Has Rural Banking Developed Rural Nigeria?
(Pp. 121-130)

Amadasu, David Evbayowieru  FCNA, FIMC  - Banking and Finance Department, University of Benin, Benin City, Nigeria. 
E-mail: davidamadasu@yahoo.com
GSM: 08055477864

Abstract
There is problem of rural development in Nigeria because of increasing poverty in the rural areas where about 70% of the people live. Reducing poverty means increasing income. Increasing income means increasing bank loans and advances for efficient application to agricultural and industrial activities in the rural Nigeria. Social banking or rural banking in Nigeria should take the lead. Has this been done in Nigeria? This is the problem to be solved by testing the hypothesis that there is no relationship between rural banks credit and the development of rural Nigeria. Regression analysis using data between 1982 and 2006 was utilised for the study. A major finding is that the lending rate, inflation rate, food imports and the autonomous contribution are anti GDP (Agriculture) though rural banks credit is positively related to the development of rural Nigeria. The major recommendation is therefore for policy makers to ensure that the auto-factors are reduced while the rural banks loans/advances and rural bank branches are increased urgently to contribute more to rural transformation.

Introduction
There has been the problem of rural development in the face of increasing poverty in the rural areas where about to 70% of the people live. In this case,
Nigeria is not an exception (Amadasu and Iyoha, 2006). That is, poverty is in the sense of low or no income, poor infrastructure, poor industrial activities, poor agricultural out-put, increase in crime, and rural-urban migration. If all these are referred to as under development, to develop therefore would mean improvements in them (Anyanwu et al, 1999, Amadasu and Iyoha, 2004). A significant aspect of this is increase in income from economic activities supported by loans and advances or credit from the banking industry, especially the rural banks (Olashore, 1979).

The Central Bank of Nigeria (CBN) regulations to ensure success for its rural banking policy specify that commercial banks should open branches in the rural areas. There were three phases of rural banking scheme -1977-1980, 1980-1985 and 1985-1989. By 1996 at least 50% of rural areas mobilised deposits were to be loaned to rural borrowers and agricultural credit guarantee scheme of 1978 gave farmers access to banks credit to stimulate agricultural expansion, etc. In these policies and objectives all banks in Nigeria were involved. With a regression analysis using 1982-2006 data from Central Bank of Nigeria, the hypothesis that there is no relationship between rural banks credit and the development of rural Nigeria is tested. This is not before the model specification. Thereafter the conclusion is drawn.

**Literature review**

Rural banking is supposed to mobilise and supply finance for investment in the rural areas. More importantly, rural banking assists to fill the gap in savings and investments from changes in the rate of interest and in the propensity to save and invest (Abe, 1984), all these being factors in development. Interestingly, it is the lack of savings and not unwillingness to invest that impedes investment. Where the gap exists it is the economic system challenge to induce the banking system to create credit to fill it (Amadasu and Iyoha, 2007). The corollary to this is the fact that the volume of savings is a function of how widespread savings institutions are and the tendency to save more as they are closer to the doorsteps of individuals. The fact that rural branches of banks are difficult to come by, governments in the early days of development mobilises and channels investible funds to the rural areas. This made up for the low rural household savings and productivity (Awosika and Nwoko, 1983).

The short-term viability of rural banking may be an issue but the likely long-run economic stability for the bank and rural dwellers or social benefits should encourage such a venture (Olashore, 1978). These are realisable if the
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country goes through reforms to that effect including the removal of weaknesses like underdeveloped financial sector, high, volatile, two-or three-digit inflation rate and poor governance (Amadasu, 2007). This also calls for the removal of the conservative posture in Nigerian’s National Development plans since independence (Ojo, 1994), the finance gap and the unavailability of facilities for savings. Under developing agriculture and small industrial establishments should not continue. There should be no information gap preventing access to cheap finance. Finance can only be scarce or costly where the agriculture and small industries have failed. To change this situation, the small medium industries, enterprises and investments structure (smieis) has been set up by the federal government to cater specifically for such sectors. What compounded this problem was the fact that majority of enterprises in these sectors lack feasibility studies i.e. cash flow analysis specifying their deficit financing, requiring overdraft or on-time financial life-line; the lack of empowered financial institutions notwithstanding. Such risk could have been abated were the financial practice not conservative and aggrandising the fear of loss, information gap as well as communication gap in relation to such economic units or businesses (Jhingan, 1997).

According to Ojo (1994) banks have been the subject of condemnation in not engaging in social banking. The finance houses as well as non-bank financial institutions accommodating entrepreneurs in their projects like equipment leasing, export-import finance, stock brokerage, management consultancy, etc, were gripped by financial crisis. Again, where banks finance activities, the type of such activities and their high costs leave much to be desired. They were short-term bridge finance instead of long-term productive finance. It is worthy of note that post office savings banks (by 1988 Act) were to encourage thrift and mobilisation of savings among the rural population but failed, part of it being mismanagement. The peoples’ bank set up (in 1990 by Decree 22) to make for gaps in difficulty in rural poor population accessing bank credit also failed either because the service charge of 15% (instead of interest charge) was too high or poor loan repayment record which could not make others to benefit in a sort of revolving loan. The community banks of 1990 also failed in its self sustaining institution owned and managed by the community using self-recognition/credit worthiness for individual customer access. Also, the cooperative banks failed because of inadequate capital and the poor farmers-owners could not increase such financial resources. The strong, positive and dynamic social banking should be put in place with all the necessary macro-economic and political reforms to ensure rural
development and industrialisation role for Nigeria Banks. A repackaged
Nigeria Central Bank should spearhead such innovation including universal
banking which is one-stop-shop for all services in the financial sector
(Amadasu and Iyoha, 2006). Savings ensure capital formation which makes
investment possible. Rural banking will make mobilisation of savings from
surplus units possible and loan to deficit units. Developed Countries have
realised this in their rural development. The Okigbo financial system review
committee 1977 emphasised rural transformation by promoting banking
activities in the rural areas. This includes paying or receiving hand to hand
currency creating credit taking the form of equity and loan, to small scale
farmers and entrepreneurs. The rural banking scheme was introduced in June
and 1985-1989. By 1992, 765 bank branches had been opened out of 766
stipulated. By 1996 CBN stipulation, 50% of deposits mobilised in the rural
areas were to be loaned to rural borrowers. By Decree 20 of 1997 the
agricultural credit guarantee scheme was introduced enabling farmers to get
credit with interest charge between 5 and 7%. The Nigerian government and
CBN tried various methods to achieve rural development. This included:
obtaining approval before opening any bank branch (which must be opened
with a rural branch), opening of the Nigerian agricultural and cooperative
bank Ltd in 1973, launching of operation feed the nation in 1973, and

Abe (1984), Oyatoye (1983) and Ezike (1982) opined that rural branching of
banks was to aid in achieving rural development by promoting economic
activities in the hitherto neglected areas or regions. Cooperative banks
establishment in all the regions were proposed. The rural banking scheme of
1977 was to inculcate the habit of banking in rural dwellers, reduce rural
migration to urban areas, monetise rural areas, mobilise savings for profitable
investments, promote agro-allied industries for food self sufficiency and to
provide employment for rural dwellers. The CBN ensured that there was one
commercial bank branch in each local government area. The branch should
not close down without permission. At least, 50% of the deposits in the rural
branch should be loaned to rural dwellers.

Model specification/methodology
There is need to test the hypothesis that rural banking has not developed rural
areas in Nigeria. An index of rural area is agricultural output. This can point
out whether its increase or decrease has developed the rural areas or not.
Again, agricultural output can increase due to increased loans given to the
farmers in the rural areas. Regression-- (OLS) (Iyoha, 2004, Gujarati, 1999) is utilised and the data is in Appendix A:

The equation is:

\[ GDP = a_0 + a_1 \text{LARB} - a_2 \text{LENR} - a_3 \text{INFL} - a_4 \text{IMPF} + e \]

**Where**

- \( GDP \) = Gross Domestic Product (Agriculture)
- \( \text{LARB} \) = Loans and Advances of Rural Branches of Banks
- \( \text{LENR} \) = Lending Rate (Prime)
- \( \text{INFL} \) = Inflation Rate
- \( \text{IMPF} \) = Imports of Food
- \( e \) = Error Term

\( a_0 \) ------ \( a_4 \) are Constants or Coefficients

A Prior expectations are:-

- \( a_0 > 0 \)
- \( a_1 > 0 \)
- \( a_2 - a_4 < 0 \)

**Analysis of results**

\[ \text{GDP} = -1459.1 + 155.1765 \text{LARB} + 5.5092 \text{LENR} + 7.0273 \text{INFL} + 7.7459 \text{IMPF} \]

\[ (-1.1010) \quad (6.8851) \quad (0.14920) \quad (1.8509) \quad (1.1536) \]

\( R^2 = 0.9368 \quad R^2 = 0.75871 \)

SE of regression = 843.6983 \quad F–STAT: F (12,4) = 5.19241

DW-Statistics = 2.5885 (see appendix B and C)

\( R^2 \) of 93% means that the independent variables explain that much of the variations in GDP (Agric.). The DW-Statistics is good too as it reduces autocorrelation or serial correlation. Some of the a-priori expectations changed i.e. \( a_0 \), the autonomous portion became negative, LENR, INFR and IMPF

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became positive. The negative $a_0$, means that one unit decrease in it results in 1459.1 increase in GDP (agriculture) in Nigeria. This autonomous part is different from other variables specified. The lending rate (LENR) has positive relationship with the GDP (Agric) as a unit increase in it leads to 5 times increase in GDP (Agric) instead of the other way round. The inflation rate (INFR) has positive relation too as a unit increase leads to 7 times increase in GDP (Agric). In fact, the lending rate has to increase so that the inflation rate does not swallow it. The prices will increase and stimulate supply and borrowing such that the demand will respond because of the importance of food exports and inputs for other industrial activities. The import of food (IMPF) is positive too as a unit increase leads to 7 times increase in GDP (Agric.) instead of the other way round. IMPF ought to reduce and GDP (Agric) increases, which means that there is food shortage and the GDP (Agric) is not enough. The loans of rural banks (LARB) have positive relation with GDP (Agric) as predetermined, a unit increase in it leads to 155 increase in GDP (Agric).

Examining the individual significance using the T-ratio, the LARB calculated value of 6 is greater than the table value of 2 at 5% and therefore significant. The LENR calculated value of 0.1492 is less than the table value of 2 at 5% and therefore not significant. The INFR calculated value of 1.8509 in less than the table value of 2 at 5% and therefore not significant. The IMPF calculated value of 1.1536 is less than the table value of 2 at 5% and therefore not significant. Thinking seriously, the LENR, INFR and IMPF are not affecting GDP (Agric) or rural development because they are anti such development but the LARB or loans and advances of rural banks do affect GDP (agric) because increase of such loans or investment is needed to transform the rural areas. Then the overall significance test of F-ratio, calculated value of 5 is greater than the table value of 3.26 at 5% and therefore significant. This rejects the hypothesis that rural credit has no relationship with the development of banks.

**Policy implication and conclusion**

The findings of the study whether rural banking has developed rural Nigeria include:

i. LENR, INFR and IMPF which have relationship with GDP (Agriculture),

ii. The autonomous portion ($a_0$) outside the variables specified has negative relationship with GDP (Agriculture),
iii. The LENR is positively related to the GDP (Agriculture) and rural banks credit has developed rural Nigeria, though the degree is questionable.

Therefore:- It should be the policy of the government to ensure that:

i. LENR, INFR, IMPF and \( a_0 \) are reduced in their bad effects on GDP (Agric) to aid rural transformation in Nigeria

ii. The LARB should be stepped up as a matter of utmost urgency through more bank branches, loans/advances to the rural communities to increase their income and improve their economic life.

Appendix A
Nigeria: GDP (Agric- Crops, Livestock, Foreisting, Fishing) and other variables, 1982-2006

<table>
<thead>
<tr>
<th>YEAR</th>
<th>(GDP)</th>
<th>LARB</th>
<th>LENR</th>
<th>INFR</th>
<th>IMPF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>15</td>
<td>0.036</td>
<td>10</td>
<td>8</td>
<td>2</td>
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<tr>
<td>1983</td>
<td>19</td>
<td>0.044</td>
<td>10</td>
<td>23</td>
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<tr>
<td>1984</td>
<td>26</td>
<td>0.058</td>
<td>13</td>
<td>40</td>
<td>1</td>
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<tr>
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<td>27</td>
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<td>09</td>
<td>6</td>
<td>1</td>
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<tr>
<td>1986</td>
<td>27</td>
<td>0.4</td>
<td>11</td>
<td>5</td>
<td>1</td>
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<tr>
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<td>2</td>
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<td>17</td>
<td>38</td>
<td>2</td>
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<tr>
<td>1989</td>
<td>70</td>
<td>4.0</td>
<td>27</td>
<td>41</td>
<td>2</td>
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<tr>
<td>1990</td>
<td>84</td>
<td>5.0</td>
<td>26</td>
<td>8</td>
<td>4</td>
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<tr>
<td>1991</td>
<td>98</td>
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<td>20</td>
<td>13</td>
<td>3</td>
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<tr>
<td>1992</td>
<td>146</td>
<td>2.0</td>
<td>30</td>
<td>45</td>
<td>13</td>
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<tr>
<td>1993</td>
<td>232</td>
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<td>18</td>
<td>57</td>
<td>14</td>
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<td>57</td>
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<td>1995</td>
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<td>20</td>
<td>73</td>
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<td>1996</td>
<td>842</td>
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<td>20</td>
<td>29</td>
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<td>1997</td>
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<td>14</td>
<td>9</td>
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<td>18</td>
<td>10</td>
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<tr>
<td>2001</td>
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<td>18</td>
<td>19</td>
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<td>2002</td>
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<td>9.0</td>
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<td>13</td>
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<tr>
<td>2003</td>
<td>2136</td>
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<td>21</td>
<td>14</td>
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<tr>
<td>2004</td>
<td>3904</td>
<td>34.0</td>
<td>19</td>
<td>15</td>
<td>179</td>
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<tr>
<td>2005</td>
<td>4753</td>
<td>23.0</td>
<td>18</td>
<td>18</td>
<td>172</td>
</tr>
<tr>
<td>2006</td>
<td>5942</td>
<td>26.0</td>
<td>17</td>
<td>8</td>
<td>174</td>
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</tbody>
</table>

APPENDIX B

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Cochrane-Orcutt Method AR(8) converted after 56 iterations

*************************************************** *******
Dependent variable is GDP
25 observations used for estimation from 1982 to 2006
1
2

*************************************************** ********
Regressor
INPT
LARB
LENR
INFR
IMPF

*************************************************** ********

Parameters of the Autoregressive Error Specification

_coefficient_ _asymptotic_t-ratio_

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T-Ratio [Prob]</th>
</tr>
</thead>
<tbody>
<tr>
<td>U (- 1)</td>
<td>-1.2825</td>
<td>1325.3</td>
<td>-1.1010 [.284]</td>
</tr>
<tr>
<td>155.11'65</td>
<td>22.5380</td>
<td>6.8851 [.000]</td>
<td></td>
</tr>
<tr>
<td>5.5092</td>
<td>36.9243</td>
<td>.14920 [.883]</td>
<td></td>
</tr>
<tr>
<td>7.0273</td>
<td>3.7967</td>
<td>1.8509 [.079]</td>
<td></td>
</tr>
<tr>
<td>7.·7459</td>
<td>6.7144</td>
<td>1.1536 [.262]</td>
<td></td>
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</table>

Coefficients of Autoregressive Error Specification

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<th>Coefficient</th>
<th>Asymptotic T-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>U (- 1)</td>
<td>-1.2825</td>
</tr>
</tbody>
</table>

*NONE*
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U (- 2)  -1.3754  *NONE*
U (- 3)  -.021511 *NONE*
U (- 4)   1.0141  *NONE*
U (- 5)   .55500  *NONE*
U (- 6)   .34978  *NONE*
U (- 7)   .098956 *NONE*
U (- 8)  -.39267  *NONE*

***WARNING*** The above autoregressive process is unstable!
T-ratio(s) are not calculated.

*****************************

Appendix C

![Plot of Actual and Fitted Values](image_url)
Reference


