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The financial performance of selected REITs from S&P500

Финансијске перформансе одабраних РЕИТ-а из С&П 500

Danica Cicmil
PhD student, University of Novi Sad, Faculty of Economics in Subotica, Subotica, Republic of Serbia,
cicmildanica@yahoo.com https://orcid.org/0000-0001-6373-5264

Abstract: Every investor, trader, portfolio manager or analyst tries to evaluate the performance of the selected asset to develop a strategy for investment or trading. There are a variety of analyses that can be used depending on the asset class chosen. Since this paper is about REITs (Real Estate Investment Trusts), two ratios will be calculated: DPU (dividend distribution per unit) and FFO (funds from operations). The objective is to investigate whether these two performance measures produced significantly different results during the COVID-19 crisis. The selected assets were chosen to cover most of the asset classes in the real estate industry: 1. Public Storage: PSA, 2. Host Hotels & Resorts: HST, 3. Healthpeak Properties: Peak, 4. AIMCO: AIV. It can be concluded that REITs as an asset class generally offer steady returns, however, some sectors are more affected than others during the crisis. It is difficult to estimate which sector will be affected, as crises are always novelties. The best performing asset class was that of the storage sector, which remained stable and positive throughout the entire period, paying higher dividends than the other asset classes.
Keywords: real estate, FFO, NAV
JEL classification: G11, G12, G24

Сажетак: Сваки инвеститор, трговац, портфолио менаџер или аналитичар покушава да процени учинак изабраних средстава како би развио стратегију за инвестирање или трговање. Постоје различите анализе које се могу користити у зависности од изабране класе имовине. С обзиром да се у овом раду ради о REIT-овима (инвестиционим фондовима за некретнине), израчунаваће се два коефицијента: DPU (расподела дивиденде по јединици) и FFO (средства из пословања). Циљ је да се истражи да ли су ове две мере учинка дале значајно различите резултате током кризе COVID-19. Одабрана средства су изабрана да покрију већину класа имовине у индустрији некретнина: 1. Public Storage: PSA, 2. Host Hotels & Resorts: HST, 3. Healthpeak Properties: Peak, 4. AIMCO: AIV. Може се закључити да REIT као класа имовине генерално нуде стабилан принос, међутим, неки сектори су више погођени од других током кризе. Тешко је проценити који сектор ће бити погођен, јер су кризе увек новине. Класа акција са најбољим учинком била је она из сектора складиштења, који је остао стабилан и позитиван током читавог периода, исплаћујући веће дивиденде од осталих класа имовине.
Кључне речи: некретнине, FFO, NAV
ЈЕЛ класификација: G11, G12, G24

Introduction

REITs originated in the USA and were introduced by Congress in 1960. The first REITs were run as mortgage REITs, as it was not permitted for the same company to own and manage assets. This changed with pending tax reform, but more importantly with the 1986 tax reform that allowed internally managed REITs. Although internally managed REITs have been shown to outperform externally managed REITs, there are still some systems that do not allow this, such as those in the Asia-Pacific region, where REITs are exclusively externally managed (Omokhomion, Egbu, & Robinson, 2018). In the USA, REITs were licensed as corporations, leading to the first IPO in 1993. They were created to provide real estate investment opportunities to private investors who could not invest in properties of their own. This allowed private investors to purchase a real estate interest without having thousands of dollars in their bank account to invest in a property. Thus, they were given the opportunity to diversify their portfolios and convert an illiquid asset into a liquid one. Among other benefits, these made REITs a very popular asset class. They led to the creation of a product that combined the best features of real estate and equity investments. The positive effects were two-sided: not only were investors able to invest in real estate with less capital, but developers also gained a new source of financing.

In addition, REITs act as companies that pool the funds of various investors, which are then invested in properties that are rented out. The type of property can vary, so depending on the asset class in which REITs are invested, one can buy industrial, commercial, residential, hotel, and logistics REITs. This type is referred to as equity REITs. Dividends are distributed from the rents generated. Another type of REITs are mortgage REITs, where dividends are paid from the interest on the loans granted.

One of the main advantages of REITs is that they must distribute 90% of their income to the shareholder in order not to pay corporate income tax. This has led to them being a major attraction for investors due to their favourable tax treatment and the additional opportunities for global diversification (Kola & Kodongo, 2017).

To qualify as a REIT, a company must comply with certain Internal Revenue Code (IRC) provisions. Specifically, a company must meet the following requirements to qualify as a REIT (Institute, 2021):

- Invest at least 75% of total assets in real estate, cash, or U.S. Treasuries
- Earn at least 75% of gross income from rents, interest on mortgages that finance real property, or real estate sales
- Pay a minimum of 90% of taxable income in the form of shareholder dividends each year
- Be an entity that is taxable as a corporation
- Be managed by a board of directors or trustees
- Have at least 100 shareholders after its first year of existence
- Have no more than 50% of its shares held by five or fewer individuals

The study aims to examine the performance of REITs in the S&P500, namely 1. Public Storage: PSA, 2. Host Hotels & Resorts: HST, 3. Healthpeak Properties: Peak, 4. AIMCO: AIV. For this purpose, trend analysis was conducted to evaluate both dividend distributed per unit (DPU) and net asset value (NAV). The primary investment objective of issuing REITs is generally to provide unitholders with stable distributions per unit with the potential for being sustainable.

Stocks were selected from the S&P 500 to cover main asset classes in the real estate industry. There are several valuation methods that can be used, but for the sake of simplicity, only the two mentioned methods are used in this paper. Moreover, this leaves room for further research on this topic.

The performance of the selected stocks is measured by the performance of DPU and NAV based on the annual numbers of each REIT. At the same time, the study also aims to investigate whether individual REITs behaved differently during the sample period and how they responded to the COVID-19 crisis. To address this issue, the historical data will be selected from the financial reports and the selected metrics will be performed. Afterwards, they will be compared with each other to derive further conclusions. From the foregoing, it is clear how important such an analysis is and that it provides only a small glimpse into REITs. The metrics can be further elaborated with other metrics to get a more detailed picture. Therefore, it is important to define several fundamental parameters. Although the main idea is to examine the performance of stocks using two metrics, the knowledge gap will focus more on understanding how certain stocks react to market situations. Therefore, the main focus will be on how the selected stocks react to the COVID-19 crisis.

It is known that some sectors and asset classes are more volatile, and the objective of this paper is to examine which would be the riskiest asset class to invest in the REIT sector. For this reason, four stocks were selected from different sectors: Storage, Hotel, Healthcare and Residential. Without diving deeper, at first glance one might conclude that the hotel sector has suffered the most and the residential sector the least. This would be the first hypothesis to confirm or disprove based on the metrics. With this in mind, the research question was posed.

1. Theoretical background of REITs

There are many analyses that have been done on the performance of REITs, but not on the selected stocks from S&P500 with the two ratios. One of the studies has investigated if the high distribution per unit ratio constrained the ability of REITs to use internal earnings which led to debt financing. According to findings, a certain level of liquidity is negatively related to the debt and financial performances (Zainudin, 2019). In addition, the impact of leverage on the financial performance of companies in the Autonomous Province of Vojvodina, Republic of Serbia, showed that the level of leverage does not have a significant impact on the financial performance of the company and that the most significant results were indicated in the net profit margin, which shows the decrease in net profit margin when leverage is higher (Stoiljković, Tomić & Uzelac 2021).

Further, performance of the 99 Brazilian REITs measured by Jensen's Alpha indicator have shown that the property control strategy positively affects the performance of Brazilian REITs, especially by avoiding conflict of interest with the third parties (Bortoluzzo, Silva Neto, & Bortoluzzo, 2020). There are studies done on the Spanish REITs market with regard to the aftermarket performance of REITs after IPOs. The results taken from the period between November 2013 and January 2020 on the Spanish market have evidenced that that the issuer experienced significant negative returns two years after going public (Castano, Farinos, & Ibanez, 2021). Furthermore, there has been evidence on the US REIT market that has shown that REITS that have provided a dividend forecast in their prospectus significantly out-perform those REITs that do not across all event periods (Ratcliffe, Dimovski, Keneley, & Salzman, 2020). Several studies have been conducted on REIT volatility forecasting models. One of them has shown that the models with long memory provide the best forecasts (Zhou & Kang, 2011). Further research has shown that systematic risk positively affects the volatility of REIT returns, with a larger impact in up markets than in down markets (Li, 2012). In addition, the future performance of REITs is highest when the correlation between REITs and the S&P500 is lowest (Fei, Ding, & Deng, 2010). An investigation of monetary shocks and REIT returns was also conducted, which showed a strong response in both the first and second moments of REIT returns to unexpected changes in policy rates (Bredin, O'Reilly, & Stevenson, 2007). Beyond that, a study on the correlation between EREIT and conventional real estate investments has shown that the residuals from regressions are significantly correlated (Giliberto, 2020).

In the financial industry, practitioners are continuously looking for method for evaluating REITs performance. There has been research on finding metrics for evaluating REITS performance, and it is viewed that FFO (Funds From Operations) is as important as the Price/Earnings for other non-REIT firms (Koch, 1998). FFO was introduced by the NAREIT (National Association of Real Estate Investment Trusts) as a supplement measure of performance of the REITS (n.a., 2022). Moreover, NAREIT has suggested that NI (Net Income) is a misleading measure of performance for REITs. They claim that historical depreciation is inappropriate for income-producing properties because it does not correlate with changes in the values of these assets. Based on this recommendations from NAREIT, a study has been conducted to investigate the association of NI and FFO with REIT stock return. The results suggest that FFO is more closely associated with stock returns than NI. In particular, the association of returns with the components of NI suggests that FFO and gains/losses on disposal of investments are significantly associated with stock returns, while depreciation and amortization is not. However, the fact that gains/losses on sales of investments are associated with returns suggests that FFO excludes value-relevant accounting data. Therefore, this study provides evidence on which components of NI are considered most informative by investors in REITs (Gore & Stott, 1998), (Graham & Knight, 2020). Furthermore, an examination of NI and FFO and their association with REITs as non-GAAP measures has shown that both measures contain information that is valuable to investors (Feng, Lin, & Wu, 2020). There is a comparative study of the EPSU (Unlevered Earnings per Share) and Unlevered Funds from Operation per Share(FPSU) which shows that the relative performance of REITs bears a stronger correlation with standardized percentage change in unlevered earnings metrics than with the standardized percentage change in standard accounting earnings metrics, thereby highlighting the merit of disclosing the Unlevered EPS and Unlevered FPS to stakeholders as an additional information for a more precise evaluation of performance of the REITs (Cheng, 2020). Moreover, some studies have been examined the REITs on few levels such as valuation models, returns, volatility and asset growth (Letdin, Sirmans, Stirmans, & Zietz, 2019), (Brueggeman, Chen, & Thibodeau, 1984), (Chan, Hendershott, & Sanders, 1990).

The most similar analysis that has been done in the past is the performance of the four selected IREITs for the period from 2012 to 2016 using two metrics, DPU and NAV. It has showed that the selected investments represent an attractive investment in the form of dividends for shareholders while being supported by high quality underlying assets (Ruslan, 2019). This paper will follow analysis of (Ruslan, 2019), where instead of NAV the FFO will be used on the selected REITs and the time span will be longer.

2. Methodology overview

There are many metrics used to evaluate stock performance that cannot be applied to REIT stocks. The most commonly used metrics for REITs are FFO, P/FFO, DPU and NAV, and this paper uses two of them, FFO and DPU, calculated for the selected S&P500 stocks. Funds from Operations (FFO) is the actual cash flow generated from a company's operations. To calculate net FFO, non-cash expenses or losses that do not arise from operations, such as depreciation and losses on the disposal of assets, must be added to net income (Frankel, 2021). Gains on the disposal of assets and interest income are then deducted. FFO is commonly used by companies engaged in real estate investment trusts (REITs), a business focused primarily on income-producing real estate transactions. REIT companies are in the business of commercial real estate - selling, leasing and financing office and residential buildings, warehouses, hospitals, shopping centres, hotels and timberlands. FFO measures the company's operating efficiency or performance, especially for the majority of REIT companies. The reason is that real estate values have been shown to rise and fall with macroeconomic conditions. Operating results calculated using the cost accounting method are generally not an accurate measure of performance. Real estate companies use FFO as a more accurate measure of operating performance. Likewise, investors use this metric to determine the financial performance of a real estate company. The DPU is the sum of the declared dividends paid by a company for each outstanding ordinary share. The ratio is calculated by dividing the total dividends paid by a company over a given period, usually one year, including interim dividends, by the number of ordinary shares outstanding (Chen, 2021). The FFO and DPU will be analysed using the trend analysis. There are several benefits to analysing trends in financial statements. Here are some of the benefits that could have the greatest impact on your business:

Measuring financial performance - Using trend analysis methods to measure the financial performance of one’s business over a period of time can help one make better decisions for the future of the business. When identifying issues or potential concerns about the future financial health of one’s business, changing business processes can help get to the root of the problem.

Enable comparisons - One of the other main benefits of trend analysis is the ability to make a comparison between one’s company and a competitor, while also comparing one’s performance to the industry standard. This can help evaluate company's weaknesses and strengths, identify gaps and make changes to make business more profitable in the future.

Limitations of the interpretation of trend analyses

When conducting trend analysis and making decisions based on its results, it is important to remember that predictions from trend analysis are never 100% accurate. While past events are generally indicative of the future, this is not always - and not infallibly - the case. Therefore, it is important to examine the results of trend analysis critically.

Broadly speaking, trend analysis is a method of analysis that traders can use to predict what will happen to a stock in the future. Trend analysis relies on historical data about the stock's performance in terms of general market trends and certain indicators within the market. Therefore, trend analysis will be used to analyse the performance focusing on dividend distribution per unit and funds from operations.

Trend analysis is an analysis of the company's trend by comparing financial statements to analyse the market trend or future analysis based on the results of past performance, and it is an attempt to make the best decisions based on the results of the analysis performed.

Trend analysis involves collecting information from multiple time periods and plotting the collected information on a horizontal line to determine actionable patterns from the given information. In the financial world, trend analysis is used for technical analysis and accounting analysis of stocks. There are three different trends: An upward trend, downward and horizontal.

The performance of the individual REITs - Public Storage, Host Hotels & Resorts, Healthpeak Properties and AIMCO - is estimated using a trend analysis of FFO and DPU for the period 2009 to 2020. For this purpose, the distribution of income per unit and the fund from operations are used as indicators of performance. Broadly speaking, trend analysis relies on historical data about the stock's performance given the general market trend and certain indicators within the market. Based on the extracted data, the dividend distributed per unit (DPU) is calculated using the following formula:

$$\text{Dividend distribution per unit (DPU)} = \frac{\text{total amount of cash distribution}}{\text{total amount of unit shares issued}} \tag{1}$$

and the FFO is computed by using the following formula:

$$\begin{aligned}\text{Funds from operations (FFO)} \\ &= (\text{Net Income} + \text{Depreciation} + \text{Amortization} + \text{Losses on Property Sales}) \\ &- \text{Gains on Sales of propert} - \text{Interest Income}\end{aligned} \tag{2}$$

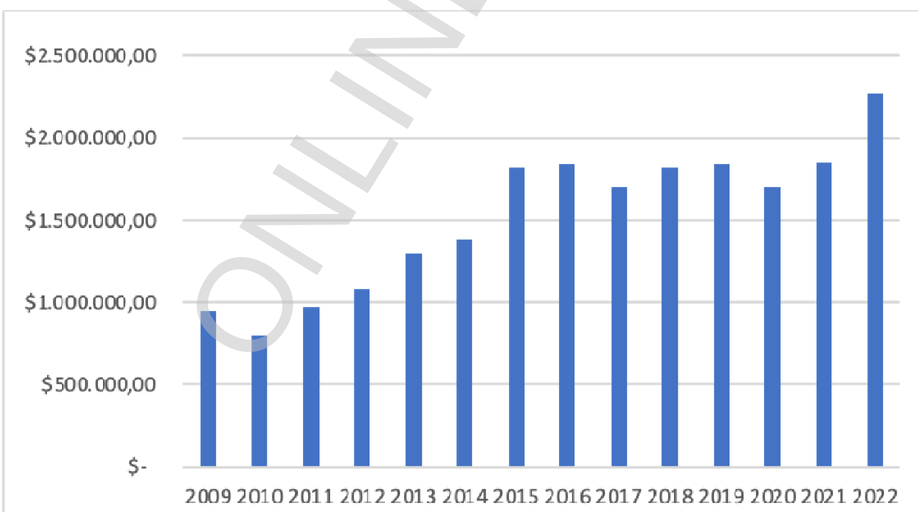
3. Results and discussion

First stock to be investigated is:

Public Storage

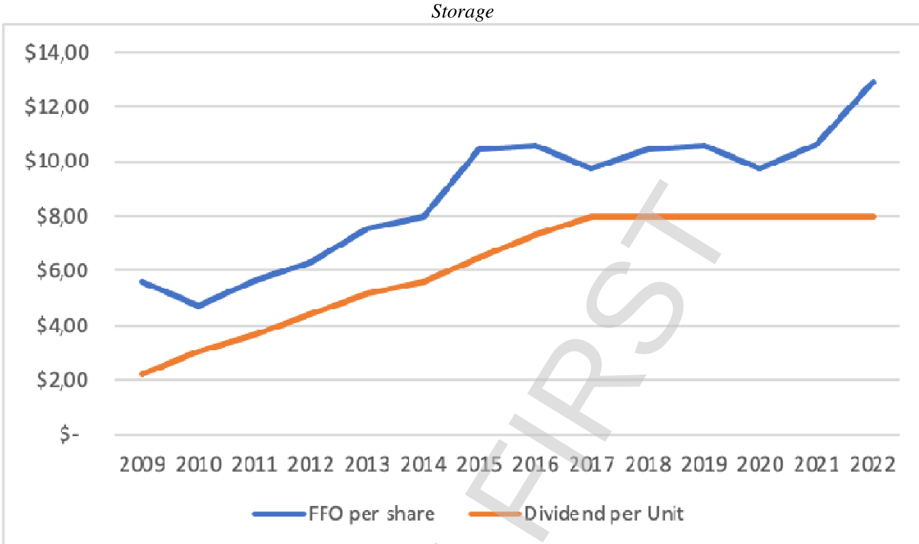
Public Storage is an American international self-storage company headquartered in Glendale, California, that operates as a real estate investment trust (REIT). Public Storage Inc. was founded in 1972 by B. Wayne Hughes and Kenneth Volk Jr. By 1989, the company had grown to 1,000 locations, with financing provided by investors in real estate limited partnerships (RELPs). The privately held company was restructured into a publicly traded REIT in 1995, when Storage Equities merged with and took over the name of Public Storage (Commission, 2021).

Figure 1- FFO allocable to common shares Public Storage



Source: the author's calculation based on data

Figure 2 - FFO and DPU per Unit Public Storage



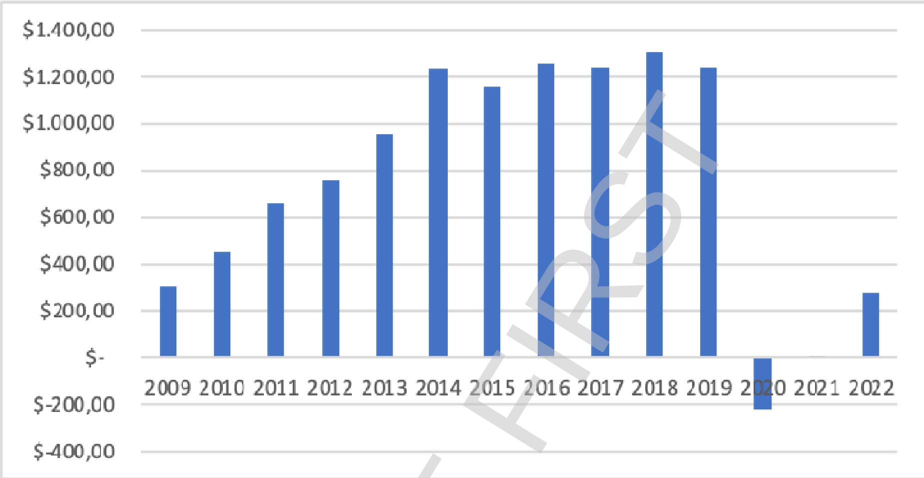
Source: the author's calculation based on data

Figure 1 shows the funds from operations for the period from 2009 to 2020. It can be observed that the fund from operations is steadily increasing and the trend can be described as positive. In 2017 and 2020, there were two slight decreases, but they are not considered a problem for the business, since the decrease in 2017 was followed by an increase in 2018 and 2019, and 2020 was the year in which all sectors were affected by the COVID-19 crisis and this decrease can be described as a market reaction. Figure 2 shows the trend in dividends paid and funds from operations per share. A positive trend can be seen in this regard. What indicates stability is furthermore that the distributed dividend has maintained the level of the previous years also in 2017 and 2020 at the 8.00 $ per share. Moreover, it can be concluded that the warehousing sector was not strongly affected by the COVID-19 crisis.

Host Hotels & Resorts, Inc

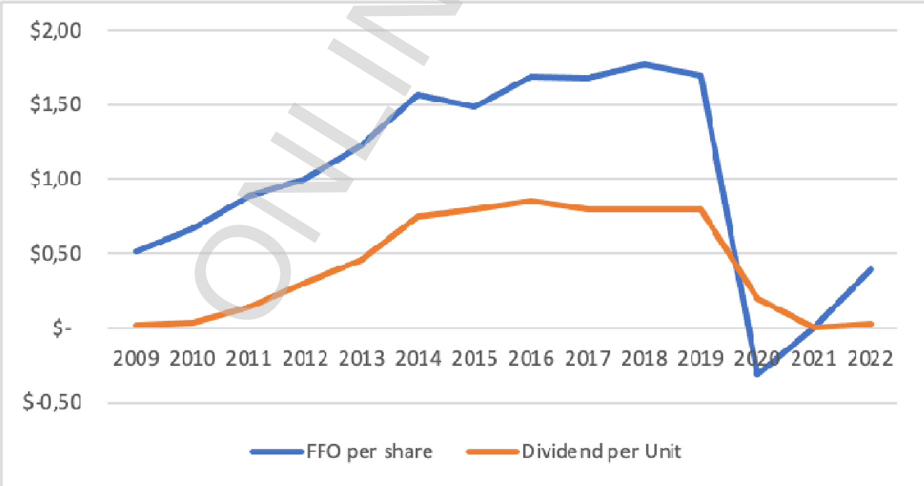
Host Hotels & Resorts, Inc. is an American real estate investment trust that invests in hotels. As of February 19, 2021, the company owned 80 upscale hotels with approximately 46,500 rooms in the United States, Brazil and Canada (Commission, 2021).

Figure 3- FFO allocable to common shares Host Hotels & Resorts



Source: the author's calculation based on data

Figure 4- FFO & DPU per Unit Host Hotels & Resorts



Source: the author's calculation based on data

Figure 3 illustrates the funds from operations for Host Hotels & Resorts. A steady increase could be seen until 2020. In 2020, the company had a negative result, resulting in a loss in funds from operations of 219 million, a difference of -100% compared to the previous year. This can be explained by the travel restrictions where people were not allowed to travel and many hotels were closed.

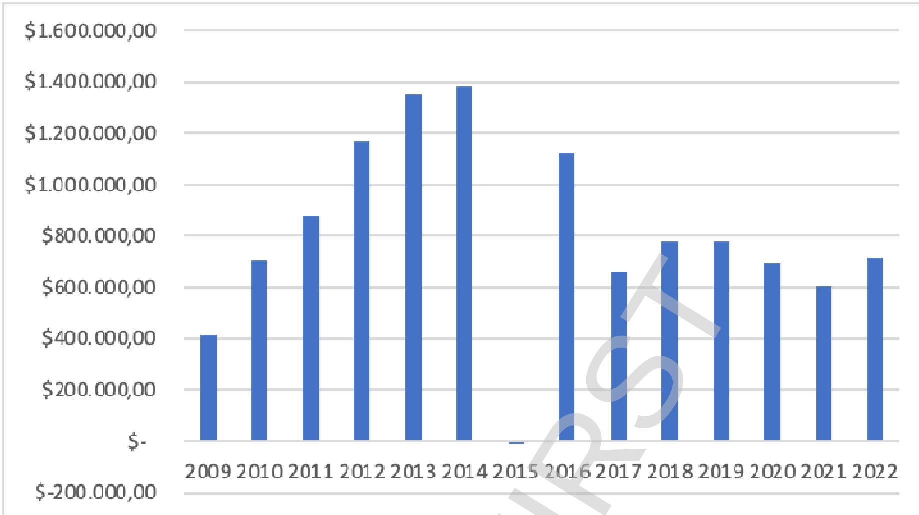
Figure 4 exhibits a sharp decline in dividends distributed and operating funds per unit. Dividends paid were $0.20 per share, while funds from operations per share were -$0.31. It can be concluded that the hotel sector was strongly affected by COVID-19.

Calculated using the ratio of expenses to revenues, the same results are shown for the 30 different hotel groups. The majority of the hotels included had a decrease in revenue in 2020 compared to 2019, with some having a decrease of more than 70% (Temelkov, 2022).

Healthpeak Properties, Inc

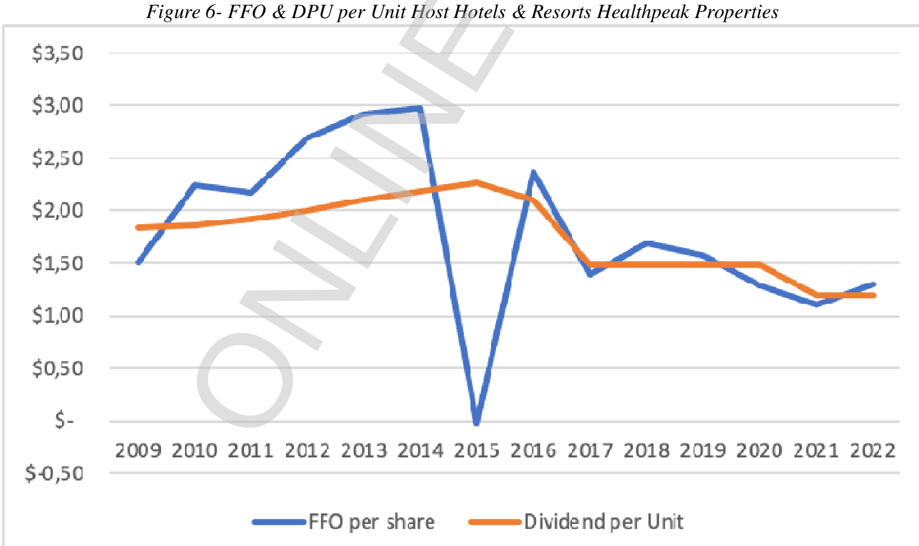
Healthpeak Properties, Inc. is a real estate investment trust that invests in properties related to the healthcare industry, including senior housing, life science and medical offices. The company was founded in Maryland and is headquartered in Denver, Colorado, with offices in Nashville and San Francisco. As of December 31, 2019, the company owned interests in 617 properties. The company was founded in 1985 with 2 acute care hospitals and 22 skilled nursing facilities. In 1985, the company went public through an initial public offering (Commission, 2021).

Figure 5- FFO allocable to common shares Healthpeak Properties



Source: the author's calculation based on data

Figure 6- FFO & DPU per Unit Host Hotels & Resorts Healthpeak Properties



Source: the author's calculation based on data

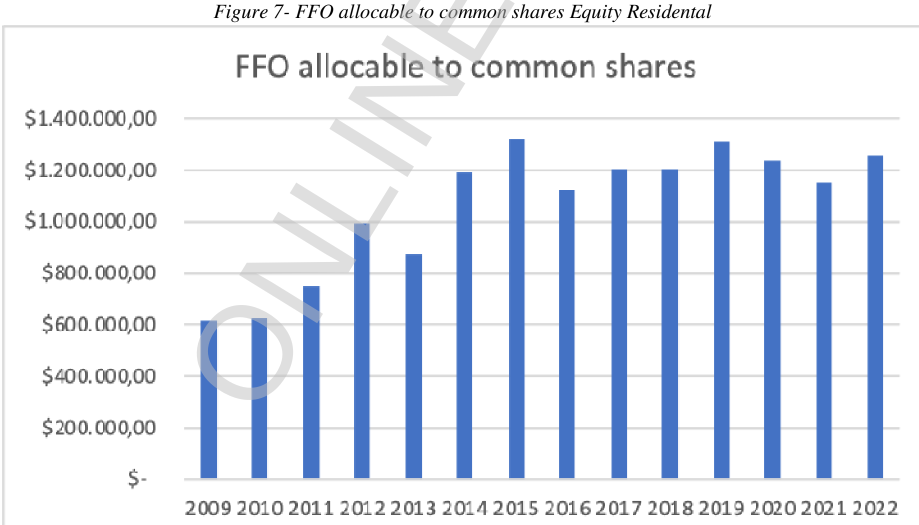
Figure 5 illustrates the trend in operating income for Healthpeak Properties. There was an upward trend until 2015 when for some reason the operating fund went into the red.

The cause needs further investigation in the company's financial statements. After the recovery in 2016, FFO failed to return to previous results in subsequent years, indicating major changes and/or problems in the company. The same results are shown in Figure 6, where FFO per share was negative and dividends paid per share were lower in the subsequent years. Moreover, it can be concluded that the COVID-19 had no major impact on the Healthpeak Properties.

Equity Residential

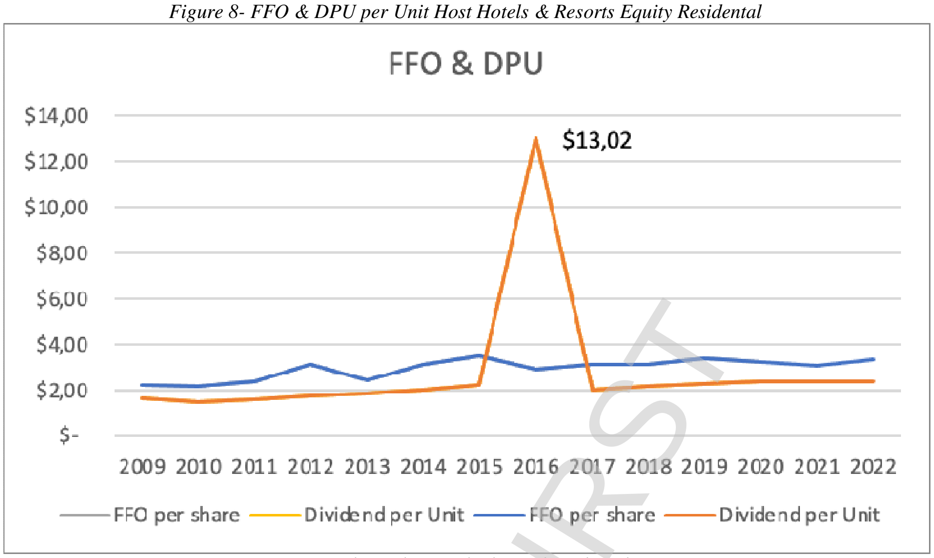
The last stock selected is Equity Residential. Equity Residential is a publicly traded real estate investment trust focused on acquiring, developing and managing rental housing in urban and densely populated suburban markets where today's renters want to live, work and reside. Equity Residential owns or has an interest in 307 properties containing 79,322 apartment units located primarily in Boston, New York, Washington, D.C., Seattle, San Francisco, Southern California and Denver. On August 11, 1993, the company went public in an initial public offering under the symbol EQR (Commission, 2021).

Figure 7- FFO allocable to common shares Equity Residental



Source: the author's calculation based on data

Figure 8- FFO & DPU per Unit Host Hotels & Resorts Equity Residental



Source: the author's calculation based on data

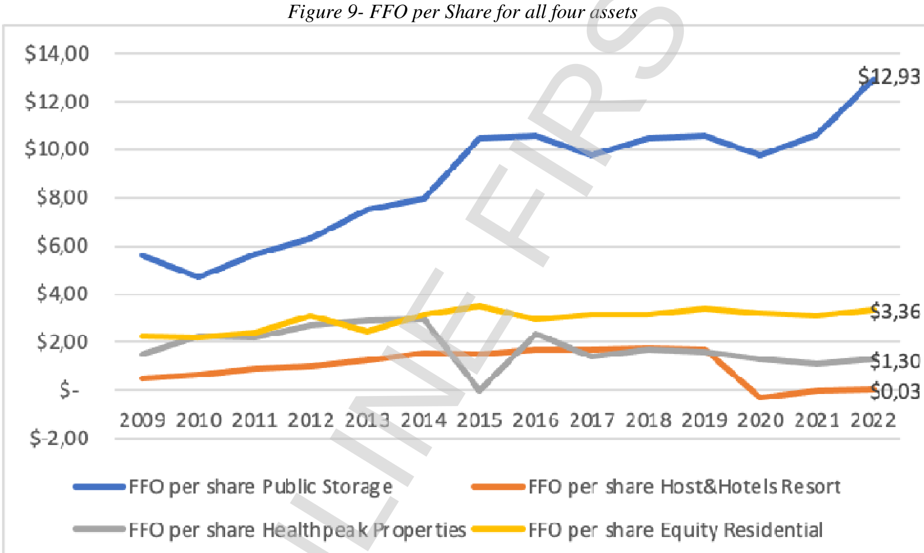
Figure 7 demonstrates a steady increase in Equity Residential's funds from operations, with a small decline in 2016. This decline should not be understood as a fundamental problem for the company, as subsequent years have seen continued increases. Figure 8 shows constant FFO per share, which supports Figure 7, with a large change in dividends paid in 2016. In 2016, the dividend paid was $13.02, which is significantly higher than the year before or after. Since there is no big change in FFO, this change must be due to other factors that should be found in the financial statements. Trends in 2020 show that Covid19 did not have a large impact on Equity Residential's performance.

The best way to determine if one stock has outperformed the others is to compare them to each other to get an idea of how the REIT sector is doing. Before we do that, it's important to clarify two open unknowns for Healthpeak Properties in 2015 and Equity Residential in 2016. Healthpeak Properties explained the decrease in the FFO as a result of: (i) $1.3 billion of impairments related to our HCRMC DFL investments, (ii) $112 million of impairments related to investment in Four Seasons Notes, (iii) $46 million of impairments related to equity investment in HCRMC, (iv) $38 million recognized in 2014 in net fees for terminating the leases on the 49 senior housing properties in the Brookdale Transaction, (v) transaction-related items of $33 million and (vi) a severance-related charge of $7 million (Commission, 2021).

For the year ended December 31, 2016, Equity Residential reported diluted earnings per share/unit of $11.68 compared to $2.36 per share/unit for the year ended December 31, 2015. The difference is primarily due to approximately $3.7 billion in higher gains on property sales and lower depreciation expense in 2016 compared to the same period in 2015 as a direct result of the significant sales activity in 2016, partially offset by significantly higher debt extinguishment costs in 2016 compared to 2015. For the year ended December 31, 2016, income from continuing operations increased approximately $3.6 billion when compared to the year ended December 31, 2015 (Commission, 2021).

Figures 9 and 10 show a comparative analysis between the asset classes. Figure 9 shows that Public Storage has the highest FFO per share over the entire period, with an increasing trend. Healthpeak Properties and Equity Residential had lower FFO per share that are relatively stable, while Host & Hotels were stable until 2020.

Figure 9- FFO per Share for all four assets



Source: the author's calculation based on data

Conclusion

The paper provides a brief overview of REITs and the possible ways to measure their performance. The main conclusion is that REITs are an attractive investment vehicle as they provide steady returns to shareholders in the form of dividends even during the crisis.

The best performing asset class was that of the storage sector, which remained stable and positive throughout the entire period, paying higher dividends than the other asset classes. In addition, it remained positive during the 2020 crisis and did not suffer large losses. The residential real estate sector presented by Equity Residential can also be considered a stable asset worth investing in, even during the crisis. It has been shown that higher dividends are possible if the company has higher profits than usual. The healthcare sector can be considered a more volatile asset class as FFO changes from year to year and the recovery process takes time. The hotel sector can also be described as more volatile, as it suffered the largest losses during Covid19.

It can be concluded that REITs as an asset class generally offer steady returns, however, some sectors are more affected than others during the crisis. It is difficult to estimate which sector will be affected, as crises are always novelties. Investing in companies with healthy financial statements is important.

In the future, it would be interesting to get the analysis for the coming years to see if the hotel sector has recovered and if the other asset classes have maintained the level of dividends paid. In addition, some other analysis can be done, like the ones mentioned in the sector Introduction, to get a more comprehensive picture of the assets. Furthermore, a technical analysis can be performed to obtain forecasts.

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