Educational Administration: Theory and Practice
2023, 29(4), 2216-2231
ISSN: 2148-2403
https://kuey.net/

Research Article

The Impact Of Macro-Economic Variables On Real Estate Investment Performance:

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Citation: Joseph Nworah, et al (2023),The Impact Of Macro-Economic Variables On Real Estate Investment Performance: *Educational Administration: Theory and Practice, 29(4),* 2216-2231
Doi: 10.53555/kuey.v29i4.7011

ARTICLE INFO

ABSTRACT

Real estate investment performance and investment decisions are usually affected by prevailing conditions of economics variables. The aim of this study is to examine the impact of economic variables on the performance of real estate investment and investment decisions. Data collected from this study include the rental/capital value and annual returns of 250 commercial properties in the study area. Data were from primary and secondary sources. Convenience sampling technique was adopted. Trend analysis was employed to evaluate trends in returns and Regression Analysis was used to estimate the relationship between returns on investment and inflation, exchange rate, and other variables. Results from the test statistics (Pearson Correlation) showed that the variables – inflation rates and exchange rate were significantly and inversely correlated with real estate investment performance with correlation value (r – value) of – 0.508 and – 0.925 respectively. Also, the results indicated that GDP and population rates have positive and significant relationship with real estate investment performance with the Pearson Correlation co-efficient (r - value) of 0. 839 and 0.684 respectively when tested at 5% significant level. Result also shows that unemployment and real estate investment performance have inverse association with a significant co-efficient of – 27.424. The study recommended among others provision for income/rental growth in property income valuation assignments to take care of variations in economic variables due to inflation and other macroeconomic variables.

Keywords: Real estate investment, Investment Decisions, Macro-economic variables, Investment returns, market dynamics.

INTRODUCTION

The performance of commercial real estate hugely depends on interplay of some macro-economic variables. These variables play key roles in determining the outcome of real estate investment returns which is used to assess the performance of the investment. Since real estate investment involves the sacrifice of huge sum of money or specific amount of money with the aim of earning additional income or future growth or appreciation, the investor is mindful of the outcome of his investment decision in choosing a preferred investment alternative. The expected investment outcome is largely dependent on some economic variables which affect the performance of the real estate investment as a result of the impact of some macroeconomic variables on the investment returns (Otegbulu, 2022).

In discussing macro-economic variable in commercial real estate investment, specific consideration is given to the rate of inflation at a given period. Developing countries' economies have been battling recently with increase in inflation rate resulting from the economic recession of 2016 and the crippling effect of the COVID-19 on the economies. The effect of the rising inflation rate on real estate investment performance cannot be over-emphasized. Increasing inflation has rendered investment decisions unpredictable. This has also made the job of identification and evaluation of alternative investment lines of action difficult and rendered selection of most appropriate alternative a herlucan task (Otegbulu, 2022). Inflation affects real estate investment decisions and cause fluctuation in the relevant data applied for investment analysis resulting in difficulty in performance evaluation and unpredictability in investment returns (French, 2019). Inflation as

one of the major economic variables, is critical in real estate investment performance analysis because of its impact on the general economy of the nation. Consequently, the impact of inflation on real estate investment performance should be given priority attention because of the significant contribution of real estate in nations' sustainable economic development, employment/job creation, poverty alleviation, housing delivery etc. (Akingbade, 2005). The effect of inflation on real estate investment performance cannot be over-emphasized since real estate business generally follow normal economic circles and principles. Typically, assessing the impact of inflation on real estate investment performance implies looking at the impact of inflation on cost of borrowing, cost of construction, cost of materials/labour, impact on demand and supply of accommodation, interest/lending rates etc.

Again, it is pertinent to look at the impact of the country's' exchange rate which was a key economic variable on the performance of the real estate investment and the relationship between exchange rate and real estate investment performance. Similarly, the following macro-economic, socio-economic and demographic factors are worthy of extensive discussion in relation with their effect on investment performance in the study area. These include but not limited to the Gross Domestic Product (GDP), (un)employment rate, interest/lending rates, population growth rate etc.

This study therefore aims to assess the impact of macro-economic variables on commercial real estate investment performance. The key objectives of the paper include: to examine the relationship between the major economic variable – inflation, GDP, exchange rate, lending/ interest rate, (un)employment rate respectively and real estate investment performance(measured by average annual returns). The paper will also assess the effect of the volatility of some of the economic variables on real estate investment performance (measured by average return on investment). It is believed that these will help to answer these questions: does macro-economic variables – inflation, exchange rate, GDP, (un)employment rate, interest ate respectively affect returns on commercial investment? Does volatility of some macro-economic variables – exchange rate, interest/lending rates etc. affect the performance of commercial real estate investment?

LITERATURE REVIEW

Inflation and Real Estate Investment.

Inflation represents one of the major concerns of real estate investors because of its ripple effects on the general economy and on the real estate investment performance indices (Oner, 2010).Inflation rate reflects the rate of rise in prices of the nation's available goods and services and should be treated as of the greatest enemy of a nations' economic and political survival. This is because it represents not just a decline but sometimes a complete erosion of a country's currency purchasing power over the inflation period (Otegbulu, 2022). In Inflation period, the reduction in the currency purchasing power means that the nation's currency is unable to buy the quantity of goods and services as it previously did. In this scenario, excess money in circulation is pursuing very limited goods which forces price increase in the goods and services over the specific period of time. This will generally lead to increase in the general cost of living. Inflation is normally measured via the Consumer Price Index and the Wholesale Price Index depending on what is obtainable in the circumstance and what the nation's responsible local agency considers appropriate measurement tools. In Nigeria, for instance, the local agency responsible is the National Bureau of Statistics. The Bureau uses the changes in the prices of consumer goods and services since the consumer cost of living depends hugely on the prices of many goods and services and the share of each in the budget of the household.

Literature is replete with several definitions and descriptions of inflation depending on the diverse view points. However, in the context of this paper, inflation is considered as the erosion of the value of the local currency in view of the continuous rise in prices of goods and services over a specific period of time. Inflation has been identified to represent the increase in the supply of money resulting in the loss of currency purchasing power. The manner or circumstance of the loss of the nation's currency purchasing power is used to classify or categorize the type of inflation. In this case, we have **Demand – Pull Inflation** which occurs when there is substantial increase in the volume of money supply in the economy resulting in appreciably higher propensity to spend by the citizens and this pulls prices of goods and services higher. In this scenario, the high supply of money in the economy increases demand for available goods and services stretching supply beyond the nation's production capacity and creating s huge demand – supply gap. There is also another scenario referred to as **Cost - Push Inflation** which could arise due to the changes in local currency exchange rate. This could lead to steady increase in the cost of production of goods and services over a specific period forcing supply of goods and services to decline steadily whereas the demand for the goods and services remains constant or in most cases even rises above supply level. There is also another scenario known as **Built – Inflation**. This scenario occurs out of adaptive expectation or anticipation inflation. For instance, there could be tendency for the producers of the goods and services to try and adjust in mere expectation or anticipation of a corresponding or potential increase in cost of production. Instances abound where mortgage lenders increase lending rates in anticipation of price increase; or where real estate developers involved in new projects increase prices in anticipation of increase in cost of production; or where the producers and workers or employers/workers agree or adopt increase in wages in anticipation.

In all these, inflation is one of the most critical economic variables for consideration in real estate investment decisions. The impact of inflation on real estate investment business and decisions cannot be over-emphasized. This is because a prudent investor is mindful of the potential returns on the investment to assess the investment performance. However, there is palpable fear that inflation has the tendency to cause erosion of the present value of the future/expected returns on the investment. In other words, inflation has the capacity to affect the value of the potential investment incomes and the total investment returns in real terms (Salmon, 2021). Salmon (2021) is of the opinion however that real estate investment enjoys marginal advantage under inflation period because of its perceived advantage in providing hedge against inflation. Real estate investors consider inflation as one of the major challenges faced in investment decisions because of its impact on investment projections and distortions in income flows. Investors and stakeholders are unanimous in their conclusion that inflation induces rental defaults and payment irregularities resulting in income flow obstructions (Otegbulu, 2022). Otegbulu (2022) also concluded that there is usually a negative distortion in purchasing power of money over a specific period due to inflation factor and this entails that when a real estate is sold, the property may have appreciated in value but the value of money realized may have been eroded by inflation.

Again, real estate investors and stakeholders assess the effect of inflation on real estate investment performance from the view point of its impact on cost of construction, interest/lending rates, Gross Domestic Product (GDP) and exchange rate, all of which in one way or the other affect the receivable incomes on properties and total returns. In most developing countries' economies, the irregularity of property prices and returns on investment attributed to rising inflation poses serious risk to investor in that the rising inflation rates outpace the rates of return on real estate investment (Tenigbade, 2011)cited in Umeh and Oluwasore (2015).However, Umeh and Oluwasore (2015) emphasized that rational and prudent real estate investors usually strategize in their investment decisions to mitigate the potential risk of loss of real return on investment. Maintaining a risk-return profile is usual in investment decision making process according to Umeh and Oluwasore (2015) as a way of handling investment risks in real estate in order to protect the long term real rate of returns from being eroded by inflation in the nation's economy. Similarly, real estate investors under inflation period battle relentlessly to overcome or contain the resultant devaluation of property income in real terms and the possible erosion of the real estate asset value (Udoka, 2015).

Again, the impact of inflation as one of the key macro-economic variables on real estate investment performance can be seen from the effect of inflation on cost of construction. Inflation usually raises the overall cost of construction in several ways and consequently causes project cost over-run and in some cases leads to outright project abandonment. Sharp increases in project cost of construction and project construction related products and services could force project budget to escalate and could lead to review of loan facility earlier granted for the investment project (Chu, 2023). This is why provision for variation and contingencies is imperative in projections for construction bills. Generally, inflation causes serious threats to feasibility and viability appraisals in a potential project because it causes distortions in the project projections. Although real estate investment professionals incorporate sensitivity and scenario analysis ininvestment appraisals to ensure viability of the project despite changes in construction cost occasioned by interplay of macroeconomic variables, inflation still poses striking challenges in investment returns projections. It is expected however, that relevant bodies saddled with the responsibility of data provision on construction cost details should constantly review and update data on construction costs in view of ever-rising inflation especially in emerging markets and developing economies. Similarly, it has been noted that the impact of inflation on total construction cost affects the projected market price of the investment project and consequently affects the over all performance of the investment (Ashworth, 2010).

Furthermore, inflation affects the value of the investment property in diverse ways. Some school of thought believe that inflation could impact positively on real estate investment opportunities while others argue that inflation would rather deter investors for several reasons (Georgierv, et al2002). This divergence opinion stems from the fact that inflation has the tendency to negatively affect the assets fair value and the resultant effect of the rising inflation could result in fluctuations in the actual value of the property over a specific period and making it difficult to protect the value of the asset in real time. (Al-Anssari, Mojid-Ahmed, 2023).Al – Anssari, et al (2023) argued that real estate investments have the tendency to either appreciate or depreciate in relation to inflation rate depending on the inter-play of other macro-economic variables. The full impact of inflation on real estate investment could be seen from the point of view that inflation could cause rise in cost of construction and cost of borrowing which limit the capacity of a rational investor to assess loan facilities. This will adversely affect construction of new building limiting supply and forcing demand to rise in competition of the few existing building. This rising demand without corresponding rise in supply will put enormous pressure on rental values of existing accommodation and invariably force rise in value of properties. This is understandable because the rise in cost of construction and increase in borrowing cost will inadvertently frustrate new developmental projects causing downward supply movement, increasing demand and consequently raising property values.

Exchange Rate and Real Estate Investment

Another macroeconomic variable of major consideration which poses serious concern in real estate investment is the impact of the nation's exchange rate status. For the purpose of real estate investment

consideration, exchange rate refers to the quantum of one country's currency in relation to the another. In other words, exchange rate signifies the evaluation of one country's' currency in comparison to the value of the currency of another country. Country such as Nigeria operate a floating rate system which implies that the forces of the foreign exchange market determine whether the rates will rise or fall. This fluctuation of exchange rate or the volatility of the rate impacts seriously on the economy of the nation depending on the extent of fluctuation or level of volatility and could have devastating effects on the various segments of the nation's economy (Gbadebo, 2023). The Nigeria situation, like many other developing economies, is experiencing very high volatility in the Naira – Dollar exchange rate being the aftermath of the effect of 2016 economic depression and COVID-19. Gbedebo (2023) contends that the volatile naira – dollar exchange rate hinders construction projects, forces high vacancy rates, delays real estate assets sale especially those assets whose transactions are predominantly dollar – denominated. Such massive developments are mainly located in high-brow areas of Lagos Metropolis like Victoria Island and Ikoyi.

The persistent devaluation of the Naira (₦) in Nigeria, in the midst of ever rising inflation caused vacancy rates to rise in high-brow locations of Lagos, Abuja and PortHarcourt, which represent major cities of attraction for real estate investors. The situation has worsened in recent times. For instance, in June 2021, the local currency (Naira) exchange at the rate of N392 to one US Dollar (S) and rose to N588 per dollar by June, 2022, which represents about 50% rise in about one year. By June 2023, the exchange rate has plummeted to ₦850 per dollar, and three months after, by September 2023, the nation's currency exchanged for ₦1200 to a dollar. The continued devaluation of the local currency has not only triggered project cost variations and in some cases, outright cancellation of investment project finance arrangements but has also brought incalculable distortions in dollar – denominated investment projects in most parts of Lagos metropolis. This scenario is applicable to several emerging market real estate investment (Otegbulu, 2022).

It is pertinent to note however, that despite the continuous devaluation of the local currency and the observed high volatility of the exchange rate, real estate investment professionals remain positive in their view of the enormous contributions of real estate to the nation's economic recovery. Al Smadi, et al (2023) still rated real estate highly despite the difficulties in developing countries' deplorable political and economic situation and recommends real estate investment as a veritable toll for economic recovery suggesting that real estate assets values increase in nominal terms even under currency devaluation, unpredictable political situation and rising inflation. The study also suggests that real estate sector is the least affected under local currency devaluation and remains attractive comparable investment options. This is because prices of real estate assets will most likely increase as the cost of construction/building materials increases. Understandably, devaluation or depreciation of the local currency will adversely affect the purchasing power of money, real estate is still believed to be a vehicle for achieving financial stability (Otegbulu, 2022). Otegbulu (2022) also posited that real estate still offers the benefit of steady income flows with regard to rental properties in areas where demand is high. The study further argued that real estate investment remains an encouraging option despite the challenge of exchange rate volatility and local currency devaluation because of the real estate capital appreciation capacity. This is so because as supply reduces as a result of the skyrocketing costs of construction, demand for available accommodation rises causing price of properties to rise.

Other Variables Affecting Real Estate Investment.

Apart from macro-economic variables of inflation and exchange rate, there are several other economic socio-economic and demographic variables that affect real estate investment and impact on effective investment decisions. Such other variables include but not limited to lending/interest rates, Gross Domestic Product, Population Growth rates and unemployment rate.

It is worthy of note that these key variables exact so much influence on real estate investment decisions and outcomes of such decisions. The economic condition of a country at a particular time determines the trend of these variables and invariably affect the performance of the real estate investment over a period of time (Al – Sahlany, A.M & Kadhum, H.J; 2023). These macro-economic factors align with the market dynamics in line with market economic booms and bursts. The lending/interest rates, gross domestic product, unemployment level and population growth rates have noticeable relationship with trends in business and real estate circles and reacts in particular orders as business/economic circles rises to the peak at a point in time and descends to a dark period at other times (Otegbulu, 2023). The interplay of the macro-economic variables and the market dynamics of boom and bursts affect real estate performance accordingly. In the case of economic boom, for instance, there is tendency for supply of real estate to rise to a point of saturation because of the possible tendency to over-build as the boom encourages increasing demand of the real estate. This scenario triggers over supply and increases vacancy rates in the developed real estate. This is the hallmark of economic and real estate cycles which entails expansion, peak, contraction, trough, and recovery consisting of a cyclical movement. The macroeconomic variables react in particular order in response to the real estate cycles in response to real estate market dynamics of upwards and downwards movements in periods of economic booms and bursts that ends in trough.

Again, it is pertinent to note that the various macroeconomic variables have varying effect on real estate cost of construction. For instance, inflation will usually increase the total cost of construction in most cases which can lead to project cost overrun and perhaps project delays or even abandonment (Chu, 2023). Also, the movements in macroeconomic variables can adversely affect project feasibility and viability appraisal

projections by causing alterations or distortions. The effect of these possible distortions in projections weighs largely on investment returns, profitability of investment and general performance of the real estate investment. Similarly, adjustments in macroeconomic variables occasioned by the general economic situation of the particular nation also affect the labour costs, construction materials, plant/machinery costs etc. (Asworth, 2010).Asworth (2010) also contends that most often the effect can be arbitrary leading to very significant impact on overall performance of the real estate.

It is also pertinent to note that macroeconomic variables have great impact on the value of the property and on the general valuation of the real estate. Georgierv, et al (2002) posits that some macroeconomic variables such as inflation could however trigger investment opportunities in real estate sector. The supply suggests that macroeconomic variables have the tendency to impact positively or negatively on real estate investment and could in fact push the value of real estate to either appreciate or depreciation depending on the inter-play of the macro-economic variables at a particular time. Again, Al – Ansarri, Mojid – Ahmed (2023) specifically posited that among the macroeconomic variables, inflation possesses the capacity to influence property values in several ways and forms. This occurs when rising inflation adversely affects the fair value of the assets which could pose significant challenge in the determination of the actual value of the assets as a result of fluctuations and erosion of the asset value in real time. Adverse macroeconomic variables may cause increase in cost of borrowing as borrowing rates increase with increasing interest rates and resultant increase in construction costs. This scenario could be discouraging to real estate investors in attempt to secure favourable loan facilities for real estate development projects. This situation would lead to reduction in new buildings in the market and could put pressure on existing structures and potential tenants struggle for the existing accommodation forcing demand to increase. The resultant effect is increase in rental values and this will definitely impact on the property value. As construction costs increases, and as banks increase the lending rates, investors get frustrated by the high borrowing cost. This usually leads to huge reduction in the available property stock because the situation frustrated efforts to improve new construction and building development projects forcing demand on the existing property to rise. Of course, the greater the demand, the higher the rental values of the particular accommodation and the higher the worth of the property.

Methodology

Cross- sectional research design which includes correlational design was applied. The cross-sectional study design was preferred because it allows for comparison of many different variables at the same time. The study population consists of 500 identified commercial properties in Lagos metropolis. The sample size for this study is 250 commercial properties in the study area. The convenience sampling technique was adopted because it was more useful and convenient to deal with commercial properties under the management portfolio of established real estate professionals with minimum of 15 years experience in corporate property business. The sample size has 95% confidence level and a 5% confidence interval. Data for the study were collected from primary and secondary sources. Primary data were obtained from the structured questionnaire administered to top ranking officers of the property management establishment. Data obtained include rental and capital values of the selected commercial properties as well as average annual returns on the investment as estimated by Research and Development departments of the firms for the period covering (2005 – 2022). Secondary data consists of required macro-economic indices such as inflation rates, Gross Domestic Product (GDP), (un)employment rates. Interest/lending rates, exchange rates and demographic data on population. The data emanated from the records of related agencies such as Lagos State and National Bureau of Statistics, Central Bank of Nigeria, World Bank Reports, International Monetary Fund (IMF) etc. Average Total Returns on Investments from 2007 – 2022 were recorded from five main locations of the study area. The true return profiles of the investments were ascertained by employing the arithmetic mean of the annual returns from the selected properties to determine the mean return values. The Standard Deviation of the Investment Returns were also obtained over the study period. The total returns were calculated using the expression:

$$TR = \frac{CVt - CVt\text{-}1 + NIt}{CVt\text{-}1}$$

Where:

TR = Total Returns

CVt = Capital Value of commercial property at the beginning.

CVt -1 = Capital Value of the commercial property at the end.

NIt = Income of commercial property received during the holding period.

Trend Analysis was conducted to evaluate investment return trends in the study area over the study period. Regression Analysis was used to estimate the relationship between investment returns (dependent variables) and the macro-economic variables. Pearson Product Moment Correlation (PPMC) was employed to pinpoint significant correlation among the various elements within the dataset. Analysis of Variance (ANOVA) was used to detect variations in means across the groups. Results of the analysis were presented using descriptive statistics of graphical illustrations, Trendlines, Percentage, Mean and Standard Deviation.

DATA PRESENTATION & ANALYSIS

Table 1 Annual returns of commercial properties (offices) in Lagos

Year	Victoria Island	Lagos Island	Ikoyi	Ikeja/Maryland	Surulere/Yaba
2005	15.49%	6.25%	2.65%	1.37%	9.89%
2006	16.84%	7.23%	2.93%	2.45%	15.69%
2007	17.28%	7.18%	3.18%	2.94%	17.84%
2008	1.93%	8.78%	9.56%	7.26%	3.43%
2009	14.15%	1.57%	9.82%	7.31%	10.58%
2010	17.31%	10.76%	3.12%	4.76%	14.05%
2011	13.13%	1.36%	13.28%	15.92%	5.82%
2012	14.88%	10.92%	8.32%	5.53%	10.43%
2013	10.21%	0.05%	2.47%	0.03%	7.68%
2014	22.28%	1.38%	0.83%	14.38%	1.06%
2015	5.16%	1.03%	2.32%	0.28%	1.06%
2016	-0.28%	2.08%	2.08%	-0.97%	11.24%
2017	-0.36%	-4.22%	-2.28%	-1.32%	5.28%
2018	-0.54%	-3.16%	-1.52%	0.43%	1.75%
2019	0.32%	-0.0432	-2.61%	-0.45%	1.34%
2020	-0.93%	-5.42%	-3.56%	-1.12%	0.47%
2021	-2.17%	-6.41%	-4.48%	-1.76%	-0.36%
2022	-2.23%	-7.23%	-4.21%	-0.97%	-0.42%
Minimum	-2.23%	-7.23%	-4.48%	-1.76%	-0.42%
Maximum	22.28%	10.92%	13.28%	15.92%	17.84%
Mean	7.915%	1.546%	2.328%	3.115%	6.491%
Std. Dev.	8.2674%	5.7386%	5.0145%	5.1095%	5.7182%

Source: Authors' Analyses of transaction based annual returns on real estate investments in selected locations of Lagos metropolis from 2007- 2022

Table 1 above showed the average annual returns of commercial properties (offices) indicating the performance of commercial real estate investment in Lagos over the period of 18 years. The table also showed the calculated minimum, maximum and means annual return values as well as the standard deviation over the study period. From the table, Victoria Island had the highest average total annual returns value of 7.915% (SD = 8.2674%, followed by returns on offices in Surulere/Yaba with an average value of 6.491% (SD = 5.7182%). Furthermore, the average annual returns on offices in Ikeja/Maryland was 3.115% (SD = 5.1095%) while Lagos Island and Ikoyi both had average annual returns of 2.328% (SD = 5.0145%) and 1.546% (SD = 5.7386%) respectively. The table also indicated there was appreciable but fluctuating performance on real estate investment within the period 2005 – 2014 in almost all the selected locations of the metropolis judging from the annual return data. This development however plummeted considerably from 2016 – 2022. For instance, in Victoria Island, the annual return table showed that the returns on investment as at 2005 was 15.49% and grew to 22.28% in 2014. The figure dropped to – 0.28% in 2016 and further down to – 2.23% in 2022. The table also indicated that average annual returns of investment experienced a sharp rise in returns at Surulere/Yaba from 1.06% in 2015 to 11.24% in 2016.

Table 2: Trends in Inflation Rate 2005 – 2022

year	Inflation Rate	Annual Change
2005	17.86%	2.87%
2006	8.23%	-9.64%
2007	5.39%	-2.84%
2008	11.58%	6.19%
2009	12.56%	0.97%
2010	13.72%	1.17%
2011	10.84%	3.71%
2012	12.22%	1.85%
2013	8.48%	-0.70%
2014	8.06%	-4.43%
2015	9.01%	0.95%
2016	15.68%	6.67%
2017	16.52%	0.85%
2018	12.09%	-4.43%

2019	11.40%	-0.70%
2020	13.25%	1.85%
2021	16.95%	3.71%
2022	21.34%	4.39%

Source: National Bureau of Statistics, 2022.
Central Bank OF Nigeria, 2022.
IMF 2021 Data – Inflation Rate by Country 2022
World Bank, 2021 – Inflation, Consumer Prices (Annual %)

Table 2 above showed the average rate of inflation in Nigeria from 2005 – 2022 with annual change rate. The table showed that the inflation rate was best at 5.39% in 2007 and worst at 22.34% in 2022. The figures also showed the highest deviation and sharpest drop in 2005 – 2006 financial year from 2.87% in 2005 to – 9.64% in 2006. The highest positive annual change was 2007 to 2008 financial year jumping from – 2.84% in 2007 to 6.19% in 2008.

YEAR	NAIRA TO $ US (CBN Rate)
2005	$ - #132
2006	$ - #125
2007	$ - #120
2008	$ - #117
2009	$ - #154
2010	$ - #151
2011	$ - #155
2012	$ - #158
2013	$ - #170
2014	$ - #188
2015	$ - #197
2016	$ - #257
2017	$ - #333
2018	$ - #361
2019	$ - #360
2020	$ - #380
2021	$ - #460
2022	$ - #448

Source: National Bureau of Statistics, 2022.
Central Bank OF Nigeria, 2022.

Table 3 above presents the trend of Naira (#) to Dollar ($) exchange rates from year 2005 to 2022. The data from the table showed that #132 exchange for $1 in 2005 and improved to #117 to $1 in 2008. The rates of Naira to a dollar of #132, #125, #120, #117 in the year 2005, 2006, 2007, 2008 showed strong Naira position to dollar within the period. However, the data showed that from 2009 (#154/$1) up till 2022 #448/$1) the local currency has been on a steady decline/devaluation against the US dollars. The Naira to dollar value was reasonably steady from 2005 – 2008 and had the first sharp drop in value (#37) between 2008 – 2009. Another major drop/devaluation (#60) was between 2015 – 2016, followed by the sudden drop (#76) between 2016 and 2017 and #80 between 2020 – 2021. The data showed a steady decline of Naira to dollar between 2005 and 2022 except in few years when the local currency gained marginally as can be seen between 2005 to 2008.

Table 4: Average Commercial Mortgage Lending/Interest rates for Project Finance/Commercial real estate in Nigeria from 2010 – 2021.

YEAR	LENDING/INTEREST RATE (%) AVERAGE PER ANNUM	CHANGE (%) PER ANNUM
2010	17.59	-8.90%
2011	16.02	4.82%
2012	16.79	-0.41%
2013	16.72	-1.04%
2014	16.55	-1.82%
2015	16.85	1.82%
2016	16.87	0.11%
2017	17.55	4.06%
2018	16.90	-3.70%

2019	15.38	-9.04%
2020	13.64	-11.28%
2021	11.48	-15.83%

Source: Leading Mortgage Banks in Nigeria: Average Commercial Mortgage Interest rates/Project finance rates. Central Bank OF Nigeria, 2022.

Table 4 above shows the data generated from the average annual commercial mortgage interest/lending rates for project finance/commercial real estate investment in Nigeria as collected from the records of the leading mortgage institutions in Nigeria financing commercial real estate business. The data showed that the rate was 17.59% in 2010 and steadily dropped to 16.87% in 2016 before a sharp increase to 17.55% in 2017. The rate however took a downward movement from 2018 at 16.90% and to all time low of 11.48% in 2021. The average change from 17.59% in 2010 to 16.02% in 2011 represents a 4.82% annual change. The – 8.90% of 2010 to 4.82% of 2011 showed one of the sharpest deviation within the steady period.

Table 5: Nigeria Gross Domestic Product (GDP) Growth Rate from 2005 - 2022

Year	GDP	Per Capita	Growth	Annual Change
2022	$477.39B	$2,184	3.25%	- 0.40%
2021	$440.83B	$2,066	3.65%	5.44%
2020	$432.20B	$2,075	-1.79%	- 4.00%
2019	$474.52B	$2,334	2.21%	0.29%
2018	$421.74B	$2,126	1.92%	1.12%
2017	$375.75B	$1,942	0.81%	2.42%
2016	$404.65B	$2,145	-1.62%	- 4.27%
2015	$493.03B	$2,680	2.65%	- 3.66%
2014	$574.18B	$3,201	6.31%	- 0.36%
2013	$520.12B	$2,977	6.67%	2.44%
2012	$463.97B	$2,728	4.23%	- 1.08%
2011	$414.47B	$2,505	5.31%	- 2.70%
2010	$366.99B	$2,280	8.01%	- 0.03%
2009	$295.01B	$1,884	8.04%	1.27%
2008	$339.48B	$2,228	6.76%	0.17%
2007	$278.26B	$1,876	6.59%	0.53%
2006	$238.45B	$1,652	6.06%	- 0.38%
2005	175.67B	$1,250	6.44%	- 2.81%

World Bank – Nigeria GDP Growth Rate, 2022 Report.

The table 5 above showed the data recorded in Nigeria's Gross Domestic Product (GDP) Growth Rate over the study period 2005 – 2022. As observed from the data displayed above, the GDP hovers between $175.67Billion in 2005 and $477.39Billion in 2022. The steady rise from 2005 ($175.67Billion) to 2008 ($339.48Billion) was halted in 2009 when the GDP dropped again to $295.01Billion from the $339.48Billion in 2008. The GDP however recovered and improved in 2010 ($366.99) Billion and continued the upward trajectory to 2014 ($574.18) Billion. However, this trend was cut-short again in 2015 when the GDP fell to $493.03Billion and has since hovered between the 2015 figure of $493.03Billion and the $477.39Billion in 2022. Within the study period of 2005 – 2022, the nation's lowest GDP was $175.67Billion in 2005 while the highest GDP was the $574.18Billion in 2014. In the study period also, the economy experienced the highest growth rate of 8.10% in 2010 and the highest annual change rate of 5.44% in 2021.

Table 6: Population Distribution of Lagos and Lagos Population Growth and Growth Rate Projection from 2005 – 2022.

Year	Population	Growth Rate	Annual Growth
2005	8,859,399	4.00%	340,629
2006	9,194,896	3.79%	335,497
2007	9,491,778	3.23%	296,882
2008	9,798,673	3.23%	306,895
2009	10,114,606	3.22%	315,933
2010	10,441,182	3.23%	326,576
2011	10,778,303	3.23%	337,121
2012	11,126,796	323%	348,493
2013	11,485,551	322%	358,755

2014	11,856,391	3.23%	370,840
2015	12,239,206	3.23%	382,815
2016	12,634,381	3.23%	395,175
2017	13,042,316	3.23%	407,935
2018	13,463421	3.23%	412,105
2019	13903,620	3.27%	440,199
2020	14,368,332	3.34%	464,712
2021	14,862,111	3.44%	493,779
2022	15,387,639	3.54%	525,528

Source: Lagos Population 2022
National Bureau of Statistics – Nigeria Data and Statistics National population Commission of Nigeria – Lagos State population data2022 World population Review – UN/World Bank Reviews.

Table 6 above showed the population distribution of Lagos, the Lagos population growth and growth rate projections over a period from 2005 – 2022. From the data as displayed above, the Lagos population has consistently increased from the 2005 figure of 8,859, 399 to 15,387,638 in 2022. The population growth rate over the study period has been marginally consistent from the 4.00% recorded in 2005 to the 3.54 recorded in 2022. Also, the table showed that the annual growth in population has equally maintained a consistent rise from the 340, 629 in 2005 to 525,528 in 2022.

Table 7: Nigeria's Unemployment Rate from 2005 – 2021 and Annual Variations.

2005	**9.63%**	**0.02%**
2006	**9.62%**	**- 0.01%**
2007	**9.61%**	**- 0.01%**
2008	**9.61%**	**- 0.01%**
2009	**9.59%**	**- 0.02%**
2010	**9.58%**	**- 0.01%**
2011	**9.58%**	**0.00%**
2012	**9.70%**	**0.12%**
2013	**9.77%**	**0.07%**
2014	**8.80%**	**- 0.97%**
2015	**8.22%**	**- 0.59%**
2016	**13.14%**	**4.92%**
2017	**14.45%**	**1.31%**
2018	**16.18%**	**1.73%**
2019	**17.72%**	**1.54%**
2020	**19.67%**	**1.95%**
2021	**19.67%**	**- 0.06%**

Source: Lagos Population 2022
National Bureau of Statistics – Nigeria Data and Statistics

Table 7 above represented the rate of unemployment and annual unemployment change rate from 2005 – 2022. From the data as presented above, unemployment rate hovers between 9.63% in 2005 to 9.77% in 2013 representing annual variation of between 0.02% in 2005 and 0.07% in 2013. However, the unemployment rate dropped to 8.80% in 2014 and further down to 8.22% in 2015. The data presented above also showed that the rate of unemployment increased astronomically to 13.14% in 2016 from the 2015 figure of 8.22%. The situation continued a downward trend to 19.61% in 2021. The data showed the highest unemployment annual variation rate of 4.92% in 2016 which was a sharp deviation from the annual change of – 0.59% in 2015.

RESULTS AND DISCUSSIONS

The data presented and analysed were further subjected to regression and correlation analysis to determine the relationship and coefficient of determination and the result is presented below:

To determine whether macroeconomic Variable has significant impact on Real Estate Investment Performance.

Data collected on inflation and annual returns on investment were analysed using Pearson Correlation analysis to determine the relationship between inflation rate and real estate investment performance (measured by annual returns of commercial properties) in the study area. This is to determine whether inflation has significant impact on Real Estate Investment Performance. Regression analysis was also

employed on the data to determine the level of contribution or degree of impact of inflation on real estate performance. The results of the analysis are displayed in Table 8.1 and 8.2.

Table 8.1 Correlation statistics on inflation and real estate performance

Variables	Mean	Std. Deviation	N	r-value	p-value	Remarks
Total annual returns	21.3944	25.02532	18	-0.808	0.031	Significant
Inflation rate	12.5100	4.03587				

Table 8.1 presented the correlation results. It revealed that the average value of total annual returns was21.3944% while the average value of the inflation rate was 12.5100. This result implied that the real estate market contributed an average of about 21.2% to the economy of the Lagos state as the inflation rate increased to an average of 12.5%. Furthermore, the test statistics (Pearson correlation) result showed that variables were significantly and inversely correlated, correlation value (r-value) of -0.508 when tested at a 5% significant level and the p-value obtained was 0.031 which was less than the significant level of 0.05 (i.e. 0.031<0.05), therefore, it indicated that the higher the inflation rate, the lower the performance of the real estate performance.

Table 8.2 Regression Analysis on Inflation and Real Estate Performance

Variables	Unstandardised Coefficients		t	P-value	
	B	Std. Error			
(Constant)	60.809	17.504	3.474	0.003	
Inflation rate	-3.151	1.335	-2.360	0.031	
ANOVA					
	Sum of Squares	df	Mean Square	F	P-value
Regression	2748.735	1	2748.735	5.569	.031
Residual	7897.799	16	493.612		
Total	10646.534	17			
Model diagnostic					
R square	0.758				
Durbin-Watson	2.000722				
Observed	18				

In addition, **Table 8.2**above presented the regression analysis performed on inflation and real estate performance to determine the significance of the inflation rate on real estate performance. The table showed inflation rate had a significant impact on real estate performance.

Table 8.2 showed that the average volume of real estate sector performance was about 60.8%.Durbin-Watson coefficient 2.000722 indicated no autocorrelation in the residuals. The residuals were independent of each other. Furthermore, the result showed that inflation rate andreal estate sector performance had a negative relationship with the coefficient of -3.151, which is statistically significant at 5% level. This implies that a percentage increase in the inflation rate caused about -3.151% decrease in real estate performance for the period under study. The negative or inverse association might be due to the effect of inflation on the operating expenses associated with real estate investments.Also costs such as property taxes, maintenance, insurance, and utilities might increase, potentially reducing the net operating income from the property and thus, annual returns on investment.

Therefore, the result implied that there was significant impact of inflation on Real Estate Performance inflation is rejected. The R^2 value of 0.758 indicated the model had a good fit and that the inflation rate could explain75.8% variance in real estate performance in Nigeria for the specified period, while the remaining 24.2% variance could be explained by other factors not included.

To determine if Exchange rate fluctuation has any significant impact on real estate performance.

Table 8.3: Correlation statistics on the exchange rate and real estate performance

Variables	Mean	Std.Dev	N	r-value	p-value	Remark
Total annual returns	21.3944	25.02532	18	-0.925	0.000	Significant
Exchange rate	237.0000	119.36548				

To determine the impact of exchange rate on real estate investment performance over the specified period, Pearson Correlation analysis was used to analyse the data collected so as to determine the relationship between exchange rate and real estate investment performance (measured by annual returns on commercial offices). Regression analysis was also employed on the data to determine the degree of impact of exchange rate on real estate performance. The results of the analysis were displayed in Table 8.3 and Table 8.4.

Table 8.3 presented the correlation results, it revealed that the average value of total annual returns is 21.3944% while the average value of the exchange rate for the period reviewed was#237. This result implied that the real estate market contributed an average of about 21.4% to the economy of the Lagos state as the exchange rate increased to an average of #237. Furthermore, the test statistics (Pearson correlation) result showed that variables were significantly, highly and inversely correlated with a correlation value (r-value) of -0.925when tested at a 5% significant level and the p-value obtained is 0.000 which is less than the significant levelof 0.05 (i.e. 0.000<0.05), therefore, it indicated that higher exchange rate caused lower performance of the real estate in terms of annual returns.

Table 8.4: Regression Analysis Exchange Rate and Real Estate Investment Performance

	Unstandardised Coefficients		**t**	**p-value**	
	B	**Std. Error**			
(Constant)	**67.352**	**5.258**	**12.810**	**0.000**	
Exchange rate	**-0.194**	**0.020**	**-9.732**	**0.000**	
ANOVA					
	Sum of Squares	df	Mean Square	F	p-value
Regression	9107.838	1	9107.838	94.707	.000
Residual	1538.696	16	96.169		
Total	10646.534	17			
Model diagnostic					
R Square	0.855				
Durbin-Watson	1.9658970				
Observed	18				

Furthermore, to determine the significance of the impact of fluctuation in exchange rates on real estate performance, Table 8.4 presented the regression analysis performed on the impact of fluctuation in exchange rates on real estate performance.

Table 8.4showed that the average volume of real estate sector performance was about 67.4%. Durbin-Watson coefficient of 1.9658970 which was approximately equal to 2 indicated no autocorrelation in the residuals. The residuals were independent of each other hence the model was a good fit. Furthermore, the result showed that exchange rate and real estate sector performance had a negative relationship with a coefficient of -0.194, which is statistically significant at 5% level. This implied that a percentage increase in the exchange rate caused about a -0.194% decrease in real estate performance for the period under study. The result obtained might be because exchange rate fluctuations could impact the cost of financing for real estate investments. For instance, if a country's currency depreciates as was the case for Nigeria's currency, foreign investors might face higher financing costs when borrowing in their home currency to invest in our country. This can affect their overall return on investment.

Therefore, it can be concluded from this result that exchange rate fluctuation had significant impact on real estate performance. The R^2 value of 0.855indicated that the model was a good fit and could explain85.5% of the variance in real estate performance in Nigeria for the specified period, **while the remaining 14.5% variance might be explained by other factors not included.**

To determine if Gross Domestic Product (GDP) has any significant impact on real estate investment performance.

Table 8.5 Correlation statistics on GDPand real estate performance

Variables	Mean	Std.Dev	N	r-value	p-value	Remark
Total annual returns	21.3944	25.02532	18	0.839	0.001	Significant
GDP	3.8402	3.12071				

Data collected on gross domestic product which was measured by the GDP growth rate and real estate real investment performance (measured by annual returns of commercial offices) over the specified period were analysed using Pearson Correlation analysis to determine the relationship between the two variables.

Regression analysis was also employed on the data to determine the degree of impact of gross domestic product on real estate investment performance. The result of the analysis were displayed in Table 8.5 and 8.6. Table 8.5 above presented the correlation results, the table showed that the average value of total annual returns was21.3944% while the average growth rate was 3.84% for the period reviewed. This result implied that the real estate market contributed an average of about 21.4% to the economy of Lagos State as the GDP growth rate rised. Furthermore, the test statistics (Pearson correlation) result showed that there was a positive association between thetwo variables, and the significance associated with the Pearson correlation coefficient (r-value) was equals to 0.839 when tested at a 5% significant level. This was because the p-value obtained 0.001 was less than the significant levelof 0.05 (i.e. 0.01<0.05). Therefore, the correlation indicated an increase in GDP influenced an increase in the performance of real estate in terms of annual returns.

Table 8.6 Regression Analysis on GDP and Real Estate Investment Performance

	Unstandardised Coefficients		t	p-value	
	B	Std. Error			
(Constant)	20.850	9.809	2.126	0.049	
GDP	5.142	2.004	2.566	0.045	
	ANOVA				
	Sum of Squares	df	Mean Square	F	p-value
Regression	9333.323	1	9333.323	113.821	0.004
Residual	1313.211	16	82.076		
Total	10646.534	17			
Model diagnostic					
Durbin-Watson	2.200708				
R Square	0.792				
Observed	18				

Furthermore, to determine the degree of association between gross domestic product and real estate investment performance, Table 8.6 presents the regression analysis performed on the impact of gross domestic product on real estate performance.

As can be seen from the table, the average volume of real estate sector performance was about 20.9%. Durbin-Watson coefficient of 2.200708 which was approximately equal to 2 indicates no autocorrelation in the residuals. The residuals are independent of each other hence the model was a good fit. The result further showed that GDP growth rate and real estate sector performance have a positive relationship with a coefficient of 5.142, which was statistically significant at 5% level. This implied that a percentage increase in the growth rate of GDP caused about a 5.142% increase in real estate performance for the period under study. This could be because a growing GDP was generally associated with economic expansion and increased consumer and business activity, which could create more demand for real estate including commercial office properties. When the economy is growing, businesses may expand, leading to increased demand for office space and hence, an increase in returns or investments.

Therefore, the result showed that the Gross domestic product had significant impact on real estate investment performance. The R^2 value of **0.792indicated** that the model was a good fit and could explain 79.2% of the variance in real estate performance in Nigeria for the specified period, while the remaining 21.8% variance may be explained by other factors not included.

To determine the impact of population Growth on real estate investment performance.

Table 8.7 Correlation statistics on population growth rateand real estate performance

	Mean	Std. Deviation	N	r-value	p-value
Total annual returns	21.3944	25.02532	18	0.684	0.005
Population growth rate	3.3400	2.22266			

The data collected on population growth (measured by the rate of change in population growth) and real estate investment performance (measured by annual returns of commercial offices) over the study period were analysed by using Pearson Correlation analysis to determine the relationship between the two variables. Regression Analysis was also employed on the data to determine the degree of impact of the rate of change in

population growth on real estate performance. The result of the analysis were displayed in Table 8.7 and Table 8.8.

Table 8.7 above presented the correlation results, the table showed that the average value of total annual returns was 21.3944% while the average population growth rate was 3.34% for the period reviewed. This result implied that the real estate market contributed an average of about 21.4% to the economy of the Lagos state as the population increased. Furthermore, the test statistics(Pearson correlation) result showed that though there was a strong, positive and significant association between the two variables, with Pearson coefficient (r-value) equalled0.684when tested at a 5% significant level and the p-value obtained was 0.005 which was less than the significant levelof 0.05 (i.e. 0.005<0.05). Thus, the association implied that an increase rate of population caused an increase in performance of the real estate in terms of annual returns.

Table 8.8: Regression Analysis on Population Growth Rate and Real Estate Investment Performance

	Unstandardised Coefficients		t	p-value	
	B	Std. Error			
(Constant)	39.483	2.044	19.317	0.000	
Population growth rate	18.572	3.098	5.995	0.020	
ANOVA					
	Sum of Squares	Df	Mean Square	F	p-value
Regression	0.276	1	0.276	0.005	.945
Residual	10646.276	16	665.391		
Total	10646.534	17			
Model diagnostic					
R Square	0.657				
Durbin-Watson	2.011308				
Observed	18				

Table 8.8 presents the regression outputs, and it reveals that the average volume of real estate sector performance is about 39.5%. Durbin-Watson coefficient of 2.001308which was approximately equal to 2 indicated no autocorrelation in the residuals. The residuals are independent of each other hence the model was a good fit. The result further showed that population growth rate and real estate sector performance had a positive relationship with a coefficient of 18.572, which was statistically significant at 5% level. This implied that a percentage increase in the growth rate of the population caused about an18.6% increase in real estate performance for the period under study. This was because population growth was often associated with economic expansion. More people means more consumers and a larger labour force. This could lead to increased business activity, which could, in turn, boost demand for commercial and industrial real estate. Retailers may seek out locations in areas with growing populations, leading to increased demand for retail space.

Therefore, the result implied that population growth had impact on real estate investment performance. The R^2 value of 0.657indicated that the model was a good fit and could explain 66% of the variance in real estate performance in Nigeria for the specified period, while the remaining 34% variance might be explained by other factors not included.

To determine if the rate of unemployment has significant impact on real estate investment performance.

Table 10.1 Correlation statistics on the unemployment rate and real estate performance

Variables	Mean	Std. Deviation	N	r-value	p-value
Total annual returns	21.3944	25.02532	18	-0.909	0.000
Unemployment rate	4.3994	0.82992			

Data collected on the unemployment rate and real estate performance (measured by annual returns on investment) over the specified period were analysed using Pearson Correlation analysis to determine the relationship between the two variables. Regression analysis was also employed on the data to determine the degree of impact of rate of unemployment on real estate performance. The results of the analysis were displayed in Table 8.9 and Table 9.

Table 8.9 above presented the correlation outputs.The table showed that the average value of total annual returns was21.3944% while average unemployment rate was 4.3994% for the period reviewed. The results suggest that the real estate market contributed an average of about 21.4%to the performance of the real estate market in Lagos state'seconomy with an average of 4.4% increment in the unemployment rate in the period reviewed. Additionally, the results on Pearson statistics (Pearson correlation) showedthat the association between real estate sector performance and the unemployment rate was strong and both were inversely correlated.The Pearson coefficient or correlation value (r-value) which was -0.909 indicated the association was significant when tested at a 5% significant level. This is because the p-value obtained which is 0.000 is less than the significant level of 0.05 (i.e. 0.0005<0.05). Thus, the association implied that an increase in the unemployment rate caused a decrease in the performance of the real estate in terms of annual returns.

Additionally, to determine the impact of the unemployment rate on real estate investment performance and its level of significance, regression analysis was employed on unemployment rate and real estate performance of the specific locations. The results were presented in Table 9 below.

Table 9:Regression Analysis

	Unstandardised Coefficients				
Variables	B	Std. Error	t	p-value	
(Constant)	142.046	14.018	10.133	0.000	
Unemployment rate	-27.424	3.134	-8.750	0.000	
ANOVA[a]					
	Sum of Squares	df	Mean Square	F	p-value
Regression	8806.288	1	8806.288	76.566	.000[b]
Residual	1840.246	16	115.015		
Total	10646.534	17			
Model diagnostic					
R Square	0.827				
Durbin-Watson	1.99580				

From Table 9 above, it could be seen that the average volume of real estate sector performance was about 142.0%. Durbin-Watson coefficient of 1.99580 which was approximately equal to 2 indicated no autocorrelation in the residuals. The residuals are independent of each other hence the model was a good fit. The result further showed that the unemployment rate and real estate sector performance had an inverse association with a coefficient of -27.424, which is statistically significant at the 5% level. This implied that a percentage increase in the rate of unemployment caused about a 27.424 decrease in real estate performance measured in terms of annual returns of investment for the period under study. This was because Unemployment rates could influence the demand for office space. For instance, a higher unemployment rate might lead to reduced demand for office space as companies downsize or implement remote work arrangements. High unemployment can lead to reduced consumer spending, potentially affecting the performance of retail properties. Likewise, changes in employment rates may affect property values, occupancy rates, rental income, and overall market dynamics.

Therefore, the result showed that unemployment rate had significant impact on real estate investment performance. The R^2 value of 0.827 indicated that the model was a good fit and could explain 82.7% of the variance in real estate performance in Nigeria for the specified period, while the remaining 17.3% variance may be explained by other factors not included.

5.0 CONCLUSION AND RECOMMENDATIONS

The paper examined the impact of Macro-economic variables on the performance of commercial real estate investment. Macro-economic variables considered include inflation rate, Gross Domestic Product, (GDP), Exchange Rate, Lending/interest rates, unemployment rate etc. Regression analysis was employed on the data to determine the degree of impact of the macroeconomic variables on the performance of real estate investment. Pearson Correlation test statistics results showed among others that: increasing rate of inflation

will cause reduction in the performance of real estate indicating that inflation rate has significant impact on real estate performance; higher exchange rate causes lower performance of the real estate in terms of annual returns and the fluctuations in exchange rate impact heavily on the cost of real estate financing; increase in GDP influences increase in the performance of real estate in terms of annual returns; increase in population causes increase in performance of the real estate in terms of annual returns and a percentage increase in population growth rate results in 18.6% increase in real estate performance; increase in unemployment rate causes a decrease in the performance of the real estate in terms of annual returns and it was concluded that high unemployment rate can lead to reduced consumer spending which could potentially affect the performance of real estate in terms of demand, property values, occupancy rates, rental incomes, and the over all real estate market dynamics.

Recommendation:

This paper recommends that policy makers should structure specific policies and guidelines to mitigate the huge impact of macroeconomic variables such as rising inflation and currency devaluation to assist local investors and encourage foreign/global participants in real estate investments. Real estate investment assessors and valuation experts should take into cognizance the potential risk elements and income/rental growth potentials in the investment assessment in view of the challenges posed by rising inflation, local currency volatility in the midst of continued devaluation, construction risks and project cost over-run.

References

1. Akingbade, A.O (2005). Analysis of Investment Performance of Properties. Journal of Emerging Trends in Economics and Management Sciences (JETEMS) 6 (3) 193 – 201.
2. Al- Nassari, Mojid Ahmed (2023). The impact of Accounting Measurement of Financial Instruments at Fair Value on Stock Prices Changes for Banks: An Empirical study on Companies Listed on Iragi Stock Exchange. International Journal of Professional Business Review, Vol 8, No.4, pp 1 – 20
3. Al-Sahlany, A.M; &Kadhum, H.J. (2023). The impact of Micro Factors on the Performance of the Irag Stock Exchange for the Period 2005 – 2021: International Journal of Professional Business Review, 8(9) E03462 https://doiorg/10.26668/businessreview/2023.v8i9.3462.
4. Al-Smadi; A.W; Al – Smadi, R.W; Al – Afeef, M.Q; Al – Afeef. M.A.M; &Kalbouneh, N.Y (2023). Consequences to the Stock Market caused by currency fluctuations: Jordonian evidence. International Journal of Professional Business Review, 8(4), e01275 https://doiorg/10.26668/businessreview/2023.v8i9.1275.
5. Asworth, A. (2010) Cost Studies of Building Printice Hall.
6. Central Bank of Nigeria. (2022). Monthly average exchange rates of Naira. Retrieved from http://www.cbn.gov.org.ng/rates/exrateasp
7. Central Bank of Nigeria. (2022). Statistics database. Available from: http://www. Statistics.cbn.gov.org/cnb-onlinestats/databrowseraspx
8. Chu, H.V. (2023). Mortgaging a Residential Construction Investment Project: Comparison of Vietnamese and Chinese Law. Journal of Journal of Law and Sustainable Development, 11(9), 875, https://doi.org/10.55908/sdgs.vlli9.875.
9. French, .N. (2019). Predicted Property Investment Returns: Risk and Growth Models. Journal of Property Investment and Finance, 37(6), 580 – 588.s
10. Gbadebo, A.D (2023). Exchange Rate Volatility and Nigeria Stock Market Development. International Journal of Professional Business Review, 8(9) E03078 https://doiorg/10.26668/businessreview/2023.v8i9.3078
11. Georgiev, D; Miller, N.G; Clayton, J; &Eichholtz, P.(2001). Commercial real estate analysis and investments. Cincimnati, Oti; South-Western.https://openaccessojs.com/JBReview/article/view/1234/556.
12. National Bureau of Statistics (NBS, 2023). Statistical Bulletin, FGN, Abuja, FCT. NBS (2023)
13. Oner, .C. (2010) What Is Inflation. Finance and Development. March, 2010.
14. Otegbulu A.C (2022). Property Development and Investment Decision Analysis. University Press PLC, Ibadan, Nigeria.
15. Phutornkotara, K; &Nonthapot, .S. (2023). Impact of COVID-19 on the Return of Sustainable Stocks of Thailand. Journal of Law and Sustainable Development, 11(9),e1301. https://doi.org/10.55908/sdgs.vlli9.1301
16. Salmon, O. (2021) Global Capital Machets.Savils World Research
17. Udoka, I.S (2015). The Impact of Risk and Inflation on Residential Property Development Decision. International Letters of Social and Humanities Sciences DOI:1/18052 Sci Press, Switzerland
18. Umeh, O.L; Oluwasore, O.A (2015) Inflation Hedging Abilities of Residential Properties in Selected Areas of Ibadan Metropolis Nigeria. ATBU Journal of Environmental Technology, 8,2, December, 2015.
19. World Bank (2019) Global Financial Development Report 2019/2020: Bank regulation and supervision: A decade after the global financial crisis; The World Bank.

20. World Bank (2019). Global Financial Development Report 2019/2020: Bank Regulation and Supervision: a decade after the global Financial Crisis. The World Bank.