# THE IMPACT OF GLOBAL FINANCIAL CRISIS ON THE PERFORMANCE OF MALAYSIAN LISTED PROPERTY COMPANIES

SITI FAIRUS BINTI AHMAD

UNIVERSITI TEKNOLOGI MALAYSIA

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#### SITI FAIRUS BINTI AHMAD

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Universiti Teknologi Malaysia

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To the beautiful mind and knowledgeable reader;

Who seeking wisdom in research

#### **ABSTRACT**

The listed property companies are one of the real estate vehicles in Malaysian investment sector besides REITs and direct property investment. Although listed property companies play an important role in shaping Malaysian economy, the research on performance of Malaysian listed property companies has been modest in recent years notably after 1997/1998 Asian Financial Crisis (AFC). The objectives of the study are to determine the impact of Global Financial Crisis (GFC) on listed property companies and to assess the factors contributing to performance. This study provides descriptive and risk-adjusted analysis on the performance of 60 Malaysian listed property companies and factors using Dynamic Panel Regression Analysis from January 1999 till December 2012 to understand the impact of pre, during and post GFC. The results show that most companies experienced downturn during GFC period. However, they recovered fast in post GFC by gaining better Sharpe ratio, improved return and lower risk compared to their performance in pre GFC period. The econometric analysis using total return as dependent variable with 7 independent factors; GFC, market value, cash flow, dividend, intangible asset, total debt, and book value per share. The results revealed that only market value, book value per share and GFC factor have significant results in the Dynamic Panel Regression estimation model. With these findings, investors must aware that AFC and GFC reacts differently towards performance, hence property companies are able to use financial variables as guidelines in presenting their performance in future.

#### **ABSTRAK**

Syarikat harta tanah tersenarai adalah salah satu penggerak kepada sektor pelaburan Malaysia selain daripada REITs dan pelaburan langsung harta tanah. Walaupun syarikat harta tanah tersenarai memainkan peranan penting dalam membentuk ekonomi Malaysia, namun kebelakangan ini penyelidikan ke atas prestasi syarikat harta tanah tersenarai Malaysia masih lagi rendah terutamanya selepas berlakunya krisis ekonomi Asia (AFC) 1998/1999. Objektif kajian ini adalah untuk mengenalpasti kesan krisis ekonomi global (GFC) ke atas syarikat harta tanah tersenarai dan menganalisa faktor yang mempengaruhi prestasi. Oleh itu, kajian ini menyediakan analisis deskriptif dan risiko terselaras 60 prestasi syarikat harta tanah tersenarai dan mengkaji faktor menggunakan Peramalan Regresi Panel Dinamik dari Januari 1999 sehingga Disember 2012 untuk memahami kesan pra, semasa dan selepas GFC. Hasil kajian menunjukkan kebanyakan syarikat mengalami penurunan prestasi semasa tempoh GFC. Namun, prestasi syarikat pulih dengan cepat dalam tempoh selepas GFC dengan nisbah Sharpe, pulangan lebih baik dan risiko lebih rendah berbanding prestasi dalam tempoh awal GFC. Analisis ekonometrik menggunakan jumlah pulangan sebagai pembolehubah bersandar dengan 7 pemboleh ubah tidak bersandar iaitu faktor GFC, nilai pasaran, aliran tunai, dividen, aset tidak ketara, jumlah hutang, dan nilai buku sesaham. Hasil kajian mendedahkan hanya nilai pasaran, nilai buku sesaham dan faktor GFC mempunyai signifikan dalam model Peramalan Regresi Panel Dinamik. Melalui hasil kajian ini, pelabur harus berwaspada dalam pelaburan harta tanah masa hadapan kerana AFC dan GFC bertindakbalas secara berbeza ke atas prestasi, oleh itu syarikat hartanah boleh menggunakan faktor kewangan sebagai garis panduan dalam menunjukkan prestasi syarikat mereka.

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#### LIST OF ABBREVIATION

AFC Asian Financial Crisis

APT Arbitrage Pricing Theory

BM Bursa Malaysia

BVS Book value per share

CAPM Capital Asset Pricing Model

EIU Economist Intelligence Unit

EPRA European Public Real Estate Association

GFC Global Financial Crisis

GMM Generalized Method of Moments

IMF International Monetary Fund

INT Intangible Assets

KLSE Kuala Lumpur Stock Exchange

LPC Listed Property Companies

MV Market Value

NAREIT National Association of Real Estate Investment Trusts

OLS Ordinary Least Squares

PLS Pooled Least Squares

RCA Real Capital Analytics

RREEF Rosenberg Real Estate Equity Funds

SC Securities Commission

TR Total Return

#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 Research Background

Property investment provides investors with secure financial freedom (Assets for Vistage, 2011). However the problems with acquiring the asset caused by indivisibility characteristics have created some mechanism to acquire in small units. This has leads to rise of securitization of real estate investment. Securitized real estate investment are being carried out by operating real estate companies, property developers and real estate trust and funds such as REITs. As such, listed property companies are the vehicles to real estate securitization.

In order to be eligible to be listed in Bursa Malaysia, the body has set requirements that all listing property companies must possess a minimum land bank of 1,000 acres and carrying out sufficient on-going property development project. The companies must be able to sustain earnings for at least 5 years after listing and an aggregate after tax-profit of not less than RM 30 million for five full financial years (Equity Guidelines, 2009). Investment in the securitised real estate suggest that they are more flexible and changes its' characteristics from the traditional property investment to the investment of shares and stocks which are subject to fluctuations.

The need to understand performance measurements related to investment is vital importance in this scenario. Hence, the use of statistics summarizing the rates of return achieved, estimates of the risk taken, and measures of the skill supported by the efficient use of risk are the information used by property analyst to inform investors on their asset performances. Generally, investment with high degree of uncertainty or risk expects the more return. In other words, investors are concerned with performance and they demand better ways to monitor, and evaluate the information derived from performance analysis (Feibel, 2003). The performance measurement gains its importance especially when economic and financial crisis hit the financial world. The previous Asian Financial Crisis 1997-1998 and Global Financial Crisis 2007-2008 had given bad experiences to many investors (Aizenman and Pasricha, 2009; Demyanyk and Hemert, 2008; Lipsky, 2008; and Panagopoulos and Vlamis, 2009). As such, the performance measurement is dynamic for wealth-creators.

Performance measurement in real estate investment helps the investors to monitor their investments and make better decisions in choosing their portfolio diversification. Compared to direct real estate, securitized real estate is easier to measure due to availability of historical data and its liquidity. As mention earlier, Asian Financial Crisis and Global Financial Crisis were two economic calamity cycles that will be considered as systematic risk eventually affecting the cyclical sectors. Examples of cyclical sectors are luxurious high price items such as cars, jewellery, technology, construction and real estate. During bull's economy, securitized real estate tends to move up faster however in downtrend, this sector went down fast as well (Khoo and Wee, 2010). However, the volatility nature of securitized real estate resembles to stock encouraged the author to evaluate the strength of securitized real estate as wealth creation vehicles especially during financial crisis.

The performances of the securitised property investment rely on return factors where most researchers identified those macroeconomic variables such as GDP, industrial output, consumption/spending) and financial variables (real interest rates and term structure) are important factors (Lee and Ting, 2009; Liow and Webb,

2009; and Chau et al., 2009). The factors can be categorized into macro factors and micro factors. One of the most recent macro factors affecting the real estate is the Global Financial Crisis in 2007-2008 that hit US and later on spread all over the world. As argued by Eicholtz et al. (2011) and Putra (2012), real estate has been affected by Global Financial Crisis as fall of property prices caused the speculative bubble leads to economic slump. The crisis eventually gave a huge impact on international property markets especially the prime income producing properties (Adair et al., 2010).

Herdson (2010) reported that performance of listed property entities worldwide over 2008 and 2009 had been subdued due to the GFC, with only slight improvements in 2010. In addition, foreign and domestic investments have declined in general particularly in real estate and construction (Wong, 2009). Even though Global Financial Crisis affects Malaysia more on (manufacturing) export crisis (Goh and Lim, 2010), this country seems to feel the heat in property sector as well due to mortgage control applied by Bank Negara. The findings are undoubtedly causing worries among real estate players and investors. Furthermore, the negative impact of the recent Global Financial crisis on property values, rental incomes has attract attention to investors and property industry on the importance of analyzing the performance (Simpson, 2011). As such, this study will continues to explore performances and the factors affecting returns of listed property companies in Malaysia.

#### 1.2 Problem Statement

There are three problems to be explored in this thesis. The first problem is concerning to categorisation of the real estate performance measurement. Having selected the method of assessing performance, it would be possible to determine the impact of Global Financial Crisis on the performance of listed real estate companies and later to assess the that factors contribute to the rise and fall of the listed real estate companies' performance in Malaysia.

#### 1.2.1 Method of measuring investment performance

As claimed by Liow (2010a), the significance and performance of Asian securitized real estate sector deserved global investors' attention. Numerous performances measurements techniques were presented ((Eicholtz et al. (1995); Ling and Naranjo (2002); Hammes and Chen (2005); Liow et al. (2006); Wan Marazah and Nur Ardiana and Wan Marazah (2011); Schulz and Peng (2012) but only several were adopted to evaluate the significance of Malaysian listed property companies. The importance of performance measurement can be seen in several international researchers' works. Pojarliev and Levich (2012) indicate the performance is a necessary way to gauge investment success. Measurement and disclosure is a key to investor driven improvement (EPRA, 2012).

Razali and Mohd Adnan (2012), further suggest that company performance is the main indicator in investment decisions for investors' decision-making strategy. However, the assessment of listed property companies' performance in Malaysia remains less explored especially during GFC. Eicholtz et al. (2011) suggest that real estate equity investments received less attention during the crisis. The correlation behaviour of global investment markets during the current global financial crisis received inadequate attention in academic literature (Liow, 2010b).

Listed property companies have been in existence in several decades, however, a proper performance analysis method has yet to be performed to measure its competitiveness in non-crisis and crisis situation. The performance analysis can be made based on capital value, capital return with the addition of volatility errors calculation. Thus, the investors will be able to make better decisions based on past companies/ performance of time series data especially during the economic and financial crisis.

Ting and Lee (2009) identify the poor performance of Malaysian securitized real estate because it was not fully integrated with the world market. The lack of attention to research in this area suggests that there is an immediate need to answer

questions relating to how performance of real estate securitised investment can be determined. In addition, listed property companies act as proxy to improve the quality of real estate investment in the country and establish ways of gaining exposure to real estate (RREEF, 2007). Thus, the performance measurement towards these Malaysian listed property companies is crucial to identify their competitiveness in handling the crisis. Most listed property companies' performance studies concentrated on developed countries but fewer studies focus on developing country such as Malaysia. The aim of this study is to measure the performance of listed property companies in Malaysia and identify factors affecting its performance. Thus, this study will be carried out to fill the gap of knowledge in Malaysian perspectives.

#### 1.2.2 The impact of Global Financial Crisis to the property companies

Uncertainties have been experienced by the European countries even after 4 years of the GFC (Gu, 2012). Due to Asian Financial Crisis effect, Malaysia has been well-prepared to face the 2007-2008 Global Financial Crisis. Asian countries have examined the core problems and learnt their lessons from the economy recession. As New York Times (October 3<sup>rd</sup>, 2012) reported residential development activity in Malaysia had experienced slowdown but the house prices did not declined. In fact, the price climbed up 10 till 15% since 2005. This indicator shows that Malaysia able to cope with Global Financial Crisis however the performance tend to slow down.

The impact of Global Financial Crisis on property increased the attention of investors and other key players to enhance the real estate performance. Researchers believed that Global Financial Crisis opens a new perspective towards real estate market (Simpson, 2011; RREEF, 2007). From direct investment, investors shifted their interest to securitized real estate investment which is more liquid as an alternative. Securitized real estate investment companies become important property investment vehicles particularly through success of REITs, listed property stocks and real estate operating companies (Liow, 2010a). Listed Property Company defines as companies listed on stock exchanges and engage in real estate investment or development activities. Listed real estate companies must own minimum land bank

1000 acres or 405 hectares and sufficient development at least 5 years after listing. In Malaysia, listed property companies focus on certain concentrated area such as Kuala Lumpur, Pulau Pinang and Johor Bahru.

Furthermore, Wu et al. (2011) claim that analysis of the competitiveness of the real estate industry is limited. Despite how real estate was badly affected during Asian Financial Crisis in most Asian countries, real estate remains as underresearched asset class (Hoesli and Lizieri, 2007). In contrasts with the Global Financial Crisis, researches on Asian Financial Crisis are more available in Asian region meanwhile the study on GFC impacts focusing on US and European countries. Stevenson (2001) also raises his concern regarding to limitation of performance statistics found to be statistically significant at conventional levels. He too added lack of empirical evidence to evaluate the performance of property companies and securities minimize people's understanding on investment behaviour. This study will help local and foreign investors to understand real estate securities market in Malaysia in crisis and non-crisis scenario.

Public market provides a vehicle for investors to construct international portfolio without the burden of acquiring, managing and disposing direct property investment in foreign countries (Eicholtz et al., 2011). Currently there are 100 listed property companies in Malaysia as in the end of December 2012. From the website of The Edge (2011), UEM Land Holdings is on top of the most highly performed company along with SP Setia, and KLCC Property. Meanwhile, there are three investment trusts; IGB Real Estate Investment Trust, Pavilion Real Estate Investment Trust and Sunway Real Investment Trust were among the 100 listed companies/ trusts in Malaysia which performed well in 2010.

#### 1.2.3 Factors that contribute to the performance listed property companies

From the literature, the factors affecting the listed property companies' performance may be divided into two categories; the micro and macro factors. Macro factors consist of economy and financial stability, currency rate, inflation rate, government intervention, consumer capability and foreign direct investment. As an example, study by Zull Kepli and Masron (2011) on foreign direct investment impact to real estate industry and Gross Development Product have shown FDI do affecting the real estate industry as Malaysia relies on number of foreigner investors leasing the properties. Referring to micro factors, Roselina (2008) showed that some micro factors such as performance histories, the board of directors, managerial skills, business relationship and internal companies' financial performance are some of the main causes affecting performance of listed property companies. Roselina (2008) further identified that smaller board with more executive directors performed better than bigger board with less directors.

Research using the financial components to evaluate performance has not been discussed in details by local real estate researchers. However, international researchers have carried out study on Dividend, Intangibles Assets, Market Value, Book to Value Ratio, Net Debt and other financial components to explain the firm's performance. As such, this research will be carrying out study on firm specific factors using financial components available to explain the factors affecting the Malaysian listed property companies' performance.

#### 1.3 Research Question

The problem statement above raises some questions relating to the performances of the listed property companies in Malaysia. These are itemised as follows:

- i. How did Malaysian listed property companies perform in pre, during and post GFC (1999-2012)?
- ii. What are the factors that contribute to the performance of listed property companies in Malaysia?

#### 1.4 Research Objectives

The main aim is to investigate the performance of listed property companies and impact of Global Financial Crisis to Malaysian real estate investments during, pre, and post period Global Financial Crisis. At the end of the study, the factors influencing the performances of listed property companies were identified. The objectives for this study are:

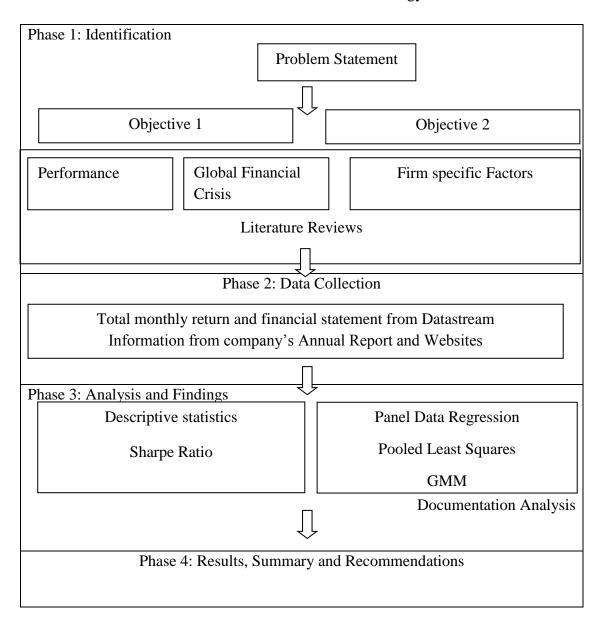
- i. To evaluate the GFC impact on the performance of listed property companies in Malaysia for 14 years (1999-2012),
- ii. To identify the firm-specific factors influencing the performance of listed property companies in Malaysia during GFC period.

#### 1.5 Methodology

This research focuses on analysing the performance of listed property companies in Malaysia over 1999–2012 and factors attribute to the listed property companies' performance. The methodology of the research is shown in Table 1.0. In achieving the objectives stated above, there is a need to conceptualise on how assessment of the performances of real estate listed companies in Malaysia. In order to conceptualise the research, the literature review will give ideas on how to develop assessment method for assessing performance of listed property companies in Malaysia.

The research concept will enable data to be identified and collected as well as the methods in which analytical procedures to be carried out. The research will adopt a quantitative method of analysis where done using specific statistical procedures.

Table 1.0 Research methodology



Descriptive analysis and risk-adjusted performance analysis will be implied to assess the added value of Malaysian listed property companies. As such, monthly total returns will be assessed over the fourteen-year period of 1999-2012 for Malaysian listed property companies. Monthly total return is collected because it could explain the sudden changes in certain months to identify the impact of GFC. Sub-period analyses using risk-adjusted performance is used to assess the dynamics of Malaysian listed property companies; particularly during the Global Financial Crisis to see the impact of its volatility in influencing the securitized real estate sectors. Performance analysis will be carried out in local currencies, as international investors typically implement their own currency hedging strategies to control for currency risk.

For the various indirect property and associated financial series, risk-adjusted returns will be assessed over 1999 to 2012. The regional and mix activities and type of development benefits will be assessed using documentation analysis. Annual report for each company will be collected and analyse to identify their strengths and challenges. To study the attributes affecting the performance, the thesis applies Generalized Method of Moments to identify the factors influencing the performance. The GMM estimators will test each factor contributes to the listed property companies' success. E-Views software will be used to run the Panelled Ordinary Least Squares and System GMM. The results will be presented in a non-linear regression model form in order to measure the dynamics of Malaysian listed property companies and also to identify the impact of Global Financial Crisis to these companies.

#### 1.6 Research gap

From the problem statement, several gaps have been identified. First, the study on Global Financial Crisis and its impact on Malaysian listed property companies have not been studied in details. The previous study has been stressed on Asian Financial Crisis impacts and how it affects the shares performance (Wan

Marazah, 2008). As to date, not many researchers were studying on GFC impacts towards individual listed property companies.

The introduction of advanced statistic using econometric approach has been limited in local research studies. This thesis attempts to implement the Panel Regression techniques along with other quantitative methods to analyse the performance. The previous methods applied are Multiple Regression Analysis whom has been introduced to local real estate studies by Hishamuddin (2008) and Ting (2009).

Furthermore, the studies on Malaysian listed property companies have been limited. Numbers of researchers focusing more on REITs have grown compared to listed property companies as Nguyen (2011) explained that listed property companies have been seen as traditional compared to REITs.

#### 1.7 Limitation

Several unavoidable limitations are listed below. However, the study would not be affected with these restrictions. The limitations are:

- Lack of information due to market maturity impeded the research efforts to evaluate the performance comprehensively. Data collection was limited due to the availability of companies listed during 1999-2012.
- 2) The study only considers Malaysian listed property companies.
- 3) The Generalized Method of Moments approach is just one of the method to analyse the factors contribute to the performance. This approach is the most possible method in order to test the ability to reject and to accept the most sound attributes as the answers.

#### 1.8 Thesis Structures

This thesis examines two major issues regarding listed property companies in Malaysia; performance and factors affecting the performance. Thus, this research will provide a context to the role of performance analysis in property investment; particularly for Malaysian listed property companies. Consideration will be given to the return and risk profile of the portfolio and how the property components behave in relation to other assets in the portfolios. From the performance analysis, the context of the significance of Malaysian listed property companies can be assessed. In addition, the factors influencing the success of listed property companies are assessed. Six chapters were devoted to demonstrate the objectives. It encompasses introduction, literature review, research methodology, case study, analysis and findings, implications and further research, summary and conclusions.

The chapter-by-chapter organisation of this thesis is as follows. The first two chapters address the background and research significance; especially on the importance of listed real estate companies, listed property companies' performance analysis and factors contribute to the success of the companies. Chapter 1 presents the background of the study and property sectors in Malaysia. Chapter 2 gives an overview of the Global Financial Crisis as well as performance analysis approach carried out in other countries. Other related property investment issues will be provided to get the whole overview of real estate investment, especially in Malaysia.

Chapter 3 summarises the data sources, quantitative (descriptive and advanced) methodologies applied to the Malaysian listed property companies. The findings will be discussed in detail in chapter 4 and 5. Chapter 4 elaborates the characteristics for each company obtained from the Annual Reports and websites meanwhile chapter 5 provides the overall conclusions from the descriptive and advanced analysis. Final summary and findings conclusion were written in Chapter 6, to explain whether the objectives have been achieved or vice versa.

#### 1.9 Conclusion

The issues have been explained in this chapter based on the importance of strengthening Malaysian listed property companies and consequently lead to the formulation of two objectives. In order to answer both objectives, scope and significance of study were outlined and brief methodology was constructed to guide the flow of this study.

Given the global focus of property investment today and the increasing focus on emerging property markets, it is important to assess the significance and performance of Malaysian listed property companies in long term, how they react in pre, during and post crisis, also to determine the firm-specific factors influencing the performance.

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