

MACROECONOMIC IMPACT ON THE EXCESS RETURNS OF ASIAN REITS

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Article history

Received

15 May 2018

Received in revised form

19 December 2018

Accepted

25 December 2018

Published 01 April 2019

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DOI: 10.11113/ ijbes.v6.n1-2.392

ABSTRACT

The increasing development all over the world gives the real estate industry an opportunity to thrive which includes the REITs sector. Since the establishment of J-REITs in 2001, it has been growing rapidly across Asia. The IMF report showed that Asia continues to be the main growth engine of the world and is projected to grow in years to come. However, investors still remain cautious when dealing with Asian REITs because the markets are not established yet. Previous studies have proved that Asian REITs is able to show competitive advantage in most of mixed-asset scenarios and have significant roles in improving efficient global REITs portfolio returns. Since real estate is an essential part of the economy, its returns are related to the macroeconomic factors such as inflation and GDP. Excess return is used to measure the risk-adjusted performance by measuring how much risk from the macroeconomic factors is involved in producing that return. Hence, the aim of this paper is to evaluate the macroeconomic factors impact on the excess returns of Asian REITs. The data are retrieved from previous researches. The macroeconomic factors that impacted the returns are long term interest rates, short term interest rates, inflation, gross domestic product, construction index, industrial production, money supply, exchange rates and consumption risk. The excess return is found to be a good performance measurement in order for the investors to evaluate the expected returns before making an investment decision.

Keywords: Macroeconomic, REITs, Asian, Return Excess

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1. Introduction

Real Estate Investment Trusts (REITs) is one of a significant element in the listed real estate markets. It has reached a total market capitalisation of USD 1.3 trillion in June 2017 that stands for 41% of the global listed real estate industry (EPRA, 2017). In recent years, investors are shifting towards Asian REITs and it is experiencing a boom which is currently lead by Japan being the biggest Asian REITs market. It is the fastest growing market in the world and has overtaken France and UK. It is also expected to

expand with the emerging of two major regional economies, China and India.

The performance of Asian REITs were better than other key REIT markets in most of mixed-REITs scenarios and they play an important role in enhancing the efficiency of global REITs portfolio returns (Yue, 2011). Asian REITs have attractive features and offer benefits such as high dividend yields, tax transparency, liquidity, diversification, and strict regulatory structure. Asian REITs also have high connections with various macroeconomic factors. Therefore, Asian REITs have gained interest

by investors, market analysts, researchers and the real estate community.

There are several researches carried out on Asian REITs (Ooi et al., 2006; Kutsuna et al., 2008; and Quek and Ong, 2008). However, these researches prove that the Asian REITs should be explored further as it is a recent and emerging investment vehicle as compared to the mature and established United States and Australian markets that were established more than 50 years ago.

The situation of the macroeconomic factors represents the economic health of a country and will affect the financial performance of REITs. Furthermore, the macroeconomic factors are very good to determine the excess returns because they impact the firms' cash flows and also affects the risk-adjusted discount rate (Flannery and Protopapadakis, 2002). Thus, in order to generate profit from the investment, it is important to calculate the excess return which exceeds the rate of return that was expected. Excess returns are the revenues obtained after deducting the risks that arise mainly from the macroeconomic factors.

2. Problem Statement

There is much research that has been carried out on the mature REITs market like US and established REITs markets like UK, Australia, Japan, Hong Kong, and Singapore. However, there should be more researches carried out on emerging and nascent REITs markets like Malaysia, South Korea, Taiwan, Thailand, and Vietnam.

It is important to research on emerging and nascent REITs which have higher country risk than mature and established REITs. This is because investors will remain cautious when dealing with emerging and nascent REITs markets. This is why researchers should look into riskier countries in order to find out whether they are able to give more investment returns compared to mature and establish REITs markets. Figure 1 below shows the country risk by the level of maturity of the markets.

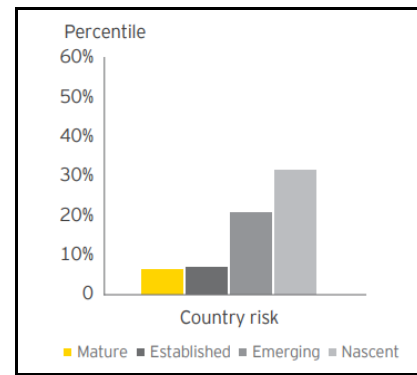


Figure 1 Country Risk by Level of Maturity (The World Bank, Global Perspective: 2016 REITs Report)

The country risk is determined by the economic factors. This is why investors choose to invest in countries with a good and stable economy. Hence, it is important to analyse the situation of the economy because a good economy does not necessarily promise a good investment return. More than 20 years ago it was shown by many researchers that the asset prices commonly react to the changes of the macroeconomic factors (Fama, 1981; Chen et al., 1986; and Ferson and Harvey, 1991; 1993).

Many other researchers also have shown the significant influence of the macroeconomic factors on the performance of REITs (Ooi and Liow, 2004; West and Worthington, 2006; Liow and Huang, 2006; and Fang et al., 2016). However, since REITs are only formed recently in emerging and nascent countries, the relationship between macroeconomic factors and REITs has not been researched widely in these countries.

Besides that, many studies have focused on a single or few macroeconomic factors like inflation and interest rates. (Chan et al., 1990; Brooks and Tsolacos, 2001; and Liow et al., 2003). However, it is possible that one country may have a factor impacting the returns at a larger scale compared to another country or that country may have a factor impacting the returns at a larger scale compared to another factor. Thus, it is better to analyse as many macroeconomic factors as possible because each factor may have a different significance and influence on the excess returns depending on the country.

Other than that, most investors focus only on the returns but not on the total returns after considering the level of risk, tax, inflation and other macroeconomic factors. This can lead investors into poor portfolio decisions and misplacing expectations. Hence, it is important to focus on the excess returns, rather than the nominal returns because excess returns are used as a measure of the added value by the portfolio. Furthermore, there are many researches on REITs returns but none on the excess returns (Chan et al., 1990; Ewing and Payne, 2005; Fang et al., 2016; and Kola and Kodongo, 2017). The researches on excess returns are found to be on stock market (Lee et al., 2002; Hemmati and Sayadi, 2013; and Hatangala, 2016) and property stocks (Case and Shiller, 1990; and Liow and Huang 2006).

In addition, it is known that investors expect a larger return to compensate a risky investment which means that a larger risk premium is required. In order to find out how risky an investment is, the volatility should be measured. The predictability of excess returns can arise from the persistent stochastic volatility of the fundamental driving variables (Lansing et al., 2017). The risk-free rate also provides data on future volatility (Glosten et al., 1993).

Other than volatility, results show that the liquidity of REITs will affect the excess returns. When shares are more liquid, the investment exit risk is lesser. Hence, investors can benefit higher price, lower excess return and lower market risk investments. (Perobelli et al., 2016). Besides that, risk premium need to be offered when shares are less liquid. The current price should be traded with a discount to pull in investors so that they can keep the asset for a long period of time. (Amihud and Mendelson, 1986; 2000).

However, there are many researches on the excess stock returns but very limited on excess REITs returns. For example, researchers found that the conditional distribution of stock returns and business conditions have a significant dependency relationship (Fama and French, 1989; and Whitelaw, 1994). Furthermore, research on a time-varying relationship between stock return and risk in regard to business cycle turning points was also found (Chauvet and

Potter, 1998). This has motivated the researcher to explore further on the excess returns of REITs.

3. Asian REITs

Before 2001, REITs did not exist in Asia but was in many other countries such as United States (1960), Netherlands (1969), Australia (1971), Canada (1994), Ghana (1994), Belgium (1995), Brazil (1995), Turkey (1999) and Greece (1999). However, it existed in the form of Listed Property Trust. In 2001, Japan (J-REITs) became the first Asian country to establish REITs. From December 2017, there are 57 REITs listed in the Tokyo Stock Exchange and Osaka Stock Exchange with the market capitalization of USD 103.5 billion and average dividend yield of 3.53%. South Korea is the second Asian country after Japan to establish K-REITs with 42 listed companies in the Korea Stock Exchange. Then it was followed by Singapore (S-REITs) in 2002 with 39 listed companies in the Singapore Exchange Limited and in 2003, Taiwan (T-REITs) with 9 listed companies.

In 2003, Hong Kong (HK-REITs) was established and now has 8 listed companies; and in 2005 Malaysia established M-REITs with 18 listed companies in the Malaysia Stock Exchange. From the year 2007 to 2016, Hong Kong showed the highest sustainable growth performance and Malaysia REITs provided more stable dividend yield and return on asset performance among the other countries that were investigated (Azhar and Noriza, 2017). The most recent country to establish REITs is Thailand (Thai-REITs) in 2012. Although Thailand is the latest, it was quick to take off and has 50 listed companies in the Stock Exchange of Thailand.

Asian REITs are expected to grow with the venturing of two major regional economies which are China and India. The Asian REITs market is also expected to continue to expand in years to come. In 2014, Asia accounted for USD 7 trillion in investable real estate which was approximately 25% of the global market. By 2020, it is anticipated to increase significantly to USD 17 trillion and be 35% of the global market (APREA, 2012).

The development prospects in Asia are distinctive compared to most Western countries. This is because Asian REITs have attractive investment characteristics and benefits such as high yields, liquidity and also unique features like Islamic REITs in Malaysia. REITs are publicly listed on the various major Asian stock markets. Asian REITs are actively traded in the same way as other shares on the stock market. Besides that, Asian REITs are highly reactive to the fluctuations in the market so they can be easily and readily traded. Thus, investors can benefit a high trading turnover.

Other than that, in order to be classified as a REIT and be exempted from paying company tax, a compulsory dividend payout must be given to shareholders. Most Asian REITs deliver at least 90% of the REITs taxable revenue back to the shareholders and usually Asian REITs will return 100% of their taxable revenue as a dividend yield to shareholders. When compared with other types of shares, Asian REITs provide significantly higher dividend yields. Moreover, most Asian REIT markets have high tax transparency because the taxes that are paid are only at the individual REIT shareholder level (APREA, 2012). Figure 2 below shows the bar chart of property transparency between matured, established, emerging, and nascent markets.

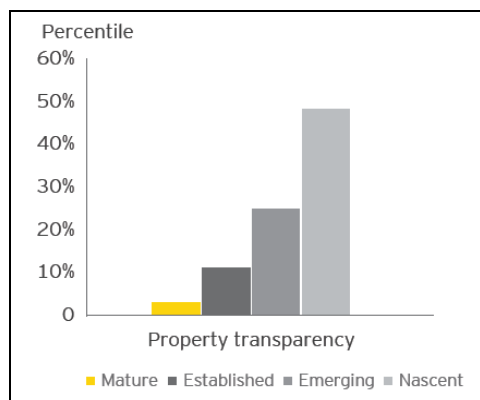


Figure 2 Property Transparency by Level of Maturity (The World Bank, Global Perspective: 2016 REITs Report)

Asian REITs also have connection with high worth income producing commercial real estate portfolios in sectors such as retail and hotel. Investors can either be invest in sector specific REITs or diversify their portfolio which enhances their returns. Diversification can also be done in non-local real

estate portfolios to offer coverage to other Asian markets and provide access to countries that have not established their own real estate market like China and India. Diversification by investing in different asset classes is a key portfolio management strategy in order to decrease investment risk as each asset classes perform differently in different market condition.

Asian REITs have strict regulatory structure with its requirements for corporate governance and financial reporting through audited financial statements and annual reports. A board of directors is also required to conduct annual general meeting and provide sufficient information in their website. This is to give full disclosure to the shareholders and the public. The operations of Asian REITs such as REIT funds management, portfolio management, asset management and property management are managed professionally by external and internal managers. Japan, Singapore, Malaysia and Thailand require external management structure whereas Hong Kong, Taiwan and South Korea require external and internal management structure. The management fees and securitization of Asian REITs is also lower than other companies listed on the stock market.

Research has also shown that, several Asian REITs market has lesser risk than their relevant stock markets such as Hong Kong, Malaysia and Taiwan. This strengthens the defensive characteristics of REITs, with their high emphasis on yield. Japanese REITs risk was slightly higher compared to its stock market (20% vs 18%) while Singapore REIT risk was higher than its stock market (26% vs 20%), but this was not considered excessive. Overall, Asian REITs risk levels were generally below or comparable to their stock markets (Mitchell, 2013).

Mature REITs markets like US and Australia proved to achieve a good performance scale for the past 50 years. However, Asian REITs which was only established 16 years ago managed to compete with those mature markets by showing high returns, low to moderate risk, high risk adjusted returns, diversification benefits and outperforming some stock markets.

During the Global Financial Crisis (GFC), the market capitalisation including the global equity markets took

a downturn. In spite of that, the REIT markets in Japan, Hong Kong, Singapore, Malaysia and Taiwan managed to grow significantly in market capitalisation from 2007 (USD 68,530 million) to 2013 (USD 138,255 million).

4. Macroeconomic Factors

Over the years, the macroeconomic factors have proved to have a significant effect on the returns. The research on the emerging markets of Hong Kong, Singapore, South Korea, Malaysia, Indonesia, Taiwan and Thailand show that the risk-adjusted performance of real estate assets is affected mainly by the macroeconomic factors (Ooi and Liow, 2004). The macroeconomic factors can also be used in measuring returns because changes in these factors will influence firms' cash flows and affect the risk-adjusted discount rate (Flannery and Protopapadakis, 2002).

Besides that, it is expected to see a relationship between macroeconomic factors and equity returns in the long run as the returns on shares demonstrate the fundamental real economic activity (Patro et al., 2002). However, each macroeconomic factor has a different impact on different types of property sector like residential, commercial and industrial. This is because some factors like the long-term interest rate, short-term interest rate, unexpected inflation and construction index show high significant relationship with commercial real estate returns (West and Worthington, 2006).

Other than the types of property sectors, a research stated that the macroeconomic factors have a different impact on different REITs asset classes. It was shown that the equity and mortgage REITs sectors had significantly negative relationship with the yield of government bonds or short-term interest rate (Devaney, 2001). The long-term interest rate also showed a negative relationship with the excess returns whereby the increase in long-term interest rate decreases the excess returns (Liow and Huang, 2006).

The relationship between inflation and REITs returns have been documented to be unclear (Chan et al., 1990; and Chatrath and Liang, 1998). However, there were other researches that proved inflation to

produce a lower expected REITs returns (Ewing and Payne, 2005) and the unanticipated inflation were significant on the real estate returns (Naranjo and Ling, 1997). A research also show that the conditional volatility of an unexpected inflation is important to explain the differences in listed real estate returns in some Asian-Pacific markets but the level of the impact differs by country (Liow and Huang, 2006).

As inflation gives an impact on the excess returns, investors want to invest in REITs that have an inflation hedge when they look into the Asian markets. This is also known by the consumer price index (CPI) which have a significant influence on the developed REIT markets (Loo et al., 2016). Inflation also impacts the monetary policies as a sudden monetary tightening will lower REIT returns for around a month after the shock. (Johnson and Jensen, 1999; and Ewing and Payne, 2005). This shows that unexpected changes in the macroeconomy will decrease the REITs returns.

Inflation is caused by the global financial crisis. There are many studies on the performance of REITs during the financial crisis. The results of one of the study show that when the Global Financial Crisis (GFC) happened, the relationship between REITs and stocks were high and the opportunities of diversification were little (Huang et al., 2016). Although Asia was deeply impacted by the financial crisis in 1997, it was not as impacted as the western countries in the global financial crisis in 2008 with Japan, Malaysia and Thailand being few of the least affected countries. This shows the capability of Asian REITs performance and returns despite the financial crises.

Apart from that, the gross domestic product (GDP) has proven to be significant (Naranjo and Ling, 1997) and documented a strong positive relationship with the returns (Fama, 1981). The REITs returns are also impacted by the consumption risk (Geltner, 1989; and Naranjo and Ling, 1997). Previous researchers also proved that the industrial production, exchange rates and money supply are significant on the REITs returns (Bilson et al., 2000; Chen et al., 1986; and Fama, 1981).

Based on the past research findings, the main macroeconomic factors that are found to affect the

excess returns of Asian REITs are long-term interest rates, short-term interest rates, inflation, construction index, gross domestic product (GDP), consumption risk, industrial production, money supply and exchange rates. However, there are other factors like the political stability, financial market deregulations, property supply and property prices and other investment opportunities also affect the excess returns that should be considered (Liow and Huang, 2006).

5. Excess Returns

Excess return, also known as 'alpha' is the return rate minus the risk-free rate which is the Government Bond or Treasury bill. In order to find out the expected returns of an investment, the excess returns should be calculated. The excess return is the extra return that surpasses the risk-free rate from the total return. In other words, excess returns measures the difference between the investor's returns and the benchmark returns. Excess returns that outperform the benchmark will result the excess returns being greater than zero or positive excess returns.

As REITs and stocks display the same characteristics, the excess returns of stocks and property market are adapted into this research due to the lack of researches of excess REITs returns. The excess return can be seen as the risk premium paid to investors for holding stocks which are risky instead of riskless securities (Boavida, 2011). The changes in the risk premium are significant to the returns (Chen et al., 1986). The risk premium is the expected return to yield in excess of the risk-free rate. It is like a form of compensation or award for the risky investment undertaken by investors.

There are many researches that study on the firm factors that affect the excess returns. Around the period of a dividend announcement, high excess returns are produced. This is because a certain amount of period is required for the information on the unexpected dividend change to be developed into stock prices. Furthermore, market traders create expectations and estimate the dividend amount that will be announced. This causes positive or negative excess returns to be seen earlier than the date of dividend announcement. However, the impact of

dividend announcements on excess returns varies between markets due to the different dividend tax regulations, market microstructures and the level of information asymmetry (Draganac, 2017).

The firm factors are supported by other findings stating that the excess returns are the result of information asymmetries or the institutional structure of initial public offering (IPO) issuing process (Wolfe and Cooperman, 1990). The study tests the hypothesis that size (offer price and number of shares) is significant in explaining risk-adjusted excess returns for new issues. The hypothesis supported by the finding that size provides an incremental explanation for the degree of underpricing when risk is held constant. The size related or estimation risk premium is found to have greater explanatory power in cold issue markets. Hot issue markets are found to be explained by periods of greater aftermarket price volatility whereby higher returns are required as a result of greater risk, consistent with a mean-variance efficient market.

Besides that, another research was conducted on the macroeconomic factors and the firm factors. According to it, the excess stock returns have an insignificant positive correlation with the inflation rate and money supply. The excess returns also have an insignificant negative correlation with the earnings per share, the size of the firm and interest rate. The research also found that the excess returns have a highly significant positively affect with the turnover ratio, the ratio of the market value per share to the book value per share, return on assets, market return, and dividend yield. Apart from that, the excess returns are significantly inversely affected by the financial leverage and gross domestic product (AL Salamat et al., 2016).

Moreover, the excess stock returns are explained by the monetary policy. A positive change to the Federal Funds rate that implements a tighter monetary policy, causes a reduction in return of excess rates and is followed by a rise in inflation. The monetary policy may describe some of the negative relationship between excess returns and inflation that is observed (Goto and Valkanov, 2002). The researches on the excess stock returns show that both the macroeconomic factors and the firm factors have an

impact on the excess returns. Therefore, it is important to take into account the firm factors when measuring the excess returns of Asian REITs.

6.0 Conclusion

This paper investigates the impact of macroeconomic factors on the excess returns of Asian REITs. Since 2001, Asian REITs has shown a strong economic development and managed to compete with other major REITs markets like United States and Australia and has been a key player in the property market because of its high dividend yields, tax transparency, liquidity, diversification, and strict regulatory structure. With its high potential for growth and investment opportunities, Asian REITs is becoming more attractive to foreign investors all over the world.

Therefore, the macroeconomic factors like the long-term interest rates, short-term interest rates, inflation, construction index, gross domestic product (GDP), consumption risk, industrial production, money supply and exchange rates are important. This is because investors, fund managers and other property players can determine which country gives the highest excess returns based on these factors. Lastly, they should calculate the excess return as it provides information on the amount of risks involved and the potential profit that could be attained.

Acknowledgment

I thank the IGCESH organizers and my fellow authors who contributed their effort, ideas, knowledge and expertise. I also thank UTM Zamalah for sponsorship to help support my studies.

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