

Portfolio Management: An Appraisal of Insurance Industry's Investment Profile Under Interest Rate Deregulation in Nigeria (1985 – 2007)

I.O. Balogun

Department of Economics
University of Ilorin, Ilorin

Abstract

Insurance companies are institutional investors and their transactions contribute positively to the capital market development. Through their services the economy is able to produce more goods and services as most investments are financed through loans in order to produce on a better footing in the economy. Life assurance is the focus of this paper as they have a relatively stable 'idle' funds at their disposal than the non-life insurance to invest in the economy. More also, by regulation their investment priorities are not the same as the law dictates investments opportunities. This paper examined the direction that investment would go in a deregulated interest rate regime on government securities in comparison with others. It is observed that the presence of flexible interest rate do channel investment. But compulsory laws will lead to disincentives and a tendency to violate such laws, as investors are interested in ventures with high yield overtime.

Keywords: deregulation, interest rate, investment, portfolio management.

Introduction

In order to stimulate domestic savings as well as capital inflow the interest rate was liberalized in 1987 by the government to eliminate constraints that could cause capital flight. Interest rate is known to signal where funds should be invested in or the cost of obtaining funds for investments. The level of interest rates in an economy signal the direction in which funds are invested. The financial sector relies on this rate in consonance with the Minimum Rediscount Rate (MRR) in doing their business. For instance, the MRR was reviewed upwards progressively in 2001 in January from 14.0 to 15.5 percent and further to 16.5, 18.5, and 20.5 percent in April, June and September respectively. The question is do investors also adjust their investment to take advantage of this and move their funds around to benefit from deregulation and competitive rates available in the economy? This paper focuses on insurance industry (institutional investors) investment decision pattern, given interest rate deregulation in the economy. Though we have various bodies exacting control on the industry, such as the government, Central Bank of Nigeria and Ministry of Finance cum the Nigerian Insurance Commission coupled with chartered Institute of Insurance on the industry. But the governmental control is the one that directly affect the direction of their investment.

Investment portfolio must be managed, be it passive or active portfolio. Since the aim of portfolio management is the determination of optimal percentage of investible fund to each security that will sustain investor's goal for investment (Adams, 1991). In order to avoid holding a security with low yield, there must be periodic assessment using portfolio selection, revision and performance measurement, so as to evaluate the economic and interest rate impact on them at the short and long run perspectives. There are some aspect of portfolio management such as security analysis, portfolio analysis and selection, fundamental and technical analysis and lastly, industry analysis, which form part of security analysis (Agu, 2010; Akiode, 1991; Ani, 1991; Mennis, 1974; Osipitan, 2009). Portfolio analysis deals with the determination of portfolio future return and risk possibility. But portfolio selections focus on selecting the right asset for investment. For instance, Falana (1991) shared the view of Doblins, et al (1983) that investor's definition of portfolio objectives, diversification and selection of individual investment must be included in investment portfolio management.

Investor's objective is to maximize their wealth and minimize their loss, which calls for diversification. But to diversify investment asset must be analyzed through internal, external and policy analysis. Under internal analysis, the firm's dynamics is analyzed to verify its possibility of generating future cash flow. External analysis compares other firm's activities in relation to the firm's profit made and dividend shares. But policy analysis looks at the likely effect of government policy on the firms operation. The positive correlation of this analysis guides the manager/investor on the choice of investment, while negative implies refraining to invest.

The ultimate objective of portfolio management is the construction and maintenance of successful portfolios of investments (Balogun, 1995). Therefore, methods must be available to assess the performance of portfolios to be able to take reliable investment decisions. There are two sides to investment – risk and return that co-exist and help in evaluation of portfolio. The total return to the investor is the holding period yield, which captures both the income aspect and capital gains of the return.

Earlier study on the industry confirmed that investment respond to market conditions given the neo classical investment theory (Akinnifesi, 1981; Jorgenson, 1967). Since investment takes time, the delay which may be attributed to commitment of expenditure, lack of information or delay in making timely investment decisions. As a result of this, the returns on investment are what motivate an investor to invest in a particular asset. Which is best explained through interest on such investment. Interest is the payment for the use of borrowed funds or the change in the value of an asset over a specified period of time. Interest rate is the percentage rate of change in the value of an asset at any point in time or over a period of time (Todaro and Bell, 1969). In reality, there is more than one interest rate due to risk, nature of security, services in addition to the loan (investment) itself, lack of free competition among lenders or borrowers, length of time the loan has to run and others causes. The legislative constraints on the choice of investment of insurers have social, political, and economic advantages, yet these restrictions operate to the disadvantage of the insurers, especially when such outlets are not (highly) profitable (Durojaiye, 1988; Irukwu, 1981; Akintola-Bello, 1986).

Some even claimed that the restriction is parochial and pin the insurers to Bank deposit (Nwanko, 1988). Though there have been various reviews of the 1976 Decree at one period or the other, e.g. Decree 40, of 1988, Decree 58, of 1990 and Trustee Investment Act (TIA) 1993 are amendments to Decree 21 of 1976 and TIA of 1962. However, Insurance Decree 5 of 1991 (sections 18 and 19) allows an insurance company to invest not less than 35% of total assets in securities under TIA, Non – life insurer should not invest more than 25% of their assets in real property. According to Randle and Ahuja, (2001) life assurance companies' investment favoured long term rather than short term based on their liabilities. The nature of business of an insurance company determines the profiles of its liability and the direction of its investment. Life Assurance companies differ from non – life insurance companies in their investment objectives. The life assurance companies has more fund available for long – term investment, while non life insurance companies invested in short – term investment due to its liability structure (Arena, 2006).

Methodology and Empirical Analysis

From empirical findings we also observed the divided views on impact of interest rate on investment. For instance, Agu, (2010) and Akinnifesi, (1981) discovered that investment respond to market condition more than any other factors.

The real interest rate is usually measured using the fisher's equation.

$$r = \frac{1 + n - 1}{1 + p} \quad (i)$$

Where r = real interest rate

n = nominal interest rate

p = inflation rate

Equation (1) is non – linear therefore to obtain the linear approximation we have

$$n = r + P + r P \quad (ii)$$

$$n = r + P \quad (iii)$$

Solving for r we have

$$r = n - p \quad (\text{iv})$$

Which shows that r can be positive or negative depending on whether the inflation rate is less or greater than the nominal interest rate.

We can also compute the yield trade off on investment in the economy. Given that

$$Y = P (I + r)$$

Where Y is the yield on investment, P is amount invested and r is interest rate. From table 1, it shows a typical example of the rates obtainable on treasury bills and time deposit (both with same maturity), the calculated yields gives us what the trade off of what investors will lose by investing in government security as against bank deposit. Investors are expected to be rational to prefer higher yield on investment than a lower one, freedom of choice and able to allocate resources as best determined by them. With the interest rate liberalization the insurers would tend to commit more of their funds to time deposit than government securities. However, 1992, 1993, 1997, 1998, and 1999 shows that there was a better pricing for government securities which give it the edge within these years which also confirms Oluymi's (1990) opinion that a better rate for government securities will make it attractive to investors and not only CBN been the Major subscriber as it was between 1980 and 1989.

Table1. Yield Trade off in Investment between Treasury Bills and 3 Months Deposit (1985- 2000)

Year	Amount invested	TB (rate)	*Calculated Yield	Deposit	*Calculated Yield	Trade off*
1985	90.8	8.5	98.52	9.25	99.2	0.68
1986	126.6	8.5	137.36	9.25	138.31	0.95
1987	154.2	11.75	172.31	14.90	177.18	4.87
1988	144.1	11.75	161.03	13.40	163.42	2.39
1989	281.4	17.50	330.65	18.90	334.58	3.93
1990	285.3	17.50	335.23	19.60	341.22	5.99
1991	275.6	15.0	316.94	15.71	318.88	1.96
1992	398.7	21.0	482.43	20.80	481.63	- 0.8
1993	357.7	26.90	453.92	23.60	442.12	- 11.8
1994	523.0	12.5	588.38	15.0	601.45	13.07
1995	511.3	12.5	575.21	13.62	580.94	5.73
1996	391.5	12.25	439.46	12.94	442.16	2.7
1997	526.0	12.0	589.12	7.04	563.03	- 26.09
1998	859.8	18.25	1016.71	13.07	972.17	- 44.54
1999	1512.3	18.25	1788.29	11.95	1693.02	- 95.27
2000		13.25		13.18		

Source: *Author's computation using data from CBN Bulletin, vol. 11 No 10.

Table 2: Inflation, Savings and Money Market Interest Rates in Nigeria

Year	P ¹	MRR	TBR	TCI	DPR ₂	DPR ₃	SR
1985	5.5	10.00	8.50	9.0	9.25	9.50	9.5
1986	5.4	10.0	8.50	9.0	9.25	9.50	9.5
1987	10.2	12.75	11.75	12.25	14.90	15.30	14.0
1988	38.3	12.75	11.75	12.25	13.40	12.1	14.5
1989	40.9	18.50	17.5	16.38	18.90	21.6	16.4
1990	7.5	18.50	17.5	18.2	19.6	20.5	18.8
1991	13.0	14.5	15.0	15.0	15.71	17.09	14.29
1992	44.5	17.5	21.0	22.0	20.8	22.30	16.10
1993	57.2	26.0	26.9	27.4	23.6	23.26	16.66
1994	57.0	13.5	12.5	13.0	15.0	15.0	13.50
1995	72.8	13.5	12.5	13.0	13.62	13.65	12.61
1996	29.3	13.5	12.5	-	12.94	12.21	11.69
1997	8.5	13.5	12.0	-	7.04	7.49	4.80
1998	10.0	19.25	18.25	-	10.20	10.50	5.49
1999	7.0	19.2	18.25	-	12.68	12.75	5.33
2000	6.93	12.0	13.25	-	10.60	10.27	5.29
2001	18.9	12.95	-	-	10.20	10.50	5.49
2002	12.9	18.88	-	-	16.31	16.99	4.15
2003	14.0	15.02	-	-	14.31	13.07	4.11
2004	15.0	14.21	-	-	13.69	12.47	4.19
2005	17.9	7.00	-	-	10.53	10.38	3.83
2006	8.2	8.80	-	-	9.75	9.33	3.13
2007	5.4	6.91	-	-	10.29	9.74	3.55

Source: CBN Bulletin, (2011) Section A and World Development Index 2011

¹ P is inflation; MRR – minimum rediscount rate; DPR₂ – deposit rate (3 months); DPR₃ – deposit rate (3-6 months); SR – saving rate; TBR- treasury bill rate and TC₁ – treasury certificate rate (1 year maturity).

Table 3 Results of Real Interest Rates in Nigeria (1985 – 2007)

Year	MRR ²	TBR	TC ₁	DPR ₂	DPR ₃	SR
1985	4.5	3	3.5	3.75	4	4
1986	4.6	3.1	3.6	3.85	4.1	4.1
1987	2.55	1.55	2.05	4.7	5.1	3.8
1988	-25.55	-26.55	-26.05	-24.9	-26.2	-23.8
1989	-22.4	-23.4	-24.52	-22	-19.3	-24.5
1990	11	10	10.7	12.1	13	11.3
1991	1.5	2	2	2.71	4.09	1.29
1992	-27	-23.5	-22.5	-23.7	-22.2	-28.4
1993	-31.2	-30.3	-29.8	-33.6	-33.94	-40.54
1994	-43.5	-44.5	-44	-42	-42	-43.5
1995	-59.3	-60.3	-59.8	-59.18	-59.15	-60.19
1996	-15.8	-16.8	-	-16.36	-17.09	-17.61
1997	5	3.5	-	-1.46	-1.01	-3.7
1998	9.25	8.25	-	0.2	0.5	-4.51
1999	12.2	11.25	-	5.68	5.75	-1.67
2000	5.07	6.32	-	3.67	3.34	-1.64
2001	-5.95	-	-	-8.7	-8.4	-13.41
2002	5.98	-	-	3.41	4.09	-8.75
2003	1.02	-	-	0.31	-0.93	-9.89
2004	-0.79	-	-	-1.31	-2.53	-10.81
2005	-10.9	-	-	-7.37	-7.52	-14.07
2006	0.6	-	-	1.55	1.13	-5.07
2007	1.51	-	-	4.89	4.34	-1.85

Source: Author's computation (using Fisher's equation)

Table 3, confirmed that government regulation in the operation of the financial market does not often achieve the intended objectives. Instead it results in distortions like suppression of equity markets and inducement of present consumption at the expense of investments. The positive yield period are 1997 to 2000 for MRR, TBR and DPR₂, DPR₃ (1998 -2000). The negative value shows disincentive to invest and misallocation of funds (Soyibo, et al 1992). This implies that the insurance industry will prefer to invest their funds as judged by them to maximize their objective (Soludo, 2008). The hope is that deregulation will also affect the industry investment profile especially with the reforms introduced by the apex bank.

Summary and Conclusion

True investors are interested in a good rate of returns earned on a rather consistent basis for a relatively long period of time. The speculator seeks opportunities that promise very large returns, earned rather quickly. But investment is distinguished from speculation by the time horizon of the investor and often by the risk – return characteristics of the investments. Since the insurance industry are operating under the close 'mirror' of government regulation in channeling their surplus funds into the economy. The tendency to violate the law will be high once the returns from the outlets they are allowed gives lower than what they could get elsewhere. However, we have examined the effect of deregulation of interest rate on the industry's investment choices and found that government securities does not look too attractive to this institutional investors, since the interest rate on them are lower than what could be earned on other financial instruments of almost the same period. We observed (table 1) that in 1992, 1992, 1994, 1997, 1998 and 1999 the trade off are negative implying that the returns of Treasury bills is higher than time deposit (mainly due to higher interest rate that signals the direction of investment and reward of investment).

² MRR – minimum rediscount rate; DPR₂ – deposit rate (3 months); DPR₃ – deposit rate (3-6 months); SR – saving rate; TBR- treasury bill rate and TC₁ – treasury certificate rate (1 year maturity).

Table 3 gives us the notion that interest rate deregulation is not enough to promote investment as inflation rates must be minimal to make investment worthwhile. It is observed from the results that there are disincentives to invest and misallocation of funds. Sometimes government fiscal policies do affect the direction of investment positively or negatively, though the interest rate may be okay. This implies that the industry will tend to break the law on their investment profile, if the area of control or monitoring is loose from the part of government.

Though strict control is needed on the industry if they are to be shielded from crashing and ruining the economy because they are the business outfit to indemnify their client against loss and for them to invest as they wish will endanger the economy. This may have accounted for the reason why the industry is not experiencing distress as witnessed in the banking industry. However, the recapitalization have drastically reduced the number of insurance companies while also strengthen them for better services. Further study is needed to investigate the results of the recapitalization on the industry.

References

- Akiode, L.O. (1991) An evaluation of the investment portfolio management of royal exchange assurance (Nig.) Plc. An Unpublished MBA thesis – University of Ibadan, Ibadan.
- Akintola-Bello, O. (1986) Investment behaviour of insurance companies in Nigeria. *The Nigerian Journal of Economics and Social Studies*, vol.28
- Ani, A.A. (1991) “Pricing a company’s securities” A Paper at the seminar on the Stock Exchange: An avenue for economic growth of Nigeria. Held at Kano, Nigeria
- Agu, C. (2010) “The insurance industry in Nigeria: an appraisal” *The Tide Newspaper* in Nigeria of November 19, 2010
- Balogun, I.O. (1995). Investment management in Nigeria insurance industry: An appraisal. M.Sc. Thesis Department of Economics University of Ibadan, Ibadan (unpublished).
- CBN – Annual report and statement of accounts 200. Published by Central Bank of Nigeria
- CBN – Statistical Bulletin, 2011 and 2010. Published by Central Bank of Nigeria
- Durojaiye, H.T. (1988) A review of the insurance decree 1976 CBN Bullion, vol. 12, No 14. Published by Central Bank of Nigeria
- Dobbin, R; et al. (1983) Portfolio theory and investment management. Martin Robertson & Co, Ltd. Oxford
- Irukwo, J.O. (1981) Insurance management in Africa. Published by Caxton Press (W.A) Nigeria Ltd, Lagos
- Jones, C.P. (1985). Investments: analysis and management. John Wiley & sons, Inc. Santa Barbara International Edition
- Markowitz, H.M. (1952) Portfolio selection *Journal of Finance*. Vol. Vii, No 1, March, 1952.
- Mennis, E.A. (1974) An integrated approach to portfolio management. *Financial Analyst Journal*, vol. 30, No 2, March/April
- Mojekwu, J. N. (2011) The impact of insurance contributions on economic growth in Nigeria *Journal of Economics and International Finance* Vol. 3(7), pp.444-451, July 2011
- Nwanko, G.O. (1985). Responsiveness of the insurance industry in Nigeria to societal needs. CBN Bullion vol. 12, No. 14. Published by Central Bank of Nigeria
- Olaniyan, T.O. (1990). Determinants of the investment behaviour of insurance companies in Nigeria (1969 – 1986). Unpublished M.Sc Thesis. Department of Economics, University of Ibadan, Ibadan.
- Osipitan T (2009). Legal regulation of insurance business in Nigeria: problems and prospects. *Chartered Insurance Institute of Nigeria Journal*. 11(1): 69-82.
- Oyejide A, & Soyode A (1976). Insurance companies as investors; patterns, growth, and problems of their investment in Nigeria, March. Sharpe, W.F. Investments, Englewood Cliffs, New Jersey: Prentice Hall. *Nigerian Journal of Economics and Social Studies*, 18:1.
- Randle A, Ahuja R. (2001) “Impact on saving via insurance reform. Indian Council for Research on International Economic Relations; Working paper. 67.
- Soyibo, A, et al. (1992) Financial system regulation: deregulation and savings mobilization in Nigeria”. AERC Research paper II
- Soludo, C. C. (2008). Issues on the level of interest rate in Nigeria. CBN’s Governor Speeches Publications, Published by Central Bank of Nigeria.