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The banking sector recorded a number of developments during the period under review. Some of these developments were bye-products of the Central Bank of Nigeria (CBN) Monetary Policy Committee meetings, while the rest include local and international economic developments that have direct or indirect impact on the economy and the banking sector .

During the period under review, the banking Industry witnessed both positive and negative changes in financial parameters. Total Assets increased marginally, Shareholders' Funds also increased marginally. The Banking Industry Capital Adequacy Ratio (CAR) stood at 14.98% which was more than the regulatory threshold of 10.00%. However, there was a significant decline in the industry's major earnings components like profit before tax, return on assets, and return on equity.

ADOPTION OF INTEGRATED PROTECTION SCHEME (IPS) IN NIGERIA: ISSUES AND CHALLENGES
BY

Hashim I. Ahmad, Ishaya P. Tarfa and Cordelia A. Utaan
Research, Policy and International Relations Department, NDIC.

The study discusses the issues and challenges associated with the adoption of Integrated Protection Scheme (IPS) in Nigeria. Some of the issues that need to be considered when designing an IPS as found in the literature include: operational independence, limits and scope of coverage as well as funding plan in addition to other design features that apply to the Bank Deposit Insurance System (DIS). The study also examined some of the potential challenges IPS will face if adopted in Nigeria. The challenges include, among others: cumbersome procedures of failure resolution and reimbursement of depositors; increased moral hazard; ineffective supervision of participating institutions arising from large industry; inadequate legal and regulatory framework; challenges related with asset disposal; risk of cross subsidization; and determination of appropriate coverage level. Notwithstanding the challenges, the study found that there are prospects which include: Existence of Financial Services Regulation Coordinating Committee (FSRCC); Existence of Separate Deposit Insurance Funds for various categories of banks; Deployment of Consolidated Supervision; Target Fund Ratio Framework; and Amendment of the NDIC Act 2006. The prospects are indeed overwhelming and could make a good case for the adoption of IPS in Nigeria. The authors also reviewed the practices in some jurisdictions such as the United Kingdom, Malaysia and Korea where IPS is practiced, in order to buttress the points made in terms of the issues and challenges associated with the adoption of IPS. The review reveals that the issues in the countries were similar except for few differences in terms of institutions and products covered by the IPS. The study concluded with the recommendation that the Nigerian government should consider the adoption of IPS in the country because of its importance and the absence of effective compensation systems in the other markets (insurance and capital market). The adoption could be in phases as done in Malaysia where at the moment only banking and insurance products are covered by the IPS.

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MONEY SUPPLY GROWTH AND ITS INFLATIONARY EFFECTS IN NIGERIA

BY:

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This study examines the relationship between money supply growth and
inflation in Nigeria using time series data for the period of thirty-three years
(1980-2012). In analyzing the data both ordinary least square (OLS)
regression method and Autoregressive distributed lag (ARDL) bound F-test for
co integration were used. Variables for this study are (inflation, money supply
growth M1& M2, interest rate, exchange rate and fiscal deficit). The OLS result
indicates narrow money supply growth M1, interest rate and fiscal deficit are
positively related to inflation. While broad money supply growth M2 and
exchange were negatively related to inflation. Bound F-test for co-integration
result indicates that there is an evidence of long run relationship between
money supply growths when inflation is used as dependent variable. However
granger causality result revealed that there is a unidirectional causality running
from money supply growth to inflation in Nigeria which is in tandem with
classical quantity theory assertion. Finally, the study recommends a long term
stabilization of monetary policy instrument especially the open market
operation (OMO) and the need for government to reduce its deficit financing.

REVIEW OF DEVELOPMENTS IN BANKING AND FINANCE IN THE THIRD QUARTER OF 2016.

1.0 INTRODUCTION

The banking sector recorded a number of developments during the third quarter of 2016. Some of these developments were bye-products of the Central Bank of Nigeria (CBN) Monetary Policy Committee meetings.

2.0 CBN Monetary Policy Committee Meetings

The CBN Monetary Policy Committee (MPC) met on July 25 and 26, 2016 and September 19 and 20 to evaluate the global and domestic economic and financial developments as well as the challenges to the economy.

3.0 International Economic Developments

During the period under review, global output continued to decline emanating from relatively unbalanced risks to the global outlook. Consequently, the IMF had in July 2016, downgraded its baseline global growth forecast from 3.2 percent in April to 3.1 percent in July 2016. The World Bank has been cautious in retaining its June, 2016 global output growth projection of 2.4 percent. However, global recovery remains fragile in advanced economies while the emerging markets and developing economies continue to struggle against strong headwinds, including low commodity prices, slowing demand and instability of capital markets.

It was reported that real GDP in the Euro zone is expected to maintain or outperform its second quarter growth rate of 0.3 percent in the third quarter. While short-term downside risks from the Brexit vote had largely subsided, the long term potential economic impact remains uncertain. Consequently, the zone's growth path remains challenged. The European Central Bank (ECB) at its April 21, 2016 meeting maintained its soft monetary policy by keeping its refinancing rate at 0.0 percent, marginal lending facility at 0.25 percent and deposit rate at -0.4 percent. The Bank also moved inflation towards its long term objective of 2.0 percent.

The United State (US) economy exceeded its growth expectation in the third quarter of 2016, growing at an annual rate of 2.9 percent, a significant improvement from the average growth rate of 1.1 percent in second quarter of 2016. The improved performance of the economy was attributed largely to the growth of inventories and robust surge in exports, coupled with improved consumer spending, even as the mining sector recorded a pull back.

The Bank of England had continued its £435 billion monthly asset purchase program, while leaving its policy rate at 0.25 percent as part of its bold step to support output recovery in the aftermath of the Brexit vote.

Japan's economy grew at a seasonal adjusted annualized rate of 0.2 percent in the second quarter of 2016 compared with 1.7 percent in the first quarter of 2016. The government had, in August, approved a fiscal stimulus of ¥13.5 trillion (US$132 billion) in a bold attempt to jumpstart the economy.

Emerging Markets and Developing Economies (EMDEs) had continued to contend with low capital inflow and unstable macroeconomic environment, the prospect for their recovery look more promising within the period under review.

4.0 Domestic Economy and Financial Developments

The output of the domestic economy continued to decline due to shortage of foreign exchange, low fiscal activity, high energy prices and the accumulation of salary arrears, especially at the sub-national levels of government among others.

In the second quarter of 2016 domestic output contracted by 2.06 percent indicating that the economy had slipped into recession following a second consecutive contraction in two quarters of 2016. However, during the third quarter, the economy had suffered further contraction in output by 2.24 percent relative to its level in the previous and corresponding quarter of 2015. The non-oil sector grew by 0.03 percent, driven by Agriculture which grew by 4.54 percent, following the 0.38 percent contraction in the second quarter.

5.0   INFLATION

It has been noted that headline inflation rose to 17.9% in September. Core and food inflation have increased from 16.93% to 15.80% in July to 17.2% and 16.43%, respectively, in August 2016. Indeed, the increase in prices of goods and services was associated with reform-related legacy and structural factors including high costs of electricity, transport, production inputs, as well as high prices of both domestic and imported food products.

6.0   MONEY SUPPLY

Broad Money Supply (M2) grew by 10.50 per cent in September, 2016, compared with the 8.8 per cent in August, 2016. When annualized, M2 grew by 14.0 per cent   in September 2016, above the growth benchmark of 10.98 per cent for 2016.

Net domestic credit (NDC) grew by 21.88 per cent in the same period, annualized at 29.17 per cent. At this rate, the growth rate of NDC was above the provisional benchmark of 17.94 per cent for 2016. The development in NDC, essentially reflected the relative growth in credit to the private sector of 20.69 per cent in September, annualized to 27.59 per cent. Credit to the government grew by 29.57 per cent in the review period, which annualized to a growth of 39.43 per cent compared with the growth benchmark of 13.28 per cent for fiscal 2016. The growth in government borrowing was largely to compensate for the continued decline in oil receipts.

7.0   CAPITAL MARKET

The Nigerian Stock Exchange All Share Index (ASI) fell by 7.33 per cent from 27,839.93 on September 19, 2016, to 25,797.88 on November 16, 2016. Similarly, Market Capitalization (MC) declined by 7.11 per cent from N9.56 trillion to N8.88 trillion during the same period. In addition, relative to end-December 2015, the capital indices fell by 9.93 per cent and 9.85 per cent, respectively, reflecting the challenges facing the economy.

8.0   EXCHANGE RATE

The average naira exchange rate weakened at the inter-bank segment of the foreign exchange market within the period under review. The exchange rate at inter-bank opened at N305.00/US$ and closed at N305.90/US$ between September 1st and October 27, 2016. It was observed that total foreign exchange inflows through the CBN decreased by 31.85 per cent, from US$ 1,404.84 million in September to US$957.37 million in October 2016. The decrease was attributable to lower oil and other government revenues in the period under review. Beside of the resumed Joint Venture Payments in October, total outflows also continued to decrease, dropping significantly by 58.68 per cent from US$2,456.86million to US$1,015.08 million during the same period. Based on this premise, the MPC committee had suggested the Management of CBN to continue to direct more focus at making foreign exchange available to Agriculture and manufacturing sectors of the economy by enforcing its policy via directing DMBs to allocate 60% of the forex available to these sectors.

11.0 CBN CIRCULARS

11.1 REVIEW OF RESTRICTIONS AND LIMITS ON LEVEL I AND II OF THE TIERED KYC ACCOUNTS

The CBN in a circular referenced FPR/DIR/CIR/GEN/06/002 dated 1st July, 2016, in furtherance of its efforts to deepen financial inclusion, reviewed upward current transaction limits on Tier I and II accounts.

11.2 MANDATORY REGISTERATION AND LISTING OF COMMERCIAL PAPERS (CPs)

The CBN in a circular referenced BSD/DIR/GEN/LAB/09/035 dated July 12, 2016, permitted Banks only to deal in CPs that are registered on Authorised Securities Exchanges with effect from July 11, 2016. Accordingly banks are prohibited from transacting in CPs (that are not quoted or intended for quotation on an Authorised Securities Exchange) in any capacity whatsoever, including but not limited to as issuer; Guarantor; Issuing, Placing, Paying and

Collecting Agent ("IPPCA"), Collecting and Paying Agent ("CPA"); etc., from the effective date.

11.3 PROVISIONING FOR FOREIGN CURRENCY LOANS

The CBN issued a circular referenced BSD/DIR/GEN /LAB/09/037 dated July 27, 2016 to all Banks and Other Financial Institutions in respect of provisioning for foreign currency loans, are by this circular required to ensure adequate and proper provisioning, banks are by this circular, required to ensure that the un-provisioned portion on all such facilities are fully provided for immediately in the income statements and evidence of the additional provisions forwarded to the Director of Banking Supervision within one week of the date of this circular.

11.4 FURTHER EXTENSION OF BVN FOR NIGERIAN BANKS' CUSTOMERS IN DIASPORA

The CBN in a circular referenced BPS/DPD/GEN/CIR/01/002 dated July 29, 2016 2016 extended the deadline for the registration and linkage of BVN to accounts of Nigerian Banks' Customers in diaspora to December 31,2016.

The CBN had initially set the deadline for January 31, 2016, then extended it to June 30, 2016 but had to extend it when it observed that the low percentage of registration was as a result of lack of accessibility and availability of registration centres in some cities where Nigerians reside abroad.

11.5 WRITE OFF OF FULLY PROVIDED NON PERFORMING LOANS

In a circular dated July 28, 2016 and referenced BSD/DIR/GEN/Lab/09/038, The CBN in view of the current macro-economic challenges grants a one-off forbearance, this year 2016, to banks, to write-off fully provided NPLs without waiting for the mandatory one year.

11.6 CIRCULAR TO ALL DEPOSIT MONEY BANKS (DMDs)

The CBN in its Circular dated September 28, 2016 and referenced BSD/DIR/GEN/lab/09/038 directed DMBs to appoint Executive compliance Officers (ECOs)

not below the rank of an Executive Director and Chief Compliance Officers (CCOs) below the rank of a General Manager (GM) in other to ensure strict compliance with all extant regulations, particularly those relating to Foreign Exchange Transactions, Financial Action Task Force (FATF), and Anti-Money Laundering/ Combating the Financing of Terrorism (AML/CFT).

FINANCIAL CONDITION AND PERFORMANCE OF INSURED DEPOSIT MONEY BANKS (DMBS) FOR THIRD QUARTER 2016

BY

RESEARCH POLICY & INTERNATIONAL RELATIONS AND INSURANCE AND SURVELLANCE DEPARTMENTS

1.0   INTRODUCTION

A review of the third quarter performance of the banking industry showed a decline in most of the indices, as a result of the recession in second quarter of 2016 which continued in the third quarter 2016.

The impact of the recession in the general economy had a negative impact on some of the indices. These include: quality of risk assets, quantum of earnings, and credit as well as deposit base of the banking industry in the period under review.

In the third quarter of 2016, the overall Assets of the industry recorded a growth of ₦0.207 trillion or 0.69% from ₦29.985 trillion in June 2016 to ₦30.192 trillion as at September 30, 2016. Also, Loans and Advances to customers, which constituted 47.78% of the Total Assets increased marginally by ₦0.304 trillion or 2.15% from ₦14.120 trillion as at June 30, 2016 to ₦14.424 trillion as at 30th September, 2016. On the other hand, Loans and Advances to banks which accounted for 1.09% of the Industry Total Assets decreased significantly by 37.45% from ₦527.187 billion in June, 2016 to ₦329.767 billion in September, 2016**.** The quality of these assets deteriorated during the period under review as the ratio of Impaired Credits to Total Credits increased from 8.80% in June 2016 to 11.38% as at September 2016.

The profitability of the banking industry has gone down significantly as profit before tax decreased by 121.62% from ₦194.657 billion in June 2016 to (-₦42.076) billion as at September 2016.

The banking industry Capital to Risk Weighted Assets Ratio (CAR) marginally increased from 14.74% as at 30th June, 2016 to 14.98% as at September 2016. Despite the increment, 3 out of the 25 banks did not meet the required regulatory threshold of 10%

and 15% for National and Domestic-Systemically Important Banks (D-SIBs). On the other hand, the Average Liquidity Ratio (ALR) for the industry decreased from 55.97% in June 2016 to 52.87% as at September 2016.

The rest of the paper comprises of three sections. Section 2 presents the Structure of Assets and Liabilities; Section 3 assesses the financial condition of Insured DMBs, while Section 4 concludes.

2.0   STRUCTURE OF ASSETS AND LIABILITIES

During the quarter under review, overall Assets of the industry recorded a growth of ₦0.207 trillion or 0.69% from ₦29.985 trillion in June 2016 to ₦30.192 trillion as at September 30, 2016.

On the Liabilities side, Total Deposits from customers which constituted 59.83% of the industry Total Liabilities decreased by ₦0.474 trillion or 2.55% from ₦18.538 trillion in June 2016 to ₦18.064 trillion in September 2016.

The structure of the industry's total Assets and Liabilities as at the end September 2016 are presented in Table 1 and Charts 1A and 1B.

TABLE 1

Structure of Insured DMBs' Assets and Liabilities

For June and September 2016

Assets	Sep 2016 (%)	June 2016 (%)	Liabilities	Sep 2016 (%)	June 2016 (%)
Cash Balances	1.47	1.39	Deposits from Customers	59.83	61.82
Balances with Banks and Central Bank	18.92	21.26	Deposits from Banks	3.19	3.80

Loans and Advances to Banks	1.09	1.76	Financial Liabilities held for Trading	0.06	0.03
Loans and Advances to Customers	47.78	47.09	Due to Other Banks	-	-
Investment Securities Available for Sale	9.64	8.32	Borrowings	10	9.34
Investment Security Held to Maturity	7.96	8.14	Other Liabilities	11.18	9.39
Other Assets	4.86	5.10	Debt Instrument	3.26	3.08
Property, Plant and Equipment	2.79	2.80	Shareholders' Funds (Unadjusted)	12.47	0.75
Assets Pledged as Collateral	1.09	1.41	Others	-	-
Others	4.4	2.73			
Total	**100.00**	**100.00**	**Total**	**100.00**	**100.00**

Source: NDIC

Chart 1A: Structure of Insured DMBs' Assets for June and September 2016

Legend:
- Cash balances
- Balances with Banks
- Loans and Advances
- Loans and advances to Customers
- Investment Securities
- Investments Securities(Maturity)
- Fixed Assets
- Other Assets
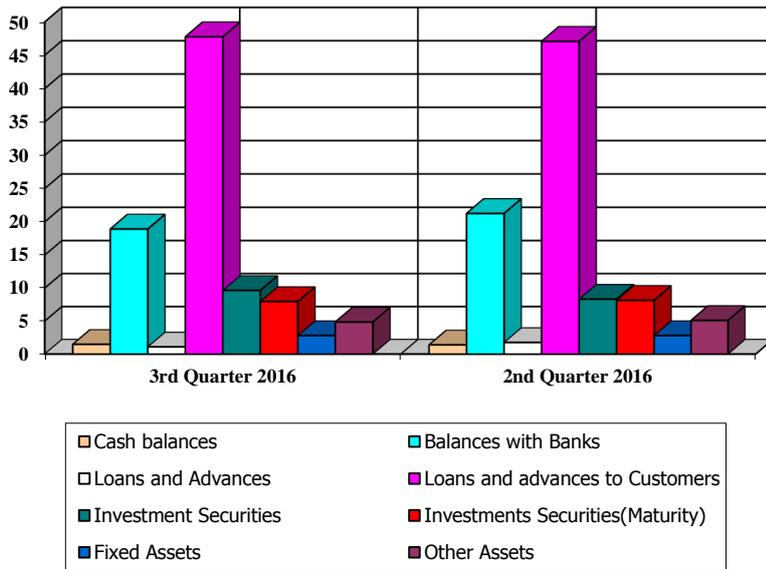
Chart 1B: Structure of Insured DMBs' Liabilities for June and September 2016

Legend:
- Deposits from Customers
- Deposits from Banks
- Financial Liabilities held for Trading
- Due to other Banks
- Borrowings
- Other Liabilities
- Debt Instruments
- Shareholders Funds

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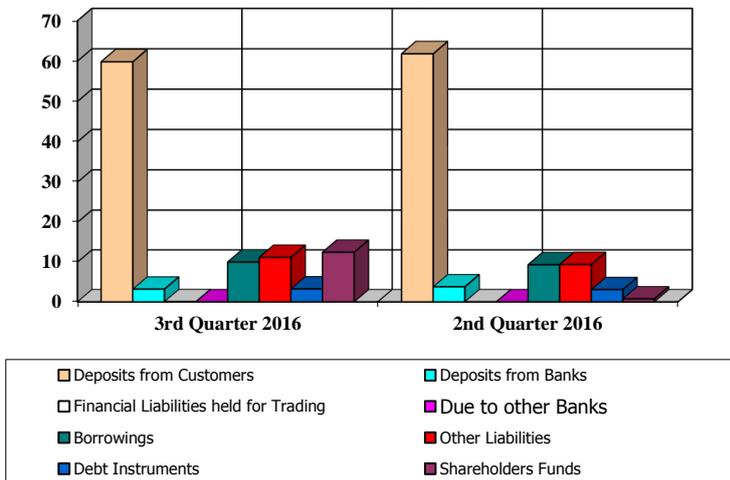
From Table 1 and Chart 1A, Loans and Advances to customers have the highest percentage of the industry total assets with 47.78%. This shows a marginal increase of ₦0.304 trillion or 2.15% from ₦14.120 trillion as at   June 30, 2016 to ₦14.424 trillion as at 30th September, 2016. However, Loans and Advances to banks which accounted for 1.09% of the industry Total Assets decreased significantly by 37.45% from ₦527.187 billion in June, 2016 to ₦329.767 billion to September, 2016.

However, for the other components of the industry's Total Assets in the third quarter of 2016; Balances with banks and Central Bank (CBN), accounted for 18.92% of the total asset. Investment Securities Available for Sale accounted for 9.64% of the Total Asset, while Investment Security Held to Maturity accounted for 7.96% of the total assets.

On the Liabilities side, Total Deposits from customers which constituted 59.83% of the Industry Total Liabilities decreased by ₦0.474 trillion or 2.55% from ₦18.538 trillion in June 2016 to ₦18.064 trillion as at September ending 2016.

Also, Shareholders' Funds which stood at ₦3.766 trillion and accounted for 12.47% of the industry Total Liabilities as at September 2016 increased by ₦0.007 trillion or 0.18% when compared with Shareholders' Funds of ₦3.759 trillion recorded in June 2016.

3.0   ASSESSMENT OF THE FINANCIAL CONDITION OF INSURED DMBS

Asset Quality

The banking industry Total Earning Assets increased by 3.12%, from ₦19.938 trillion in June 2016 to ₦20.560 trillion in September 2016, out of this, Total Credit increased by 4.22% from ₦15.647 trillion in June 2016 to ₦16.307 trillion in September 2016.

Out of the Industry Total Credits (TCs) of ₦16.307 trillion, Non-Performing Credits/Loans (NPLs) amounted to ₦1.856 trillion, which represented 11.38% of the Total Credits. This was a decline over the NPL ratio of 8.83% recorded in June 2016. However, in absolute terms, NPLs increased by 34.71% from ₦1.378 trillion as at 30th June, 2016 to ₦1.856 trillion as at September 30, 2016. The NPL ratio of 11.38% exceeded the maximum regulatory threshold of 5% prescribed by the CBN. In addition to the significant increase of ₦0.477 trillion in NPLs, this shows that the quality of Assets of the banking industry

which is mainly measured by the proportion of Impaired Credits or Non-performing loans (NPL) to Total Credits deteriorated during the period under review.

Furthermore, the ratio of Non-Performing Credits to Shareholders' Funds increased from 28.66% in June 2016 to 41.06 in September 2016. The ratio of Provision for Impaired Credit to Impaired Credit decreased from 69.98% in June 2016 to 63.17% in September 2016, while Impaired Credit to Total Credit increased from 8.80% in June 2016 to 11.38% in September 2016. Table 2 and Chart 2 present the indicators of insured DMBs Asset Quality for September 2016.

TABLE 2

Insured DMBs' Asset Quality for June and September 2016

Asset Quality Indicator	Period	
	September 2016 (%)	June 2016 (%)
Impaired Credit to Total Credit	11.38	8.80
Provision for Impaired Credit to Impaired Credit	63.17	69.98
Impaired credit to Shareholders' Funds	41.06	28.66

Source: NDIC

Chart 2: Indicators of Insured DMBs' Asset Quality for June and September 2016

Legend:
- Impaired Credit to Total Credit
- Provision for Impaired Credit to Impaired Credit
- Impaired Credit to Shareholders Fund
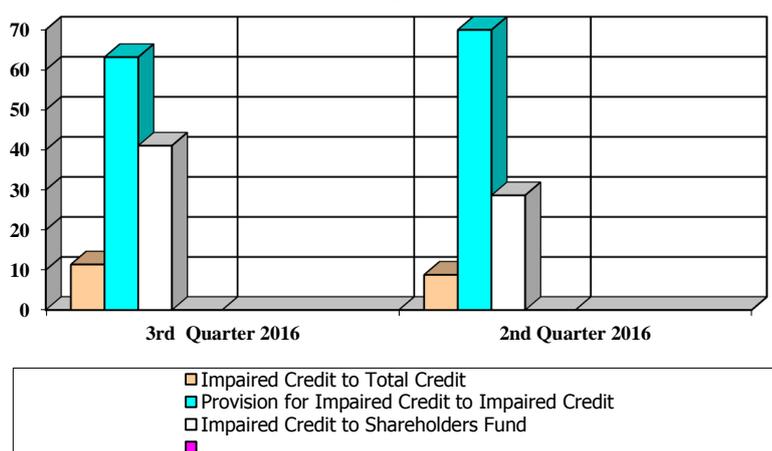
3.2 Earnings and Profitability

During the period under review, the various components of Earnings for the banking industry showed a mixture of increases and decreases. However, the overall profitability of the banking industry declined by 120.55%. This led to overall net loss of about (-₦42.076) billion as Profit before Tax as at September 30, 2016 as against ₦194.657 billion reported in June 2016.

For the positive components, Interest Income increased by 17.01% from ₦582.786 billion in June 2016 to ₦666.148 billion in September 2016. Trading Income from Foreign Exchange increased by ₦177.63 billion or 94.09% from ₦188.79 billion in June 2016 to ₦366.420 billion in September 2016. Interest Expense increased by 39.67% from ₦200.528 billion in June 2016 to ₦280.073 billion in September 2016. Also on the positive side, the banking industry's Operating Expenses decreased slightly by ₦11.227 billion or 2.14% from ₦527.137 billion in June 2016 to ₦515.860 billion in September 2016.

For the negative components, Non-Interest Income recorded a decline of 65.36%, from ₦336.984 billion in June 2016 to ₦116.725 billion in September 2016. Also, Recoveries

declined by 36.12% from June 2016 figure of ₦2.552 billion to ₦1.629 billion as at September 2016. The significant decline in Recoveries and Non-interest income could be explained by the current economic recession which was characterized by declining output, high inflation, and scarce foreign exchange among others.

Furthermore, the Profitability of the Industry measured by Return on Assets (ROA) further decreased from 0.72% as at June 2016 to -014% as at September 2016. Return on Equity (ROE) also decreased from 1.82% as at June 2016 to -0.43% during the period under review.These and other indices are depicted in Table 3 and Chart 3 below:
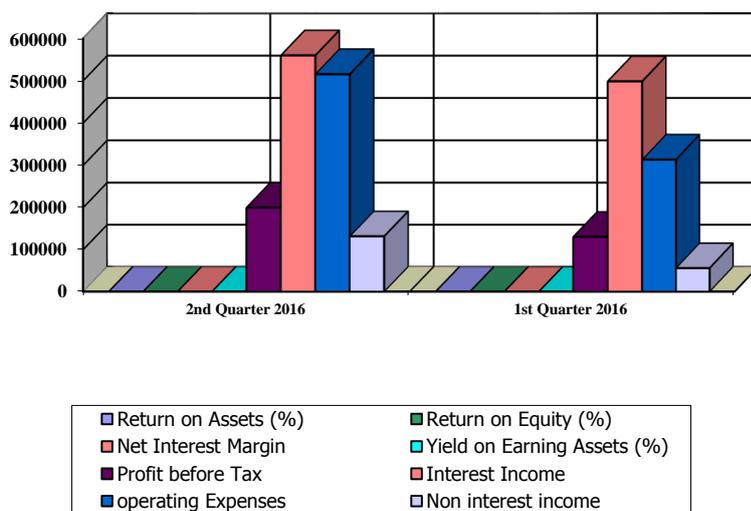
TABLE 3

Insured DMBs' Earnings and Profitability Indicators
for June and September 2016

Earnings/Profitability Indicator	Period	
	September 2016	June 2016
Return on Assets (%)	-0.14	0.72
Return on Equity (%)	-0.46	1.82
Net Interest Margin	5.15	3.2
Yield on Earning Assets (%)	1.13	1.04
Profit Before Tax (N' billion)	-40.350	199,777
Interest Income (N' billion)	662,077	559,677
Operating Expenses (N' billion)	513,611	515,308
Non-Interest Income (N' billion)	116,470	131,597

Source: NDIC

Chart 3: Insured DMBs' Earnings and Profitability for June and September 2016

Legend:
- Return on Assets (%)
- Return on Equity (%)
- Net Interest Margin
- Yield on Earning Assets (%)
- Profit before Tax
- Interest Income
- operating Expenses
- Non interest income

3.3 Liquidity Profile

The banking industry experienced increased liquidity as depicted by the relevant indices. Average Liquidity Ratio (ALR) of the banking industry increased from 55.97% in June 2016 to 69.347% as at September 2016. The increase could be explained by the inclusion of a new bank in the list of DMBs whose entrance into the financial system impacted positively on overall or average liquidity of the Banking system. The average liquidity ratio of the industry remained above the 30.00% minimum requirement as at September 2016.

Also as at September 2016, the Net Credit to Deposit Ratio increased to 1490.32% from 84.40% in June 2016 2016. Interbank Takings to Total Assets decreased to 388.44% in September 2016 from 400.95% in June 2016.

Twenty (21) of the twenty-four (24) DMBs in operation met and surpassed the minimum regulatory threshold of 30.00%. however 3 banks fell below the minimum 30.00% regulatory requirement. Table 4 and Chart 4 present the liquidity profile of the banking industry as at September 2016.

TABLE 4

Indicators of Insured DMBs' Liquidity Profile

For June and September 2016

Liquidity	Period	
	September 2016	June 2016
Average Liquidity Ratio (%)	52.87	55.97
Net Credit to Deposit Ratio (%)	1490.32	84.40
Inter-bank taking to Deposit Ratio (%)	388.44	400.95
No of Banks with Liquidity Ratio below the prescribed minimum	3	3

Source: NDIC

Chart 4: Indicators of Insured DMBs Liquidity Profile as at June and September 2016

Legend:
- ☐ Average Liquidity Ratio (%)
- ☐ Net Loans to Deposit Ratio (%)
- ☐ Inter-bank taking to Deposit Ratio (%)
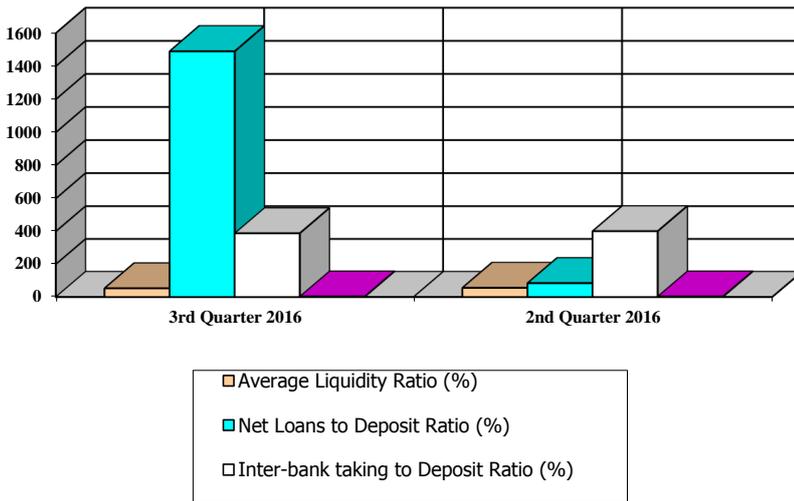
3.4 Capital Adequacy

During the period under review, the banking industry Capital to Risk Weighted Assets Ratio (CAR) increased from 14.74% in June, 2016 to 19.49% in September 2016. Also Capital to Total Asset ratio declined significantly from 12.54% in June 2016 to 0.72% in September 2016. Total Risk Weighted Assets decreased from ₦21.480 trillion as at June 2016 to ₦19.506 trillion as at September 2016.Total Qualifying Capital increased by 20.10%, from ₦3.17 trillion in June 2016 to ₦3.80 trillion in September 2016. Adjusted Capital Ratio also increased from 17.26.0% as at June, 2016 to 20.09% as at September 2016.

However, two (2) banks have capital adequacy ratio less than the prescribed 10% and 15%, respectively, for both National and International Banks as at September 2016.Table 5 and Chart 5 depict the capital adequacy position of the industry for the periods under review.

TABLE 5

Indicators of Insured DMBs' Capital Adequacy Position

For June and September 2016

Capital Adequacy Indicator	Period	
	September 2016	June 2016
Capital to Risk weighted Assets Ratio (%)	19.49	14.74
Capital to Total Asset Ratio (%)	0.72	12.54
Adjusted Capital Ratio (%)	20.09	17.26
Banks with Capital Adequacy ratio less than 10% and 15%	2	3

Chart 5: Insured DMB's Capital Adequacy as at June and September 2016
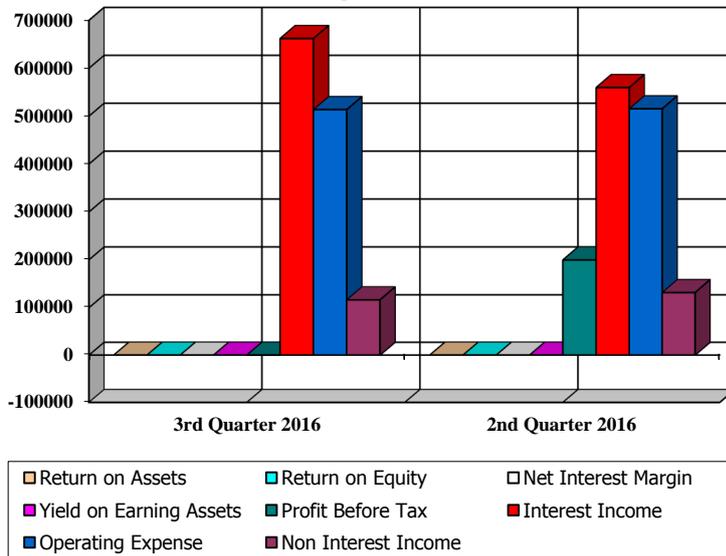
4.0   CONCLUSION

The banking industry witnessed both positive and negative changes in financial parameters during the quarter under review in contrast to the previous quarter. Total Assets increased marginally by ₦0.207 trillion from ₦29.985 trillion in June 2016 to ₦30.192 trillion at the end of September 2016. Shareholders' Funds also increased marginally by ₦0.007 trillion from ₦3.722 trillion in June 2016 to ₦3.766 trillion at the end of September 2016. The banking industry Capital Adequacy Ratio (CAR) stood at 14.98% which was more than the regulatory threshold of 10.00%. However, there was a significant decline in the industry's major earnings components like profit before tax, return on assets, and return on equity. The negative indices can be mainly attributed to current recession in the country and unfavorable macro-economic indices in the general economy.

ADOPTION OF INTEGRATED PROTECTION SCHEME (IPS) IN NIGERIA: ISSUES AND CHALLENGES
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Abstract

The study discusses the issues and challenges associated with the adoption of Integrated Protection Scheme (IPS) in Nigeria. Some of the issues that need to be considered when designing an IPS as found in the literature include: operational independence, limits and scope of coverage as well as funding plan in addition to other design features that apply to the Bank Deposit Insurance System (DIS). The study also examined some of the potential challenges IPS will face if adopted in Nigeria. The challenges include, among others: cumbersome procedures of failure resolution and reimbursement of depositors; increased moral hazard; ineffective supervision of participating institutions arising from large industry; inadequate legal and regulatory framework; challenges related with asset disposal; risk of cross subsidization; and determination of appropriate coverage level. Notwithstanding the challenges, the study found that there are prospects which include: Existence of Financial Services Regulation Coordinating Committee (FSRCC); Existence of Separate Deposit Insurance Funds for various categories of banks; Deployment of Consolidated Supervision; Target Fund Ratio Framework; and Amendment of the NDIC Act 2006. The prospects are indeed overwhelming and could make a good case for the adoption of IPS in Nigeria. The authors also reviewed the practices in some jurisdictions such as the United Kingdom, Malaysia and Korea where IPS is practiced, in order to buttress the points made in terms of the issues and challenges associated with the adoption of IPS. The review reveals that the issues in the countries were similar except for few differences in terms of institutions and products covered by the IPS. The study concluded with the recommendation that the Nigerian government should consider the adoption of IPS in the country because of its importance and the absence of effective compensation systems in the other markets (insurance and capital market). The adoption could be in phases as done in Malaysia where at the moment only banking and insurance products are covered by the IPS.

1.0   INTRODUCTION

A Deposit Insurance System (DIS) is a financial guarantee given to depositors in the event of bank failures. The system had been in existence since 1930s and witnessed rapid growth particularly in the 21st century. The formation of an association, the International Association of Deposit Insurers (IADI) in 2002 had in no small measure propagated the importance of the system and facilitated its introduction in a number of countries. The 2009 global financial crisis clearly underscores the need for an effective DIS to be part of a country's financial safety-net arrangement. The crisis also brought out clearly the need

for the protection of customers in the insurance and securities market as is currently obtainable in the banking system. Little wonder that a good number of countries that hitherto had no deposit insurance in their financial system, either established one or are in the process of setting it up. Indeed, even the existing DIS had course to review some of their design features as well as introduce the integrated protection system by extending the insurance coverage to insurance policyholders and securities for effectiveness.

From its inception, the DIS had always given protection to depositors of deposit-taking financial institutions. That in no small measure helped in boosting confidence and ensuring the stability of the banking system. The 2009 global financial crisis had however brought to the fore the fact that it is not only depositors of banks that needed protection but also customers in the insurance and capital markets. It is a well-known fact that during the 2009 global financial crisis, customers in the capital market suffered colossal losses in the market and for which they enjoyed no protection. That indeed brought out clearly the need to strengthen the financial safety-net arrangement by way of expanding the roles of the existing DIS to include extending coverage and protection to customers in the insurance and capital markets. In realization of this, some countries such as Malaysia, Turkey, Korea, United Kingdom and India, among others, have expanded their DIS by extending coverage and protection to customers in the capital and insurance markets. This situation is generally referred to as Integrated Protection Scheme (IPS).

In Nigeria, the DIS was designed to give protection to only depositors in the banking sector. That was because, over the years, the banking sector played a dominant role in the country's financial system and witnessed series of crises including failures, which led to the loss of funds by a number of depositors without any form of protection. However, the 2009 global financial crisis, not only affected the banking sector in the country but also other sectors such as the capital market and insurance industry. Indeed, the effects from the capital market crisis spread to other sectors of the economy including the banking sector, whose stocks dominated the market. The losses from the capital market crisis ran into billions of Naira with the stakeholders watching the situation helplessly as no form of protection was designed for investors in the market, as is currently the practice in Korea,

Malaysia, Turkey and United Kingdom. It is therefore intended in this paper to examine the various issues involved in the adoption of IPS in Nigeria.

To achieve the above objectives, the paper is divided into sections. Section 2 reviews the conceptual issues in IPS. Section 3 looks at IPS as practiced in other jurisdictions. Section 4 discusses the structure of the Nigerian financial system. Section 5 presents the existing compensation schemes in Nigeria while section 6 examines the challenges and prospects of adopting IPS in Nigeria. Section 7 concludes the paper and proffered some recommendations.

2.0   CONCEPTUAL ISSUES IN INTEGRATED PROTECTION SCHEME (IPS)

2.1   What is Integrated Protection Scheme?

The IADI defined Integrated Protection Scheme as follows:

> "Integrated Protection Scheme (IPS) is a system where a single agency, usually a pre-existing deposit insurer, provides guarantee or protection to investors in securities firms (Investor Compensation Scheme: ICS) and/or policyholders of insurance companies (Insurance Guarantee Scheme: IGS) in addition to depositors in deposit-taking financial institutions (Deposit Insurance Scheme: DIS) for the loss of insured funds or unsatisfied claims in the event of a member institution's failure. This definition excludes any other types of protection schemes apart from the DIS, ICS and IGS" (IADI, 2014).

IPS can assume different forms depending on the nature of its administrative structure. There are those that are administered by government agencies such as the central bank, financial regulator or other government agencies saddled with that responsibility. Countries like Belgium, Sweden, Australia and Quebec (Canada) have their IPS administered by government agency. The second type of IPS is that administered by Bankers' Association. Germany is one country where the IPS is administered by the Bankers' Association (IADI, 2014). Another type of IPS is where the agency administrating it is a private organization. One country with such an arrangement is Switzerland where the DIS is called Deposit Protection of Swiss Banks and Securities Dealers. Membership is compulsory for all banks

and securities dealers that are regulated by the Swiss Financial Market Supervisory Authority (FINMA). Another situation is where the agency is a separate and independent public organization. Countries such as Korea, Malaysia, Singapore, United Kingdom and France have this type of arrangements for their IPS.

2.2   Design Features of IPS

The basic features of a typical IPS are not entirely different from those of the DIS. The only difference is that in the case of IPS, the scope in terms of institutions and products is expanded to bring in institutions and products that are nonbanking so that their customers can enjoy some protection, all in an effort to engender confidence within the entire financial system. Also, funding in terms of premium assessment as well as fund management would slightly differ under the IPS. Some of the design features of an IPS include:

2.2.1 Membership

Unlike what obtains under the bank DIS where membership is limited to banks and other deposit-taking financial institutions, IPS has its membership to include, banks and other deposit-taking financial institutions, insurance companies, securities companies and pension fund administrators. Similar to DIS, membership of IPS could be either compulsory or voluntary, depending on the arrangement particularly as it relates to the ownership of the scheme and the mandate of the system. However, best practice as represented by Principle 8 of IADI Core Principles dictates that "membership of deposit insurance system should be compulsory for all financial institutions accepting deposits from those deemed most in need of protection to avoid adverse selection" (IADI, 2009). Once the membership is compulsory, it should be automatic but on the condition that a participating institution is licensed by the licensing authority (e.g. CBN, NAICOM, SEC, PENCOM etc.).

2.2.2 Coverage Limit and Scope

Coverage under the IPS should equally be seen in terms of scope and the maximum insurance limits as in DIS. The scope has to do with the types of products covered. Under

DIS, the scope of coverage is limited to only deposits[1]. The scope of coverage under the IPS goes beyond what obtains under the DIS to include investment products that are related to the trading of securities, insurance policyholders and any other product deemed fit to be covered by the new system. The scope of IPS differs among countries depending on sectors covered by the scheme.

In terms of coverage limit, it has to do with the maximum amount covered. This could either be uniform coverage across all sectors of institutions covered or it could be different among the sectors. It all depends on the choice of a country, which is often informed by the mandate of the IPS as well as the structure of the country's financial system. Practices in jurisdictions with IPS indicate that majority of them have varying limits for depositors, investors and insurance policyholders (IADI, 2014). In most jurisdictions with varying coverage limits for IPS, they often set the limits for investors below that of depositors and that of insurance policyholders higher than that of depositors (IADI, 2014).

2.2.3 Funding of IPS

Adequate Funding is very critical to the effectiveness and efficiency of any financial protection system, be it DIS or IPS. Just like the case of DIS, funding under the IPS is seen in two fold, namely: the funding method and back-up funding arrangement. The methods for generating funds under the IPS are either ex-ante, ex-post or hybrid. Ex-ante funding method seems to be more popular and apparently the most preferred form of funding. Available information in the literature indicates that countries with IPS such as Korea, Malaysia, Singapore, Sweden, Germany, etc. raise funds through the ex-ante method (IADI, 2014). Furthermore, arising from the experiences with the 2009 global financial crisis there has been shift from ex-post to ex-ante method of funding because of its effectiveness in making funds available for compensation.

The funds are contributed by participating institutions through premium assessment. The method of assessment is either flat-rate or risk-based. There are reasons for the choice of

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[1] Deposits here refers to core deposits such as savings, demand and term/fixed and any other forms of product approved by the deposit insurer.

an assessment method. Financial compensation agencies adopt flat rate assessment method usually at the take-off stage to enable them build the reserve funds as rapidly as possible. A good number of agencies transit to risk-based assessment method after building sufficient funds. The risk-based assessment method[2] is adopted by countries such as Malaysia, Germany, Singapore and Korea as a tool for promoting sound risk management and curbing moral hazard in the participating institutions (IADI, 2014).

In terms of funds management, a good number of countries with IPS prefer maintaining the funds separately for each category of insured institutions. Whereas some jurisdictions such as Korea and United Kingdom prohibit cross-subsidization or borrowing between fund, other countries like Malaysia, Germany, Greece, Serbia and Singapore, etc. allow for cross-subsidization between the separate funds (IADI, 2014).

Back-up funding arrangement is very important to IPS and that explains why a good number of countries with IPS have back-up funding arrangements in place in case of a shortage of funds to meet their obligations. For instance, Australia, Sweden, Malaysia, Korea, Austria and Singapore have the authority to borrow from their governments as back-up to their funds (IADI ,2014). Furthermore, countries such as Austria, Germany, Greece, Korea and Malaysia permit IPS to raise funds through the capital market. In the same vein, countries such as France, Greece and Singapore allow IPS to charge additional premium on insured financial institutions to bridge their funding gaps.

2.2.4 Resolution Powers of IPS
The IPS practiced in some jurisdictions also have resolution powers, depending on their mandates. Those with pay-box mandate have responsibility for only reimbursement of depositors in the event of a financial institution's failure. Countries such as Australia, Austria, Belgium, Germany, Greece, Singapore, Sweden, Serbia, etc. have pay-box as their mandate and therefore had no resolution powers. IPS with extended mandate include United Kingdom, Liechtenstein and those with risk-minimizer mandate such as Korea,

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[2] Risk based assessment is a robust, proactive and sophisticated (qualitative and quantitative way) process based on risk profiling of an institution.

Malaysia, Quebec (Canada), etc. have resolution powers. While others such as Korea and Malaysia have resolution powers that include risk monitoring, asset disposition, recovery of funds through receivership management and conducting investigations against failed financial institutions (IADI, 2014).

2.3   Other Issues to Consider When Designing an IPS for a Country

It is pertinent to consider some other factors when designing an IPS. A typical IPS should be designed in such a way that it takes into account a country's peculiarities and in particular it's financial system (IADI, 2014). It is therefore against these backdrops that the following issues should be considered when designing an IPS:

2.3.1 Operational Independence

For an IPS to be effective, it should be operationally independent. This is critical because where IPS is operated under a central bank or supervisory agency, the tendency is for it to experience conflict of interest between the mandate of consumer protection and that of supervision. When that happens, it would be highly likely for the consumer protection mandate to suffer neglect at the expense of supervision.

2.3.2 Limit and Scope of Coverage

The issues to consider here have to do with taking into account the characteristics of each financial sector covered by the IPS. For instance, the coverage limit for DIS should be high enough to provide protection to a large number of depositors and prevent runs on the financial institutions but low enough to impose market discipline and curb moral hazard. In other words, the limit should be fixed at a level, which should ensure that all small depositors, investors and/or policyholders are protected, but only a certain percentage of the total value of deposits, investments and/or type of policies is covered. The scope of coverage should not result in arbitrage between sectors or hamper their development. Determining the eligibility for protection would not be difficult for deposit products, but there may be differing views on the eligibility of certain types of investment products and insurance policies (IADI 2014).

2.3.3 Funding Plan

It is very critical to have a plan for sourcing funds for the IPS. This becomes necessary particularly during emergencies. In this regard, funding issues such as premium base, rates, potential liabilities and target fund size should be considered when designing IPS for a country. Furthermore, the issue of separate funds versus merged funds should be taken into account. It is recommended that, the funds for each sector should be separated (IADI 2014). The funding plan should also spell out other back-up funding sources such as borrowing from government, capital market and special levy on participating institutions.

2.3.4 Resolution Mandate

Depending on the mandate of the IPS, some have resolution powers. For IPS to have effective resolution regime, there is the need to consider its mandate and powers in the area of failure resolution right from the design stage. It would also require taking into account the legal framework as well as relationship with other safety-net players in the financial system.

2.4   Possible Benefits and Disadvantages of IPS

In a research done by IADI Research and Guidance Committee in 2014, the following had been identified as the likely benefits and drawbacks of IPS:

2.4.1 Benefits of IPS:

i)   Operational Efficiency

The experience and knowledge gathered through the handling of institutions from different sub-sectors of the financial sector by staff from a single agency would be greater than when multiple agencies are involved. That makes the operations of both the staff and the agency more efficient.

ii)   Greater Awareness

There seem to be more awareness about integrated schemes than multiple protection schemes in existence. In fact the existence of multiple protection schemes can create confusion amongst consumers such that in the event of failure of institutions, there will be confusion with regards to which scheme to immediately approach for compensation.

iii)   Ease of Coordination between Protection Agency and Regulator

The existence of an Integrated Protection Agency makes it easier to relate with a single Supervisor/Regulator in the cause of discharging their responsibilities since each one of them has defined mandate and powers specified in the enabling laws. In situations where multiple protection schemes and supervisors exist, it gives room for turf wars in trying to decide on a policy for the overall industry, which can result into inefficiency.

iv)   Effective Monitoring of Risk Levels and Handling of Failures

The IPS is in a better position to monitor risks in participating institutions as well as resolve failures particularly those involving financial conglomerates (IADI 2014). Furthermore, IPS could more effectively attend to consumers with different or multiple claims due to one-stop service provided. Consumers only need to know of one body to contact for reimbursements or other required assistance.

v)   Cost Efficiency

A situation where one agency can attend to consumers from different subsectors of the financial system reduces duplication of efforts and ensures economies of scale and scope.

2.4.2 Drawbacks of IPS:

i)   Governance

If the Board of the IPS draws membership from the various sectors that make-up the agency, there is the tendency for decision-making process to be slow as consensus among members would be difficult to achieve.

ii)   Risk of Cross-Subsidization

There is the risk of cross-subsidization and unequal treatment between the different sectors if one particular sector continues to have problems and is not segregated.

iii)   Disposal of Assets of Failed Institution

A sector-specific scheme may sell or transfer the assets of a failed institution more rapidly because it has better knowledge of potential buyers in the industry.

3.0   EXPERIENCES OF OTHER COUNTRIES PRACTICING IPS

This section reviews the public policy objectives, governance structure, mandate and powers, membership and scope of coverage, funding arrangement and premium assessment methods in three (3) jurisdictions namely: United Kingdom, Malaysia and South Korea.

3.1   United Kingdom (UK)

The United Kingdom's financial system is large and well developed. It consist of the London Stock Exchange, the London International Financial Futures and Options Exchange, the London Metal Exchange, Lloyds of London, and the Bank of England. The financial sector is divided into bank and non-bank financial sectors. Bank financial sector includes: investment banks, international banks, major domestic banks and many "rest of the world banks"; providing trades in securities and corporate finance while the non-bank financial sectors include: unit trust, life insurance companies, pension funds and hedge funds companies. The UK's approach to financial regulation involves several bodies, each with its own responsibilities and objectives. They include: Prudential Regulation Authority (PRA), Bank of England, Financial Policy Committee, the Financial Conduct Authority (FCA) and the Treasury.

The Financial Services Compensation Scheme (FSCS) became operational under the Financial Services Market (FSM) Act 2000 as an independent government legislated and administered body in 2001. It was established to be the UK's compensation fund of last resort, set to cover businesses conducted by firms authorized by the Financial Conduct Authority (FCA) and Prudential Regulation Authority (PRA), the independent watchdogs set up by government to regulate financial services and protect the rights of consumers. The

FSCS compensates persons in cases where authorised institutions and appointed representatives are unable, or are likely to be unable to satisfy claims against them. Below are some of the design features of the IPS in the United Kingdom (UK):

a)   Public Policy Objectives

The FSCS was established with the following objectives:

i)   To maintain market confidence.

ii)   To promote public awareness on financial services.

iii)   To protect customers; and

iv)   To reduce financial crimes.

b)   Governance Structure

The FSCS is an independent deposit insurance agency, governed by a board of directors. Under the Financial Services & Markets Act 2000 (FSMA), the FCA and PRA appoint the Directors on terms which ensure they run the Scheme independently of the UK regulators. The Chairman's appointment (and removal) is subject to Treasury approval.

c)   Mandate and Powers

The FSCS covers businesses conducted by firms that are authorised by the FCA or PRA. The FSCS is authorised to compensate consumers in the event of the failure of any firm authorised by the FCA or PRA, which covers insurance companies, deposit-takers, investment firms, home finance mediation firms and general insurance mediation firms. The FSCS functions as a pay-box.

d)   Membership, Scope and Coverage Limit

The FSCS was set up mainly to assist private individuals (although smaller businesses are also covered). Larger businesses are generally excluded, although there are some exceptions to this for deposits and insurance claims. The FSCS protects bank deposits, insurance policies, insurance broking (including connected travel insurance where the

policy is sold alongside a holiday or other related travel), investment business, and home finance.

To become a participant firm under the FSCS, an application for permission to carry out regulated activities as specified in the "Related Activities Order", must first be granted by the PRA. Firms seeking to carry on regulated activities other than those set out in the Related Activities Order must apply to the FCA. Only authorised persons may transact in any one or more of the regulated activities. In addition to authorised persons permitted to carry out regulated activities, membership to the scheme is also open to incoming European Economic Area (EEA) firms, Investment Companies with Variable Capital (ICVC) and the Society of Lloyd's (insurance), among others.

The FSCS does not define deposits as per the product type. A protected deposit would be defined as a deposit that will be repaid, with or without interest or a premium, and either on demand or in circumstances agreed by or on behalf of the person making the payment and the person receiving it. The FSCS would therefore cover savings accounts, current accounts, foreign currency deposits, money orders and annuity contracts. It would not cover travelers' checks, inter-bank deposits (as deposits by financial institutions are not eligible for FSCS protection).

There is no upper limit on the amount of protection for claims on insurance business, however, there are maximum levels of compensation for bank deposits (£75,000); investments (£50,000); and home finance (£50,000) per person per authorised institution. In July 2015, the FSCS commenced with the provision of a £1 million protection limit for temporary high balances[3] held with any bank, building society or credit union that fails. The cover for temporary high balances is only available to individuals and not to companies. A depositor with a temporary high balance may be entitled to receive additional compensation from the FSCS of up to £1 million per life event[4], with unlimited cover for personal injury claims (FSCS, 2016).

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[3] Temporary high balances are the result of specified major life events that lead to a large amount of money being held in a person's account for up to six months.

e)   Funding Arrangement

The FSCS uses a combination of ex-post and ex-ante funding methods. Also at its discretion, the FSCS may impose two types of levies for its management expenses and compensation costs.

i)   The management expenses levy is made up of base costs (operating costs not directly related to the payment of compensation) and specific costs (operating costs that are directly related to the payment of compensation arising from claims). All participating firms are required to contribute towards the base costs of running the FSCS annually. The amount paid by each participant towards the base cost levy is calculated by reference to the regulatory cost paid by the firm.

ii)   The compensation costs levy provides the funds to make valid compensation payments. The compensation costs levy is made up of the compensation costs which the FSCS has incurred and has not yet recovered from participating firms, together with those compensation costs it expects to incur over the 12 months following the date of the levy.

It is worth noting that specific costs and compensation costs are not payable by FSCS exempt firms or newly authorised firms in their first year. Also, firms that have submitted valid exemptions are excluded from specific and compensation costs, but are still liable for their share of base cost levies.

To arrive at the FSCS base costs levy, the total base costs for running the FSCS during a year, and the total regulatory costs of the FSCS participants for each contributing group within both FCA and PRA is required. The total amount FSCS is to raise, and a tariff data

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[4] Proceeds resulting from the following life events are categorized as temporary high balances: Sums paid to the depositor in respect of real estate transactions (property purchase, sale proceeds, equity release); benefits payable under an insurance policy; personal injury compensation (unlimited amount); disability or incapacity (state benefits); claim for compensation for wrongful conviction; claim for compensation for unfair dismissal; redundancy (voluntary or compulsory); marriage or civil partnership; divorce or dissolution of their civil partnership; benefits payable on retirement; benefits payable on death; a claim for compensation in respect of a person's death; inheritance; proceeds of a deceased's estate held by their Personal Representative.

for each class is generated for the year. A Flat Rate that is linked to the size of the deposit base reported to the FSCS tariff data is levied on authorised institutions on a pro-rata basis as at 31 December each year.

f)   Methods Available for Bank Resolution

The FSCS has the options of Bridge Bank and Other Interim Solution for bank failure resolution. It may also transfer the assets of problematic authorised institutions to private sector purchasers or temporary public ownership.

3.2   Malaysia

The Malaysian financial system consist of: financial institutions, the financial market and the regulators/supervisors of the financial system. The financial institutions comprises the banking system and non-bank financial intermediaries. The financial market comprises four (4) major markets, namely: money and foreign exchange, capital, derivatives and offshore financial services.

The Central Bank of Malaysia, also known as Bank Negara Malaysia (BNM), was established on 26th January, 1959, under the Central Bank of Malaya Ordinance of 1958. BNM also regulates entities that carry on insurance business, insurance broking, adjusting and financial advisory. In order to ensure effective oversight over the financial system, BNM cooperates with other supervisory authorities. A memorandum of understanding (MoU) with the Securities Commission expands the scope of cooperation in line with the expanded roles and mandates of both agencies. The Securities Commission is statutorily responsible for regulating and systematically developing Malaysia's capital markets. It has direct responsibility of supervising and monitoring the activities of market institutions and regulating all persons licensed under the Securities Industry Act of 1983 and Futures Industry Act of 1993.

The BNM's cooperation with the deposit insurance agency under a Strategic Alliance Agreement (SAA) has clearly defined roles and responsibilities for both institutions in the event of resolving insured financial institutions. The Malaysia Deposit Insurance

Corporation (MDIC), also known as Perbadanan Insurans Deposit Malaysia (PIDM), was established under the MDIC Act 2005. Its main purpose is to manage the national deposit insurance system in Malaysia. It operates as a statutory body which protects depositors against loss of part or all deposits in case of failure of a member institution by providing deposit insurance along with giving protection for Takaful and Insurance Benefits system. Below are some of the design features of the IPS in Malaysia:

a)   Public Policy Objectives

PIDM was established with the following objectives:

i)   To administer deposit insurance/takaful/life benefits protection.

ii)   To insure against loss of part or all of deposits or takaful or insurance benefits for which a deposit taking or insurer member is liable.

iii)   To provide incentives for sound risk management in the financial system, and

iv)   To promote the stability of the financial system.

b)   Governance Structure

The Board of MDIC consists of a Chairman, the Governor of BNM, the Secretary General of the Treasury, two directors (one of which must be drafted from the public sector while the other is only required to have some experience in the public sector), and four (4) other directors (with relevant private sector experience and at least one (1) of whom shall have relevant banking and financial sector experience).

c)   Mandate and Powers

PIDM is charged with the responsibility of resolving banks deemed unviable by BNM and empowered to recapitalize institutions, conducting non-performing loan carve-outs, undertake purchase and assumption agreements, liquidate financial insured institutions and make payouts to insured depositors. PIDM functions as a loss minimizer with its enabling Act empowering it to:

i)   Acquire assets from member institutions;

ii)   Provide unsecured loans to member institutions;

iii)   Acquire and dispose of shares of member institutions;

iv)   Make deposits with member institutions;

v)   Guarantee or assume all or part of the liability of deposit taking and (takaful or insurance benefit) insurer members;

vi)   Hold, dispose or sell assets acquired from member institutions; and

vii)   Borrow or raise funds as the Corporation deems fit.

d)   Membership, Scope and Coverage Limit

Membership is compulsory for all financial institutions licensed under the Banking and Financial Institutions Act 1989 or the Islamic Banking Act 1983. In other words, all commercial and Islamic banks in Malaysia are covered under the deposit insurance system. Also, all Life & General Insurance Companies as well as Family & General Takaful operators are also covered under the insurance compensation system. Investment banks, reinsurers and financial guarantee insurers are excluded from coverage under the deposit insurance system. In addition to that, the MDIC Act allows the Minister of Finance to prescribe any Development Finance Institution (DFI) or other corporations that are regulated and supervised by BNM on its recommendation or that of PIDM by a published gazette.

PIDM protects principal guaranteed conventional structured products made against Islamic deposit accounts; Mudharabah investment deposits, trusts accounts and insurance policies through bank drafts, cheques, other payment instructions or instruments. PIDM also covers inter-bank deposits, foreign currency deposits, savings accounts, current or demand deposits, and fixed deposits. It does not protect money market deposits, conventional structured products that are not principal-guaranteed, negotiable instruments of deposit, repurchasing agreements, unit trusts, stocks, shares, gold-related investment products/accounts, and deposits not payable in Malaysia.

All types of depositors (whether businesses or individuals) are protected. The maximum limit of coverage is RM250, 000 per depositor per member bank (as at January 2016). The maximum protection limits for takaful and insurance benefits are set out in Tables 1 and 2 in the Appendix.

e)   Funding Arrangement

PIDM is funded by a mixture of ex-ante annual premium contributions and ex-post levies. There are six separate ex-ante funds that are maintained and administered by PIDM for various purposes as follows: Islamic deposit insurance fund in respect of Islamic deposits; Conventional deposit insurance fund in respect of conventional deposits; Family solidarity takaful protection fund in respect of family solidarity takaful certificates; general takaful protection fund in respect of general takaful certificates; Life insurance protection fund in respect of life policies; and a general insurance protection fund in respect of general policies. PIDM may also impose ex-post levies on insured institutions and borrow from the BNM to fund unexpected losses and to rebuild insurance funds when necessary.

A risk-adjusted differential rate is used in calculating the insurance premiums paid by insured institutions. Premiums for life and general insurance are assessed based on the category that an insured institution falls into. There are four ratings, ranging from one (highest score) to four (lowest score) as illustrated in Table 3 in the Appendix. Member institutions pay a flat sector specific assessment base rate of 0.06% of "Actuarial Valuation Liabilities" for life insurance and 0.25% of "Total Net Premiums Received" for general insurance.

f)   Methods Available for Bank Resolution

PIDM has the authority to resolve failed financial institutions. It has the options of Purchase and Assumption (P&A); Open Bank Assistance; Bridge Bank and Other Interim Solutions such as Financial Assistance, Asset Carve-Out, Merger and Acquisition (M&A), Restructuring, Agency Agreement, Assumption of Control, as failure resolution options.

3.3   South Korea

The financial structure in Korea may be divided into six (6) categories, namely: banking institutions (including commercial and specialized banks); non-bank depository institutions (including merchant banking corporations, mutual savings banks, credit institutions etc.);

insurance institutions; securities related companies (including asset management and futures companies), other financial institutions (including credit specialized and venture capital companies), and financial auxiliary institutions (including the institutions under the Financial Supervisory Commission i.e. Bank of Korea, Korea Deposit Insurance Corporation (KDIC) and Korea Asset Management Corporation (KAMCO).

The Financial Supervisory Service (FSS) was established on January 2, 1999, as Korea's fully integrated supervisory authority under the 1997 Act on the Establishment of Financial Supervisory Organizations (the "Establishment Act"). It has statutory mandate to draft and amend financial laws and regulations; supervise, inspect and sanction financial institutions; issue regulatory licenses and approval to financial institutions; oversee capital markets; and supervise foreign exchange transactions conducted by financial institutions to ensure their financial soundness. Prior to the creation of the FSS, financial supervision was carried out by four separate sector-based authorities with the finance ministry exercising significant overarching powers.

The Korea Deposit Insurance Corporation (KDIC) was established in 1996 through the Depositor Protection Act (DPA) No. 5042 (now repealed and replaced by Act No. 10854 of 2011). It started as a protector of bank depositors only, while there were separate funds for non-bank financial sectors. The DPA was revised in 1997, and accordingly, separate deposit insurance funds were consolidated into the KDIC's Deposit Insurance Fund in April 1998. Not only deposits of banks but also those held by securities companies, insurance companies, merchant banks, mutual savings banks, and credit unions (excluded from the coverage since 2004) became eligible for protection.

A MoU on information sharing and joint examination among the Bank of Korea, the Ministry of Strategy and Finance, FSS, and KDIC is in place to widen the range of information shared between the entities and increase cooperation to promptly execute joint examinations for emergency cases. Below are some of the design features of the IPS in Korea.

a)   Public Policy Objectives

KDIC was established with the following objectives:

i)   To provide for depositor protection through the management and operation of deposit insurance and redemption funds;

ii)   To collect insurance premiums and special contributions for the redemption of deposit insurance fund bonds;

iii) To payout insurance monies; and

iv)   To resolve insolvent financial institutions.

b)   Governance Structure

The highest executive body of the KDIC is its Board of Directors, which constitutes the President, Vice President, not more than four internal Executive Directors, and one Auditor. The term of office of the President, the vice President, the Directors and the Auditor is limited to three years, and they may be reappointed. The terms and conditions of service governing the operations of the Board of Directors, the Executive Management and all other officers and employees of the Corporation and any other person(s) whose services may have been employed, are clearly stated in its enabling Act.

c)   Mandate and Powers

The KDIC was established as a risk-minimiser and given a wide range of powers to minimise its exposure to losses, including risk assessment, joint examinations of high risk (insolvency-threatened) institutions, on-site inspection and investigation of failed financial institutions and failure resolution.

d)   Membership, Scope and Coverage Limit

Membership is mandatory and the type of institutions covered by the KDIC include banks (savings, commercial and merchant), foreign bank branches, insurance companies (life insurers and non-life insurers), and securities companies. Credit unions were excluded from coverage in January 2004.

The types of products covered include traveler's cheques, savings account deposits, foreign currency deposits, certified drafts of cheques, current account deposits, and annuity contracts. Money in defined contribution plans or individual retirement accounts are eligible for deposit insurance. Cash balance of customer accounts that was not used to purchase securities, Insurance contracts subscribed by individuals (excluding the main contract of a variable insurance contract), notes payable, issued notes, Cash Management Accounts (CMA) in Merchant Banks and Merchant-Banking CMAs in securities firms that were merged with Merchant Banks are protected. However, variable annuity contracts and Inter-bank deposits (deposits made by an insured financial institution) are not protected while money deposited by an uninsured financial institution is protected. Certified drafts of cheque (If issued against a personal cheque) are also not protected. As at January 2016, the maximum coverage level of the KDIC was KRW 50 million per depositor per member institution (KDIC, 2016).

e)   Funding Arrangement

The KDIC started with separate funds, one for the banks and another for the non-bank financial institutions. The DPA was revised at the end of 1997 and accordingly, the separate deposit insurance funds were consolidated into the KDIC's ex-ante Deposit Insurance Fund in April 1998. This created a single, comprehensive and integrated deposit insurance system designed to enhance financial stability and to ensure public confidence in the financial system. KDIC's enabling Act allows it to raise funds through: Contributions from insured financial institutions; Contributions from the government; Funds created from the issuance of deposit insurance fund bonds; State property granted by the government to the Corporation; Special assessments; Funds recovered from financial assistance provided for the resolution of failed financial institutions and Borrowings from the government, Bank of Korea, insured financial institutions and other agencies designated by the Presidential Decree.

A Target Fund System[5] with a rate that may fluctuate depending on the total deposits of the financial sector was also introduced as shown in Table 4 in the Appendix. The

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[5] Target fund ratio refers to the size of the ex-ante deposit insurance fund, typically measured as a proportion of the assessment base (e.g. total or insured deposits), sufficient to meet the expected future obligations and cover the operational and related costs of the deposit insurer, (IADI, 2014 Target Fund is used to bridge the gap between the NDIC's total risk exposure to the banks and the Insurance Funds.

Corporation also commenced the implementation of a differential premium assessment system in 2014. The premium rates are determined on the basis of the average annual balance of deposits in each sector ranging as follows: 0.08% for deposit banks, 0.15% for investment companies, insurance companies and merchant banks, and 0.35% for mutual savings banks including add-ons on the various bases (IADI, 2011).

f)   Methods Available for Bank Resolution

The KDIC has the authority to resolve failed financial institutions under the Special Act on the Management of Public Funds and the Depositor Protection Act as well as the Act on the Structural Improvement of the Financial Industry. The KDIC may choose from a variety of methods including liquidation, deposit payoffs, financial assistance via equity participation, contribution for acquisition of insolvent institutions, P&As and M&As as failure resolution options.

4.0   STRUCTURE OF THE NIGERIAN FINANCIAL SYSTEM

According to Darškuvienė (2010), financial system plays a key role of stimulating economic growth, influencing economic performance and affecting economic welfare. This is achieved by providing financial infrastructure, in which entities with funds allocate those funds to those who have potentially more productive ways to invest those funds. The Nigerian financial system consists of three (3) components: financial market; financial Intermediaries (institutions); financial regulators/supervisors.

4.1   Financial Market

The Nigerian financial market consist of the money market, capital market, insurance market and pension sector. The **money market** in Nigeria provides short-term trade in money, as in the sale and purchase of bonds and certificates. Money market instruments are low risk, highly liquid, short-term (one year or less) debt instruments. Some of the products of money market in Nigeria include: foreign exchange, deposits (savings, demand and time), interbank lending between DMBs, treasury bills, commercial papers, bankers' acceptances, certificates of deposits, overnight deposits, mutual funds, and all sorts of secured and unsecured cash transactions made with deposit-taking institutions.

The **capital market** consists of financial institutions that deal with medium and long-term capital and loans. It is that segment of the financial market that deals with the effective channeling of funds from the surplus to the deficit unit. It provides the platform for the creation and trading of long term (3 to 25 years) financial instruments. Capital market instruments are bought and sold in the primary or secondary markets. Some capital market instruments in Nigeria include: debt instruments like sovereign, state, municipal, and corporate bonds, equities (common stock) and preference shares.

Insurance is the business of providing financial protection for property, life, health, etc., against specified contingencies, such as death, loss, or damage, and involving payment of regular premiums in return for a policy guaranteeing such protection. The **insurance market** consists of the buyers and sellers of insurance and the intermediaries (agents) who bring the two together. Some insurance products in Nigeria cover Life assurance and health, family benefit, personal annuities and pensions, mortgage and protection, motor, home and property, marine, education protection, travel, savings and investments amongst others. Insurance policies are offered in varying types such as comprehensive, third party, theft, fire and other perils.

Pension refers to a fixed amount, other than wages, paid at regular intervals to a person or to the person's surviving dependents in consideration of past services, age, etc. There are three (3) participants involved in the Nigerian pension scheme. They are the contributors, operators and regulators of the scheme. The main **pension sector** instrument offered by the administrators to contributors in Nigeria is the Retirement Savings Account (RSA).

4.2   Financial Intermediaries (Institutions)

Financial services are usually delivered through institutions that participate in the financial markets to make profit for their shareholders. They include: money market intermediaries, capital market intermediaries, insurance market intermediaries and pension sector intermediaries. The intermediaries found in the money market in Nigeria are mainly

licensed deposit-taking institutions. They comprise: Deposit Money Banks (DMBs) such as commercial or merchant banks, Non-Interest Financial Institutions (NIFIs), Microfinance Banks (MFBs) and Primary Mortgage Banks (PMBs).

The Nigerian capital market has Stock Broking Companies (SBCs), Unit Trust Schemes registered with Securities and Exchange Commission (SEC), Venture Capital Companies and Debt Management Company (DMO) as intermediaries. The Nigerian Stock Exchange (NSE) and the Central Securities Clearing System (CSCS) are also infrastructure platform providers that exist to facilitate transactions in the market.

Insurance Companies and the Reinsurance Companies are the sellers of insurance products in Nigeria. The insurance companies are incorporated pursuant to the Companies and Allied Matters (CAMA) Act of 1990. Some companies underwrite life assurance business while others operate as specialist life offices. The reinsurers provide technical security and capacity for the insurance companies and do not supply insurance directly to the consumers but to insurance brokers and agents who act as intermediaries in the market.

The Pension Fund Managers are the operators of the pension scheme in Nigeria. Pension Fund Managers can be categorized into Pension Fund Custodians (PFCs) and Pension Fund Administrators (PFAs). The PFCs are responsible for the collection and safe keep of monthly contributions of workers who are registered under the scheme while the PFAs manage the funds in safe investment opportunities to make returns and pay dividends to the contributors of the fund.

4.3   Financial Regulators/Supervisors

These are institutions set up to monitor the practices of the intermediaries through which financial services are provided in the Nigerian financial system. The following are the regulators/supervisors that operate within the Nigerian financial system:

a)   **Central Bank of Nigeria (CBN)**

CBN is the apex financial regulator/supervisor in Nigeria. Its mandate is contained in the 1958 Act of Parliament, as amended in <u>1991</u>, <u>1993, 1997, 1998, 1999</u> and <u>2007</u>. It is solely responsible for the issuance and revocation of licenses to financial institutions that operate within the money market and is the lender of last resort to the institutions. Its other functions include, the issuance of legal tender currency, promoting price stability through monetary policy, maintaining external reserves to safeguard the international value of the legal tender currency and to act as banker and economic/financial adviser to the Federal Government of Nigeria. The CBN is a key player in the Nigerian financial safety-net arrangement, ensuring a robust, safe and sound financial system. It is a member of the Financial Services Regulation Coordinating Committee (FSRCC)[6].

b)   Securities and Exchange Commission (SEC)

SEC is the apex capital market regulator that is responsible for the regulation and supervision of capital market activities in Nigeria. It was established through decree 71 of 1979. The Investment Act was reviewed, amended and subsequently passed into law in 2007. SEC is responsible for registering all securities proposed for subscription by the public or to be sold in the capital market. It has the responsibility to maintain surveillance over the securities market as well as protect its integrity. Operators under the subsector include: issuing houses, stock brokers, portfolio managers, investment advisers/trustees and finance companies. It is a member of the FSRCC.

Commented [MYU1]:

Commented [MII2R1]:

c)   Nigeria Deposit Insurance Corporation (NDIC)

The NDIC was established by the NDIC Decree No. 22 of 1988 (now replaced with NDIC Act No. 16 of 2006) to insure the deposit liabilities of deposit-taking financial institutions licensed by the CBN. Its enabling Act makes it the sole deposit insurer in Nigeria and also the only institution responsible for the liquidation of failed banks in the system. The NDIC operates as a risk-minimiser to safeguard depositors' funds in licensed deposit-taking financial institutions (DMBs, MFBs and PMBs) through the provision of financial guarantee at times of bank failure and to promote banking stability through bank supervision. Its core

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[6] The FSRCC is a committee of regulators/supervisors within the financial system that provide a platform for deliberation of issues relating to stability and safety of the Nigerian financial system.

mandates include deposit guarantee, bank supervision, failure resolution and liquidation of failed banks in Nigeria. It is one of the safety-net participants and a member of the FSRCC.

d)   National Insurance Commission (NAICOM)

NAICOM was established following the review of the Insurance Special Supervision Fund Decree   No. 62 of 1992, which led to the enactment of NAICOM Decree of 1997 and Insurance Act of 2003 that provided for a change of name from National Insurance Supervisory Board to National Insurance Commission. The review brought out Insurance supervision from the core civil service, transforming the Board into a Commission. The principal objective of NAICOM is to ensure the effective administration, supervision, regulation and control of Insurance business in Nigeria. It is a member of FSRCC.

e)   National Pension Commission (PENCOM)

PENCOM was established in 2004 through the Pension Reform Act No.2 of 2004. The Act was repealed and re-enacted as the Pension Reform Act 2014. PENCOM continues to govern and regulate the administration of the uniform contributory pension scheme for both the public and private sectors in Nigeria. As one of the drivers for financial market development, PENCOM collaborates with SEC to periodically review the status of Corporate Bonds and supports the NSE on the development of new asset classes for listing. PENCOM also collaborates with the Debt Management Office (DMO) to develop and introduce indexed bonds. It also collaborates with the National Insurance Commission (NAICOM) for the development of annuities market. It is a member of the FSRCC.

5.0   COMPENSATION SHEMES IN NIGERIA

This section aims at identifying the compensation schemes that exist to provide protection to the customers of financial services in the event of failure of a financial intermediary in Nigeria.

5.1   Deposit Insurance System (DIS)

The DIS in Nigeria is administered by the NDIC to guarantee the safety of depositors' funds in deposit-taking financial institutions (DMBs, NIFIs, MFBs and PMBs). It manages

Insurance Funds gathered through insurance premium contributions by participating institutions. At NDIC's inception, a flat rate of 15/16 of 1% of total deposits standing in the books of an insured institution as at 31st December was used to compute the insurance premium for DMBs and NIFIs while 8/16 of 1% of total deposits was used to compute the insurance premium for MFBs and PMBs. In order to reduce the insurance premium burden on the DMBs, NDIC introduced Differential Premium Assessment System (DPAS) in 2008. The DPAS approach takes into consideration the risk each bank poses to the system and encourages banks to adopt sound risk management practices. DPAS determines a base premium rate (0.35%) on total deposits for banks in the lowest risk category as at 31 December of the preceding year and places add-ons to the base rate, based on a bank's individual risk profile (up to a maximum of 0.3%). The maximum DPAS rate is 0.65% on total deposit (as at July, 2016).

Depositor's funds in DMBs and PMBs are insured up to a maximum coverage level of ₦500,000 whereas in MFBs, it is a maximum of ₦200,000 per depositor per institution. Funds in insurance companies, thrifts and cooperatives are not insured by the NDIC because they are not deposits per se. Since its inception in 1989, the NDIC had successfully liquidated several failed DMBs, MFBs and PMBs and settled the insured claims of the depositors in the affected institutions. The insurance fund managed by the NDIC are in three (3) categories, namely: the Deposit Insurance Fund (DIF) for the DMBs, the Special Insured Institutions Fund (SIIF) for the MFBs and PMBs and the Non-Interest Deposit Insurance Fund (NIDIF) for the non-interest banks.

5.2 Investor Protection Funds

There are two (2) Investment Protection Funds in Nigeria. One fund is managed by SEC and the other by Nigeria Stock Exchange (NSE). The difference between the two funds is that the fund managed by SEC covers both investors and operators in the capital market while the fund managed by NSE protects only traders on the Stock Exchange.

5.2.1 National Investor Protection Fund Managed by SEC

SEC has a compensation scheme known as the National Investor Protection Fund. It is governed by the Investments and Securities Act of 2007. The SEC Act of 2007 stipulates that it maintain a fund for compensating investors who suffer financial loss due to insolvency, bankruptcy or negligence of a dealing member firm and/or defalcation committed by a dealing member firm or any of its representatives in relation to securities, money or any property entrusted to, or received, or deemed received by the dealing member firm in the course of its business as a capital market operator.

The funding sources include: grants, subventions and donations from government to the Commission; annual contributions, special levies, penalties and fees paid by the capital market operators; assets, properties or cash realized from liquidated operators after compensation to investors; and investment proceeds. The fund is maintained by the Commission and the maximum coverage limit is ₦200,000 per investor per capital market operator. A noticeable feature of this scheme is the non-payment of contributory premium. One of the challenges faced by SEC in the administration of the protection fund is low public awareness which could explain why activities of this fund is not noticeable.

5.2.2 Investor Protection Fund Managed by NSE

The NSE is a registered company limited by guarantee and was founded in 1960. It is licensed under the Investments and Securities Act of 2007 and regulated by the SEC Act of 2007. The Exchange offers listing and trading services, licensing services, market data solutions, and ancillary technology services etc. The mandate of the Exchange primarily includes the provision of a trading platform for the purchase and sale of shares and the protection of investors from losing their investments.

The NSE has a compensation scheme in place that was set up to provide some level of compensation to customers. The Investors' Protection Fund (IPF) is a statutory fund established under section 197 of the Investments and Securities Act, 2007 (ISA) to compensate investors who suffer pecuniary loss arising from failure of a dealing firm or failure of a dealing firm to meet its obligations by way of negligence, bankruptcy, insolvency and defalcation committed by a Dealing Member Firm (DMF) or any of its

directors, officers, employees or representatives in relation to securities or money entrusted to or received by a DMF in the course of its business. The fund was reconstituted in 2012.

Capital market operators are not charged premium, however, the compensation scheme is funded through fees, penalties and special levies paid to regulators by dealing members. The beneficiaries of the fund include investors (individuals/business groups). The maximum coverage limit is ₦400,000. Contributory premium scheme is nonexistent. Public awareness remains a key challenge the protection fund faces

The IPF is administered by a Board of Trustees subject to the regulatory supervision of SEC. The governing body of NSE is the National Council who act as the trustees of the fund and deal with challenges and issues relating to corporate governance, corporate social responsibility and corporate ethics.

5.3   Insurance Protection Scheme

NAICOM does not have an insurance protection fund for the industry to compensate policyholders in the event of failure of an insurance company. However, during the life of an insurance company, NAICOM ensures through verification and monitoring that all policyholders' liabilities are adequately backed by income generating assets to be kept with the CBN and used in the event of failure of the insurance company. In addition to whatever is realized on liquidation, the statutory deposit held in the CBN would be used to settle policyholders' liabilities. There is no clear framework for a compensation scheme to be administered by NAICOM. The funds provided by the insurance companies differs from one insurer to another depending on the value of generating assets deposited with the CBN; and there is no maximum amount for policyholders when insurance companies fail. The coverage is given on a prorata basis.

6.0   POTENTIAL CHALLENGES AND PROSPECTS OF ADOPTING IPS IN NIGERIA

Several benefits are associated with the implementation of IPS in a financial system. Apart from the benefits, there are a number of issues involved in the design and implementation of the system, which a country wishing to introduce IPS needs to address for its efficient functioning. Notwithstanding its benefits, if not properly designed will face a number of challenges. In Nigeria, given the structure of the financial system, policy objectives of the existing DIS and other related issues, the introduction of IPS will face unfavourable challenges. Some of the challenges and prospects for IPS adoption in Nigeria are enumerated as follows:

6.1   Challenges of Adopting IPS in Nigeria

6.1.1 Cumbersome Failure Resolution and Reimbursement of Depositors' Due to Depth and Size of Industry

The processes stipulated in the laws and the related procedures can prove to be a serious challenge to effective crisis management if there were failure or insolvency of a medium or large financial institution. Currently, the processes involved in the resolution of DMBs in Nigeria takes quite some time depending on the size of the institution. The NDIC Act 2006 stipulates 90 days for settlement of claims which is deemed by IADI's assessment to be on the high side as other jurisdictions such as the USA where reimbursement is done within T+2 that is a case in which a bank is closed on Friday and the deposit insurer opens up on Monday for payment. The processes involved in reimbursement of claims by the deposit insurer includes: verification of claims, asset valuation and other legal processes, etc. If taken on an aggregate level, it is believed that the processes could exacerbate due to bureaucratic bottlenecks associated with industry-wide collaboration. This could undermine the very essence of the protection scheme, cast doubts on the regulator and erode public confidence (FSB, 2012).

6.1.2 Increase in Moral Hazard

Moral hazard arises when parties have incentives to accept more risk because the costs that arise from the risk are borne, in whole or in part, by others (IADI, 2014). In the

context of deposit insurance, protecting depositors from the threat of loss through explicit deposit insurance or the confidence that banks will not be allowed to fail insulates them from the consequences of unsafe and unsound bank practices and can lead to greater risk-taking by banks.

Therefore, if the establishment of funds to help the DMBs directly and indirectly to overcome the stress on their liquidity and solvency can give rise to moral hazard and discourage institutions to better manage their risk, it is instructive to say that a whole industry cover will heighten this risk since all other financial institutions would also engage in excessive risk-taking thereby further increase the exposure of the deposit insurer. Furthermore, the IPS makes it possible for other financial institutions besides banks to be able to attract funds from the public without regard to the risks it takes with its creditors' or customers' resources.

6.1.3 Uncertain Reimbursement Timelines

This challenge may arise due to the structure of the financial system and inherent bureaucracies arising from a long chain of decision making requiring the representatives of all participating institutions to be carried along before such decisions are made. Also, differences in objectives, mandates and design features among the various financial institutions can result in organizational complexities that can lead to inefficiencies while the resolution processes involved could be cumbersome thereby resulting in unclear reimbursement timelines and unnecessary delays.

6.1.4 Ineffective Supervision of Participating Institutions Arising from Large Industry

The strength of prudential regulation, supervision and the resolution regime influences the functions and effectiveness of a deposit insurance system (IADI, 2014). The large structure of the financial system makes supervision and decisions on supervision reports challenging. Due to inter-agency MoUs and the need for information sharing, processes become slower thereby impacting negatively on the ability of regulators to offer prompt measures. Situations exist where DIS governing boards are dominated by government officials' as in

Russia or representatives of the banking industry as in Argentina and Switzerland. This makes information sharing difficult or almost impossible thereby creating challenges for proper supervision or sanctioning of participating institutions. Also, due to the integration, there arises the need for multiple supervisors to enhance objectivity and integrity of the process, which could lead to regulatory arbitrage. Also, supervisory intimidation issues may arise due to regulatory superiority.

Another issue in the adoption of IPS involves the requirements of IADI stipulating that supervisory authorities should have an effective licensing or chartering regime for new institutions, conduct regular and thorough examinations of individual banks, and have an effective early warning system. This supervisory requirement may not be achieved taking into consideration the different chartering or licensing requirements of other bodies under the financial system.

Supervisory challenges may also arise in the form of determining the appropriate threshold for supervising financial institutions. For the banking sector, banks are supervised using the Capital Adequacy, Asset Quality, Management, Earnings and Liquidity (CAMEL) parameters and premiums are also assessed using the Differential Premium Assessment System (DPAS). How to determine the basis for premium collection from other participating institutions as well as the appropriate basis for supervising them could be challenging, particularly where risk-based premium assessment method is to be applied.

6.1.5 Inadequate Legal and Regulatory Framework

Deposit insurance or any compensation system usually operates within the confines of the law. Without adequate legal and regulatory frameworks, a compensation system will not be able to function effectively. A well-developed legal framework should be able to provide a deposit insurer with sufficient powers to discharge its functions effectively.

As seen in the preceding sections, the DIS regulations and legal framework in Nigeria were tailored towards giving protection to the depositors of deposit-taking financial institutions. However, under the IPS, depositors, investors and policyholders are protected and that

has to be reflected in the enabling law. The introduction of IPS in the country would therefore necessitate a review of the existing laws, rules and regulations to accommodate the new scheme in the Nigerian financial system. Existing laws such as the Banks and Other Financial Institutions Act (BOFIA), NDIC Act, CBN Act, ISA, etc. would have to be strengthened to give it the legal protection it requires. The legal framework must lay out its appropriate powers to enable it compel member institutions to comply with their obligations to the deposit insurer. Weaknesses arising from an existing legal system may make an IPS ineffective. Weaknesses may include: delays in decision making, informal dispute resolution and delays in mandate achievement. Also, the public policy objectives would need to be restructured to include the policy objectives of an industry-wide cover.

Setting the right legal framework is however a big challenge because the process of amending or enacting laws in Nigeria particularly under a democratic dispensation could be cumbersome. All laws in Nigeria have to pass through the National Assembly for either amendment or enactment as new laws, which from experience take quite some time (Oluyemi and Ahmad 2010).

6.1.6 Excessive Cost of Operating an IPS

Because the protection extends to different markets, diverse knowledge of banking, insurance and capital market is required by the IPS to operate efficiently. That would entail attracting personnel from diverse disciplines, which could be expensive and capable of increasing the operating costs of the scheme. Manpower investments in training and retraining of staff could also be prohibitive. Operational costs such as cost involved in supervisory activities, industry-wide collaborative activities and resolution schemes adopted would also increase significantly. Also, the probability of growing the fund may not be easy because of present day challenge involved in the development of the fund.

Furthermore, the funding imperatives involved in total industry cover would be overwhelming as well because the liability of the deposit insurer also increases with the introduction of cover to other financial institutions. These operational costs would gradually limit the ability of the insurer to build the fund overtime since funds required for operational

activities are obtained from the proceeds of investments of the insured fund. Such a situation will lead to a higher premium to be charged on participants or additional funds would have to be raised from other sources during a crises situation. This may impact on the effectiveness of the scheme and subsequently defeat its purpose.

6.1.7 Governance Issues

These are issues related to the decision-making process among Board members appointed from various sectorial backgrounds. That could have implication for the timeliness in taking decisions which is a challenge especially where quick decisions are required to deal with crisis situations. Also, how to determine an all-inclusive governing structure and the laid down formal arrangements therein that would ensure collaboration, information sharing and objectivity could pose a challenge.

A Board of Directors is the highest decision-making body in the NDIC. It consists of twelve (12) members, namely: the Chairman, Managing Director/Chief Executive Officer and two (2) Executive Directors, a representative each from CBN and FMF, six (6) Non-Executive Directors from each of the geopolitical zones of the Country and a Board Secretary. The members of the NDIC Board are largely selected by the Presidency. KDIC is governed by a Board of Directors and the Policy Committee ("Committee"). The Committee is comprised of nine individuals in all including the Chairman (who is also the President of KDIC). In PIDM, it is the Board of Directors that is responsible for the conduct of its business and affairs. It is made up of nine (9) members, with balanced representation from the public and private sectors.

It is instructive to note however, that within our environment (Nigeria), the need for political patronage and geographical considerations in making political appointments may seriously expand the size of the Board. The size of the board could then be significantly larger than what currently exists in the NDIC, which could affect the speed with which decisions are taken.

6.1.8 Challenge in the Determination of Priority of Claims

Lessons from practices in some jurisdictions indicate that the determination of priority of claims is according to what is enshrined in the enabling law and depending on the sector as well as the public policy objectives of the institution in question. For instance, in the banking sector, depositors' take priority during failure resolution, while in other sectors, creditors take priority. The treatment of depositors or operators in hierarchy of importance can have profound implications on costs incurred by the deposit insurer as well as set objectives. How to determine the primary target of the insurer across the industry could be challenging because issues could arise regarding who gets settled first during a sectorial or individual failure. This could pose a challenge due to the various mandate and policy directions of other operators whose customers would be brought under the coverage of IPS.

Also, when depositors are given a higher relative priority, it increases the potential loss exposure of lower-ranking creditors or other market participants. In response, non-deposit creditors or players could take action to better protect themselves, such as collateralizing their claims or shortening terms of maturity. These actions could have profound implications for participating institutions' funding, speculative behavior in the entire financial system and could offset any positive benefits of the IPS.

6.1.9 Public Policy Objectives

At the point of designing any type of DIS, it is important to determine and clearly state its public policy objectives in its enabling law. In Nigeria, the public policy objectives of the DIS in practice were prepared with focus on the protection of depositors of deposit-taking financial institutions. For IPS to be introduced in the system, protection of investors and insurance policyholders would have to be a focus of the system. This has to be reflected in the NDIC Act, which needs to be amended accordingly. That has always been a challenge as it has to pass through the National Assembly. In addition, aligning the various public policy objectives of constituent bodies may be quite challenging since the aggregation of polices could become/make the overall objectives ambiguous and unattainable.

Furthermore, an all-encompassing public policy objective for the insurer may pose a serious challenge. This is because aligning all objectives of the constituent bodies and coming up

with one that does not ignore the direction of another institution while ensuring that the aligned objective is not vague would be difficult.

6.1.10 Disposal of Assets

Deferring policies exist regarding the disposal of liquidated institution's assets across the industry. A sector-specific scheme may sell (or transfer) the assets of a failed institution more rapidly because it has better knowledge of potential buyers in the industry, while in other subsector, it may not be that easy. Under the IPS, where participating institutions from different markets would be brought under one umbrella, disposal of assets of failed institutions could be challenging.

6.1.11 Risk of Cross Subsidization

Studies in Korea suggest that when the fund in an insurance fund is inadequate to reimburse claimants, it is possible to borrow from another fund (IMF, 2015). This results in cross-subsidization of the losses in one segment by the insured entities in other segments. This is an exception to the provision in the Deposit Protection Agency (DPA) in some jurisdictions that requires that separate accounts for each type of insured financial institution be established and each account be kept separately from each other.

In Nigeria, the deposit insurance funds are kept separate and cross subsidization is not allowed partly because of the ethical nature of the funds. But as time goes on, there may be need to allow for the cross subsidization or even merger of similar funds as is done in other jurisdiction such as the United States of America (USA) and Korea. This could have consequences on the ability of the insurer to effectively resolve a failing institution if there arises a situation where the pool of funds has been used to resolve a failed institution with huge liabilities. This will adversely affect the reputation of the deposit insurer hence public confidence in the protection scheme and further lead to flight of investors out of our financial space.

6.1.12 Determining Appropriate Coverage Levels

The determination of appropriate coverage levels across the industry may also be a challenge. Different coverage for different products under the same scheme could be confusing. The classification of insured funds and uninsured funds for every sector could also be daunting. Questions may arise as to what classes of insurance products should be covered? What stock accounts should be covered and at what levels? Hence, a coverage level that may be reflective of that particular sector may need to be set at a level adequate to capture the required audience and maintain investments in such a sector. That task may not be easy.

6.2   Prospects for Adopting IPS in Nigeria

Regardless of the aforementioned potential challenges, it is apparent that IPS could be successful in Nigeria if well designed and properly managed. Leaning on literature on IPS from practicing jurisdictions (Korea, Malaysia and UK) and considering the structure of Nigerian Financial System as well as the structure of the existing DIS in the country, the challenges could be surmounted in view of the following prospects:

6.2.1 Existence of Financial Services Regulation Coordinating Committee (FSRCC)

The FSRCC is a statutory committee[7] comprising of regulators in the Nigerian financial services industry. The committee was set up to primarily coordinate the regulatory and supervisory standards in the financial services industry, provide a platform to share information, review developments in the financial system, identify risks that are capable of posing threats to financial system stability and take appropriate measures to mitigate such risks (FSRCC, 2015).

The existence of this committee is a prospect for the implementation of IPS in Nigeria, as it will take care of the challenges associated with governance structure, free flow of

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[7] In line with section 43 of the CBN Act 2007, the main committee members of the FSRCC are CBN, SEC, Federal Ministry of Finance, Corporate Affairs Commission, NDIC, NAICOM and PENCOM, admitted pending the amendment of the CBN Act. Abuja Securities and Commodity Exchange and the NSE were admitted in observer capacity.

information as well as inter-agency cooperation. The mandate and objective of this committee are partly to address the arbitrage that exists in regulating the system by harmonizing the general public policy objectives of each member institution to reflect the primary objective of the committee, which is the promotion of sound and stable financial system.

The FSRCC could therefore be strengthened for more effective collaborations in the mitigation of bad financial practices such as serial financial debtors as well as enhance the pool of readily available data on all participants in the financial space. With the existence of this committee, there could also be efficiency through economies of scale and scope due to the elimination of duplicity of functions as well as savings on infrastructure.

6.2.2 Existence of Separate Deposit Insurance Funds

The existence of separate insurance funds and management of the funds is a key prospect for the adoption and implementation of IPS in Nigeria. The NDIC keeps separate accounts for the various categories of depositors that it protects. The separate funds will address the issue of cross subsidization across the industry. It will assist the insurer to maintain its reputation by ensuring that only the funds for a certain sector would be used to resolve that sector anytime the obligations of the insurer crystallizes. This would also address the moral hazard issue of deposit insurance and increase the level of effectiveness of the insurer. It will further address ethical issues associated with the investment of funds, particularly when dealing with Islamic insurance (takaful) and Islamic bonds (sukuk) as obtained in Malaysia.

6.2.3 Deployment of Consolidated Supervision

Consolidated supervision entails a more holistic and group-wide approach to supervision, covering both quantitative and qualitative evaluation of the operations and the attendant risks of related entities. Consolidated supervision is not fully effective unless all the risks inherent in banks' operations and affiliated financial institutions are identified, measured, monitored and controlled. In trying to provide supervisory oversight over the entire

Nigerian financial system, the regulatory authorities developed the Consolidated Banking Supervision framework in 2005 and it was revised in 2013.

Consolidated supervision, which is an already existing system of prudential regulation is extended to other participating institutions. For instance, the consolidated examination of a Holding Company where the supervisory agencies including SEC and NAICOM also participate in the examination. It ensures that no banking activity goes on without supervision, irrespective of location, thus eliminating regulatory arbitrage; eliminates double leverage/gearing in the computation of capital adequacy of conglomerates; ensures that all the risks incurred by a banking group are captured, evaluated and controlled on a global basis. This therefore enables the supervisors to identify emerging problems more quickly and work with banking organizations and other supervisors as appropriate to take prompt corrective measures on the issues as well as helping supervisors to gauge the effect of potentially adverse events on banking organizations and on the financial system in general.

Consolidated supervision could use risk-based approach and that takes care of the segmented approach to supervision by addressing contagion risk, transparency and regulatory arbitrage due to the reporting of capital requirements, credit exposures and connected party exposures on a consolidated basis. The need for supervision of all affiliates of financial institutions would afford the regulator/supervisor an all-round view of the institution and assist in delivering prompt and proactive measures needed for the safe and sound operations of the institutions.

6.2.4 Target Fund Ratio Framework

Target fund ratio refers to the size of the ex-ante deposit insurance fund, typically measured as a proportion of the assessment base (e.g. total or insured deposits), sufficient to meet the expected future obligations and cover the operational and related costs of the deposit insurer (IADI, 2014). A target fund ratio was developed for the NDIC based on global best practice and is expected to be used to determine the level of its insurance funds at any given time. The framework if strengthened would assist the insurer to determine

and grow the adequate level of funding required to discharge its duties and achieve its mandate. This would help address the issue of insufficient funding of the IPS.

6.2.5 Amendment of the NDIC Act 2006

Another prospect of IPS in Nigeria is the proposed amendment to the NDIC Act No.16 of 2006. The proposed amendment to the Act seeks to strengthen the regulatory powers of the DIS as well as address identified weaknesses that could slow down the process of supervision and resolution. These weaknesses could aggravate a financial distress and lead to contagion. Some of the areas proposed for amendment included: expanding incidence for payment of insured deposits; supervision of related entities of insured institutions; prompt corrective action; insured institutions resolution fund; and public policy objectives among others. The amendment before the legislature, could be enhanced to include the framework for an IPS so as to fortify the existing enabling laws.

6.2.6 90-Day Reimbursement of Depositors

To address the uncertain resolution or reimbursement timeline issue, a 90-day reimbursement rule had been stated in the NDIC Act 2006 that represents the maximum timeline for the Corporation to fulfill its mandate of deposit guarantee and prompt payment of guaranteed sums. This existing rule could also be extended to cover the resolution of all the participating institutions thereby enabling prompt and effective resolution of the system. Although the 90-day period is still being adjudged high even by the IADI assessors that assessed the compliance of the Corporation with the Core Principles for Effective DIS, it still gives some hope that even with the increased responsibilities for the IPS, the resolution target could give some hope to the depositors, investors and policyholders that would be covered by the scheme.

6.2.7 Minimizing Moral Hazard

Deposit insurance would ordinarily create an avenue for excessive risk-taking by participating institutions. Key design features such as limited coverage levels and scope, differential premium, and timely intervention and resolution of the DIS however aim at mitigating the moral hazard. Therefore, the introduction of IPS would also take a cue from

the existing framework by creating appropriate incentives to mitigate moral hazard through several mechanisms, including promotion of good corporate governance and sound risk management across the industry. A robust risk management framework would ensure effective market discipline and the enforcement of strong prudential regulation, supervision and resolution.

7.0   SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1   Summary and Conclusion

The growing trend to expand financial consumer protection schemes arising from past experiences such as the most recent global financial meltdown as well as the fast expanding financial system had given rise to a global debate on the need for a framework by the regulators and supervisors to provide a measure of safety and protection for the whole financial system due to its interconnectedness. The adoption of the IPS therefore came to the fore due to its successes in other jurisdictions and is gaining popularity among IADI member countries.

This paper discusses the conceptual issues in IPS and attempts to review some schemes across jurisdictions such as United Kingdom, Malaysia and Korea. From the review, it is clear that the design features of a typical IPS are not entirely different from that of a DIS. Possible benefits of IPS include operational efficiency, greater awareness, ease of coordination between protection agencies and regulator and effective monitoring of risk levels, among others. The potential disadvantages had been highlighted to include: risk of cross subsidization, governance issues and disposal of assets of failed institution, amongst others.

In addition, the various compensation schemes available to customers of financial services in Nigeria were identified. The paper highlighted the features of the separate protection schemes within the Nigerian financial system. It served to identify areas of collaboration, taking into consideration the existing governance structure and interdependence among players.

The study generated and outlined prospects and challenges that could be encountered in the process of adopting IPS in Nigeria as reflected by practices in other jurisdictions, taking into consideration the domestic financial structure and environment.

Finally, it is instructive to note that the presence of already established IPS in other jurisdictions offers the financial regulators in Nigeria the opportunity to learn from their experiences and build on identified weaknesses when a decision to adopt IPS is taken.

7.2   Recommendations

Based on what we have seen in terms of the issues involved in the design of an IPS and the challenges associated with its adoption, particularly looking at the practices in some jurisdictions, one can recommend as follows:

i.   That the Nigerian government should consider introducing IPS in the financial system. An IPS, as seen in the above discussions, would offer protection to not only depositors in the banking system but also policyholders and investors in the insurance industry and capital market respectively. Of the existing compensation systems in the country, only DIS which is mainly for the banking system is effective and serving its purpose and boosting confidence in the system and hence contributing to the stability of the Nigerian financial system. Furthermore, the fact that SEC and NSE maintain separate protection funds suggests regulatory arbitrage as well as duplication of efforts, since both agencies and investors operate in the same market. As for the insurance market, there is apparent absence of a compensation system, which is not good for the system. The fact that insurance companies in Nigeria are required to make provisions by way of ensuring that each company in Nigeria maintains some income generating assets with the Central Bank of Nigeria to be used in cushioning effects in the event of failure of an insurance company does not represent a compensation system that could effectively serve the needs of policyholders in the event of failure.

ii. The trend in terms of provision of compensation system globally is to adopt an IPS to serve the entire financial system. In no distant future, we see Nigeria joining

the league of countries adopting IPS partly because of the interconnectedness of the financial markets in the country. We are beginning to have financial holding companies with banking, insurance and security firms as their subsidiaries. We are also beginning to implement consolidated supervision of such financial holding companies, where the various supervisory agencies in the different markets are represented in the examination team. Based on these initiatives, we can as well have a common compensation system to provide protection to all the stakeholders in the entire financial system. For that to happen, the NDIC could begin to engage and sensitize stakeholders in a bid to eliciting a buy-in of other regulators to avoid personality clash. Also, existing laws need to either be amended or new ones be provided. Now that the NDIC Act is before the National Assembly for amendment, there is the need for the Nigerian government to begin to look at the possibility of leveraging on this and making additional changes to the Act so as to create room for the adoption of IPS in the country in future.

iii.   In the event that the IPS is adopted, it could be done in phases. By this we mean, Nigeria could start its IPS with the provision of coverage to insurance policyholders in the system. This is more so because currently the insurance industry does not have a compensation system. That is what currently obtains in Malaysia with MDIC's IPS covering only banking and insurance products for now with the intention of expanding later to cover other markets/products.

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APPENDIX

Table 1: **Protected Benefits for Family Takaful and Life Insurance by PIDM**

Family Takaful / Life Insurance	
Benefits Protected	Maximum Limit (Individual or Group Policies/Plans) (RM)
Death and related benefits	500,000
Permanent disability	500,000
Critical illness	500,000
Maturity value (excluding unit portion of investment-linked policies)	500,000
Surrender value	500,000
Accumulated cash dividends	100,000
Disability income	10,000 per month
Annuity income	10,000 per month
Medical expenses	100%
Refundable prepaid premiums	100%

Source: www.pidm.gov.my

Table 2: **Protected Benefits for General Takaful and General Insurance by PIDM**

General Takaful / General Insurance	
Benefits Protected	Maximum Limit (Policies/Plans) (RM)
Loss of or damage to property in relation to: • an immovable property located in Malaysia • a motor vehicle registered in Malaysia or a foreign registered vehicle insured to drive in Malaysia • a ship, aircraft or other movable property insured by a citizen or qualified person[8]	500,000 per property
Death and related benefits	500,000
Permanent disability	500,000
Critical illness	500,000
Disability income	10,000 per month
Medical expenses	100% of expenses incurred
In relation to indemnification against claims by a third party: • loss of or damage to eligible third party immovable or movable property • death and related benefits	RM500,000 RM500,000

[8]Qualified person includes resident, corporation, statutory body, local authority, embassy, the Government or any State Government, society, trade union, cooperative society, partnership or any other body, organisation, association or group of persons, whether incorporated or unincorporated, in Malaysia.

• permanent disability	RM500,000
• illness or bodily injury	RM500,000
• disability income	RM10,000
• medical expenses	100%
Refundable prepaid premiums	100%

Source: www.pidm.gov.my

Table 3: Premium Rate and Assessment Base of PIDM

Rating	Life Insurance	General Insurance	Family Takaful	General Takaful
1	0.25%	0.05%		
2	0.05%	0.1%	0.06%	0.25%
3	0.1%	0.2%		
4	0.2%	0.4%		

	Life Insurance/Family Takaful	General Insurance / General Takaful
Assessment Base	"Total Actuarial Valuation Liabilities" as at 31 December of preceding assessment year	Total net premiums received during preceding assessment year

Source: www.dic.go.jp

Table 4: Target Fund System of KDIC

Target Reserves	Banks	Investment Traders and Brokers	Life-insurers	Non-life Insurers	Merchant Banks	Mutual Savings Banks
Lower Limit	0.825%	0.825%	0.660%	0.825%	Deferred	1.650%
Upper Limit	1.100%	1.100%	0.935%	1.100%		1.925%

Source: www.kdic.kr

MONEY SUPPLY GROWTH AND ITS INFLATIONARY EFFECTS IN NIGERIA

BY:

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ABSTRACT

This study examines the relationship between money supply growth and inflation in Nigeria using time series data for the period of thirty-three years (1980-2012). In analyzing the data both ordinary least square (OLS) regression method and Autoregressive distributed lag (ARDL) bound F-test for co integration were used. Variables for this study are (inflation, money supply growth M1& M2, interest rate, exchange rate and fiscal deficit). The OLS result indicates narrow money supply growth M1, interest rate and fiscal deficit are positively related to inflation. While broad money supply growth M2 and exchange were negatively related to inflation. Bound F-test for co-integration result indicates that there is an evidence of long run relationship between money supply growths when inflation is used as dependent variable. However granger causality result revealed that there is a unidirectional causality running from money supply growth to inflation in Nigeria which is in tandem with classical quantity theory assertion. Finally, the study recommends a long term stabilization of monetary policy instrument especially the open market operation (OMO) and the need for government to reduce its deficit financing.

KEYWORDS: ARDL, Co- integration, Inflation, Money Supply Growth and Granger Causality

1. Background to the Study

Inflation is one of the most notorious macroeconomic variables that are challenging the economies of many nations across the globe. It is a phenomenon associated with persistent

and appreciable rise in general level of price in an economy (Jhinghan, 2002). Many economists argue that inflation is strictly a monetary phenomenon and that inflation occurs when the rate of growth of the money supply is higher than the growth rate of the economy (Akcay*et al*.1996). This phenomenon is well pronounced especially in developing nations of Africa including Nigeria.

According to Oladipo and Akinbobolo (2013), an annual inflation rate in some African countries averaged more than 15 percent, with some countries experiencing rates of 20 percent or more. While prices have had an upward trend in some of these countries, the price instability is yet to reach the hyperinflation conditions once experienced in some Latin American countries. In addition, some of the reasons adduced for the sustained and persistent inflation rates in many developing countries include: high public sector budget deficits, monetization of public sector budget deficits, high military expenditure, inadequate rainfall, populist policies especially prior to elections, persistent inflationary expectations of economic agents; increase in money supply; increases in imported raw materials, inputs, and manufactured, rising interest rates resulting from the crowding-out effect of government borrowing and unstable exchange rates before and since the adoption of IMF/World Bank adjustment programs. Kumpayi, et al. (2012) observed that, high inflation in Nigeria has caused yield on investment to decline while government policy objectives is adversely affected as the real size of its budget shrinks with rising inflation which has hampered economic growth.

The causes of inflation are controversial. Various economists and finance experts give different factors as the causative agents. They opine that some of the factors: money supply, exchange rates, interest rates, government deficit budget and a host of others – are largely responsible for inflation plaguing, in various degrees of different parts of the world. Developing countries appear worst hit by the ravages of inflation (Emmanuel, 2010).Bakare (2011) regarded money supply as a very sensitive variable, the size of which determines the pace of any economic activities. Its expansion or contraction dictates the growth in investment and output of any economy. Thus, understanding the factors driving inflation is very vital for the formulation and implementation of appropriate macroeconomic

policies. The monetaristsled by Milton Friedman believe that inflation is always and everywhere a monetary phenomenon. This monetary view is based on the quantity theory of money by Fisher (1948), which depicts that changes in money supply growth are followed by equal and proportionate changes in the inflation. However, according to Nyong (2001), inflation varies, ceteris paribus positively in relation to the growth in money supply and negatively with respect to growth in real income or output. Ogun and Adenikinju (1995) found that the period of oil boom in Nigeria characterized by rapid monetary growth was consistent with the periods when the country experienced double-digit inflation.

The growth in money supply and its economic implications is therefore an issue to be thoroughly investigated. This subject has bordered the minds of Nigerian policy makers for decades. Despite the lack of consensus among different schools of thought on its effectiveness as an instrument of monetary policy, the Central Bank of Nigeria (CBN) relies on it as its major barometer for shaping economic activities. The design and shift of the monetary measures taken by the central bank in recent times have been either expansionary or contractionary. Expansionary policy tools have been used to increase money supply with the intent of increasing output. Contractionary policy tools have been used on the other hand to decrease money supply in the economy in order to discourage consumption thereby curtailing inflation (Bakare 2011).According to Chicheke (2009), it would be logical to measure the stance of monetary policy by the growth rate of the supply of money. This is because the growth in aggregate demand depends heavily on the growth in the supply of money. This implies that, by using money growth as a measure of monetary policy, and if the supply of money is changed, it will be possible to predict its effect on money spending. Monetary policy is said to be tight when the rate of money growth is low or falling relative to a trend. On the other hand, an increase in money supply faster than growth of an economy will have the effect of too much money chasing too few goods. Hence the prices of goods will therefore increase.

For quite a long time, monetary policy in Nigeria is geared toward achieving macroeconomic objectives through expansion and contraction of the stocks of money in the economy. Macroeconomic objectives include: - price stability, exchange rate, interest

rate and moderation of inflation among other things. The contention here is that many studies on the relationship between money supply growth and inflation have been conducted both in developed and developing economy elsewhere around the globe and Africa in particular. However, few studies have empirically investigated the subject matter on Nigeria.It is therefore, imperative to carry out a comprehensive study to prove the magnitude of the relationship in Nigeria

Therefore, the aim of this study is to ascertain the extent of the relationship between money supply growth and its inflationary effects and as well as the impact of other macroeconomic variables on inflation in Nigeria.

The paper is structure as follows. Section two presents the literature review, section three covers methodological aspect of the study, while in section four, the data is presented and analyzed. Section five concludes and offers recommendations.

2. Literature Review

2.1 Conceptual Issues

Inflation is highly controversial term which has undergone modifications since it was first defined by the neo- classical economists. Farrkh (2009) defined inflation as the percentage rate of change of a price index. Two important and frequently encountered price indexes that allow measurement of inflation are GDP deflator (implicit price deflator for Gross National Product) and consumer price index (measures the price of a representative basket of goods and services purchased by the average consumer and calculated on the basis of periodic survey of consumer prices). Saleem, *et al*. (2013) Inflation is a rise in the general level of prices of goods and services in an economy over a period of time. When the general price level rises, each unit of currency buys fewer goods and services. Consequently, inflation also reflects erosion in the purchasing power of money – a loss of real value in the internal medium of exchange and unit of account in the economy

Money supply is the amount of money within a specific economy available for purchasing goods or services. A country's money supply is known as its "stock of money", The money

supply (M) of a country can be defined as "the sum of all commodity money(s), fiat money(s) and bank money that are held by non-banking public at given period of time" (Abdullahi, 2009). World Bank (2013) defined money supply growth as the average annual growth rate in money and quasi money. Money and quasi money comprise the sum of currency outside banks, demand deposits other than those of the central government, and the time, savings, and foreign currency deposits of resident sectors other than the central government.

2.2 Theoretical Framework

The classical Quantity Theory

The classical quantity theory of money has since the 16th century been used to explain the relationship between money supply and inflation. The theory expounded by Irvin Fisher in 1911 indicates that inflation occurs in direct proportionate to increase in money supply, given the level of output. Given fishers equation:

$$MV \quad = \quad PT$$
$$\uparrow M \quad = \quad \uparrow P$$

Holding velocity (V) and transaction (T) constant, any level of increase in money supply causes same level of increase in price level; and the economy being in full employment (Dwivedi, 2001). The shortcoming of the quantity theory is that it does not explain the process by which an increase in money supply causes the rise in the price level. However, Wickshell, a classical economist explained the process as follows. Additional money flowed into the economy through banks in form of loan and advances to finance new businesses. Given that the economy is in full employment, additional resources (labour) for production can only be acquired by bidding up the price level. The rise in input price leads to increase in money incomes. This leads to rise in demand for consumer goods. Under the condition of full employment, the supply of consumer goods does not increase. Therefore, higher price are bid to acquire goods. This continues until the entire increase in aggregate demand is absorbed by rise in price.

The Monetarists

The monetarists, following from the Quantity Theory of Money (QTM), have propounded that the quantity of money is the main determinant of the price level, or the value of money, such that any change in the quantity of money produces an exactly direct and proportionate change in the price level. The QTM is traceable to Irving Fisher's famous equation of exchange: MV=PQ, where M stands for the stock of money; V for velocity of circulation of money; Q is the volume of transactions which take place within the given period; while P stands for the general price level in the economy.

Transforming the equation by substituting Y (total amount of goods and services exchanged for money) for Q, the equation of exchange becomes: MV=PY. The introduction of Y provides the linkage between the monetary and the real side of the economy. In this framework, however, P,V, and Y are endogenously determined within the system. The variable M is the policy variable, which is exogenously determined by the monetary authorities. The monetarists emphasize that any change in the quantity of money affects only the price level or the monetary side of the economy, with the real sector of the economy totally insulated. This indicates that changes in the supply of money do not affect the real output of goods and services, but their values or the prices at which they are exchanged only. An essential feature of the monetarists' model is its focus on the long-run supply-side properties of the economy as opposed to short-run dynamics (Dornbush and Fischer, 1996).

The neo-classical theory

Another version of the classical theory of inflation was developed by Cambridge economists. While the classical theory of inflation considered increase in supply of money as the cause of inflation, the Cambridge version recognizes increase in the demand for money as the cause of inflation. The Cambridge version of quantity theory of money is MD = KRP (where MD = amount of money demanded; R = real output; P = general level of price; K = a constant proportion of total income people want to hold in the form of money). The Cambridge equation yields the price level equation as PMD/KR. This implies that the general level of price increase in proportion to an increase in demand for money given K and R (Okoroafor, 2012).

The institutional theory of inflation

Supporters of the institutional theory of inflation accept much of the quantity theory; money and inflation do move together. According to the quantity theory of money, changes in the money supply causes changes in the price level. The direction of causation goes from left to right;

$$MV \rightarrow PQ$$

Institutional theorists see it the other way around. Increases in prices force government to increase the money supply or cause unemployment. The direction of causation goes from right to left;

$$MV \leftarrow PQ$$

According to the institutional theory of inflation, the source of inflation is in the price-setting process of firms. When setting prices, firms and individuals find it easier to raise prices rather than lower them and do not take into account the effect of their pricing decisions on the price level. All income is ultimately paid to individual owners of the factors of production; the revenue that firms receive is divided among profits, wages, and rent. Firms are simply intermediaries between individuals as owners of the factors of production and individuals as consumers. Give the institutional structure of our economy, it's often easier for firms to increase wages, profits, and rents to keep the peace with their employees and other owner's of the factors of production than it is to try to hold those costs down. Firms then pay for that increase by raising the prices they charge consumers. In response to the rising price level, the government increases the money supply so that there is sufficient demand to buy the goods at the higher prices (Rasmussen, *et al*. 2007: 13)

From the above theories reviewed, this study adopts the quantity theory of money that explains the relationship between money supply and inflation.The reason behind this is that the theory best explains to the subject matter of this study and therefore may be used to test our hypotheses.

2.3 Review of Related Empirical Studies

CBN (1974) conducted a cross sectional analysis of the origin and development of inflationary pressures in six selected African countries. The data covered 1960-1972. The explanatory variables included changes in money supply, deficit financing and real gross domestic product. Using Ordinary Least Square (OLS), the result obtained indicates that current changes in money supply and domestic credit have no significant impact on the level of prices. The third variable had positive sign and the coefficient of determination was 0.06. Canetti and Greene (1992) Studied a group of 10 African countries, both cross-section and times series regressions indicated that models of inflation based solely on monetary expansion and real income growth (which is related negatively to the inflation rate) leave sizable portions of the inflationary process unexplained.

West Africa Monetary Agency (WAMA) (2009) analyzed the relationship between money supply growth and inflation in each of the member countries. The results indicate that the relationship between money supply growth and inflation depends on the peculiar circumstances of the countries concerned. Inflation exhibited a positive relationship with money supply in Benin, Guinea-Bissua, Mali, Gambia, Ghana, Guinea, Cape Verde and Liberia. Thus, in these countries, monetary policy contributed to movements in the general price level. On the other hand, the relationship was negative in Senegal, Togo, Nigeria, Burkina-Faso, Cote d'voire, Niger and Sierra-Leone. The negative correlation observed in certain countries confirms the existence of other determinants of inflation which may be structural in nature or attributed to supply-side factors.

A study conducted on sources of inflation in Sub-Saharan African countries by Barnichon and Peiris (2008) found that an increase in the growth rate of money supply as the main source of inflation. In the same vein, Thornton (2008) findings proved that money supply has a significant impact on inflation in high-inflation countries than in low-inflation countries. Assenmacher-Wesche and Gerlach (2006) who investigate the relationship between money growth and inflation over different band of frequencies for Japan, Euro area and Swiss Bank, they use band spectral analysis technique and demonstrated that the relationship between money growth and inflation holds only for low frequencies, for high frequencies output gap causes inflation.

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De Grauwe and Polan (2005) used a sample of 160 countries spanning whole world over a thirty years period to study the relationship between money supply and inflation. They reported a strong positive link between the two variables. Their study demonstrates a weak link between inflation and money growth for low inflation countries. Greene and Cavetti (1991) study stated that monetary expansion and exchange rates largely propagated inflation in ten African countries. It is observed then that there is no perfect agreement on the totality of factors that cause inflation in developing countries including Nigeria.

Mukhtar and Zakari (2010) investigated the relationship between money supply, deficit financing and inflation in Pakistan. The empirical findings suggest that in the long run inflation is not related to budget deficit but only to supply of money and supply of money has no causal connection with budget deficit.

Adenuga *et.al.* (2009), in examining whether inflation is purely monetary phenomenon in Nigeria from 1970-2009, employed ordinary least square approach. Outcome of the analyses confirm that inflation is not a purely monetary phenomenon in Nigeria because the coefficient of broad money supply is less than unity. Furthermore, Omoke*et al*. (2010) tested the causal long-term relationship between budget deficit, money growth and inflation in Nigeria. Augmented Dickey-Fuller (ADF) and Philip-Perron (PP) test were carried out to test the stationarity of the variables used. The result of the study pointed to a close long-term relationship between inflation and money supply.

3 Methodology

For the purpose of this study, secondary data has been used in form of annual time series owing to the nature of the research problem under investigation. Therefore, different data sets were collected from the various sources such as the Central Bank of Nigeria (CBN) Statistical Bulletins, National Bureau of Statistics and publication of other related national and international institutions such as World Bank, UNCTAD and UNDP.

Inflation rate is measured as the percentage increase in the retail price index (RPI) or a consumer price index (CPI) over a period of one year. It represents an increase in the price

of a basket of goods and services expressed yearly basis (Ajayi *et al*, 1980). Money Supply Growth Rate (*M*1&*M*2): is measured as the percentage rate of change in the money supply from the previous period (Bakare, 2011). Interest rate is often expressed as an annual percentage of the principal. It is calculated by dividing the amount of interest by the amount of principal (Taylor, 2007). Exchange rate is measured as the price of a foreign currency in terms of the units of a local currency, (Obadan, 2006).Fiscal deficit is measured as the difference between the government's total receipts (excluding borrowing) and total expenditure in percentage (Bayo, nd).

3.1 Method of Data Analysis

This research work employed the use of quantitative technique of data analysis. The quantitative tools used are the multiple regression analysis, using the ordinary least square (OLS) method. The use of OLS technique is due to its properties of being Best Linear Unbiased Estimate (BLUE). It does give picture of the estimates with minimum biasness. The study also employ the use of autoregressive distributed lag model (ARDL) bound F-test for co integration therefore, both STATA and MICROFIT econometrics software were used in the analyses. To guard against spurious result, the study took caution by checking the properties of the variables via the Augmented Dickey-Fuller (ADF).

3.2 *Model Specification*

The theory guiding this study is the famous quantity theory of money propounded by fisher (1911). The theory in its simplest form depicts that changes in the stock of money supply will be translated into equi-proportionate change in the general price level (inflation rate). The model for this study is based on the theoretical framework above as adopted in the study carried out by Adenuga *et al.* (nd) and Bakare (2011) which is modified to form the followings:-

$INFL = f(MS1, MS2, IR, EXR, FID)$……………………………………… (1)

Converting above equation into elasticity and specifying it in a regression form yield:-

$INF_t = ɑ + β1MS1_t + β2MS2_t + β3ITR_t + β4EXR_t + β5FID_t + μ_t$...............(2)

Where

INF = Inflation rate

MS1 = Narrow money supply growth

MS2 = Broad money supply growth

ITR = Interest rate

EXR = Exchange Rate

FID = Fiscal Deficit

u_t = Error term

4. Data Analysis and Discussion

Table 4.1: OLS Estimation

Variable	Coefficient	Std.error	t-statistics	Prob
C	13.94889	11.28474	1.24	0.227
MS1	.5535445	.4218887	1.31	0.201
MS2	-.6064881	.4988974	-1.23	0.230
ITR	1.202225	.5662325	2.12	0.043
EXR	-.1431015	-.0551811	2.59	0.015
FID	.8963709	.8738399	1.03	0.314
R^2	0.3477			
DW	1.191953			
F	2.88			0.0329

Source: Author's computation using STATA

Interpretation of OLS Regression

Annual time series data covering the period of year 1980 to 2012 is used and the results
are presented in ordinary least square of simple regression analysis for each explanatory
variable selected for this study. The result of the OLS estimation in Table 4.1 reveals that,
if all the explanatory variables for inflation function are fixed at zero the percentage
increase in inflation rate in Nigeria would be about 139.5% very often the mechanical value
of this intercept is that, it has no physical or economic meaning (perhaps it reflects the
influence of all the omitted variables). It indicates that, if all other omitted variables are
selected as a measure to combat inflation they will bring positive impact on inflation which

will affect the macroeconomic variables such as unemployment, investment, and consumption via multiplier effect.

The partial regression coefficient of narrow and broad money supply growth (MSI and MS2) of 55.4% and 60.3% respectively indicates that when other variables employed in this model are held constant a unit change in narrow and broad money supply will bring about 55.4% and 60.3% changes in the inflation rate of Nigerian economy over the study period. Inflation is an increasing and decreasing function of narrow and broad money supply respectively. The rate of change as revealed by this result is average given the economic potential of broad money supply as a strong instrument of monetary policy tool that should have large impact in combating inflation but is not the case in Nigeria. This is an indication that, selecting broad money supply as a monetary policy instrument to cajole market players in order to maintain price stability may not help to achieve the nation macroeconomic objectives, which will therefore render the monetary policy ineffective in controlling inflation in Nigeria.

By the same measure if interest rate changes by a unit, where other variables are fixed, inflation rate will change by 102.2%. The relationship between inflation and interest rate is positive and significant in this study. This result reveals that, if interest rate increases or decreases the inflation rate in the economy will respond in the same way and the percent change in inflation using interest rate as monetary policy instrument to control inflation in Nigeria is far better compared to broad money supply but it is not strong enough to combat inflationary pressure ravaging our economy.

The partial regression coefficient of exchange rate stood at 0.14%. It shows a very weak impact on inflation, meaning a unit increase in exchange rate will lead to 0.14% impact on inflation. This impact is moderate and not good enough to be used as monetary policy instrument in combating inflation in Nigeria. It shows that Nigerian inflationary problem is not an imported inflation but rather it is an internal governmental policy problem. It is either the monetary policies adopted over the years were not properly formulated and or not properly implemented to achieve the desired objectives.

Furthermore, the coefficient of fiscal deficit is 0.89 percent. It indicates the existence of positive relationship between fiscal deficit and inflation in Nigeria. A unit change in fiscal deficit would cause a variation in inflation equivalent to 0.89%.Therefore this result indicates a greater influence of fiscal deficit on inflation within the study period.

4.2 Unit root test for stationarity

This study examines the relationship between money supply growth and inflation in Nigeria. Using time series data set for the period 1980–2012, we begin with the conventional unit root test for stationarity of the series variable using the Augmented Dickey-Fuller (ADF) unit root test, the result is presented in the table 4.2 below:

Table 4.2: Results of Augmented Dickey-Fuller (ADF) Unit Root Test

Variable	ADF statistics	Critical values	Order of integration
Inflation	-5.369 (0.0000)***	1% = - 4.325 5% = - 3.576 10% = - 3.226	Stationary at first difference value
MS1	-4.336 (0.0028)***	1% = - 4.316 2% = - 3.572 10% = - 3.223	Stationary at level value
MS2	-4.171 (0.0050)***	1% = - 4.316 5% = - 3.572 10% = - 3.223	Stationary at level value
ITR	-8.997 (0.0000)***	1% = - 4.325 5% = - 3.576 10% = - 3.226	Stationary at first difference
EXR	-5.303 (0.0001)***	1% = - 4.325 5% = - 3.576 10% = - 3.226	Stationary at first difference value
FID	-4.257 (0.0037)***	1% = - 4.316 5% = - 3.572 10% = - 3.223	Stationary at level value

Source: Author's computation using STATA software

Note: ***, **, indicate significance at1% and 5%

Interpretation of Augmented Dickey-Fuller (ADF) Unit Root Test Results

The result of the Augmented Dickey –Fuller (ADF) test revealed that there were mixtures in the level of stationarity across the variables in question for the period under study. Inflation as the dependent variable became stationary at first difference value 1(1) at 1% level of significance i.e. Mackinnon approximate value of 0.0000 which indicate that the null hypotheses (H_O) for the existence of non-stationary should be rejected and accept the alternative hypotheses (H_1) that is stationary. Other explanatory variable such as narrow money supply growth (MS1), broad money supply growth (MS2) were stationary at level values that is integrated of order 1(0) and Mackinnon values of 0.0028 and 0.0050 indicates 1% level of significance. However interest rate and exchange attained stationarity at first difference value 1(1) going by their test statistics i.e., Mackinnon approximate value 0.0000 and 0.0001 indicating 1% level of significance respectively. Fiscal deficit shows stationarity at level value 1(0) with Makinnon 0.0037 equal to 1% level of significance.

4.3 Bound F-test for co integration

The empirical analysis of this study involves the determination of order of integration of the variables in question. This would enable the study to use either ARDL model or not. After achieving stationarity, the next step is to conduct the bound F-test in order to establish a long-rung relationship among the variables.

Table 4.3: Results of bound F-test for co integration

Dependent variable	Function	F-statistics
INF	F_{INF}(INF/MS1/MS2/ITR/EXR/FID)	4.3814**
MS1	F^{MS1}(MS1/INF/MS2/ITR/EXR/FID)	--------
MS2	F_{MS2}(MS2/MS1/INF/ITR/EXR/FID)	--------
ITR	F_{ITR}(ITR/MS2/MS1/INF/EXR/FID)	1.5769
EXR	F_{EXR}(EXR/ITR/MS2/MS1/INF/FID)	.93406
FID	F_{FID}(FID/EXR/ITR/MS2/MS1/INF)	2.2130

Asymptotic critical value	5%	10%
Lower bound	2.5046	2.0353
Upper bound	3.8786	3.2694

Source: Author's computation using MICROFIT software

Interpretation of the results of bound F-test for co integration

The result of the bound test for co integration in Table 4.3 above indicates that co-integration is present when INF is treated as dependant variable. This is because the computed F-inf(INF/MS1/MS2/ITR/EXR/FID) is 4.3814 which is higher than the upper bound critical value at both 5% and 10% that is 2.5046 and 3.8786 respectively. It implies that there is only one single long run relationship between inflation and other explanatory variables such as narrow money supply growth (MS1), broad money supply growth (MS2), interest rate, exchange rate and fiscal deficit in Nigeria for the period under study.

Estimated long run coefficient using ARDL approach

Since the co integration between the variables has been established, ADRL was employed in the determination of long run relationship between inflation and money supply growth in Nigeria (1980 – 2012).

Table 4.4: Estimated long run coefficient base on ARDL model

Regressor	Coefficient	Standard error	T-ratio	P-value
Dependant variable: INF				
MS1	.48302	.54165	.89176	.381
MS2	.074288	.63606	.11679	.908
ITR	.31409	.75061	.41844	.679
EXR	-.088564	.074654	-1.1863	.247
FID	-1.3235	1.4260	-.92810	.363

Source: Author's computation using MICROFIT software

Interpretation of the estimated long run coefficient base on ARDL approach

The result of long run coefficient is presented in Table 5 above. Long run elasticities of inflation are positive with the exception of exchange rate and fiscal deficit. The coefficients of money supply growth (MS1 and MS2) are positive and statistically not significant is represented by .48302 and .074288. Interest Rate (ITR) has a coefficient of .31409 is also positive but statistically not significant. Exchange Rate and Fiscal Deficit contradict the a-priory expectation with negative long run elasticities of (-0.088564 and -1.3235) respectively. The implication of this result is that a 1% decrease in exchange rate and fiscal deficit will lead to 0.10% and 1.32 % decrease in inflation.

Error correction representation for the selected ADRL model

The short run relationship of the macroeconomic variables was determined in Table 6 below using ADRL approach.

Table 4.5: Short run error correction results

Regresor	Coefficient	Standard Error	T-Ratio	P-value
Dependent variable INF				
MS1	.29730	.32287	.92079	.366
MS2	-.41455	.36994	-1.1206	.273
ITR	.19332	.48881	.39549	.696
EXR	-.054510	.051164	-1.0654	.296
FID	1.0217	.74227	1.3765	.180
ECM(-1)	-.61550	.14637	-4.2051	.000

Source: Author's computation using MICROFIT software

Interpretation of estimated error correction based on ARDL model

The short run analyses in Table 4.7 above indicates the present of short run relationship because the ECM is correctly signed (negative) and statistically positive as indicated by 1 percent critical p-value. The coefficient of broad money supply growth (MS2) and exchange

rate have negative signs as (-0.41455 and -0.054510) respectively. While the coefficients of narrow money supply growth (.29730), interest rate (.19332) and fiscal deficit (1.0217) show positive but not statistically significant. The coefficient of ECM suggests the speed of adjustment of the model. It implies that in the current period 61% of the disequilibrium can be removed from the system.

Properties of ARDL Estimate: R-Squared, F-statistics, DW-statistics and P-value

Table 4.6: Properties of ARDL Estimate

R-Squared	0.578
F-statistics	6.581
DW-statistics	2.232
P-value	0.000

Source: Author's computation using MICROFIT software

Interpretations of the Properties of ARDL Estimate

The Table 4.6 above shows the values of regression statistics for money supply growth (MS1 and M2), interest rate, exchange rate and fiscal deficit. The value of R-squared is 0.578 which indicates that 57.8 percent variation in inflation is due to money supply growth, interest rate, exchange rate and fiscal deficit. F-statistics result suggests that the model is significant at 1% level of significance because its p–value is 0.000. F-statistics is the ratio of the regression mean square and error mean square. It is used to determine the significance of the overall regression model in regression analyses. The value of F-statistics in above model is 6.581 which show the significance indicating adequacy of the model. Durbin Watson statistics 2.232 implies the absence of serial correlation between variables.

4.4 Granger causality test

Table 4.7: Granger causality test

Null Hypothesis	Observations	T	p-value
MS1 does not granger cause INF	32	2.26	0.032
INF does not granger causeMS1	32	0.11	0.910
MS2 does not granger cause INF	32	2.52	0.018
INF does not granger causeMS2	32	-0.21	0.837
ITR does not granger causeINF	32	0.36	0.718
INF does not granger cause ITR	32	0.18	0.856
EXR does not granger cause INF	32	-1.11	0.278
INF does not granger cause EXR	32	-0.96	0.343
FID does not granger cause INF	32	-2.79	0.009
INF does not granger cause FID	32	-0.96	0.343

Source: Author's computation using STATA software

Interpretation of granger causality test results

The causality test results presented in Table 4.9 above indicates an evidence of unidirectional causality running from narrow money supply growth (MS1) to inflation. Similar evidence of unidirectional causality was found running from broad money supply growth (MS2) to inflation. Moreover, unidirectional causality was established running from fiscal deficit to inflation. However, causality result reveals no causality among the other variables as shown by the probability value of their test.

4.5 Discussion of Results

This study is aimed at empirically investigating the relationship between money supply growth and inflation in Nigeria for the period from 1980 to 2012. Findings of our OLS estimation reveal that narrow money supply positively influenced inflation which is line with the work of Friedman and Kuttner (2007), Busari(2007), Ajakaiye (2005) and Ghazali*et al*.(2008).The result of the slope coefficient of broad money supply indicates that inflation is decreasing function of broad money supply (i.e. a unit change in MS2 will lead

to about 60% change in inflation in Nigeria within the period under study).This result is in line with the study conducted by Emmanuel (2000) and contradicts the work of Emmanuel (2012), Ajakaiye (2005) who studied the determinants of inflation in Nigeria.

Furthermore, the estimated coefficients of both fiscal deficit and interest rate have a positive sign indicating positive influence on inflation. Therefore, such results are in line with studies carryout by Omoke,*et al.*(2009),Bakere (2011), CBN (1974);Hossain and Islam (2013),Oyejide (1972). Moreover, our findings show that exchange rate in Nigeria was inversely related to inflation within the study period which is in conformity with Akinbobolo(2012), Emmanuel (2010) who found similar negative relationship in their woks,but contradicts the work of Muhammadu and Phillip (2003).

The results of findings using Autoregressive Distributed Lag (ARDL) bound F-test for co-integration reveals that there is an existence of co-integration among the variables when inflation is treated as dependent variable. This is indicated by the value of computed F-statistics 4.3814 which is higher than the upper bound critical value at both 5%and10% respectively. This implies long run relationship between inflation money supply growth, interest rate, exchange rate and fiscal deficit. This result is in line with findings of Kesavarajah and Amirthalingam(2010) Strano (nd) and contrary to the work of Omeke and Ugwuanyi (2010).

Money supply growth in Nigeria based on ARDL bound F-test approach can be viewed as a long run forcing variable in explaining inflation. This finding is in tandem with the work of Ghazali*et al* (2008), Muktar and Zakaria (2010), Busari (2007),Okoroafor (2002) Mohamadu and Phillip (2003) Emmanuel (2010) who all found long run relationship between money supply and inflation. On the other hand, findings of this study contradict the work of WAMA (2000) Dlamini and Nxumalo's (2001). Moreover, our findings based on ARDL reveals the existence of long run positive relationship between inflation, interest rate and fiscal deficit in Nigeria for the period under study. These results are concomitant with the study conducted by Hossein and Islam (2013) on the determinants of inflation. However, the findings especially on fiscal deficit is inconsistent with the work of Muktar

and Zakaria(2010).Exchange rate in Nigeria found to be negatively related to inflation in the long run. This shows that the result of findings based on ARDL reveals that a unit change in exchange rate would have a decreasing effect on inflation within the period under investigation. This finding is in tune with the findings of Emmanuel (2010) and inconsistence with Ajakaiye (2005)

Granger causality test is employed for investigating the bilateral or unidirectional causal links between and among the variables. Overall calculation reveals that there is no evidence of bilateral causal link between the tested macroeconomic variables for Nigeria. On the other hand, empirical result shows that unidirectional causality was found running from both money supply growths and fiscal deficit to inflation. This result also consistent with the study carryout by Ndenzako (1988) Ajakaiye (2005) and Omoke and Ogwunyi (2001). The result of the direction of causation however, contradicts the work of Chaudhary, (1995) who found a bilateral causation in his work.

5. Conclusions and Recommendations

Based on the findings of this study the following conclusions are drawn.

1. Money supply growth increases inflation in the long run. Therefore, in order to curtail inflation in Nigeria there is need to reduce money supply growth.
2. There is a unidirectional causality running from money supply growth to inflation in Nigeria within the study period. This means that inflation is accompanied by expansion of money supply.
3. Other factors such as exchange rate and fiscal deficits negatively influence inflation. On the other hand, increase in interest rate increases inflation in Nigeria within the study period.

Having identified a positive long run relationship between money supply growth and inflation rate, this study recommends that efforts should be geared towards improving stabilization programs particularly open market operations to control excess money in circulation which will curtail inflation.

Governments should stream line its policy on interest rate. Interest rate plays a pivotal role in explaining inflationary process. Many productive investments are not explored in Nigeria due to high rate of interest. Investors may find it difficult to accept higher rate, but moderate rate of interest may attract more borrowers and more investment opportunities which would subsequently lead to higher productivity and moderate inflation rate in the economy.

Though exchange rate may not be the most important factor in inflation determination in Nigeria, the fact that it influence inflation negatively, suggests that exchange rate stability is a necessary condition for stable domestic prices. Increase output production and diversifying the economy from import based economic activity to export based activity will increase output supply. Increasing the food supply and ensuring fiscal and monetary discipline seems to be a panacea for a sustainable macroeconomic stability in Nigeria.

Deficit financing encourages more money in circulation which does not tally with productivity thereby inducing inflation. Therefore, government borrowings should be reduced. The government should display a high sense of transparency in the fiscal operations to bring about realistic fiscal deficits. Fiscal deficits, where recorded should be channeled to productive investments like road construction, electricity provision, and other overheads that will serve as incentives to increased productivity and high Gross Domestic Product (GDP).

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