Abstract

Given the general belief that financial development promotes growth and vice versa, we try in this study to verify the conclusion that among financial institutions the banking system pre-dominates during the early phases of development but later non-bank financial institutions gain in importance and eventually surpass the banking system. By means of comparative ratios and econometric estimation, we found confirmation of an accompanying growth in the financial sector as the economy grows. Though the study established a relative decline in the prominence of the banking institutions' assets relative to those of non-bank financial institutions, as the economy grows, non-bank financial institutions, asset have not advanced to the point of overtaking banking system assets, as theoretically predicted. This we observe may derive from among others, the distress in the financial system of the mid-to late 1990s which negatively affected the growth and importance of non-bank financial institutions in Nigeria.

I: Introduction

According to Bain (1981), the quality of the services provided by the financial system, affects the performance of the economy as a whole. Thus, it is widely believed in development studies that as an economy develops there follow growth in the financial system. According to the proponents of this theory, there is growth in total financial assets relative to the growth in income on the one hand and on the structural changes in the financial system on the other hand.

Most studies in this area concentrate mainly on the banking system to the exclusion of non-bank financial institutions. But we know that in reality non-banks are as important, sometimes more important than banks in the finance of economic development.

While banks are distinguishable from non-banks in a number of respects, they are most uniquely distinguishable in terms of the nature of their liabilities and the impact of their various activities on monetary management. A long-accepted dichotomy in traditional financial theory maintains that commercial banks are creators of loanable funds, while non-bank financial intermediaries are merely loanable funds brokers or middlemen. More recent
recognition of formal similarities in the operations of commercial banks and other financial institutions (non-banks) has provoked and extended the controversy concerning whether the traditional dichotomy is substantial or merely terminological and re-opened an older debate on the nature of commercial banking transactions.

In general, financial institutions occupy an intermediate position between ultimate borrowers and lenders. In their operations as borrower, they all provide lenders with their own indirect securities for currency. Acting as lenders they acquire the primary securities of borrowers with the currency proceeds they have received from lenders. However while the intermediation operations of all financial institutions (including commercial banks) are functionally analogous, the effect of their operations differ in terms of the properties possessed by the secondary securities that they create in their role as borrowers.

II. Purpose of the Study
It has been customary to regard commercial banks as unique among financial institutions in possessing an ability to create money. However, it is pertinent to emphasize that commercial banks are not categorically different from other financial institutions by virtue of their ability to create deposits.

Commercial banks create demand deposits when they borrow currency; non-bank financial intermediaries create various forms of indirect debt when they borrow currency. Credit creation in the sense of an increase in financial assets occurs whenever one economic unit borrows from another. The difference between banks and non-bank financial institutions is NOT in the fact that one creates debt and the other cannot but in the properties with which each endorses its debt obligations. In other words, each type of financial institution creates its own unique form of indirect debt which it makes available to lenders. Commercial bank demand deposits are unlike most other secondary securities in that they are generally acceptable as a means of payment. Thus given the narrow definition of money as currency outside the banks, and commercial banks demand deposits, commercial banks are by definition unique among financial institutions in creating money. However, if savings and time deposits are defined as money (as in $M^2$), then some non-bank financial institutions may be involved in money creation. But such funds have been generally attracted rather than created; the attraction being the relative rate of interest paid, combined with safety and liquidity. As Skulky (1982) put it, banks create deposits in the process of making loans, non-bank financial institutions; usually make loans by reducing their own deposits in banks or by reducing their own cash holding.
The significance and importance of non-bank financial institutions in any economy was vividly expressed by the Radcliffe Committee in their report (1959). According to the Radcliffe Committee Report non-bank financial institutions are capable of influencing money supply and causing "virulent liquidity" and inflation. They affirmed that if non-bank financial institutions are left to operate freely without supervision their activities were capable of undermining and neutralizing the monetary policy actions of the monetary authority. The Committee therefore recommended that non-bank financial institutions should be brought under the control of the regulatory monetary authority (i.e. the Central Bank) for effective control (see Onoh 2002 - p).

Given the above significance of non-bank financial institutions in economic management, it is equally important not to ignore their impact in economic development. Nigeria has witnessed tremendous growth in number and assets of not only banking institutions in recent years but also in those of non-bank financial institutions.

Whereas banking institutions in Nigeria grew from a meagre number of 15 in 1970, to 629 in 1992 representing 40.9% growth rate within the same period non-bank financial institutions, grew from 43 (mainly insurance companies) to 871 in 1992 representing 19.3% growth rate, (encompassing an array of non-bank financial institution including, the Federal Mortgage Bank, Finance Houses, Primary Mortgage Institutions and Discount Houses).

Our objective in this paper is to ascertain on the basis of statistical data available, (i) the extent to which growth in non-bank financial institutions assets has been accompanied by economic growth, (ii) the relationship between the assets of non-bank financial institutions and those of banking institutions and, (iii) the determinants of the growth in the assets of non-banks financial institutions, (iv) to ascertain in the case of Nigeria, the conclusions of Goldsmith (1969), that "among financial institutions, the banking system pre-dominates during the early phases of development; later, non-banks (i.e. specialized savings institutions, insurance companies and pensions organizations) gain in importance, finally surpassing the banking system in terms of assets.

III. Theoretical Review and Methodology
The focus of attention in formulating theoretical models of the role of financial institutions in economic development is centred on the following: that

(a) the domestic mobilization of financial resources is essential for capital formation and accelerated growth
(b) an efficient allocation of available domestic resources is of vital
importance in the development process
(c) financial institutions offer an efficient institutional mechanism through
which resources can be mobilized and directed from less essential to
more productive investments

Empirical evaluation of the above theoretical concepts seeks to verify the
generally held view that financial development promotes growth and vice
versa;

A variety of approaches have been adopted in the literature to ascertain the
relationship between growth in the financial system and real development. One line of approach uses statistical analysis of financial data over a period
of time in a given country i.e. time series analysis (Ikhide, 1987).

The second approach adopts a cross-sectional analysis which involves use of
data of a number of countries at different stages of economic development at
a given time period (Goldsmith, 1969).

In undertaking the analysis, the following ratios were mainly constructed:

(i) The ratio of financial assets to national income FA/Y.
(ii) The ratio of total financial assets to national wealth. FA/W
(iii) The ratio of financial assets to national output FA/GDP (Goldsmith 1969)

Financial assets are categorized into two thus

(a) Primary Securities (liabilities issued by ultimate spenders and
borrowers) and
(b) Secondary Securities (issued for the purpose of transfer to the ultimate
borrowers) by banks and non-bank financial institution.

It was observed that in the process of economic development all the above
ratios (i, ii, iii) increase. The determinants of such asset changes include
changes in population, and national income. The argument goes as follows:
once income starts to grow, demand to hold more assets increases, as growth
in the population results in changes in asset holding. This informed the
conclusion by Porter (1966) that the relationship between real and monetary
variable is undeniable.

Other measures that have been used in the literature are:

(i) The relationship between the stock of money (M1) and income (Y). M/Y (as found in Wai Tun U (1956) and Ojo (1984). It is believed that
the ratio M/Y increases as development progresses but that it tapers at a
level of about 30 percent after some time;
(ii) The ratio of currency (C) to total deposits (D) i.e. C/D (as in Un Tun U (1956 and Ojo 1978)

It is argued that there is a decrease in the relationship (C/D) in the course of development, and that this becomes more stable over time. According to Ojo and Adewunmi (1981), the ratio (C/D) in Nigeria declined from 88% in 1962 to 45% in 1972 and to 28% by end of 1977.

Of more relevance to us in this study are other important financial developments that follow economic development namely.

(a) A more diversified financial structure – where equity claims exceed debt claims among financial assets (as in Goldsmith 1969).
(b) A relative decline in the prominence of deposit banks assets and more expansion in the assets of non-bank financial institutions relative to the growth in total financial assets (Goldsmith 1969).

In this study we focus attention in the examination of the second of these economic developments i.e. the relationship between the assets of non-bank financial institutions and those of the banking institutions, to Nigeria’s economic development proxied by the Gross Domestic Product.

**Comparative Ratios of the Role of Non-bank Financial Institutions to Economic Development**

The non-bank financial institutions covered in this study (as a result of data constraint), are Insurance Companies, Mortgage Institutions, (i.e. Federal Mortgage Bank and Primary Mortgage Institutions) Finance Houses and Discount Houses. For purposes of comparison, relevant data for deposit money banks (i.e. Commercial and Merchant banks together) were also analysed.

The development impact and relevance of non-bank financial institutions, was measured by the following ratios:

(i) The ratio of assets of non-bank financial institutions to Deposit Money Banks assets NBA/BA = Y_1
(ii) The ratio of assets of non-bank financial institutions to GDP : NBA/GDP – Y_2
(iii) The ratio of assets of Deposit money banks to GDP – BA/GDP also referred to as Financial Inter relations Ratio FIR = Y_3

The NBA/BA ratio i.e. the ratio of the assets of non-bank financial institution to the Assets of Banking Institution is a measure of the relevance and importance of non-bank financial institution in the financial structure of a country. It is a quantification of the relative importance of the institutions in
the financial super structure. The ratio is expected to grow as an economy moved from less-developed to developed stages of economic development. The NBA/GDP and BA/GDP ratios are variants of the Financial Inter-Relations Ratio (FIR) which is the ratio of the aggregate market value of financial instruments to the value of its tangible net wealth. It indicates a direct (but non proportional) relationship between financial and real development.

FIR is a stock concept and a rise in the ratio implies that the assets of relevant financial institutions have grown faster than the GDP which is a broader measure of real economic activity while a decline in the ratio will indicate that the GDP has risen faster than financial assets, implying that financial institutions have not contributed significantly to economic development.

The results of these ratios (NBA/BA, NBA/GDP, and BA/GDP) for the period 1970-2001 are summarized in table 1.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NBA or Y₁ BA</td>
<td>0.40</td>
<td>0.60</td>
<td>0.46</td>
<td>0.47</td>
<td>0.50</td>
<td>0.61</td>
<td>0.92</td>
<td>0.39</td>
</tr>
<tr>
<td>NBA or Y₂ GDP</td>
<td>0.08</td>
<td>0.09</td>
<td>0.11</td>
<td>0.15</td>
<td>0.22</td>
<td>0.29</td>
<td>0.45</td>
<td>0.25</td>
</tr>
<tr>
<td>BA or Y₃ GDP</td>
<td>0.22</td>
<td>0.20</td>
<td>0.70</td>
<td>0.43</td>
<td>0.66</td>
<td>0.51</td>
<td>0.63</td>
<td>1.46</td>
</tr>
</tbody>
</table>

Source: Computed based on data from the following sources.
(ii) Central Bank of Nigeria – Annual Report and Statement of Accounts
(iii) Annual Report and Accounts of Relevant Specialized Institutions (Insurance Companies, Federal Mortgage Bank and Discount Houses)

It can be seen from the table that there exists some steady growth in the ratios over the period 1970 to 1993 and consistent decline in all the ratios between 1994 and 2001. This implies that Nigeria experienced steady growth in financial assets between 1970 and 1993; more than the growth in domestic production, but that between 1994 and 2001 the rate of growth of financial assets relative to domestic output declined.

The observed outcome of these ratios can be explained by the rapid expansion of financial institutions – both banks and non-banks, during the post-war reconstruction period 1970-1974 on one hand and during the era of financial system deregulation 1986-1993. However this steady growth could not be sustained as distress in the financial system led to the collapse and eventual liquidation of many financial institutions particularly finance houses and primary mortgage institutions.
The positive growth trend of the ratio of non-bank assets, overtaking those of banks after some time in the course of economic development is not proven by the data, but we cannot overlook to the consistent rise in importance of non-bank assets, relative to bank assets, almost to the point of equality (0.92) in the period 1990-1993.

The growth in ratios particularly (NB/GDP) and (BA/GDP) between 1990 and 1993 is attributable to widespread credit liberalization of financial institutions during the era of de-regulation. This liberal credit later turned into a nemesis for the financial institutions and the economy in general.

There is enough evidence from the ratio of non-bank assets relative to banking assets to affirm the proposition of Goldsmith that there exists a relative decline (though not very significant) in the prominence of the assets of bank financial institutions relative to the growth in total financial assets of non-banks. While this assertion may be true between 1970 and 1993, the financial system distress (of 1994-1997) seems to have affected non-bank financial institutions more leading to a reversal of the upward trend in non-bank financial assets.

Financial Inter-relations Ratio (FIR), that is, the ratio of bank assets to GDP corroborates similar results by Ihkide (1987) but the trend is inconsistent to warrant any generalization.

IV. Empirical Determinants of Financial Ratios

In this section we attempt to examine empirically the determinants of these ratios. Based on economic theory and evidence from reviewed literature, we expect that the following variables should influence the (NBA/BA), (NB/GDP) and (BA/GDP) ratios. The variables are GDP, and changes in GDP (national income) \( \Delta GDP \), level of population (Pn) and population growth rate (\( \Delta Pn \)), rates of interest (r), Price level (Pt) and/or rate of inflation (\( ^{\diamond} \)), and disposable income (DI)

To save time and space, only the core explanatory variables would be discussed. We expect national income or its rate of growth to be a positive determinant of NBA/BA, NBA/GDP and BA/GDP. As income starts to grow, demand to hold more financial assets increases. Also growth in population will result in positive changes in asset holding.

More importantly, we are interested in the effect of interest rate changes on the supply of and demand for the assets of banks and non-bank financial institutions respectively. As earlier stated, the demand for the assets of banks are created in the process of making loans, whereas the demand for the assets of non-bank financial institutions is attracted, the attraction being the interest
rate. Interest rates may therefore be expected to influence the level of the issuance of financial instruments by financial institutions and the relationship among the different components, i.e. banking and non-bank financial institutions. In fact in the short-term, the relative share of banks and non-bank financial institutions in the total issue of financial instruments as well as the distribution of savings by form are mainly influenced substantially by interest rate differentials.

The following forms of the various equations were tested.

\[(1a)\] \[\text{NB/BA} = f(\text{GDP}, r, Pt, Pn, DI)\]
\[\text{NB/BA} = a_0 + a_1 \text{GPP} + a_2 r + a_3 Pt + a_4 Pn + a_5 DI + u_0\]

\[(1b)\] \[\text{NB/BA} = a_0 \left(\frac{\text{GDP}}{Pt}\right) + a_2 r + a_3 \Delta Pn + a_5 DI + u_0\]

\[\left(\frac{DI}{Pt}\right) + U_1\]

\[(2a)\] \[\text{NB/GDP} = f(\text{GDP}, r, Pn, D_1)\]
\[\text{NB/GDP} = b_0 + b_1 \left(\frac{\text{GDP}}{Pt}\right) + b_3 \Delta Pn + b_5 + U_2\]

\[(2b)\] \[\text{NB/GDP} = b_0 \left(\frac{\text{GDP}}{Pt}\right) + b_2 r + b_3 \Delta Pn + b_5 + U_2\]

\[\left(\frac{DI}{Pt}\right) + U_3\]

\[(3a)\] \[\text{BA/GDP} = f(\text{GDP}, r, Pt, Pn, DI)\]
\[\text{BA/GDP} = e_0 + e_1 \text{GPP} + e_2 r + e_3 Pt + e_4 Pn + e_5 DI + U_4\]

\[(3b)\] \[\text{BA/GDP} = f_0 + f_1 \left(\frac{\text{GDP}}{Pt}\right) + f_2 r + f_3 \Delta Pn + f_5 + U_5\]

Where: 
\[\text{NB} = \text{ratio of assets of non-bank financial institution to the assets of GDP}\]
\[\text{BA} = \text{Deposit money banks}\]
\[\text{NB/BA} = \text{ratio of the assets of non-bank financial institutions to GDP}\]
\[\text{BA/GDP} = \text{ratio of assets of Deposit money banks (commercial and merchant banks) to GDP}\]
\[\text{GDP} = \text{Gross Domestic Product}\]
\[r = \text{3 month deposit rate of interest}\]
\[\bar{r} = \text{average rate of interest}\]
\[Pt = \text{Level of consumer price}\]
The above equations were regressed by means of multiple least squares using relevant data for the period 1970-2000

For each of the ratios we ran two regressions, one using levels of the explanatory variables, and the other using changes in the explanatory variables.

V. Analysis of Regression Results

The OLS result of the regression estimates were not significant, and did not meet our prior expectations. Sensing possibility of errors in variables due to the fact that the data for the study were from various sources and some of the institutions that constituted non-bank financial institutions were not in existence throughout the period under consideration, we tried other methods of estimation. We used the Almon (1965) Scheme of Polynomial lag of the sixth order, and the outcome was significant as reported below. The results of the regression using changes in variables were not significant. The three best estimates, based on our data are reported as shown.

(i) \( \text{NBA} = 0.4534x^6 - 34.338x^5r + 10009.2x^4 \text{GDP} - 14433x^3 \text{Pt} + 102899x^2 \text{DI} - 331986 \text{DI}_{t-1} + 368757ut \)  
\( R^2 = 0.74 \)  

The determinants of the relative growth of non-bank assets to deposit bank assets are interest rate levels, GDP growth rate, level of prices and disposable income. All the random explanatory variables are significant and have the expected signs.

(ii) \( \text{NBA} = 2.764x^6 - 1976.06x^5r + 4103.5x^4 \text{GDP} - 42227x^3 \text{Pt} + 190088x^2 \text{DI} - 317526x^3 \text{Pt} + 174113 ut \)  
\( R^2 = 0.60 \quad R = 0.77 \)  
(4.2)
Like the result of $Y_3$, the regression estimates of the ratio of non-bank assets to GDP is significantly explained 60% and the variables satisfy a-priori sign expectations.

All the coefficient estimates are significant at 5 percent level. Thus, again it is appropriate to conclude that the level of interest rate, changes in income level, the level of prices and disposable income as well as its lagged value, are important determinants of the ratio of non-bank assets to domestic output. The only snag in this analysis is the omission of the population variable due to data constraint.

$$(iii) \text{BA (FIR)} = 0.6967x^6 - 65.362x^5r + 2327.8x^4 GDP - 38801 x^3 Pt + 304900x^2 DI \text{ GDP} 992199 x^1 + 923079 utR^2 = 0.62 \quad R=0.77 \quad (4.3)$$

The result satisfies a-priori expectations with regards to the signs of the coefficients. At 62% the explanatory power of the equation is strong enough to be acceptable. We can conclude from the result that the variables $r$ (interest rate level), Income growth level, $(GDP)$ level of prices $(Pt)$ and disposable income $(DI)$ are significant determinants of FIR (or BA/GDP)

**VI. Summary and Conclusion**

In this paper, we attempted to establish the importance of non-bank financial institutions in economic development of Nigeria. The study is premised on the theoretical postulation that financial development promotes economic growth and vice versa. Empirical studies on this theory have been concentrated on banking financial institutions or an amalgamation of all financial institutions (banks and non-banks).

In trying to highlight the contributions of non-bank Financial Institutions, we traced the similarities and distinctions between them and the implications of these factors for economic management.

Specifically, we traced the path of financial development through the instrumentality of Financial Inter-relations Ratio and the ratio of non-bank assets to those of banking institutions. We also explored the economic determinants of these ratios of financial growth.

Our results showed an upward growth in the three ratios thus affirming the theoretical proposition that as the economy grows, there is accompanying growth in the financial sector. The study did not venture into the theoretical issues of demand following and supply leading finance. However, the relative decline in the prominence of banking institutions assets and the more expansion in the assets of non-bank financial institutions, relative to the growth in financial assets as shown in the NBA/BA ratio was confirmed by our study. We can therefore conclude from the study that within the review period, non-bank financial institutions contributed positively towards Nigeria’s economic development.
The distress in the financial system of the mid-to late 90s adversely affected the growth and importance of the role of non-bank financial institutions. There is need therefore for a deliberate policy action by the monetary authorities to enable the growth and development of non-bank financial institutions as complementary institutions to banks in the provision of banking facilities. In the special case of Nigeria, the emergence of non bank financial institutions has improved the allocation efficiency of the system and enhanced national economic development.

References
Ojo Ade T and Wole Adewunmi (1981), *Banking and Finance in Nigerian* (CHI), Graham Burn, UK
Radcliffe Committee (1959); Report of the Committee on the Working of the Monetary System”, Presented to Parliament by the Chancellors of Exchequer by command of Her Majesty, August, London.

Appendix I
Almon Scheme of Polynomial Lag
The lagged model is finite and includes only exogenous lagged variables of the form.

\[ Y_t = b_0X_t + b_1X_{t-1} + \ldots + bX_{t-6} + u_t \]
Instead of attempting to estimate all the b’s directly, (totalling 6+1 in number) by applying OLS, to the above function, we obtain the estimates of all the b’s indirectly by method of polynomial relationships.

The numerical coefficients of the b-system are as follows

<table>
<thead>
<tr>
<th>bj (i = 0, 12...)</th>
<th>a0</th>
<th>a1</th>
<th>a2</th>
<th>a3</th>
<th>a4</th>
<th>a5</th>
<th>a6</th>
</tr>
</thead>
<tbody>
<tr>
<td>b0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>b2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>b3</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>b4</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>b5</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>b6</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Therefore $b_6 = 6(j) \ a_j \ (j = 0, 1 \ldots \ldots 6)$

Appendix II

Sources of Data

Statistical data for this analysis were collected from:

(i) Central Bank of Nigeria – Statistical Bulletin
(ii) Central Bank of Nigeria – Annual Report and Accounts
(iv) Federal Mortgage Bank – Annual Reports and Accounts
(v) Discount Houses – Annual Reports and Accounts
(vi) Insurance Companies: Data from CBN and Federal Ministry of Finance
(vii) Finance Houses: Data from CBN.

The data for Deposit Money Banks, comprised of (Commercial and Merchant Banks)

Note: Data on non-bank Financial Institutions comprised mainly the following institutions

(i) Insurance Companies
(ii) Federal Mortgage Bank
(iii) Primary Mortgage Institutions
(iv) Finance Houses
(v) Discount Houses

No comprehensive data could be obtained for other non-bank institutions and population.