Suggested citation:
Oladapo, R.A., & Asaju, A.S. (2015). Market cycle position in the quality of property managers' advice in Victoria Island, Lagos State, Nigeria. *International Entrepreneurship Review* (previously published as *Przedsiębiorczość Międzynarodowa*), 1(2), 97-108.

Market cycle position in the quality of property managers' advice in Victoria Island, Lagos State, Nigeria

Rasidat Adejoke Oladapo*
Abedakin Simeon Asaju

Federal University of Technology Akure
Department of Estate Management
Ilesha – Akure Expressway, P.M.B. 704, Akure, Ondo State, Nigeria
e-mail: *oladapojoke@yahoo.com

Abstract:

The paper described the position of market cycle in the quality of office property investment advice given by property managers in Victoria Island Lagos, Nigeria. Previous study in that location had established the presence of a steep market waves between 1995 and 2014. This study further examined the various factors normally considered by these managers in counseling the office property owners with a bid to determine their level of knowledge and importance placed on market cycle in rendering such services. The study was a survey research in which data were collected through well-structured close-ended questionnaire administered to the office property managers / investors with variables capturing quality of managers advice on a 5 point liker scale with their mean scores calculated; while Kendall coefficient of concordance W was employed to identify the level of agreement that exist among these managers. The findings underscore managers' consideration of market cycle in that locality for a period of ten years while given advice but that most managers' emphasis was on market value trends. Market outcome trends had earlier been noted as a misleading and deceptive form of market performance and managers must be careful in its usage. The managers' rating further revealed lack of knowledge and application of the market cycle indicators; and that managers lack data storage and applied research credibility which could bear on their quality of advice on when to let, purchase or sell, start a new development or convert existing-use, or wait for ripe period. The second analysis inferred that there was no significant agreement at 5% level in the ranking of the variables managers considered while giving advice to their clients; an evidence of lack of cooperation among managers in the study area.

Keywords: real estate; office market cycle; managers advice; Nigeria
JEL codes: R30, D29

1. INTRODUCTION

Office property is a type of commercial property that its sub-units vary from high-rise office blocks mixed with shopping malls, purpose built office complex to open halls (Olusola, 2008). It often constitutes investment for many real estate owners/ investors due to its highest profile property rating and promiscuity of location in Central Business Districts and sprawling office parks. At its most fundamental level, the demand for office space is tied to companies' business activities, requirement for office workers, and the average space per office worker for services such as Banking and Finance, Accounting, Insurance, Real estate services, Management, Administration and Medical services. As these "white-collar" jobs grow, there is greater demand for office spaces (Stephen and Steven, 2002).

Generally, office property is very germane to the overall economic and business activities of any growing city. It plays a very vital role in any economy as it generates substantial income and employs millions of people thereby supporting the nation's growth and sustainability. However the growth and regular flow of income from office property investment is not bereft of being affected by the economic condition prevailing at any given time. Hence, the trend in office property market has always been influenced by various forces that are both internal and external to the property itself.

Property market cycle constitute one of these several forces that affect buying, letting, financing and returns accruing to the investors. The real estate market cycle can be traced to Whitten (1987) riding the inflation cycle, as four-phase cycle defined as (1) recession, (2) recovery, (3) expansion and (4) contraction (oversupply). Barras (1994) noted that the cycle is a logical sequence of recurrent events reflected in demographic, economic and other factors that affect supply and demand for property subsequently influencing the property market. The Royal Institution of Chartered Surveyors (RICS, 1999) described it as recurrent but irregular fluctuation in the rate of all property total return which also apparent in many other indicators of property activity but with varying leads and lag against the all property cycle. The Appraisal Institute (2001) explained it as the successive periods of expansion, peak, contraction and trough that characterize the activity of the real estate market. In Scott and Guy (2000), the property market cycle follows a predictable pattern that normally reveals three distinctive phases being boom followed by slump followed by recovery before the next boom commences That is, if the property market cycle is unimpeded, it will always follow this pattern so a boom cannot precede another boom without first experiencing a slump followed by a recovery before the next boom can arrive (Kieran, 2008). This implies that real property market cycle often poses three or four phases and their length of time within each phase varies geographically among property types.

An analysis of the influence of this market cycle on the office property investment in Victoria Island area of Lagos state is examined in intervallic terms, owing to the fact that office property spaces have responded sensitively to the changes in economic conditions overtime. The area is chosen as a classical example of an area that developed rapidly. It was originally designated as an upper-class residential area (Lawal, 2000). Many private companies, retail stores, commercial banks etc. aggregate in the metropolis due to overcrowding in the old business district on Lagos Island. The demand for commercial properties no doubt increased especially as the working group grew overtime. An increased demand for office property causes an increase in rents/ property values because of the forces of supply and demand.

In early 1990s, the property investors/ owners are faced with some distortion within the office property zones with cases of abandoned, not fully let and vacant office spaces within Victoria Island and the returns expected being unrealized. By mid 2000s the same area began to witness sudden demand that outweigh the stock of off ices supply for letting. Giving advise then without proper knowledge and understanding of the market cycle can be misleading. To forestall this scenario, when to expect downturn or upturn market in both office development and investment together with other possible risks and incidents investors are likely to face can be explained with the turns in the market cycle. Some researchers have confirmed the existence of property cycle in various real estate markets (Brown and Kim, 2001 and Wang, 2003). This eventually led to pertinent questions that include: what was the nature of market cycles within the last two decades on office property investment? and what was the position of the market cycle in the quality of advice offered by the office property managers ? Answers to these pertinent questions become the main thrust of this study.

2. LITERATURE REVIEW ON OFFICE MARKET CYCLES

The review of literature showed that studies on Nigerian office property market cycles are scanty. In fact, most studies in the office property market analysis have not been on market trends and performance in Nigeria (Omuojine,1994; Oladapo, 2000; and 2004). So far most of the research into property cycles has been limited to the residential sector and available ones were on Australia, China, USA and U.K. property markets. Earlier studies by Pyhrr and Born (1996), Pyhrr (1989, 1999), Barras (1994), Dispasquale and Wheaton (1996) and Baum (1996) offered a comprehensive treatment of the concept and key defining characteristics of commercial property cycles with no substantial empirical support.

The property market cycles have been noted as the results of two possible mechanisms. On the one hand, exogenous business cycle shocks – such as inflation rates and interest rates, finance chain etc. which exerts a cyclical influence on office property prices. On the other hand, there are intrinsic characteristics of the real estate market that tend to amplify these exogenous shocks, causing overproduction of properties and generating endogenous cycles. The two types of cycles often coexist as exogenous induced endogenous cycle and their relative importance may differ across sectors and regions.

Clayton (1996) described .the property cycle as logical sequence of recurrent events reflected in factors such as fluctuating prices, vacancies, rentals and demand in the property market However, there are distinctions in property cycles, one being the physical cycle of demand and supply which determines vacancy and that in turn, drives rents (endogenous) and the other being the financial cycle where capital flow affects prices (exogenous). Trass (2004) further explained the property market cycles as market occurrences that are predictable on long /short term patterns witnessed under three distinct stages known as boom, slump and recovery. The cycles are predictable in that booms (expansion) are normally followed by slumps (contraction) and then market recovery, which gives rise to the next boom as the cycle continues.

Previous works highlighted the features of each of these phases as distinctive factors that market counselors need to be conversant with and understand vividly in their time to time contact with investors, developers and users of developed properties (Whitten,1987; RICS, 1999; Appraisal Institute, 2001; and Trass, 2004). What is observed during the boom/expansion phase includes: demand continues at increasing levels, creating a need for additional space, low vacancy rates coupled with few mortgage/forced sales on debt financed property; new construction finance is easy to obtain and there are a number of new lending facilities making borrowing easier; rapid rental growth are experienced which some observers call 'rent spike' The cycle peak point is where demand and supply are growing at the same rate of equilibrium. Apart from this, the time it takes for a property to sell after being listed for sale reduces markedly; property prices rise; yields fall as prices rise proportionally more than rents rise; there are and investors borrow against their increased property values and spend this money on consumer This period often turns most investors to speculators with the impression/ expectations that price growth will continue and that there will be no subsequent slump phase, but later in the boom, the media turns its attention to the reduced affordability of property.

The second phase which is the period of contraction/slump commences after peak/equilibrium point. Most participants do not recognize this peak point as vacancy rates is at lowest initially, but as supply growth become higher than demand growth, vacancy rate rise back towards the long term absorption average. As more stock is released to the market , rental growth slows The longer and bigger the preceding boom, the longer and harder the subsequent slump is likely to be. Market participants then realize that the market has turned down and their commitment to new construction should slow or stop.

The third phase is recession period occur when the market moves past the long term occupancy average with high supply growth and low or negative demand growth. A rational property owner when discovered that their rental rates are not competitive, then lower rents to capture tenants if only to cover some property running costs.

The recovery phase, being the last is always much shorter than the recession or slump phases. At the bottom point, occupancy is at its trough. What is observed during the recovery phase includes; increased rents and cash flows; the length of time to sell a property reduces; property prices begin to increase. As this continues, positive expectations about the market allow owners to increase rents at a slow pace. Eventually each local market reaches its long term occupancy average whereby rental growth is equal to real growth.

3. MARKET CYCLE INFLUENCE ON OFFICE PROPERTY INVESTMENT

Historically office property investment have been noted to have a cyclical pattern of returns normally due to the influence of office development cycle exacerbated by product of lagged relationship between demand and supply (Barras ,1994). The development cycle itself is product of different stages that could be predictable but are rarely regular as the length and depth of the intensity of each stage within the cycle are influenced by the driving factors in the national economy and their effect on property demand and supply. The stage could be demand driven, conglomeration of external factors such as political, economic, investors' confidence, vacancies, high/low interest, lending exchange and inflation rates (Oyebanji, 2003).

Returns from office property can thus be highly varied as the market tends to be sensitive to economic performances. That is ,office property cycles are results of two possible mechanisms; exogenous business cycles (shocks) and endogenous property market (attributes). They both interact to cause condition that generates endogenous cycle in the property market. The patterns the cycle exhibit are therefore often differ across property sectors and cities/nations.

No doubt , office property have high operating costs due to the facilities that enhance the effectiveness and efficiency of the occupiers. So when a newly developed office stays longer in the market or when the letting period of newly developed property is prolonged, it can have substantial impact on the returns from the property.

However, in Nigeria, office property market has been observed to be largely speculative (Omuojine, 1994). Developers were noted for construction without demand analysis and pre-arranged tenants, but rather based on the anticipation of potential demand, which may not be feasible for several years due to time lag between when construction works are initiated and completed (Lewis,1996). Apart from this, the market itself often lacks perfect information regarding the volume of new development in the market. The aftermath result is inaccurate data on supply and demand that can capture market analysis and predictions.

Dobberstein (2000) broadly classified factors responsible for real estate cycles into three namely, endogenous, exogenous and psychological influences. The endogenous are the imperfections in the property market that ranges from existence of time lag between when decision to develop metamorphosis to construction and the full absorption by the users. The exogenous influences occur in form of demand shocks of different sizes arising from the movements in the main economic variables, structural changes, change in space – time dimension and the growing ecological consciousness in the nation. Apart from the two, the market participants due to their human nature have equally been found to have impact on the market cycles.

Nevertheless the knowledge and understanding of the features of each stage within the market cycle of any property sectors often go a long way to reduce or prevent the risks of developing /investing, purchasing/selling, and letting/occupying office property within any locality, region and nation at large.

4. SCOPE OF STUDY AND RESEARCH METHODOLOGY

Victoria Island (VI) is an affluent city situated within the boundaries of the Eti-Osa Local Government area of Lagos State. The Island was originally entirely surrounded by water – bordered by the Atlantic Ocean on the south, the mouth of the Lagos Lagoon on the West, the Five Cowry Creek to the North and swamps on the East. The colonial government began the process of filling in the eastern swamps to reduce mosquito breeding areas (Lagos Street Map, 2008).

Victoria Island was later designated as an upscale low density residential area. Failing infrastructure and overcrowding in the old business district on Lagos Island and a subsequent planning permission led to commercial property development and mass migration of commercial activities over the last twenty-five years. Today, Victoria Island is one of Nigeria's busiest centers of banking and commerce, with most major Nigerian and international corporations headquartered on the Island (Lagos Master Plan, 1985).

This Victoria Island (VI) which has now assumed the modern Central Business Districts (CBDs) of Lagos metropolis, has been chosen because of its large percentage of rented office properties such as purposely built office complexes, shopping malls with mixed uses for banking spaces

This study therefore covered office properties situated along major roads within the commercial axis and inner areas of Victoria Island. The research has been limited to market transaction over twenty (20) years taking into cognizance the fact that the economic trends in Nigeria within this period has fluctuated greatly and rental values of office properties have varied proportionately .

The research methodology adopted survey design while the target population are the professional property managers often referred to as Estate Surveyors and Valuers in Nigeria. The practicing one among them in the study area constitute 260; a figure obtained from the 9th edition of the directory of their professional bodies (NIESV and ESVARBON); while a total of 260 office properties one from each firms was retrieved from their managing files. Data were collected through a set of close-ended questionnaire designed for the property managers. The data require from the property manager include: the characteristics of the office properties being managed, time taken to let, market position based on the market cycle indicators for those periods, frequency of their advice to developers/owners and market parameters used in giving their advice. The data were analysed using descriptive statistics of weighted mean scores on a 5 – point liker scale of very important:5, important:4. Undecided:3. Less important:2, and unimportant for the parameters used in giving their advice. The Kendall coefficient of concordance (W) was further used to express the level of agreement among managers' sets of ranking of the parameters.

$$W = \frac{S}{K^2 \cdot \frac{N^3 - N}{12}}$$

where:

$S = \sum (R_j - \bar{R}_j)^2$

R_j - sum of ranks assigned by all the k judges

k - number of sets of ranking

N - number of objects ranked

$K^2 \cdot \frac{N^3 - N}{12}$ - maximum possible sum of the squared deviation, or the sum S which would occur with perfect agreement among k rankings.

5. DATA ANALYSIS AND DISCUSSION OF RESULTS

In this study, the office property managers performed dual role, firstly as a provider of services relating to office property investment decisions in the market; and secondly as the advisers that carried out the lawful instructions of the investors/ owners of property in both letting and management of the office property, Hence data needed from the office owners are obtained through their property managers.

In Table 1, most of the respondents have long years of managing office properties, as about 70 percent (23;, 18; 28 %) have been managing office property for more than a decade. This outcome suggests that the mangers are well experienced in the management and market operation of the office property.

The physical structure of the office property in the study area are in many floor levels., More than 75 percent (6, 18., 21. 32.%) of this property have their number of floors above 6 storey buildings. This implies that the office properties in this location are purposely built for commercial activities and such confirms that the right type of real property is being studied.

The property market transactions period vary for new tenants to occupy vacant office spaces . The highest percentage of the respondents 36.92 perceive that it takes between 4 and 6 months to let an office property, while only 9 percent says an office property can be let within one to three month. This implies that an office property with several floors takes different periods to fully let all the floor spaces depending on the stage of the market cycles.

Table 1. Characteristics of Office Property under Management

	Frequency	Percentage (%)
Years of Managing Office Property		
Between 1 and 5 Years	38	15
Between 6 and 10 Years	42	16
Between 11 and15 Years	60	23
Between 16 and 20 Years	46	18
Above 20 Years	74	28
Total:	**260**	**100**
Number of Floors within the Property		
Between 1 and 5	58	22
Between 6 and 10	84	32
Between 11 and 15	55	21
Between 16 and 20	48	19
Above 20	15	6
Total:	**260**	**100**
Time Taken to Let Office Property		
Between 1 and 3 months	21	8
Between 4 and 6 months	72	28
Between7 and 12 months	30	11
Between12 and 24 months	38	15
More than 24 months	99	38
Total:	**260**	**100**

Source: Field Survey, 2014.

Table 2 gives an insight into the market position of the office property within two decades spanning from 1995 to 2014 in Victoria Island of Lagos State. Data relating to the market indicators for each year are obtained from the office property management files of those respondents that have being in the market property management practice since the year 1990. The study recognized four phases within the market cycles for these two decades (periods between 1995 and 2014) . The market position eventually showed a cyclical wave that began with recession (between 1995 and 1997), to recovery (between 1998 and 2001) to expansion/boom (between2002 and 2007), to contraction/slump (between 2008 and 2010), to recovery (between2011 and 2014).

It must be noted that supply of office property throughout these two decades were on the increase, but the demand and the vacancy rates changes differently across the years. Investors or their fund managers need to take caution and study these two elements that fluctuate in order to avoid ill-conceived decision that may not be worthwhile in the short term or long term basis.

Table 2. Office Property Market Cycle Position for Two Decades in Victoria Island (between 1995 and 2014)

Indicators	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Supply	Increasing	Increasing	Greater than demand	Greater than demand	Greater than demand	Increasing	Increasing	Increasing	Increasing	Increasing
Demand	Begin to increase	Less than supply	Begin to increase	Begin to Increase	Increasing at slow rate	Increasing at slow rate	Increasing at slow rate	Increasing slowly	Increasing slowly	Increasing slowly
Vacancy Rate	High	High	High	Decreasing to balance	Decreasing to balance	Decreasing to balance	Decreasing to balance	Decreasing to balance	Very low	Very Low
Rent	No growth	No growth	No growth	No growth	No growth	No growth	No growth	Positive growth	Positive growth	Positive growth
Market Position	**Recession**	**Recession**	**Recession**	**Recovery**	**Recovery**	**Recovery**	**Recovery**	**Expansion**	**Expansion**	**Expansion**

Indicators	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Supply	Increasing	Increasing	Greater than demand	Increasing	Greater than demand	Increasing	Increasing	Increasing	Increasing	Increasing
Demand	Increasing slowly	Strongly greater than supply	Strongly greater than supply	Decreasing	Decreasing	Increasing slowly	Increasing	Increasing	Increasing	Increasing
Vacancy Rate	Decreasing to balance	Decreasing to balance	Balanced	High	Very high	Decreasing to balance	Decreasing to balance	Decreasing to balance	Very low	Very low
Rent	Positive growth	Positive growth	Positive growth	No growth	No growth	No growth	No growth	No growth	No growth	Positive growth
Market Position	**Expansion**	**Expansion**	**Peak**	**Slump**	**Slump**	**Slump**	**Recovery**	**Recovery**	**Recovery**	**Recovery**

Source: Field Survey, 2014.

The result of Table 2 revealed the level of importance placed on certain variables by office property managers in offering advice on letting, selling or developing a new property to the property owners/ investors. The trend in market values was ranked first showed that managers depend much on trends in giving their advice. This was followed by the state of the economy, followed by feasibility and viability studies and marketing strategies normally employed was ranked fourth. Market cycle with its attending indicators was ranked second to the last variable while owners influence on what happen in the market ranked the last. The implication of these results was that the managers understanding of what constitute market cycle indicators (as shown in Table two) was not put to bear much while offering advice at whatever stage of the property investment and management. Market trends had earlier been observed in Omuojine (1994) as a misleading and deceptive way of describing market performance. Advice based on feasibility and viability studies could equally be shrouded with a lot of uncertainties. The state of the nation economy could either mar or make the market; but the national economic state was often revealed by the level of demand and supply with their vacancy rates which market cycle captured.

Table 3. Variables Considered by Property Managers in Offering Advice

Variables	Very Important (5)	Important (4)	Uncertain (3)	Less Important (2)	Not Important (1)	RII	Rank
Feasibility & Viability Studies	650	280	30	60	20	0.80	3
Market Value Trends	900	200	15	30	10	0.89	1
Market Cycle	500	320	15	90	30	0.73	5
Marketing Strategies	600	320	30	60	20	0.79	4
Owners' Influence Prevail	350	320	30	140	30	0.66	6
State of Nation Economy	650	320	0	60	20	0.81	2

Source: Field Survey, 2014.

In the Kendall Co-efficient of Concordance (W) analysis being used to show whether the managers' rankings were in perfect agreement; the maximum statistical responses of 20 were randomly selected from the 260 managers using the table of random numbers in Microsoft Excel. The degree of association among k sets of ranking (very important:5, important:4. Undecided:3. Less important:2, and unimportant: 1) of N (6 Variables specified in table one) were put in K by N matrix form (Table 3).

Using the formula, $W = 0.0678$; calculated $S = 475.02$ while S from the statistical table at 5% level $= 764.4$ then it could be inferred that (since the S from the table was greater than S calculated) the managers' sets of ranking were independent; and $W = 0.0678$ showed that maximum disagreement exist among the property managers in the market parameters used to give advice to property owners /investors in the study area.

Table 4. Randomly Selected 20 Responses For Concordance Scores by Managers

Rank	Feasibility &viability	Market trends	Market cycle	Marketing strategies	Owners' influence	Nation economy
Very Important:5	50	85	35	40	40	75
Important: 4	28	08	20	32	20	04
Undecided: 3	00	00	00	03	03	00
Less Important 2	04	00	08	02	06	06
Not Important 1	01	01	04	02	03	01
R_j	83	94	67	79	72	86
$(R_j - \overline{R}_j)^2$	8.07	191.55	173.19	1.35	66.75	34.11

Source: Field Survey, 2014.

6. CONCLUSIONS

This study had provided useful hints on the relevance of property market cycles in the office property investment market. It had been empirically deduced that demand and supply factors were key indicators of commercial office property market cycles, and their condition determined each of the stages that could be experienced in the market cycle. Hence, the property managers must have the knowledge of the market cycle in order to give appropriate advice that must be time specific to their clients/ property owners during letting and management of the office property. The determination of the market position was based on the decision rule earlier established in theory concerning the features expected in each phase of the market cycles. It must be noted that the cyclical nature of the cycle experienced in the study area was steep in slopes because of long period of expansion phase between 2002 and 2007 periods. The phases were not proportionately uniform in this study, hence the advice to give at a particular period or years must be defensible and justified.

The managers' rating revealed lack of knowledge and application of the market cycle indicators; and that managers lack data storage and applied research credibility which could bear on their quality of advice on when to let, purchase or sell, start a new development or convert existing- use, or wait for ripe period. The second analysis inferred that there was no significant agreement at 5% level in the ranking of the variables managers considered while giving advice to their clients; an evidence of lack of cooperation among managers in the study area.

Hence, property managers or analysts must embrace collaboration and create research units that monitored property transactions over a long period of their firms establishment, generate descriptive analysis of such data that would subsequently lead to informed and explicit judgment in their dealing with clients.

In addition, government policy formulation in construction industry, economic reforms and empowerments must draw their strength from research findings and the professionals in the built environment must be involved in the implementation of their economic development policies.

REFERENCES

Appraisal Institute (2001). *The Dictionary of Real Estate Appraisal .4th Edition*. Chicago: Library of Congress Cataloguing in-publication.

Barras, R. (1994). Property and the Economic Cycle: Building Cycles Revisited. *Journal of Property Research*, 11(3), 183-197.

Baum, A. (1996). Long Term Performance Data for UK Commercial Property.

Brown, G., & Kim, H.L. (2001). Cyclical Relationship between Commercial Real Estate and Property Stock Prices. *Journal of Property Research*, 18(4), 309-320.

Clayton, J. (1996). Market Fundamentals Risk and the Canadian Property Cycle: Implication for Property Valuation and Investment Decisions. *Journal of Real Estate Research*, 12 (3), 347-367.

DiPasquale, D., & Wheaton, W. (1996). *Urban Economics and Real Estate Markets.* New Jersey, NJ: Prentice Hall.

Kaiser, R. (1997). The Long Cycle in Real Estate. *Journal of Real Estate Research*, 14(3), 233-257.

Lagos Street Maps (2008*). Lagos Street Map*. Lagos: West African Book Publishers Limited.

Lawal, M.I. (2000). *Estate Development Practice in Nigeria*. Lagos: ILCO Books and Publishers.

Oladapo, R.A. (2000). *Analysis of Office Property Rental Market in Akure*. Nigeria: Unpublished M. Tech Thesis, Federal University of Technology Akure.

Omuojine, E.O. (1994). Property Market in Nigeria, Analysis and Perspective. *The Estate Surveyors and Valuers*, 18(1), 15-21.

Oyebanji, A.O. (2003). *Principles of Land Use Economics*. Lagos: CEPDM.

Pyrr, S.A. (1999). Real Estate Cycle and Their Strategic implications for Investors and Portfolio: Managing in the Global Economy. *Journal of Real Estate Reseaerch*,18(1), 7-68

Pyrr, S.A., & Born, W.L. (1996). Real Property Valuation in a Changing Economy and Market Cycle. *The Appraisal Journal*, 64(1),14-26.

RICS (1999). *The U.K. Property Cycle a History from 1921 to 1997*. London: The Royal Institution of Chartered Surveyors.

Scott, P., & Guy, J. (2000). *Cycles and Steps in British Commercial Property Values*. Portsmouth: University of Portsmouth.

Stephen, L., & Steven, D. (2002). *Country, Sector and Regional Factors in European Property returns.* Greenlands: The University of Reading Business School. Centre for Real Estate Research (CRER).

Trass, Z. (2004). *Global Real Estate Markets – Cycles and Fundamentals*. Cambridge: National Bureau of Economic Research.

Wang, P. (2003). A Frequency Domain Analysis of Commonm Cycle in Property and related Sectors. *Journal of Real Estate Research*, 25(3), 325-346.

Whitten, R.G. (1987). Riding the Inflation Cycle. *Real Estate Today*, 42-48.