

## **Discount Houses, Money Market and Economic Growth in Nigeria (1992-2007)**

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### **Abstract**

*This study investigates the interactions between discount houses, money market instruments and economic growth in Nigeria. The study captured their performance indicators and employed time series data obtained from Central Bank of Nigeria. Employing cointegration and vector error correction techniques, it was established, among others, that a long-run relationship exists between discount houses operations and economic growth on one hand and money market instruments, on the other. This implies that discount houses can serve as a veritable stimulant in Nigeria especially in this era of global economic melt-down that is biting hard on the Nigerian stock market.*

**Key words:** *discount houses, economic growth, global economic melt-down, money market*

**JEL Classification:** *E44; E5; G21*

### **Introduction**

The financial markets are types of markets designed for the creation and disposition of financial assets. There are two sections of the financial markets in Nigeria, namely: money market and capital market (Central Bank of Nigeria-CBN, 2004; 2007). A financial asset is created when one party in exchange for cash issues a receipt of acknowledgement which entitles the holder a claim of pecuniary nature against future interests of the issuer. Financial assets fall into three general categories namely: a) Money – issued by the Central Bank of a country on behalf of the Government of the country as paper currency and coins; b) Debt – issued by corporate and Government units; and c) Shares – issued by companies.

Investment that promotes liquidity and gives immediate income requires short-term funding and varies from few hours and one year. Capital market is a collection of institutions set up for the granting of medium and long term loans (Oloyede, 1999). Unlike the money market, it is a market for government securities, corporate bonds, the mobilization and utilization of long-term funds for development – the long term end of the financial system. One of the greatest achievements of the CBN since it was established in July, 1959 has been the gradual development of the financial system. The system consists primarily of the money market for short term lending and borrowing as well as capital market for long term funding. To Oloyede (1999) organized money market is a market for short-term investible fund where short term

financial instruments or liquid assets are bought and sold. Its major significance is that it is the machinery for the mobilization of the countries (financial) resources for economic growth.

Discount houses, which is a segment of the financial system in a country started with the Bank of England operates the discount market (Palmer and Mayall, 1993). When there is a shortage of money in the money market, the discount houses can borrow from the Bank of England as “lender of last resort”. The objective of the Bank of England is to supply or withdraw enough cash from the banking system to offset the daily flows between the central bank and the commercial banks. The Nigerian discount houses took a cue from the English discount system. As a result of the inability of the direct monetary management control to find solutions to endemic problems in the financial sector between (1970s-1992) when oil boom induced excess liquidity without visible solution in the economy, discount houses were seen as a veritable and supportive institutions and avenues for an efficient an effective adoption and practice of indirect monetary control which arrow- head is the Open Market Operation (OMO).

The discount houses in Nigeria are saddled with some functions as enshrined in the CBN (1991) guidelines, which include: act as an intermediary between the CBN and licensed banks; facilitate the issue and sale of short-term government securities by tender; promote the rapid growth and efficiency of money market in Nigeria; accept short-term deposits from banks; provide discount/rediscount facilities for treasury bills, government securities and other eligible financial instruments acquired by banks; and any other functions specify by CBN from time to time. The discount houses play very important roles in stimulating investments in the economy and in boosting the general operations of the money market. Not only do they serve as catalyst in the market, they also act as investors in the money market. Their role in facilitating profitable open market operations is worth stressing (CBN, 2004; Ezirim, 2005). The Nigerian money market operations are said to be sub-optimal in terms of engineering desired growth in the economy. The observed sub-optimality of the Nigerian money market is blamed, in part, on poor performance of discount houses and other money market institutions (Ezirim, 2005). One of the objectives of setting up the Nigerian discount house is to facilitate sale in short-term securities and to promote an efficient money market. They were expected to cause the Nigerian money market to operate optimally.

The Nigerian Stock Exchange was very vibrant until early March, 2008 when the all share index peaked 66,371 points, with capitalization value of N12,640 trillion on March 5, 2008 (Akinso, 2009). Afterwards, the situation changed as the market closed with all share index of 28,848.40 points with capitalization value of N6,383 trillion as at January 13, 2009. Thus, between March 2008 and 1<sup>st</sup> half of 2009, the market depreciated as much as 56.5 % and the end is not yet in view given the current global economic melt-down. With a view to reducing the ravaging effects of the melt-down, some the governments of some economies like Brazil, Japan, USA, among others, had gone ahead to arrange bailout for their capital markets. The Nigerian Stock Exchange had embarked on measures to re-engineer the stock market to put confidence to the investing public. The Government had put in place the following measures: cash reserve ratio was reduced from 4 % to 2 %; monetary policy rate (MPR) reduced to 9.75% from 10.25 %; liquidity ratio reduced to 30 % from 40 %. All these intervention measures are pointer that the alternative to stock market is the money market, which embodies the discount houses. The aforementioned efforts were targeted at reducing the effects of the global economic melt-down in Nigeria’s financial system.

In the light of the backdrops, this paper presents an overview of the money market and discount houses in Nigeria in terms of raising finance to assist companies and government on short-term basis. Specifically, the paper examines the relationship between value of money market instrument and discount houses total assets and shareholders fund as well as the relationship between economic growth and discount houses total assets and shareholders fund using econometric techniques. The paper is divided into sections. Next to this introduction is literature review and conceptual framework. Section III discusses the model formulation and estimation

technique, while Section IV covers the estimation and discussion of results. The paper ends with conclusion.

## **Literature Review and Conceptual Framework**

### **Concepts and Role of Money Market**

The money market is the market where securities of short term nature of not more than one year are bought and sold. It has no central location; businesses are usually transacted on telephone, fax, telex, and so on. Prices of securities dealt with are usually determined by the influence of the Federal Government of Nigeria's monetary policies being issued annually and monitored by the Central Bank. They are of high quality, unsecured but relatively low risks financial assets such as: savings of various forms, negotiable and non-negotiable certificate of deposits, bankers' acceptances, commercial papers, call money, treasury bills and treasury Certificate.

The money market is an important institution in a modern economy (Sundharam and Varshney, 1978). The market is of great help in financing industry and commerce. In developed economies, it helps industries in providing their working capital requirements through the system of finance bills, commercial paper, among others. Conditions in the money market and the short-term rates of interest influence the long-term capital market as well as the long-term rates of interest. The existence of a capital market is dependent upon the existence of a well organized money market and the two markets together play an important role in the economic development of the country (Sundharam and Varshney, 1978).

In advanced economies, the money market constitutes the most institution for creating liquidity for government, companies and individuals. There are many basic requisites that are germane for the evolution of a developed money market (Sundharam and Varshney, 1978). They are highly organised commercial banking system, presence of central bank, availability of proper credit instruments; existence of a number of sub-markets, availability of ample resources, stable political condition and large volume of international trade. The presence of these factors would enhance the volume of transactions of money market instruments in the discount market and the general economy in general. The Nigerian money market existing is also inadequate and constrained by the absence of sub-markets and availability of adequate credit instruments required for the smooth operations of the market.

According to Oba (1999) money market is a forum where short term capital is sourced. Therefore the corporate body that requires such fund creates instruments with which to source such funds. The life span of such funds ranges from few hours to about twenty-four months or two years. From Olowe's (1997) stand point, money market is the market where money is invested for periods of up to one year maturity. The instrument or securities traded in the market are called money market instruments. Thus, discount money market is the market for trading in short term financial instruments with maturities less than a year. The major players in the money markets include individuals, companies, banks, discount houses and governments. Odife (1984) stated that money market is the market for financial claims of less than one year to perhaps five years or less for maturity. To him, money market is thus essentially a framework for trading short-term financial instruments. The global economic melt-down is already causing a considerable slowdown in most countries. Governments around the world are trying to manage the crisis, but many suggest the worst is not yet over. For example, stock markets are down more than 40% from their recent highs. Investment banks have also collapsed.

The money market is a wholesale market for low risk, highly liquid, short-term debt instruments. Short-term refers to a tenor of less than one. In Nigeria, the instruments traded in the main are Treasury Bills, Bankers Acceptances and Commercial Papers. The heart of activity in the money market occurs in the dealing rooms of discount houses and banks. Each day, billion of Naira is traded between operators in the money markets (CBN, 2004; Kakawa, 2005).

One of the tools used to control the money supply is the open market operations (OMO). It is an indirect monetary policy technique. It involves the sale/purchases of money market instruments in the open market. In Nigeria, the money market instrument used for OMO auctions is held on a weekly basis. Presently, the notice is put out on Wednesday. Banks and other participants forward their bids to the discount houses on Thursday whilst the results are released the following day, Friday. The Discount House submits bids from authorized dealers, including its needs for OMO instruments, to the Central bank and facilitates the payments and settlement of the transaction

### **Performance of Discount Houses and Money Market in Nigeria**

A very important role of the discount houses is to act as intermediaries between the originators of bills who want cash immediately to carry on their business and the commercial banks which have cash to spare for short periods. This has been one of the original businesses of the discount market and no other institution is adequately suited to perform this function like the discount houses. Analysis of the activities of the five discount houses in Nigeria indicated a significant improvement in 2006. Their total assets/liabilities rose by 87.8 % to N85.5 billion, while the total funds sourced amounted to N91.9 billion, compared with N37.3 billion in 2005 (CBN,2006). The funds were sourced mainly from non-bank customers (N41.9 billion) and money at call (N42.0 billion), among others. The funds were utilized mainly in the purchased of Federal Government securities of less than 91 – days maturity (N36.2 billion), loans to banks (31.6 billion) and loans to non-bank customers (13.4 billion). Discount houses' investments in Federal Government securities of less than 91 days maturity amounted to N70.2 billion as at end – December 2006, which represented 44.8 % of their total deposit liabilities. This was 15.2 percentage points below the prescribed minimum of 60.0 % for 2006. These show how important the impact of the discount houses has largely been felt in the level of activities of holding of government debts instruments.

The listed sources of funds for discount houses in Nigeria include: (a) Equity paid-up capital and reserves; (ii) Call money and short-term borrowings of not more than three years maturity (Ezirim and Enefaa, 2007). A discount house that is short of funds may obtain from the CBN an overnight advance against acceptable collateral. However such an advance shall not exceed 20 % of the total assets of the discount house and not in any event be granted if the discount house has exceeded the borrowing limit as prescribed by CBN; sell short-term bills and or other securities to the CBN. The CBN also shall provide rediscounting facilities for treasury and other eligible securities and enter into repurchase transactions with the CBN using eligible securities.

Sundharam and Varshney (1978) noted that discount houses have three sources of funds for their operations: capital subscribed by shareholders, loans and advances from commercial banks and deposits from the general public. The discount houses may elect to hold a large volume of bills until they fall due for payment. The Banks acts as the lender of the last resort but through the discount houses, which is a special feature of the London money market. In other money markets commercial banks approach the Central bank directly. Discount market is indispensable to the functioning of monetary system but the fact remains that the discount market by smoothing out irregularities in ebb and flow of funds among commercial banks and others does simply the functioning of banks and free them from embarrassment of temporary imbalances in their liquidity to concentrate on their major task of credit to trade.

### **Establishment and Reason of Discount Houses in Nigeria**

Discount Houses were set up by the provisions of Section 28, of the Central Bank of Nigeria (CBN) Decree No. 24 of 1991 of Banks and other Financial Institutions (BOFIA) Decree No. 25 of 1991 as amended. CBN (2004) provided the guidelines on which discount houses should function. The functions of discount houses include amongst others: (a) providing portfolio and funds management services, (b) providing financial and business solutions and (c) other

functions that may be prescribed by the CBN from time to time. Discount Houses were primarily created in Nigeria to carry out the following functions: (a) Promotion of rapid growth and efficiency in the money market; (b) Acting as an intermediary between the CBN and licensed banks in Open Market Operations (OMO) transactions and other eligible transactions; (c) Facilitating the issuance and sale of short term government securities, (d) providing discount/re-discount facilities for Treasury Bills (TBs), Government Securities and other eligible financial instruments; (e) Accepting short-term financial accommodation to banks. The CBN injects or withdraws funds from the money market through the Discount Houses, whose operations will enable them serve as a mirror with which the CBN measures the liquidity in the market.

Between 1992 and 1996, five discount houses debuted and remain till date the only ones in Nigeria as shown in Table 1. They are as follows: First Securities Discount House Ltd (FSDH); Express Discount Ltd (EDL); Associated Discount House Ltd (ADHL); Kakawa Discount House Ltd (KDHL); and Consolidated Discounts Ltd (CDL).

**Table 1.** Comparative Inception Data on Nigeria's Five Existing Discount Houses

<b>Incorporation Date</b>	<b>Date Licensed By CBN</b>	<b>Name</b>	<b>Date Commenced Business</b>	<b>Paid-Up Capital At Inception ₦' million</b>
June 23, 1992	Jun. 1992	FSDJ	July.1, 1992	171.5
Nov.25,1992	Jul.27, 1993	EDL	Aug. 2, 1993	100.0
Oct. 22, 1992	Jul.30, 1993	ADHL	Aug.2, 1993	110.0
Feb.14, 1995	Oct. 1995	KDHL	Nov.16, 1995	200.0
Nov.16, 1995	Aug.14, 1996	CDL	Sept.12, 1996	200.0

Source: Annual Report and Accounts of the Discount Houses (Various issues).

It could be inferred from Table 1 that the discount houses have not been accorded appropriate attention as a key sub-sector in the money market just like banking (commercial and microfinance) and insurance companies. Hence, the relevance of this study. Discount houses are regulated by Central Bank of Nigeria (CBN) and the Securities and Exchange Commission (SEC). Discount houses are expected to submit their returns daily, weekly, monthly, semi-annual to CBN and report their statement of affairs on relevant quarterly reports are sent to SEC. This is to enable regulatory authorities keep abreast of development in the market. In terms of prudential guidelines, the CBN (2004) every discount house shall: (a) transfer to the statutory reserve a minimum of 15% of profit after tax if the reserve fund is less than the paid-up capital and a minimum of 10% if the reserve fund is equal to or more than the paid-up capital; (b) maintain capital funds to risk assets ratio of 1 to 13 and cash ratio (CAR) of 10% or as may be prescribed by the CBN from time to time; (c) not exceed a maximum ratio of 50:1 between its total borrowing and capital plus reserves without the prior approval of the CBN; (d) not grant to any bank, facility of more than 75% of its shareholders' fund unimpaired by losses without the prior approval of the CBN; (e) (i) at all times maintain not less than 60% of total borrowing in government securities; (ii) Any discount house which fails to maintain the 60% of borrowings in government securities is guilty of offence and liable to fine as stipulated in Section 15 (4) b of BOFIA as amended.

The money market is not a single homogenous market but it is composed of several sub-markets, each one of which deals in different types of short term credit. However, as each money market has different types of sub-markets, it is impossible to speak about the composition of a money market in general, without specifying the market we are studying. Unlike in the developed market of London, Bombay and Tokyo, where we have Call Money market, Acceptance Market, Bill Market, these are completely absence in Nigeria. The different segments of the money market are intimately related to, and are dependent on, one another. It should be pointed that the different markets which collectively form the money market can, in fact, be combined into one market. The call money market, for example, refers to the borrowing

and lending of call loans and advances. The borrowers are those who deal in the discount market. Again, the acceptance market refers to the acceptance of bills and, properly speaking, acceptance of bills naturally leads to the discounting of bills (which is the discount market). Therefore, all the three particularly markets which comprise the money market can be combined into one market and may be designated as the discount market.

Activities in the money market during the year were influenced by the monetary conditions and the various policy actions by the CBN, including the adjustment of its policy and prudential rates. With the exception of the Negotiable treasury certificates segment, activities increased in all other segments, evidenced by the higher value and volume of transactions and an increase in the outstanding assets. Open Market Operations (OMO) are conducted on a daily basis with the aim of effectively managing liquidity in the system. The instruments used for the conduct of OMOs were the Negotiable Treasury Bonds (NTBs), Treasury Bonds, CBN bills and the recently approved non-rediscountable special NTBs which helped to bridge the supply shortages that were experienced following the dearth of NTBs.

The total subscription and sales of the intervention securities was N2, 270.20 billion and N1,808.40 billion, respectively, compared with N1,247.3 billion and N989.9 billion in 2005 (CBN, 2006; 2007). The breakdown of sales in 2006 showed that special NTBs and regular NTBs accounted for N,423.32 billion and N145.2 billion, respectively, while Nigerian Treasury Bonds and CB Bills accounted for N136.8 billion and N103.12 billion respectively. The increased sales could be attributed to a number of factors, amongst which are: the rollover of the N145.7 billion in 91 –day, non-rediscountable special NTBs, the attractive rates offered at the open market, the supply shortage of long tenured instruments offered at the primary market, and the distribution and injection into the economy of N570.0 billion excess crude oil proceeds.

The government still remain the dominant player in the Nigerian money market, as treasury securities constituted 82.5 % of money market assets outstanding as at end-2006, while private sector- issued securities (certificates of deposits, commercial papers and bankers' acceptances) accounted for 17.5 % (see Table 2). The depth of the money market, as measured by the ratio of value of money market assets outstanding to Gross Domestic Product, improved slightly from 7.9 % in 2005 to 8.8 % in 2006, reflecting the effect of the issuance of the 3<sup>rd</sup> FGN Bonds (CBN, 2006). However, the size of this ratio in relation to bank financing of the economy (credit to core private sector/GDP 13.5 %) underscores the short-term feature of financial markets in Nigeria.

**Table 2.** Composition of Money Assets Outstanding (2005 and 2006)

Type of Asset	Share in Total (%) 2005	Share in Total (%) 2006
Treasury Bills	63.70	43.10
Treasury Certificates	0.00	0.00
Development stocks	0.10	0.00
Certificate of Deposit	0.00	0.00
Commercial Papers	14.50	12.60
Bankers' Acceptance	3.10	4.80
FGN Bonds	18.70	39.50

Source: CBN (2006) Annual Reports and Statement of Accounts.

## Method of Analysis

From the fall out in the literature and to achieve the objectives of the study, two empirical models were formulated. The models were formulated to examine the interactions between the operations in the discount houses and economic growth, on one hand, and value of money

instruments, on the other. This becomes crucial given the germane roles that the discount houses as a sub-sector of the money market is expected to play in enhancing the financial system.

The first model relates economic growth proxied by real gross domestic product (*RGDP*) to discount houses operations. The operations in the discount houses were captured by two variables- shareholders' fund (*SHFD*) and total assets of the discount houses (*TASD*). The use of *RGDP* as dependent variable is to examine the macroeconomic impacts of discount houses operations. In this regards, a functional relationship between *RGDP*, *SHFD* and *TASD* can be stated as:

$$RGDP_t = f(SHFD_t, TASD_t, U_{1t}) \quad (1)^1$$

Equation 1 can be represented explicitly as:

$$RGDP_t = a_0 + a_1 SHFD_t + a_2 TASD_t + e_{1t} \quad (2)$$

In the second model, the value of money market instruments (*VMMI*) is related to the operations in the discount houses (*SHFD* and *TASD*). This is to evaluate the sectoral (microeconomic) impact of the operations of discount houses. Thus, the second model is represented as:

$$VMMI_t = f(SHFD_t, TASD_t, U_{2t}) \quad (3)$$

This can be written in explicit form as:

$$VMMI_t = b_0 + b_1 SHFD_t + b_2 TASD_t + e_{2t} \quad (4)$$

Since we have same explanatory variables (viz: *SHFD* and *TASD*) related to different dependent variables (*PGDP* and *VMMI*), we can combine equations 2 and 4 in a more compact form using matrix algebra notations as:

$$Y_t = \alpha + \sum_{j=1}^2 \beta_{ij} X_{jt} + e_{it} \quad (5)$$

$$\text{Where: } Y_t = \begin{bmatrix} Y_{1t} \\ Y_{2t} \end{bmatrix} = \begin{bmatrix} RGDP_t \\ VMMI_t \end{bmatrix} \quad (5.1)$$

$$\alpha = \begin{bmatrix} a_0 \\ b_0 \end{bmatrix} \quad (5.2)$$

$$X_{it} = \begin{bmatrix} X_{1t} \\ X_{2t} \end{bmatrix} = \begin{bmatrix} SHFD \\ TASD \end{bmatrix} \quad (5.3)$$

$$e_{it} = \begin{bmatrix} e_{1t} \\ e_{2t} \end{bmatrix} \quad (5.4)$$

and  $i = 1, 2; \quad t = 1992 - 2007$

The dependent variables ( $Y_{it}$ ) are *RPGDP* and *VMMI*, while the explanatory variables ( $X_{it}$ ) are the indications about the operations in the discount houses. The parameters  $\beta_{ij}$  are the various coefficients of the explanatory variables that would be obtained when the models are fitted into

<sup>1</sup> The model did not consider labour and capital as espoused by endogenous growth exponents. Besides the aim of conserving the degree of freedom, they are not the focus, rather attention was paid on the variables of interest.

data. The constant terms,  $\alpha$  ( $a_0, b_0$ ) are the intercepts of the equations.  $e_{it}$  ( $i=1,2$ ) are the error terms that capture factors not included and expected to be identically and independently distributed (iid) and with zero mean and constant variance  $N(0, \sigma^2)$ . The *a priori* expectations are such that the  $\alpha > 0$  and  $\beta_{ij} > 0$

## Estimation and Discussion of Results

The period covered by the study is 1992 to 2007. This is because the policy that birthed discount houses in Nigeria came to be in July 1991 (CBN, 2004). Thus, it is assumed that the operation commenced fully the following year. The descriptive statistics of the variables were first presented in Table 3 to have an overview of them. The variables were estimated in their log-linear form because it has been noted in most empirical studies that log- functions reduces the problem of heteroscedasticity as well its usefulness in showing rates of changes ( elasticities) which bring macroeconomic variables to a more comparative level (Rehman,2007; Osabuohien and Egwake,2008). The data used in the estimation process were sourced from CBN annual report and statements of accounts as well as CBN statistical bulletin (various issues).

**Table 3.** Descriptive Statistics of the variables

Variables	LNRGDP	LNDHSF	LNDHAS	LNVMI
Mean	12.9738	7.9554	10.0294	12.9709
Median	12.9057	7.9456	9.9684	13.0231
Maximum	13.3659	10.0367	12.6057	14.6265
Minimum	12.7287	5.7246	8.0502	11.7253
Std. Dev.	0.2132	1.3495	1.4190	0.9812
Skewness	0.5536	-0.0893	0.2365	0.1678
Kurtosis	1.9246	1.8038	1.9328	1.6462
No. of Observations	16	16	16	16
Jarque-Bera	1.5881	0.9752	0.9084	1.2968
Probability	0.4520	0.6141	0.6350	0.5229

The study employs cointegration and vector error correction (VEC) econometric techniques in estimating the model formulated in the previous sections. This is because the study is interested in accessing the existence or otherwise of long term relationship between the operations of discount house and economic growth, one hand, and the value of market instruments, on the other. This is basically achievable by employing co-integration analytical technique, while the VEC help to estimate the nature of convergence (or divergence) in the long run as well as the speed of adjustment from the short run dynamics to run equilibrium values.

It is conventionally essential to test the stationarity of macroeconomics variables in order to ascertain the order of integration of the series besides the possibility of having spurious results. To this end, this study carried out unit root test using Philip-Perron (PP) approach. (The Augmented Dickey Fuller-ADF was equally done but not reported for brevity sake). However, it has been observed that a variable that is stationary using PP will also be using ADF at a given level (Olayinka, 2005; Osabuohien, 2007). This was equally observed in this study. Another advantage of PP over ADF is that it takes cognizance of the variable in possible cases of structural change. The results from the unit root test using PP procedure are reported in Table 4.

**Table 4.** Unit Root Test Using PP Approach

Series	Intercept no Trend	Intercept & trend	Decision
<i>LNRGDP</i>	2.8731	-1.1461	I(1)
<i>DLNRGDP</i>	-3.2481	-3.9466	
<i>LNVMMI</i>	0.9692	-2.9548	
<i>DLNVMMI</i>	-4.8678	-5.2031	I(1)
<i>LNSHFD</i>	-0.8840	-2.4743	I(1)
<i>DLNSHFD</i>	-3.4397	-3.2775	
<i>LNTASD</i>	0.3565	-3.4419	
<i>DLNTASD</i>	-7.4735	-8.3426	I(1)
Critical Values (C.V) at 5% Significant Level			
<b>Level</b>	-3.0818	-3.7611	
<b>1st Diff</b>	-3.1003	-3.7921	

Notes: A variable is stationary at a given level when the absolute PP values are greater than the absolute C.V. LN and D before the variables are logarithm and difference operators, respectively.

It can be observed from Table 4 that all the variables are I(1) series because they all became stationary at first difference. When variables are not stationary at levels, it becomes expedient to examine if there is a possibility of them having long-run relationship. This was carried out using Johansen method. The beauty of this approach compared to Engle and Granger two-stage method is that it helps in ascertaining if there is cointegration as well as the long-term estimates, which is not possible in the latter.

From Table 5, it is apparent that in each of the two models there was the existence of one unique co-integrating equation. The implication of this is that there is a long-run relationship between discount houses operations and economic growth in Nigeria, as well as value of money market instrument. Thus, in the long-run, the level of shareholders fund and total asset in the discount houses and value of money market instruments as well as economic growth in Nigeria would move together.

The co-integration test used lags of one to one. Apart from helping to preserve the degree of freedom due to the scope of the study, other higher lags of two was done; however there was not much difference judging from Schwarz criteria and Akaike Information Criteria (AIC.) In fact, the estimates in lag one appear better. This may be due to the fact that operation in the financial market as quite responsive to changes compared to other sectors of the economy.

**Table 5.** Test of Cointegration among series Using Johansen Method

Series: LNRGDP LNSHFD LNTASD			
Eigenvalue	Likelihood Ratio	5% C. V	Ho:No. of CE(s)
0.7242	35.0872	34.9100	None *
0.5153	17.0528	19.9600	At most 1
0.3897	6.9130	9.2400	At most 2
Normalized Co-integrating Equation			
LNRGDP = 0.0372LNDHSF +0.2280 LNDHAS +11.2370 (6.0930) <sup>a</sup> (1.9800) <sup>a</sup>			
Series: LNVMMI LNSHFD LNTASD			
Eigenvalue	Likelihood Ratio	5% C. V	Ho:No. of CE(s)
0.8687	41.8362	29.6800	None *
0.6017	13.4142	15.4100	At most 1
0.0369	0.5262	3.7600	At most 2

$$\text{Normalized Co-integrating Equation}$$

$$\text{LNVMMI} = 0.9530 \text{LNSHFD} + 0.2070 \text{LNTASD} + 7.4040$$

$$(2.6890)^a \quad (3.7640)^a$$

\*Reject  $H_0$ . a:t-values, which indicates significance @5%. Test assumption: Linear and no deterministic trend in the data. Lags interval: 1 to 1.

Examining the co-integrating equation, it can be observed that there is a positive relationship between the operation in discount houses and economic growth in Nigeria. In specific terms, a unit increase in the value of shareholders fund and total assets in discount houses has the possibility of inducing about 0.037 and 0.228 units, respectively, increase in economic growth in Nigeria in the long-run. On the other hand, a unit increase in shareholders fund and total assets will result to about 0.953 and 0.207 units, respectively, increase in value of the money market instrument in the long-run. One can say that the operations of discount houses are latent growth potentials both at the money market and economic growth though the level of impact is higher in the former. This may be a viable segment that can be harnessed further especially with crashing stock market as a result of global economic meltdown. The above can be achieved by licensing more discount houses to increase the scope of their operations with regards to the total asset base and shareholders fund. Just like the attention discount houses receive in developed economies with regards to coverage, having a body that regulates their operations would be relevant in Nigeria. This would reduce undue pressure in CBN operations and would lead to efficient management of discount houses.

**Table 6.** Vector Error Correction Results

Model 1		Model 2	
Dependent: ECM	D(LNRGDP)	Dependent: ECM	D(LNVMI)
	-0.3252 (-2.5544)		-0.5756 (-4.2972)
<i>D(LNRGDP(-1))</i>	0.1847 (1.8756)	<i>D(LNVMI(-1))</i>	0.1832 (1.9610)
<i>D(LNDHSF(-1))</i>	0.0204 (2.3388)	<i>D(LNDHSF(-1))</i>	0.8541 (-2.8410)
<i>D(LNDHAS(-1))</i>	-0.0323 (1.9758)	<i>D(LNDHAS(-1))</i>	0.2791 (4.8078)
C	0.0520 (2.1559)	C	0.3889 (3.8413)
Adj. R-squared	0.5199	Adj. R-squared	0.8299
F-statistic	5.4367	F-statistic	10.9760
Akaike AIC	-4.4165	Akaike AIC	-1.2376
Schwarz SC	-4.1883	Schwarz SC	-1.0094
Mean dependent	0.0444	Mean dependent	0.1957
S.D. dependent	0.0279	S.D. dependent	0.2294

Notes: Figures in brackets are t-values

Only the two equations were reported and we only explained the VEC estimates, since we have discussed the long-run estimates from the co-integrating equations. Also the standard diagnostics tests were carried out and it was discovered that no violations were made regarding normality and error terms assumptions but not reported.

The study after carry out the cointegration test, evaluated the adjustment mechanism in the two models between the short-run dynamics to the long-run equilibrium using VEC. The VEC term in Table 6 for the two models implies that there is a convergence in the long-run given their negative signs, which is significant at 5% level. From the values, it could noted that in the first

model about 32.5% errors in the past is corrected in the present, which reflects a slow speed of adjustment from short-run to long-run equilibrium values. For the second model, the value reveals that about 57.5% errors were corrected; this implies a moderate speed of adjustment. Thus, the adjustment mechanism is faster at the sectoral level (the model with value of money market instrument) more than the economic growth. This difference is equally evident from the coefficient of determination, where about 52% variations in economic growth were jointly explained by total asset and shareholders fund of discount houses. Whereas in the value of money market equation, about 83% of its changes were explained.

## Conclusion

Discount houses as a complimentary body to the money market in the financial system have some key functions they play. However, the situation is such that this segment has not been given much attention. The fact that only five (5) discount houses exist since 1996 to date speaks volume. It is against the problematic, that this study empirically investigated the relationship between the operations in discount houses and money market, on one hand and economic growth, on the other. The period covered was from 1992-2007. The data were fitted into the model and the results from co-integration technique revealed that the existence of a long-run relationship between discount houses operations and economic growth in Nigeria, as well as value of money market instrument. Thus, in the long-run, the level of shareholders fund and total asset in the discount houses and value of money market instruments as well as economic growth in Nigeria would move together. While the Vector Error Correction (VEC) estimates confirm that is adjustment in the long-run even in the event of distortion the short-run.

One this note, this study concludes that the operations in the discount houses can be a virile stimulant for the money market and economic growth in Nigeria. Thus, discount houses can play viable complementary role to the stock market especially with the biting global economic meltdown. This can be achieved via licensing more discount houses to increase their scope. Like what obtains in advanced economies, a supervisory body should be set up to oversee the operations of the discount houses and money market to enhance their performance. To further enhance the performance of money market in Nigeria, it should be subdivided into sub-markets-discount houses inclusive.

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## Casele de discount, piața monetară și creșterea economică în Nigeria (1992-2007)

### Rezumat

*Acest studiu cercetează interacțiunile dintre casele de discount, instrumentele pieței monetare și creșterea economică din Nigeria. Studiul prezintă indicatorii de performanță ai acestora și utilizează serii de date obținute de la Banca Centrală a Nigeriei. Prin utilizarea cointegrării și a tehnicilor de corectare a erorilor de vector s-a stabilit, printre altele, faptul că există o relație de durată între operațiunile caselor de discount și creșterea economică pe de o parte și instrumentele pieței monetare pe de alta. De aceea, casele de discount se consideră a fi un stimul veritabil în Nigeria, în special în această perioadă de decădere economică globală care afectează puternic piața titlurilor de valoare.*