

FACTOR OF REAL ESTATE INVESTMENT FUNDS PERFORMANCE MEASUREMENT DURING HEALTH CRISIS (COVID19)

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Abstract

Real Estate Investment (REITs) structural are define as lower risk investment rather than other stock markets. REITs are capital institutions that invest in several types of property which include commercial, residential, industrial, office, hospitality, retail and institution. These types of property react differently towards different crisis. Like any other investment, REITs also has factor that effect the portfolio directly or indirectly due to the crises in this world. Recent crisis of Covid19 has awaken in REITs industry with the impacted of the portfolio of REITs companies. The purpose of this paper is to understand the Real Estate Investment Funds (REITs) around the world during pandemic and indicates the factor that causes the performance of Real Estate Investment Funds (REITs) in respective companies. Data in this paper are collected by overlook on the portfolio of Real Estate Investment Funds (REITs) companies in understanding their market capital throughout the health crisis. This paper only examines the market capital during health crisis in year 2019 until 2022. The aim of the findings is to assist REITs managers to be aware of the factor that may causes the productivity of their portfolio during health crisis. The investor also can use the reference in their decision making before investing for Real Estate Investment Funds (REITs) in future.

Keywords: Real Estate Investment, Performance, Health Crises.

1. INTRODUCTION

Real Estate Investment Funds is a close-end traded stock companies that begins publicly traded in the beginning of 1960. Property investment has many types of property investment included residential, commercial, industrial and many more. All across the world has adapted REITs which include 40 countries and therefore REITs has expanded since the year they had publicly trade. REITs qualify as defensive equities given that they are built up of cyclically profitable assets with a possibility for assets appreciation (Graff,2000).



Figure 1 Country that has adapted U.S REITs in the world

Drew (2016) stated that REITs are one of the vital investment vehicles in economies for countries. These data are supported with the amount of investment in REITs industries across the world. Real estate is one of the largest sectors within the economies yet it is still linked with financial crises in recent decade. In recent health crisis, World Health Organization has been announced that coronavirus as pandemic in 31st December 2019 originated by China. High cases of covid19 has forces WHO to reenact social distancing and lockdown. This causes restriction in movement among people to stop the virus from spreading. The restriction has affected economies across the globe. Therefore, REITs are affected with their revenue and cash flow of the business due to the reenactment and it has affected deeply.

2. LITERATURE REVIEW

A. Characteristics of REITs

Characteristics of REITs are different from other stocks which they had low correlation with asset classes, low market-price volatility, limited investment risk and high current yield (Block, 2016). These characteristics reflect the total performance of their portfolio. Correlation hold the power of prediction in price behavior of the assets. This power is one of the factors that enables investment consultant, financial planners and investors in construct the diversity of investment portfolio. A statistical indicator of the range of returns for a specific investments or market index is called volatility.

A lower level of volatility indicates that the worth of an investment varies gradually over time rather than abruptly. Based on daily observations of the REITs market over the previous thirty years, it appears that REITs tend to be less volatile than other stocks (Imperiale, 2006). All investments have some risk, and investing in REITs is not an exception. Risk cannot be totally eliminated at any point in time. Although the higher the volatility, the more risk the security it gives but the higher the risk, the greater the return of an investment. According to Imperiale (2006), REITs offer investors competitive returns in relation to the risk they assume, with a risk profile marginally greater than that of bonds and a return profile marginally lower than that of

equities. Furthermore, in the stock market, REITs function as a liquid asset. The majority of publicly traded stocks share the high liquidity that REITs enjoy.

B. The mechanics of REITs

Pandemic has affected the REITs fundamental due to the lack of optimization in space of commercial properties such as office, retail and hospitality space. The structural of REITs are such as rent collection, distribution requirement and leverage. REITs are considered as an attractive investment for investor. REITs also can gain tax exemption with the pay out of significant amount to the investor. A disruption in cash flow indirectly effect the divided distribution towards the investor.

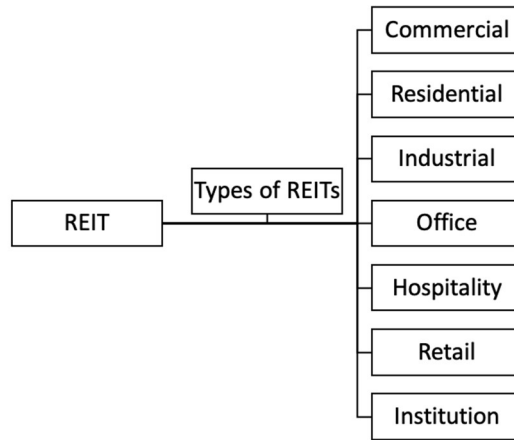


Figure 2 Types of REITs

Real estate investment trust consists of several types such as commercial, residential, industrial, office, hospitality, retail and institution. These types of property react differently to different types of crisis. As such, commercial react strongly during the covid19 crisis due to the virus outbreak that prevent people to go out from their house to earned money and moreover to be safely from the virus.

C. Global Spillover

At first, it was thought that the pandemic would only affect the People’s Republic of China, but it spread to the rest of the world. As people were forced to stay in their homes, the economic pain became even more severe, with travel bans impacting the aviation sector, sporting events impacting the sports sector, and the ban on large gatherings impacting the events and entertainment sector (Horowitz, 2020; Elliot, 2020). There are some similarities between the current crisis and the 2007-2008 crisis. Like in 2020, a lot of people in 2007-2008 believed that the effects of the subprime crisis would be limited to the US but would eventually affect the entire global financial system (Elliot, 2020). In addition to being catastrophic, COVID-19’s abrupt economic disruption has repercussions since it caused supply and demand shocks in nearly every field of human endeavor (El-Erian, 2020) (Ozili & Arun, 2020).

A number of global economies have suffered since the global COVID-19 pandemic began in December 2019. Events like collapsing stock prices, severely impairing international trade, and increasing market volatility, to name a few, have become commonplace worldwide (Baker et al., 2020). Since the crisis is developing so quickly, evaluating its economic effects from a policy perspective becomes necessary. The COVID-19 pandemic has had an unprecedented outbreak

and a serious impact on the global economy. This can be divided into three primary channels: demand shock, which has affected consumer goods and services, travel, hospitality, and more; global disruption, which has been brought on by quarantines and travel restrictions; Supply Shock is demonstrated by interruptions in international supply chains that lack a definitive endpoint. and Financial Shock, as low cash flow and liquidity put businesses at risk of failing in a setting where the international financial safety net is under stress and cooperation between nations is deteriorating (Greenier, 2020).

Rich countries have reportedly spent over \$9 trillion addressing the economic effects of COVID-19, and more spending is planned as governments work to ensure that the economy continues to function following the pandemic, according to a report by Zeidan (2020). It is predicted that the damage will be greater than that of the financial crisis and possibly even that of the Great Depression, making this the worst economic crisis in the previous 70 years. The unprecedented COVID-19 pandemic outbreak has had an impact on the global economy, which has been reflected in the foreign exchange market. Unexpectedly, everyone has found refuge in the dollar. Nonetheless, the rush for dollars has been particularly felt in emerging markets. For instance, since the year's beginning, the value of the Indonesian rupiah has decreased by nearly 14%, the British pound has dropped by more than 10%, the Mexican peso and Russian rouble have both lost roughly 20% of their value, and so on. Furthermore, the processing of financial services globally has been greatly improved by the rising degree of global financial integration, which is accentuated by the rapid advancements in technology. Although this promotes international trade, the risks and uncertainties it entails also raise serious concerns. More significantly, the likelihood of a contagion or spillover effect increases with the level of international financial market integration (Fasanya & Akinde, 2019; Salisu et al., 2018). This study, which is driven by these worries, looks at the connections and dynamic spillovers between COVID-19 events and the returns of the most traded currency pairs globally.

D. Real Estate Investment Funds during Health Crisis

In the United States, the COVID-19 pandemic has left a severe impact on the real estate industry. Investors in real estate investment trusts (REITs) will be significantly impacted. Any business that owns or finances different kinds of income-producing real estate properties is known as a REIT. It is a crucial financial tool that gives investors flexible and liquid access to the real estate market. A Real Estate Investment Trust (REIT) is distinguished by its minimum required earnings pay-out ratio and its corporate tax exemption status. Under the U.S. Tax Code, a corporation must adhere to specific regulatory standards concerning its organization structure, business operations, and income distribution in order to be eligible for designation as a REIT each year. Ling et al. (2020) may be the first study in the literature on the COVID-19 pandemic and REIT returns to examine the impact of regional exposure to the pandemic on U.S. REIT returns. They discover that a REIT's return is primarily determined by the property type it focuses on, the geographic distribution of its properties, and the interplay between these two factors. REIT returns decreased as a result of the COVID-19 pandemic-induced recession.

Recessions have statistically significant negative net effects on office and residential REIT returns, but not on industrial or retail REIT returns. Contrary to expectations, the COVID-19 pandemic's net effects on office and residential REIT returns are not negative. However, the pandemic's net impact on industrial REIT returns is positive. Remarkably, the combined effects of the COVID-19 pandemic and recessions on retail REIT returns are statistically negligible.

E. Factor measurement during Health Crisis

According to Fama and French (1992, 1993), the excess return ($R_m - R_f$) of the market portfolio, the size factor (SMB, or small minus big), the value factor (HML, or high minus low), the term spread (TS_{spread}), and the credit spread (CS_{spread}) can all be used to predict the stock return. We call these variables the macro/asset-pricing variables. The COVID-19 pandemic encourages and mandates remote or work from home work, travel restrictions, and internet shopping, all of which increase e-commerce and the need for warehouse and logistics space from industrial REITs. According to a Price Waterhouse Coopers (PwC) U.S. Remote Work Survey conducted in January 2021, there has been a positive shift in the attitudes of American executives and workers towards working remotely or from home. Furthermore, PwC projects that hybrid workplaces—where a large number of office workers come and go—will become more prevalent. According to NAREIT, flat vacancy rates remained unchanged in 2020, but people are migrating from urban areas to suburbs because of safety concerns and the rise in remote or work-from-home employment. The COVID-19 pandemic has made the shortage of affordable housing worse, and millions of Americans are now heavily indebted on their rent.

The COVID-19 pandemic's overall effect is different from recessions in general when looking at REIT returns using an extended Fama-French model. In contrast to the recession brought on by the Great Financial Crisis, the COVID-19 pandemic brought about sudden and significant changes in employment and economic activity. Unlike the Great Financial Crisis, the COVID-19 pandemic has, in fact, led to a number of positive changes in society. These include increased e-commerce, warehousing and logistics, restricted mobility, increased rates of unemployment, an impact on rent affordability, a decrease in office utilization, and the closure of businesses. As a result, the COVID-19 pandemic has a net positive impact on industrial REIT returns but a net negative impact on office, residential, and retail REIT returns.

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3. METHODOLOGY

No	Author	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	Danish Ahmed																										
2	Ahmad Alias																										
3	Robert Edelstein																										
4	Olusegun Olatokun																										
5	Jeroen Derwall, Jooq Hui, Dirk Bouwzen, and Wessel Maccoux																										
6	Zalina zainudin, Izani Ibrahim, Hafezali iqbal Hussain, Abdul Razak Abdul Hadi																										
7	Jihoo Kim, SooCheong Jang																										
8	Zhenyu Su, Paloma Taltavull																										
9	Giocomo Morri, Karoline Jostoy																										
10	Emre Celik, Kerem Yavuz Arslanli																										
11	Giocomo Morri, Christian Beretta																										
12	Jayalakshmy Ramachandran and Khoo Kok Chen																										
13	Nur Adiana Hiau Abdullah, Kamarun Nisham Taufil Mohd and Woei Chyuan Wong																										
14	Graeme Newell and Gyi Lin Lee																										
15	Feihwang We																										
16	Pawan Jain																										
17	PHOO KHO JING & HUMAIDA BANU SAMSUDIN																										
18	LEE HONG JONG, LEONG BOON TIK																										
19	Rohaya Abdul Jalil, Low Sheau-Ting, Izran Sarrazin, Mohammad, Siti Zulfarina Fadzi and Tiong Chai Ping																										
20	Mohd Harris Yop																										

Table 1 Factor affecting performance of REITs

No	Description	Total
1	Dividend Yield	5
2	Net Income	2
3	Size	11
4	Stock Index	4
5	Interest Rate	1
6	Inflation	4
7	Legislation	2
8	Capitalization	3
9	Net Asset Value	1
10	Growth	3
11	Financial Flexibility	1
12	Book-to-Market	8
13	Local Market	2
14	Profitability	1
15	Operation Risk	3
16	Geographical Diversity	1
17	Leverage	1
18	Dividend Tax	1
19	Corporate Governance	1
20	gross domestic product	1
21	term structure	1
22	total return index	1
23	GDP growth	1
24	corruption perception	1
25	transparency index	1
26	competition	1

There are variety of factors that affecting performance of REITs. In recent studies from 20 author show that there are 26 factors affecting the performance of real estate funds in bursa Malaysia. The studies indicate that the size of the firm is the most affected for performance in REITs. Size of firm determine the yield of the stock with the profit margin and income collected. Then, book-to-market also one of the factors that influence the performance of real estate investment funds

(REITs). The book-to-market ratio compares a company/s book value to its market value and market value are the estimation of assets minus liabilities. The market value of a company is the market price of one of its shares multiplied by the number of shares outstanding. Dividend yield also affecting the performance of REITs as it's an essential factor of investor's decision during investing for shares. Stock index and inflation both have the same ranking in factor affecting the performances of REITs. As a result, these are the top five ranking of factor affecting the performances in REITs that been studied by 20 authors regarding the performance of REITs.

4. CONCLUSION

The result shown that the real estate investment trust is affecting by various factor. It is important that recognition of the company of REITs and their factors before investing to the respective company. There are three mainly factor that are mention by authors which affecting the investment in real estate funds. These factors are named size of the firm, book to market and dividend yield. Crises can also influence these three factors in the world of real estate investment. It also shows that different type of property reacts differently to crisis. As a result, we can see that the commercial property is impacted badly due to this health crisis as people loss their ability in purchasing power and freedom of movement. Hospitality property on the other hand are impacted positively due to people in need on medicate from the virus outbreak.

ACKNOWLEDGMENT

Nursyareena Azlie to Universiti Teknologi Malaysia for providing a venue and staffs in assisting and advice on improving the research. Authors also are grateful towards academic community helps. Additionally, we are grateful to family for their encouragement for this paper. Finally, we acknowledge the constructive comments from anonymous reviewers that significantly improve the quality of this article.

REFERENCES

- [1] Baker, S. R., Bloom, N., Davis, S., & Terry, S. (2020). Covid-induced economic uncertainty. Technical report, NBER working paper No. 26983.
- [2] Block, R.L. 2006. Investing in REITS. Bloomberg Press, New York.
- [3] Drew, A. (2016). Preserving existing affordability through a social purpose REIT. Journal of case study research, 1(1), 39-41.
- [4] El-Erian, M. (2020). The Coming Coronavirus Recession and the Uncharted Territory Beyond. Foreign Affairs, Media Report. Available at: <https://www.foreignaffairs.com/articles/2020-03->
- [5] Fama, Eugene F., and Kenneth R. French. 1992. The cross-section of expected stock returns. *Journal of Finance* 47: 427–65. [CrossRef]
- [6] Fama, Eugene F., and Kenneth R. French. 1993. Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics* 33: 3–56. [CrossRef]
- [7] Fasanya, I. O., & Akinde, M. A. (2019). Volatility transmission in the Nigerian financial market. *The Journal of Finance and Data Science*,5(2),99–115. <https://doi.org/10.1016/j.jfds.2019.01.003>

- [8] Graff, R. A., Economic Analysis Suggests that REIT Investment Characteristics are Not as Advertised, *Journal of Real Estate Portfolio Management*, 2001, 7:2, 99–124.
- [9] Grenier, M. (2020). Currency volatility during the COVID-19 outbreak. <https://www.airshare.air-inc.com>: <https://airshare.air-inc.com/how-is-covid-19-impacting-global-currency>
- [10] Horowitz, J. (2020). The global coronavirus recession is beginning. CNN. Media report. Available at: <https://edition.cnn.com/2020/03/16/economy/global-recession-coronavirus/index.html>
- [11] Imperiale, R. 2006. Getting Started in Real Estate Investment *Trust*. New Jersey: John Wiley & Sons Inc.
- [12] Larry Elliot, L. (2020). Prepare for the coronavirus global recession. The Guardian. Media report. Available at: <https://www.theguardian.com/business/2020/mar/15/prepare-for-the-coronavirus-global-recession>
- [13] Ling, David C., Chongyu Wang, and Tingyu Zhou. 2020. A first look at the impact of COVID-19 on commercial real estate prices: Asset-level evidence. *Review of Asset Pricing Studies* 10: 669–704. [CrossRef]
- [14] Ozili, P. K. (2019). 100 Quotes from the Global Financial Crisis: Lessons for the future.
- [15] Salisu, A. A., Oyewole, O. J., & Fasanya, I. (2018). Modelling return and volatility spillovers in global foreign exchange markets. *Journal of Information and Optimization Sciences*, 39(7), 1417–1448. <https://doi.org/10.1080/02522667.2017.1367507>
- [16] Zeidan, S. (2020). Pandemic proves there is only one world currency. (Al Jazeera). Retrieved April 20, 2020, from <http://www.aljazeera.com>: <https://www.aljazeera.com/programmes/countingthecost/2020/03/pandemic-proves-world-reserve-currency-200328113954984.html>

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