

An Analysis of Performance of Real Estate Investments in Onitsha Metropolis and Investments in Bank Shares in Nigeria

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Abstract

Real estate investments in most urban towns of Nigeria are done mostly by the informal sectors (ie private individuals). These group of investors together with formal sectors investors such as banks, insurance companies, corporate bodies are putting considerable sums of money into real estate investment annually. Also recently the awareness of the need for the investment in securities has made a host of investors especially from the south-eastern part of Nigeria to begin to invest in equities such as bank shares. However these investments are made without knowledge and understanding of the performances of these sectors. This paper therefore focused on the analysis of the performance of real estate investments in Onitsha Metropolis and investments in bank shares in Nigeria for the period 2000-2010.

The data on rental value and capital values were sourced from the estates surveying and valuation firms in Onitsha metropolis while data on the bank shares and divided per share were sourced from the commercial banks and the Nigeria stock exchange. Data collected were analyzed, using Arithmetic mean return (AMRR), geometric mean return (RG), standard deviation and coefficient of variation. The result showed the residential properties having arithmetic mean return (AMR) of 9.59%, geometric mean return (GMR) of 9.54%, standard deviation of 3.35% and coefficient of variation of 0.34, while the bank shares have an arithmetic mean return (AMR) of 16.64%, Geometric mean return (GMR) of 9.1%, standard deviation of 38.86% and coefficient of variation of 2.34.

The performance indicators as shown by these parameters indicate that property investment is more secure than investment in bank shares.

Keywords: comparative Analysis, performance measurement, Residential properties, Onitsha Metropolis, bank shares.

1. Introduction

Investment in real property often involves a large capital outlay, which with the right entrepreneurial ingenuity can attract adequate return. Investment decisions in securities, share or real property are often made based on the expectation of future returns/benefit. Due to the uncertainty surrounding the future, the benefits may or may not be realized. The decision to engage in real property investment is among the most difficult and critical an investor has to make. This is not only because of the large capital outlay and long gestation period but equally once the decision is taking, an error which may result if discovered, can hardly be remedied.

Since capital is limited and can be invested elsewhere, the best option is the allocation of it between alternative uses to obtain an efficient use consistent with the wealth maximization objective of the investor, Bello(2003) and this calls for the need to establish a benchmark against which the actual performance of an investment.

Over the years, there has been a remarkable development in the theory and practice of real property investment performance measurement in the United Kingdom and other developed nations.

Property is now being seen as an alternative type of investments that shares similar attributes with other forms of investments consequently, a remarkable improvement has been achieved in the area of studies into the techniques for real estate performance measurement as typical by the works of Heterington (1980, 1984), Hall (1981, 1985), Patrick (1982, 1983) e.t.c.

In Nigeria as in the developed and emerging countries, decisions are often made to invest in property with the primary objective of achieving the necessary level of financial return. Best quality locations and sound property management are recognized as being extremely important in order to maintain and improve the return.

However, while the investors in the developed countries attach a greater significance to the measurement of the level of performance being achieved, there are indications to suggest that their counterparts in Nigeria attach little consideration to this, (Mason, 1990; Kalu, 1988; Ajayi, 1998; Bello, 2003).

The recent involvement of institutional investors such as banks, insurance companies' e.t.c. in real property investment, underscores the need for real property investment performance measurement. Unfortunately little has been achieved in this area and much emphasis is placed on rental movement. The growing need for accountability and improved performance of investment nonetheless requires a more than mere watch of rental movement. Also with the bank consideration exercise in 2005 and continuous post-consideration policies and great interest shown in this sector by the investors, the measurement of the performance of the sector is equally of utmost importance.

This paper is designed to examine the relative performance of residential property investments vis-à-vis investment in bank shares within the context of the performance of the overall national economy.

The intent of this study is therefore to analyze and evaluate the performance of investment in residential properties in Anambra State vis-à-vis investment in bank shares from 2000-2010.

2. Difference between investment in real property and investment in securities

Many scholars have noted the distinguishing feature of property investment which makes it different from investment in securities. Millington (1992) listed the features as: heterogeneity, adaptation, durability, capital requirement, proof of ownership, transfer of ownership, imperfect market, source of income, supply of land, and demand for land. Kalu (2001), stated the features to include heterogeneity, risk, liquidity, indivisibility, high cost of transfer, holding costs, income and capital growth, special ownership gains, imperfect knowledge, and perpetuity, leverage or gearing. These are generally the features of property investment that distinguish it from the investment securities.

Indivisibility:

Investment in property cannot be divided into small units and can, therefore, be bought by only big time investor with big capital. This sharply contrasts with investment in securities which are divided into small units of stocks and shares.

Costs of ownership transfer:

Property ownership transfers entail enormous costs. Fees have to be paid in respect of government consent, the agency fees and valuers who give a professional opinion on the property, the search fee and agreement fees, conversely, the cost of ownership transfers in respect of securities where the investor has to pay only fees (usually comparatively low) charged by the stock broker who handles the transfer documents.

Capital appreciation:

Property has the quality of appreciating in value over time. This may be as a result of factors like government action, the discovery of important mineral resources; and the passage of a highway, the building of an industry or modern market, or the elevation of an area to urban status. Likewise, the value of securities appreciated overtime, especially if the corporation that issued the security is doing well and has bright prospects of continuing the trend in the future though at times it fluctuates.

Capital growth:

Investment in property is invariably a good start for growth. Investment in securities is not. It is ridden with risk because its success and growth are contingent on the performance, earning power, dividend policy etc of the issuer of the security.

Form of security (collateral):

Investment in property gives the investor ability to acquire assets that can be left with bank as security or collateral for loans and advances. Investment in securities also confers the same ability.

Turnover:

Investment in property yields a low income overtime, there is no quick turnover but the income is secured, and conversely, investment in securities can yield substantial income especially when dividends are liberal but at times, the income is not secured.

Provision saving:

Investment in real estate produces savings in rent resulting from owner's occupation. This is similar to investment in securities where savings can be generated from capital appreciation.

Ease of marketability (disposal):

Investment in real property does not give rise to the creation of negotiable instrument if the investment is not listed in the stock exchange. The share certificates on the other hand are freely transferable, because the securities are quoted on the stock exchange. The disposal of real property requires face to face negotiation and the property can only be sold or transferred following a duly executed agreement prepared by a lawyer or solicitor. It is tedious, costly and time consuming.

Taxation:

Investment in securities generates income that is subject to double taxation. First as income tax on the corporate issuer as a legal personality, and secondly, income tax is also imposed on the dividend going to shareholders. This is not the case with investment in real property, where certain expenses made in respect of the property may even be tax deductible, e.g. rent paid by the owner when part or whole of the property is used as business premises by the owner.

Management problems:

There are onerous responsibilities attached to the investment in real property. There is a question of managing property occupied by the other such as;

- ❖ Letting and collection of rent.

- ❖ Attending to repairs and securing insurance coverage with payment of premium.
- ❖ Payment of ground rent, for leasehold property etc.

All these problems do not arise in the case of investment in securities, what the investor does is to watch development in the security market to know when to ask his brokers to buy or sell securities on his behalf.

Direct control:

Unlike property, an individual security holder does not necessarily exercise direct control over the firm whose security he holds. He may have control only if he happens to be majority shareholder.

Liquidity of income and profitability index:

Securities especially quoted shares are relatively more liquid (i.e. capable of being turned into cash) than real estate investment. Real estate typically ranks fairly low in the liquidity scale. But the profitability of an investment in real estate is frequently a great deal more than is necessary to compensate investors for their lack of liquidity. In other word, real estate investments may provide rewards fair in excess of those that would be necessary to compensate for giving up their liquidity.

Invisibility:

Investment in securities are invisible investors who may not like the eyes of the public to be focused on them as in the case with real-estate, have opportunities in the capital market to remain as big billionaires without attracting public attention. This provides some social and psychological protection for the investor, such invisible investments are also not easily reached either for confiscation or freezing of the assets under certain situations which the investor might be faces with.

2.1.0 Investment Return

Investment entails the sacrifice of certain present financial commitment for under certain future benefits. The rewards for investing in money market instruments (bank deposit etc) is the payment of interest which is return on investment, for fixed interest gilts, the coupon; for index linked gilts, the payment of interest (based on the retail price index already published); for ordinary shares; the dividend payment and for property, the contract rent (Baum and Crosby, 1988).

2.1.1 Measurement of Return (Single Period)

a. Shares

It is usual to measure the periodic return from an investor point of view by taking into consideration both dividends received from the share and any change in value of the share over the period concerned. Thus, the return in period *t* is given by:

$$R_t = \frac{P_i - P_o + D_i}{P_o}$$

- Where R_t = return in period *t*
- P_i = price of the share at the end of the period
- P_o = price of the share at the beginning of the period
- D_i = dividend (s) received in the period *t*.

b. Property

For property, it is the capital appreciation plus rent received over a period under consideration expressed as the value of the original purchase price

Thus

$$R_t = \frac{C_{vt} - C_{vt-1} + N_{it}}{C_{vt-1}}$$

- Where R_t = the return at period *t*
- C_{vt} = capital value at the end of period *t*
- C_{vt-1} = capital value at the beginning
- N_{it} = Net income (rent) at the period *t*

This return could be an expected return based on the subjective probability distributions drawn up by the analyst or could be measured from available historical data to assess the performance of investment.

2.2.0 Investment Risk

Risk is the uncertainty associated with the return on an investment or the probability that actual return may differ from the expected return from an investment. Risk can impact positively or negatively on all component of return.

2.2.1 Measurement of risk

The measurement of risk has root in probability theory of statistics. The step into measurement of risk includes the following (Udobi, 2010).

- i Assign probabilities status to the fraction of the fund invested
- ii Calculate the expected return (RP)
- iii Calculate the variance
- iv Calculate the standard deviation
- v Calculate the coefficient of variation

The expected return in given as;

$$(a) \quad RP = \sum_{i=1}^n X_i R_i$$

$$\text{The RP} = \sum_{i=1}^n X_i R_i = \sum_{i=1}^n r_i P_i$$

Where r_i = the return of the individual asset

P_i = Probability assigned to the fraction of the fund invested in the assets.

$$(b) \quad \text{Variance} = S^2 = \frac{\sum (r_i^2) - (\sum r_i)^2}{n} = \sum r_i^2 p_i - (\sum r_i p_i)^2$$

$$(c) \quad \text{Standard Deviation} = s = \sqrt{s^2} = \sqrt{\sum r_i^2 p_i - (\sum r_i p_i)^2}$$

that is square root of variance.

(d) The coefficient of variation is simply the standard deviation divided by the expected return ie

$$Ex = \frac{S}{RP}$$

3.0 Methodology

The data for the study was collected from a sample of forty firms of estate surveying and valuation and four licensed commercial banks in Onitsha metropolis and Nigerian stock exchange at Onitsha.

Therefore, a total number of forty-five (45) questionnaire were administered on the target population in the study area, out of which thirty (30) were retrieved from the estate surveying and valuation firms, four from the commercial banks and one from the Nigeria stock exchange, representing a total of 66.67% response rate for both population.

The questionnaire administered in the registered firms were structured to gather information in capital values and annual rental values of properties among others, while the questionnaires for the licensed commercial banks and Nigerian stock exchange were administered to secure information on share prices and dividend per share of banks.

The data collected were analyses using the Arithmetic mean return (AMRR), variance (s^2) standard deviation (S), coefficient of variation and Geometric mean returns (Rg)

4.0 Data Presentation and Analysis

The aim of all rational investor is to achieve maximum return while trying to minimize risk, hence the assessment of the performance must be in terms of risk and return .In this wise, the assessment of the investment performance has been done as follows:

1. Performance on the basis of the average annual return.
2. Performance on the basis of risk return
3. Performance on the basis of risk to reward ratio (coefficient of the variation).

Table 1: Capital values, rental values and returns of four-storey buildings (Block of flats) at Onitsha

| Year | Capital values (Nm) | Rental values (Nm) | Rate of return (%) |
|------|---------------------|--------------------|--------------------|
| 2000 | 18 | 0.66 | - |
| 2001 | 19 | 0.66 | 9.2 |
| 2002 | 20 | 0.8 | 5.7 |
| 2003 | 20 | 0.8 | 4 |
| 2004 | 22 | 1.12 | 15.6 |
| 2005 | 22 | 1.12 | 5.1 |
| 2006 | 23 | 1.36 | 10.7 |
| 2007 | 24 | 1.36 | 10.3 |
| 2008 | 25 | 1.52 | 10.5 |
| 2009 | 28 | 1.52 | 18 |
| 2010 | 30 | 1.8 | 13.6 |

From table 1, the capital values and rental values are shown to have a steady increase over the years, depicting positive returns over the period.

Table 2: Capital values, rental values and returns of five-bedroom semi-detached house at Onitsha.

| Year | Capital values (Nm) | Rental values (Nm) | Rate of return (%) |
|------|---------------------|--------------------|--------------------|
| 2000 | 13.5 | 0.15 | - |
| 2001 | 15 | 0.15 | 12.2 |
| 2002 | 15 | 0.216 | 1.4 |
| 2003 | 16 | 0.25 | 8.3 |
| 2004 | 17 | 0.28 | 8.0 |
| 2005 | 18 | 0.312 | 7.7 |
| 2006 | 20 | 0.36 | 13.1 |
| 2007 | 21 | 0.48 | 7.4 |
| 2008 | 22 | 0.5 | 7.1 |
| 2009 | 23 | 0.63 | 12.0 |
| 2010 | 25 | 0.66 | 11.6 |

Table 2 also shows both capital values and rental values increasing steadily over the period under review, depicting positive returns throughout.

Table 3-share prices, dividend per share and returns of banking sector.

| Year | Share price (₦) | Dividend per share (₦) | Rate of return (Rt) (%) |
|------|-----------------|------------------------|-------------------------|
| 2000 | 12.45 | 0.80 | - |
| 2001 | 19.7 | 0.61 | 13.5 |
| 2002 | 11.21 | 0.88 | -10.9 |
| 2003 | 12.84 | 0.83 | 38.5 |
| 2004 | 15.21 | 0.90 | 25 |
| 2005 | 18.38 | 0.76 | 25.8 |
| 2006 | 25.34 | 0.95 | 54.2 |
| 2007 | 48.08 | 1.11 | 86.6 |
| 2008 | 19.53 | 1.01 | 54.3 |
| 2009 | 12.71 | 0.66 | -32.1 |
| 2010 | 13.91 | 0.59 | 20 |

Source: Zenith Bank, UBA PLC, Guaranty Trust Bank PLC, First Bank and NSE(2012)

Table 3 above show both share prices and dividend per share of the banking sectors failing and rising during the period under review leading to negative returns in some period, indicating the unproductive nature of investment in bank shares.

Generally, the overall characteristics of residential property investment showed a progressive increase in both capital values and rental values as shown in table I and 2, resulting to positive annual returns throughout the

period. The same cannot be said of both share prices and dividend per share in the banking sector, which were unpredictably rising and failing during the period under review as shown in table 3. These fluctuating nature of the bank's share price and dividend per share results to negative annual returns in some period, making the investment in bank share unsecured.

Table 4: Computation of Arithmetic Mean of Annual Returns of Residential Properties in Onitsha Metropolis

| PERIOD | Rt | Rt- \bar{R}_t | (Rt- \bar{R}_t) ² |
|--------|-------|-----------------|---------------------------------|
| 2000 | - | - | - |
| 2001 | 0.107 | 0.0111 | 0.00012 |
| 2002 | 0.036 | -0.06 | 0.0036 |
| 2003 | 0.062 | -0.34 | 0.00156 |
| 2004 | 0.118 | -0.0221 | 0.00049 |
| 2005 | 0.064 | -0.032 | 0.00102 |
| 2006 | 0.119 | 0.0231 | 0.00053 |
| 2007 | 0.089 | 0.007 | 0.00005 |
| 2008 | 0.088 | 0.008 | 0.00006 |
| 2009 | 0.15 | 0.054 | 0.00292 |
| 2010 | 0.126 | 0.030 | 0.0009 |

$$\sum R_t = 0.959$$

$$0.01125$$

Arithmetic mean return (AMRR) = 9.59%

Variance (S²) = 0.001125

Standard deviation = 0.0335 = 3.35%

Coefficient of variation = $\frac{\text{standard deviation}}{\text{Mean}} = 0.349$

Geometric mean return (R_g) = 9.54%

Table 5: Computation of Arithmetic Means of Annual Returns of Banking Sector in Nigeria

| PERIOD | Rt | Rt-Rt | (Rt-Rt) ² |
|--------|--------|----------|----------------------|
| 2000 | - | - | - |
| 2001 | 0.135 | -0.03135 | 0.001 |
| 2002 | -0.109 | -0.27535 | 0.0758 |
| 2003 | 0.388 | 0.21865 | 0.0449 |
| 2004 | 0.25 | 0.08365 | 0.007 |
| 2005 | 0.258 | 0.09165 | 0.0084 |
| 2006 | 0.542 | 0.37565 | 0.1411 |
| 2007 | 0.8665 | 0.7..15 | 0.4902 |
| 2008 | -0.543 | -0.70935 | 0.5032 |
| 2009 | -0.321 | -0.48735 | 0.2375 |
| 2010 | 0.20 | 0.03365 | 0.0011 |

$$\sum R_t 1.6635$$

$$1.5102$$

Arithmetic mean return (AMRR) = 16.64%

Variance (S²) = 0.15102

Standard deviation (S) = 38.86%

Coefficient of variation = 2.336

geometric means return (R_g) = 9.1%

TABLE 6: Summary Statistic of Performance Measures of Residential Properties in Anambra State and Bank Shares (Annual Returns 2000-2010)

| | Residential Properties | Bank shares |
|--------------------------|------------------------|-------------|
| Arithmetic mean | 9.59% | 16.64% |
| Standard deviation | 3.35% | 38.86% |
| Coefficient of variation | 0.35 | 2.34 |
| Geometric mean | 9.54% | 9.1% |

The performance of the residential properties portfolio in Onitsha Metropolis shows an annual mean return of a approximately 9.6% over the 10 years period and a risk of 3.4%. The geometric mean return is approximately 9.5% and a coefficient of variation of 0.35. This is compare to that of the performance of the bank shares which shows annual mean returns of approximately 16.6% over the same 10 years period and a risk of 38.9%. The geometric mean return is approximately 9.1% and a coefficient of variation of 2.34.

The implication of these is that investment in residential properties shows stable annual returns of approximately 9.6% using arithmetic mean method and approximately 9.5% using geometric mean method. Conversely, the banking sector shows the volatile nature of investing in the portfolio with annual arithmetic mean of approximately 16.6% while the geometric mean returns is approximately 9.1%.

On the basis of risk profile, the residential properties investment in Onitsha metropolis has a standard deviation (risk) of 3.4% while the investment in banking sector has a standard deviation (risk) of 38.8%. This means that investments in bank shares are much more risky then residential property in Onitsha metropolis.

Applying the coefficient of variation also known as risk-to-reward ratio, which provides a relative measure of risk and as such used as a relatively simple index of performance. It is defined as the standard deviation of returns divided by the means returns for the investment and from the computation, the coefficients of variation are found to be 0.35 for residential property investment and 2.34 for bank shares. This also placed bank shares as the most risky of the two investments media.

5.0 Conclusion And Recommendation

The study dealt into the assessment of the comparative performance of investment in residential property in Anambra state, Nigeria and bank shares. This has been done because it has been noted that most of institutional and individual investors are putting considerable sums of money into real estate investment annually.

Consequently, it is therefore desirable to assess performance in this sector. The study has shown that while property capital and rental values appreciate with time, one cannot say this of ordinary share dividend and prices. As a matter of fact, the share prices and dividend per share fluctuate over this period, depicting the volatile nature of investing in bank shares.

Consequently, the rate of return in residential property investment is stable as compare to bank shares which fluctuate, with negative returns in some period.

Also, the risk associated with investment in ordinary share is higher than that of the investment in residential property. Residential property investment is therefore a preferred investment media than investing in bank shares.

The focus in this study has been to assist the Nigerian Institution of Estate surveyors and valuers to improve the quality and efficiency of the advice offered to their clients, consequently the study recommended the following: The investing public should be enlightened on the need to employ the service of estate surveyors and valuers in exchanging interests in property investments. Firms of estate surveyors and valuers should be further enlightened on the need to keep, update and maintain a property investment data banking culture. The secrecy attached to data and information emanating from property should be avoided. The Nigerian Stock Exchange, the National Bureau of statistics and other relevant government agencies should have a comprehensive data in investment media, such as ordinary shares, dividend per shares, government bonds, saving account etc. Data collected should be relevant and of adequate coverage when viewed statistically. There should be a periodic portfolio performance analysis and this will aid property portfolio managers or investors to select these investment propositions, which promise the maximum improvement of investment return and the reduction of the associated risk.

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