 to 4%. Another way to look at is the sum of the risk free rate, proximate by Federal Government bonds, about 12% and risk premium.

A prime rate of single digit can be achieved, with a concerted focus on reducing its components. If inflation rate continues to trend downward, and fiscal dominance of monetary space is reduced, the MPR would likely come down, and as the shared services initiative come on stream, operating costs should also come down.

Second, the dark matter is the spread between the prime rate and the maximum rate. Interestingly, while the 1st tier banks have lower prime lending rate, the spread between their prime rate and the maximum lending rate is about 10%; double that of the 3rd tier banks. For the 2nd tier and 3rd tier banks, the spreads are 8% and 5% respectively.

The higher spread between the prime rate and the maximum rate among the 1st tier banks is a reflection of the signaling and screening device, which drives a wedge between prime lending rates for high-end corporates, with relatively and easily monitored big ticket transactions, and the maximum lending rates for other customers at the lower-end such as the SMEs.

Thus, although the 1st tier banks may have lower maximum rates than the other groups, there is no guarantee that every loan applicant from the SMEs and retail customers will necessarily obtain credits at those rates. On the other hand, the 3rd tier banks are likely to rely more on these sets of customers, but charge up front a higher prime rate, which is almost the same as the maximum lending rates for the 1st tier banks, plus mark-up for operating costs, further raising their own maximum lending rates.

There are also non-price and other strategic variables that affect banks' supply of credits. Facing a winner's curse, a bank may consider lending to current customers more profitable than lending to new customers. Further, given their risk appetite and the opportunities presented in the treasury and foreign exchange markets, banks make more income from non-interest activities based on transactional banking, economies of scope and economies of scale. For some banks, portfolio of treasury bonds is about the same as credits portfolio. In some banks, non-interest income represents over 72% of total income, with interest income accounting for less than a quarter of income.

Oligopoly, Banking Concentration and Higher Interest Rate

The third observation is that banks, having charter or franchise value based on regulatory capital requirements, and the need to maintain banking stability, are not ordinary firms. Due to the specific nature of banks, the traditional microeconomics of industrial organization is quite limited in its application to the banking industry.

In the microeconomics of banking and finance, the discounted value of a bank's expected future profits is equal to its charter value, which will be zero under perfect competition as they will not need to keep capital. Faced with the real world, the other banking and financial market structure such as oligopoly where there are entry barriers, the charter value becomes positive. The higher the charter value, the less need to take risk.

It has been suggested in some quarters that banks in Nigeria are over-concentrated and that breaking up the larger banks and allowing more banks to enter the market will improve efficiency, stability and reduce interest rates. There is no conclusive evidence to this suggestion, based on the theoretical arguments expounded above, empirical research studies, and actual global practices.

According to the Financial Stability Report of CBN, six of the 23 Deposit Money Banks (DMBs) dominate the Nigerian banking industry in terms of deposits and asset, with market share of 56.8 per cent and 59 per cent respectively. The largest bank's share of assets and deposits was 13.57 per cent and 15.17 per cent in mid-2013.

A comparative study by OECD shows that banks are concentrated in most developed and developing countries. The six largest banks account for 90% of total banking assets in Canada. South Africa's 4 largest banks account for 80%; it is 75% for Australia's largest bank; 67% in Chile; and 95% in Sweden. In Korea, 3 banks account for 52% of assets, while in Turkey, 5 banks account for 60%. Yet, lending rates in most of these countries are in the single digits.

In terms of soundness of its banks, Canada ranked 1st among 134 countries; they are well capitalized, managed, and regulated. Canada was also the only G7 country that did not have a government bank bailout in the aftermath of the global financial crisis. The Canadian six largest banks have an average Non Performing Loans (NPL) of 0.3% compared to over 10% in

Nigeria before AMCON and 5% thereafter. In the era before banking consolidation with about 90 banks, lending rates and NPL ratios were even much higher.

Competition and Macro-prudential Stability

The fourth observation is that in the banking industry there is a trade-off between competition and financial stability. In most other industries and markets, an increase in the number of firms tends to improve competition and efficiency. An increase in the number of banks in the face of information asymmetry would suggest that lower rated banks may have poor screening processes which ensure that relatively bad borrower would have access to credits and increasing overall NPL, with threats to financial stability. This observation is supported by the savings and loans debacle and the sub-prime loans in the mortgage market in the USA. In Nigeria, the current effort to rationalize and re-capitalize micro-finance banks, currently close to 900, is also a case in point. This problem is further compounded by the fact that the capacity of the regulatory and supervisory authority is often overstretched.

SMEs and Development Finance

Access to and pricing of credits in SMEs banking are even more impacted by the issues of information asymmetry, adverse selection, moral hazard, backward bending supply curve of credits, and mismatch between short term deposits and long term assets.

SMEs have been acknowledged to be incubators of innovation, sources of employment generation, and seedbed of new products and services. Yet, financing for SMEs by commercial banks has been very limited relative to financing to large corporates. It should be acknowledged that the mid-tier banks appear to consider SMEs as an important niche market segment and provide relationship banking to this segment.

The lending rates to SMEs should proximate those of corporates, without the signaling effects, information asymmetries, high screening and monitoring requirements, and network externalities. Moreover, non-performing loans tend to be much higher within the SMEs banking compared to retail/consumer banking, public sector banking, and corporate banking, partly due to higher lending rates and other factors identified within the microeconomics of banking.

SMEs require more long-term financing at single digit lending rates, compared to current short-term credits provided at very high rates. The CBN's Financial Stability Report shows that credit maturing within one year accounts for 57% of total credits; those with longer term greater than 3 years accounts for less than a quarter. On the other hand, short-term

deposit with maturity of less than 1 year accounts for 97% of total deposits; those with maturity of 30 days account for 75%.

Due to credit rationing and assets mismatch, SMEs financing by commercial banks will likely not fill the huge credit requirements of this essential sector of the economy. On average, loans and advances to SMEs business are less than 15% of total loans and advances of the commercial banks.

The huge deficits between the credit needs of and credits supplied to SMEs by commercial banks are likely to be better filled through other financial instruments, institutions, and markets. Private equity, venture capital, capital markets, and development finance are more suitable to fill the gaps in long-term finance.

In some countries, specialized banks source long term funds through the capital markets, government funding, and development finance institutions, which are intermediated through the commercial banks and or directly to SMEs and for infrastructure. The Business Development Bank of Canada, Industrial Development Corporation of South Africa, China Development Bank, and Brazil Development Bank play this catalytic role.

Conclusion

The supply curve of credits may not be upward sloping, as banks refuse to provide credits even at high lending rates by rationing credits. High lending rates of commercial banks may serve as a signaling mechanism and barrier to entry in the credits market. Furthermore, due to assets mismatch, the commercial banks may not fill the credit requirements of SMEs, which require more long term financing at single digit lending rates.

The gaps in financing for SMEs can be filled through a developmental approach. This is critical given the inherent limitations of commercial banks with the understanding of the microeconomics of banking, and realizing that financial markets are imperfect, and not self-correcting, there is a role for a developmental state in financing SMEs.

References

CBN, Financial Stability Report 2013
CBN, Published Figures on Deposits and Lending Rates by Commercial Banks, January 2014
OECD (2010), Competition, Concentration, and Stability in the Banking Sector
Xavier Freixas and Jean-Charles Rochet (2008), Microeconomics of Banking, MIT Press.

***An economist and a chartered banker, Temitope Oshikoya has a PhD in economics, ACIB in banking and MBA with finance specialization, and with leadership experience in commercial, investment and development banking. He has published extensively in professional journals on banking and finance, Nigerian economy, and development issues.**