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PORTFOLIO PERFORMANCE ANALYSIS of REAL ESTATE INVESTMENT FUNDS: A STUDY on REAL ESTATE INVESTMENT FUNDS ESTABLISHED in TURKEY

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ABSTRACT

Real estate investment funds (REIF) took their place in the Turkish capital market with the communiqué of the Capital Markets Board CMB dated 03.01.2014. REIFs are institutions that bring together the construction industry in Turkey with corporate finance. The first fund in Turkey was established in 2016 and currently 80 funds are managed by 21 fund management companies. The aim of this study is to examine the financial and operational performances of real estate investment funds, which are expected to contribute to the institutionalization and acceleration of real estate investments and the elimination of financial problems such as the middle income trap in the sector. In this study, whether these funds can provide the expected contributions, fund development processes, investment strategies, structural problems in the sector, legal regulations, sectoral expectations and portfolio performance are analyzed as a whole. Due to limited number of the listed REIFs in Borsa İstanbul sample size is relative small with 6 observations. After providing all current statistics regarding REIFs stiuations in Turkey, portfolio performance is measured by Sharpe and Treynor ratios. In order to find out relative portfolio performance, indicators of listed REIFs are compared with returns of the Bist-100 national stock index and REIT index which are used as benchmark indicator. According to results of the analysis, it has been found out that most of funds provided better performance than Bist-100 national stock index and REIT Index. Based on the findings obtained in this study, it is strictly recommended that legal regulations should be implemented as soon as possible to increase REIF's profitability and operational efficiency and make them sustainable.

Keywords : Capital markets, real estate ınvestment funds, real estate finance.

INTRODUCTION

Financial markets are defined as physical and digital places where fund supply and demand meet. Trust, effective legal regulations and financial product diversity are important in order for the flow of funds to continue in a sustainable manner in financial markets.

Nowadays, the mobility of capital has increased significantly thanks to increasing financial technologies and diversified financial instruments. In this way, economic convergence between countries has been realized and capital flows have started to reach emerging countries from developed countries in a much faster and more diverse way. With these fund transfers between countries on a global scale, especially emerging countries that have problems in terms of liquidity become able to attract foreign capital.

In addition to the development of financial technologies and the diversity of financial instruments mentioned above, global monetary and fiscal policies also affect the amount and direction of fund flows. Particularly between 2003 and 2013, thanks to the loose monetary policy implemented by the US and European central banks, fund inflows were provided to emerging countries, including Turkey. It is expected that fund flows will stemm from emerging countries to developed countries unlike last decade when funds were sailing to emerging countries from the developed ones, as the US Central Bank FED will change its monetary policy and follow a tight monetary policy and will start to increase interest rates in this context. Due to the increasing return of the dollar and the flexibility of being an international reserve currency, many funds will leave developing countries or reduce their investment amount and shift towards developed world economies.

With the global flow of capital movements from one country to another, all sectors have entered the process of internationalization. One of these sectors is the real estate sector (Gunes and Tanrıvermis, 2020). Real estate is used as the most typical wealth saving tool and as of the end of 2017, the total value of real estate in the world has an economic size of approximately 3.5 times the global gross product (Kaya and Akbalık, 2021). This is an indication that real estate will continue to be used as the most popular investment tool. The real estate sector will be an attractive sector for investors, especially in the environment of increasing uncertainty after the Covid-19 global epidemic.

Real estate sector in Turkey, has been attracting serious foreign investment for the last decade. Many financial instruments are issued to encourage these foreign investments, increase their volume and make them sustainable. The use of a financial instrument in real estate investment means that the relevant real estate investment turns into a more liquid instrument that can be traded continuously. In the literature, this is called securitization of real estate. Securitization improves the mobility of real estate in a given capital markets (Tsai, 2005). Securitization can be an effective mechanism for firms to reduce their debt level (deleveraging), especially for the banks. On average, around 6% of total gross loans in the European region are non-peforming loans (NPLs), and securitization can help the banking system restructure its balance sheets and shift counterparty risk to the wider capital market (Deloitte, 2018).

Real estate investments are investments with a low liquidity level and a high risk level depending on the maturity, since they require long and high-budget investments that can last for years by their nature. With this securitization transaction, the liquidity of real estate investments increases and investment maturities are shortened considerably. As a result, the volume of foreign investment in the sector is gradually increasing, as real estates become more liquid assets with capital market instruments, which also constitutes a factor of trust for international investors.

Real estate investment trusts (REITs) and real estate investment funds (REIFs) are the leading capital market instruments that provide real estate financing (Cimit, 2000). REIFs, as a relatively new tool for our country's capital markets, were established to ensure that sector investments combined with corporate finance to be more professional.

Problems such as the middle income trap, price bubbles, and excess supply problems in the real estate sector point to the saturation / stagnation experienced in the sector from time to time. This stagnation is felt more especially in the residential segment than in the commercial segment. One of the main problems delaying the progress of the rental housing market is the lack of motivation and investment opportunities as well as regulatory environment flaws (Gertsekovich et.al, 2019). In particular, payback period of the rental-based investment reaching 35-40 years shows that the annual return on rental income is 3-4% on average. When the capital gain obtained from the sale of the relevant house is added to this, return rate reaches a maximum of 7-8%. In this case, especially in periods when global interest levels increase, investors will turn to instruments that are more liquid and provide higher returns.

REIFs provide an advantage to the investor, especially by providing protection against inflation (Brueggeman et al., 1984).

Portfolio performance of participation shares of REIFs is very important especially in terms of being an alternative to classical financial instruments, accelerating real estate investments and enabling them to be managed professionally. However, both in Turkey and in the world, it is seen that the participation shares of real estate mutual funds are bought and sold at a discount at a price lower than the net asset value of the assets held in their portfolios. There are two general approaches in the literature regarding this issue, namely the rational approach and the noise trader approach (Morri and Benedetto, 2009). According to the rational approach, the discount is the result of some factors such as leverage, size and liquidity. According to the noise trade approach, discount is a result of the transactions of irrational investors in the market.

There are many studies published in the both national and international literature on the portfolio return of real estate mutual funds. While some of these studies focused on calculating the returns of funds, others tried to predict the micro and macro determinants of these returns. In addition, some of the studies focused on the current problems and solutions of REIFs. Gunes and Tanrıvermis (2020) asked a total of 34 open-ended questions to the managers of 9 portfolio management companies operating in Turkey by face-to-face interview method. According to the results of the interview, 70% of the managers who answered the questions stated that the tax regulations related to REIFs were insufficient, and it was emphasized that the title deed tax exemption should be introduced especially in real estate purchase and sale transactions (Gunes and Tanrıvermis 2020). In order for the funds to develop, innovative arrangements must be made in both the Capital Markets Board and the tax legislation, which are in effect not only in terms of investor earnings, but also in terms of taxation of assets to be included in the fund portfolio (Dede, 2017). Gunes (2020), examined the situation of REIFs operating in Turkey as of 2020 and found out that REIFs provide relatively lower returns compared to both the benchmark indicator and REITs (Gunes, 2020). Alcock et. get. (2013), analyzed primary data collected from 169 global capitalREIFs during the 2001 – 2011 analysis period. Contrary to the management skill measured by Jensen's Alpha, it focused on how much of the performance of the funds they examined was driven by market performance, and for this purpose, a multi-factor asset pricing model was used in the analysis. According to the results of the analysis, they found that the fund performance has an almost one-to-one correlation with the performance of the underlying asset, the systematic market under return measured by Jensen's Alpha related to market frictions, and especially leverage is not beneficial in increasing performance in the long run. Galloppo and Mundula (2015) investigated the investment performance of closed-end REIFs in Italy and found that closed-end funds underperformed compared to bond and stock market. O'Neal and Page (1998) analyzed the performance and performance determinants of 28 REIFs operating in the USA during the 1996-1998 period. According to the results of the analysis, a statistically significant positive relationship was found between REIF and REIT returns (O'Neal and Page 1998). Ro and Gallimore (2014) examined 159 REITs and REITs operating in the USA between 1998 and 2008 in terms of herd immunity and momentum trading. It has been observed that herd immunity from REIFs is lower in REITs than in other stocks Ro and Gallimore (2014).

This study is important as it comparatively analyzes the performances of REIFs, which is a relatively new institution for the Turkish capital market, and examines the current problems and current data of REIFs. It is very important to analyze the portfolio performance of REIFs, which are expected to bring a breath of fresh air to the real estate sector, which has an important place in the Turkish economy. In this study it is aimed to contribute to the existing literature by examining this subject, which is relatively less discussed particularly in the national literature.

In this study, it will be investigated what will be the relative returns compared to the benchmark indicator returns when the investors prefer real estate mutual funds established in Turkey.

In the following sections of the study, the concept of REIF, the current situation, development process and sectoral constraints of REIFs will be analyzed in summary and the portfolio return performance of REIFs traded on Borsa Istanbul will be analyzed comparatively.

Reif Concept

The legal framework of REIFs in Turkey is the CMB's Communiqué on Principles Regarding REIFs, dated 03.01.2014 and numbered III-52.3. The theoretical framework regarding REIF will be explained by taking into account this communique.

According to the relevant communiqué, REIF is defined as property that do not have legal personality. It is established by portfolio management companies and real estate portfolio management companies, which have obtained an operating license from the Capital Market Board of Turkey, through collecting funds from qualified investors n return for their participation shares. The main objective to be achieved with the REIF communiqué is to attract more domestic and foreign investors by ensuring the professional management of real estate investments. As it can be understood from the definition, only qualified investors can invest in the fund.

The term qualified investor in the definition refers to real and legal persons owning at least 1 Million Turkish Lira deposit amount in TL or Foreign exchange currency and to certain financial institutions such as pension mutual funds, securities investment trusts, real estate investment trusts, banks, intermediary institutions, venture capital investment trusts, etc. (SPL, 2019). According to the legislation, it is main responsibility of the founding company of the fund to determine whether the investor has the required qualifications specified in the law.

All domestic and foreign investors can be accepted to the fund. Investing in the fund is realized by purchasing the fund participation certificate issued by the founding portfolio management company. Funds can be established openly to all investors as well as as dedicated funds targeted to only certain investors. Fund participation certificates can be traded in the Qualified Investor Transaction Market (Offering Market for Qualified Investors) in Borsa Istanbul. In this way, the secondary market of fund participation certificates has also been formed. In this market, participation certificates are subject to tarde among qualified investors. REIFs differ from other instruments by enabling investors so that they can return their participation certificates to the issuer (here, the portfolio management company that established the fund). In other words, REIFs appear as open-ended mutual funds. Thus, the existing investor who cannot find a qualified investor in the second market can return the participation certificate directly to the founding company. It can be stated that this regulation is positive for investors. In case the participation certificates are returned to the fund, the founder/manager of the fund is obliged to take back the participation certificates by providing the necessary liquidity.

Another issue that should be mentioned in the definition is that the fund is expressed as an asset that does not have legal personality. However, in order to distinguish between the assets of the fund and the assets of the founding portfolio management company and to prevent possible abuses, it is stated that the fund will have a legal personality limited to registration in the title deed and registration-related changes, cancellations and corrections, as stated in the relevant article of the communiqué. From this point of view, it can be stated that all registration procedures in the title deed are made on behalf of the fund, not the founding company, and investors are protected in this way.

REIFs play a role in the securitization of real estates and ensure that small domestic and foreign investors can get a share in real estate investments. It is possible to summarize the roles of REIFs in the capital market as follows (Gunes and Tanrivermis, 2020:432-433):

• They contribute to the development of the real estate sector by creating resources in the sector and ensuring that sector investments are made more professionally with risk-return and supply-demand analysis,

• They can provide high income by protecting against inflation,

• As a result of some opportunities given by the government, they inspire confidence in real estate investors.

Especially the last item has critical importance for REIFs to be an alternative financial instrument. As stated in paragraph 2 of Article 5 of the Communiqué, the assets of the fund cannot be seized in any way, interim injunctions cannot be placed on it, and cannot be transferred to the bankruptcy office, even if the founding company is transferred to the control of the state. With this regulation, the legislator has put the savings of domestic and foreign investors under full protection. REIF investors have started to see REIF as an alternative investment tool, as they can access their savings even in the event of the fund founder's bankruptcy. With this new legal regulation, REIFs have made significant progress, although they are still new instrument for our country.

REIFs are established and operate with the permission of the CMB and are under the regular supervision of the CMB.

REIFs, as the name suggests, are established to make real estate investments. The fields of activity of REIFs are listed in Article 4 of the Communiqué. According to the relevant regulation, REIFs can invest in real estate and real estate-based rights, joint stock company shares and debt instruments established in Turkey, time and participation accounts, repo and reverse repo transactions, lease certificates, warrants, derivative instruments and other instruments permitted by law. However, in accordance with the relevant communiqué, at least 80% of the total fund value must consist of real estate investments.

REIFs are established by a founding portfolio management company. A portfolio management company can be a portfolio management company in general or a real estate portfolio management company that deals specifically with real estate investments. The process of getting REIFs into operation consists of two stages, permission for establishment and permission for operating respectively. The founding company prepares the documents required for the establishment permission of the CMB and applies to the board. Companies whose applications are accepted will receive the establishment permit. After the establishment permit, the company has to apply to the board for an operating permit within 1 year by providing the necessary financial and operational capabilities. Requirements for an operating permit include raising funds of at least 10 mn TL during 1 year after establishment, having adequately equipped physical facilities, establishing effective risk management, inspection, accounting and IT systems, and employing licensed personnel who are experts in their fields.

The advantages offered by REIFs to investors, the industry and the government in the light of current legal regulations are summarized in Table 1 as follows:

Table 1. Advantages of the REIFs

For Investors	For Sector	From Macro-Economic Perspective
Ensuring full protection by not being subject to seizure in any way, even including government receivables,	Facilitating financing of real estate investments,	The increase in employment thanks to the increasing business volume in the sector,
Being an alternative investment tool in portfolio diversification for investors,	Acceleration of real estate investments,	Positive impact on other sectors related to construction thanks to the increasing sectoral momentum.
Relatively small investors can also take part in large real estate investment projects,	Diversification of real estate investments,	
Providing return above benchmark indicator thanks to professional management of the fund.	More professional management of the real estate investment process	

Source: (GSG, 2014)

Although REIFs can invest in real estate, rights based on real estate and other areas specified in the relevant article of the communiqué issued by the CMB of the Turkey, there are also some legal restrictions regarding the activities of REIFs. These legal limitations are summarized in Table 2 as follows:

Table 2. Limitations on REIFs

Activity Limitations	Financial Limitations
First of all, as stated above, at least 80% of the total value of the fund should consist of real estate investments. A fund can invest a maximum of 20% in a joint stock company, of which at least 75% of its total assets consist of real estate investments. Another limitation is related to the portfolio diversification of the fund. According to this criterion, the total of real estate investments that exceed 20% of the total fund amount alone should not exceed 60% of the total value of the fund. The last criterion is related to the operational risk management of funds. According to this criterion, the total value of the real estates with an encumbrance annotation should not exceed 30% of the total value of the fund.	Financial limitations are applied in loan application. According to the relevant communiqué, funds can use bank loan only equal up to half of the total fund values calculated as of the last accounting period.

Source: www.spk.gov.tr

Similar to the financial and operational restrictions applied in Turkey, summarized in the table above, can be seen in other country cases. Some country cases are summarized below as follows (OICU-IOSCO, 2008):

• There are no restrictions on the assets that funds can invest in in Australia, but the fund manager should check that the fund's asset allocation is reasonable for a real estate fund,

• In Japan, they are required to impose a restriction on the issuance of debt instruments in the fund's charter and issue charter,

• According to the legal regulation implemented in Germany, the fund's long-term borrowing cannot exceed 50% of the fair value of the real estate held by the fund, and short-term borrowings cannot exceed 10% of the net asset value of the fund,

• In Italy, the indebtedness rate of the fund is limited to 10% of the total assets of the fund,

REITs were established to be an alternative to REITs and to increase competition in the sector and provide advantages to customers. According to the current CMB regulations, REITs are not required to distribute dividends on their annual net income. However, REIFs have to provide the returns they have promised to the customer in the prospectus, otherwise they will lose their customers. Since 2014, both institutions have been operating together in the Turkish capital market. The table below presents the comparison of REIF and REIT:

Table 3. Comparison of REIFs and REITs

REIT	REIF
REITs can engage in real estate development activities.	REIFs cannot engage in real estate development activities.
It is possible for REITs to put their real estates in the company as capital.	REIFs can raise funds by issuing fund shares in order to acquire real estate.
REITs can invest in real estate abroad.	REIFs cannot operate both domestically and abroad at the same time.

Source: (Yalçınkaya, 2018).

As can be seen from the table above, the current legal regulations in force are still in favor of REITs. This situation reduces the operational flexibility and efficiency of REIFs.

METHOD

Research Model

In this part of the study, firstly, summary information and statistics about the current situation of REIFs in Turkey will be provided and then the investment performance of REIFs will be analyzed as of August 2021.

In the analysis of the investment performance of REIFs, Sharpe Ratio and Treynor Ratio, which are among the most used ratios as portfolio performance criteria in the literature, will be used. Both the Sharpe and Treynor ratios calculate the ratio of the risk premium received versus the risk incurred. The higher the Sharpe and Treynor ratios, the higher the risk-adjusted returns for the respective portfolio are expected. Although the calculation of the ratios is similar, the standard deviation value of the relevant instrument is taken into account as a risk criterion in the Sharpe Ratio, while the Beta value, which measures the sensitivity of the relevant instrument to the general market index, is taken into account in the Treynor Ratio.

The following shows the calculation of the Sharpe and Treynor Ratios in equations 1 and 2 respectively: (Sharpe, 1964); (Treynor, 1961):

$$S = \frac{d^{-}}{\sigma} \qquad (1)$$

The explanation of the notations in the formula is given below:

S : Sharpe Ratio,
d^{-} : The residual / abnormal return (Risk Premium) provided by the portfolio,
σ : Standard Deviation of the Portfolio

$$T = \frac{rp - rf}{ß_p} \qquad (2)$$

The explanations of the notations in Equation 2 are provided below:

T : Treynor ratio
r_p : return of the portfolio
r_f : risk-free rate
β_p : beta of the portfolio

Standard deviation and beta values were used as risk indicators in the measurement of portfolio performance.

Compounded Annual Growth Rate (CAGR) was also used as the performance measure of the portfolio.It is used to measure a growth rate for an investment as covering from scratch to the end. Under CAGR, it is assumed that all profits that are generated during whole investment period will be reinvested (investopedia, 2021). CAGR is calculated through following expression shown in equation 3 as follows (Elango, 2019):

$$\textbf{CAGR} = \left[\frac{\text{Ending / Last Value}}{\text{Beginning / First Value}}\right]^{(1/n)} -1 \qquad (3)$$

As it can be seen in expression above, CAGR provides smooth growth rate for entire investment period based on exponential calculation. This may be considered drawback of CAGR since in real life growth rate may fluctuate because of many internal and external factors.

Sample Structure

In this part of the study, the investment performance of REIFs will be analyzed. For this purpose, ALBTS, ALDUK, ALONE, FPREP, MPATA, QPERP, RPAVS funds traded in Borsa Istanbul, whose data can be accessed, will be included in the analysis. Since the trading periods in the stock market are different, return and risk values will be calculated on an annual basis. Analyzes will be carried out on the daily closing values of the fund participation certificates published in Borsa Istanbul. While the investment performance of REIFs will be compared with each other, the investment performance of REIFs will also be compared with the returns of the Bist-100 national share index, which is accepted as the indicator return in this study, and the stock index of REITs.

Summary information on the REIFs included in the analysis is shown in Table 4 below:

Table 4. Summary Information of the Sample

FUND NAMES	DATE of ISSUE	FOUNDER / MANAGER FIRM	LOCATION	TYPE	Timed / Indefinite	CODE
BATIŞEHİR REIF	13.03.2017	ALBARAKA PORTFOLIO MANAGEMENT CORP.	İstanbul	Mixed	Timed	ALBTS
DÜKKAN REIF	13.03.2017	ALBARAKA PORTFOLIO MANAGEMENT CORP.	All Turkey	Commercial Properties	Indefinite	ALDUK
ONE TOWER REIF	13.03.2017	ALBARAKA PORTFOLIO MANAGEMENT CORP.	Ankara	Mixed	Timed	ALONE
RE-PİE REIF	25.11.2019	FİBA PORTFOLIO MANAGEMENT CORP.	All Turkey	Mixed	Indefinite	FPREP
ATAŞEHİR METROPOL REIF	31.10.2018	MÜKAFAT PORTFOLIO MANAGEMENT CORP.	İstanbul	Mixed	Indefinite	MPATA
RE-PIE REIF	1.11.2018	QİNVEST PORTFOLIO MANAGEMENT CORP.	All Turkey	Mixed	Indefinite	QPERP
AVRASYA STRATEGIC REIF	2.02.2018	RE-PIE PORTFOLIO MANAGEMENT CORP.	All Turkey	Land - Field	Indefinite	RPAVS

Source: www.kap.org.tr

Descriptive statistics of the sample included in the analysis are shown in Table 5 below:

Table 5. Descriptive Statistics

Descriptive Statistics	ALBTS	ALDUK	ALONE	FPREP	MPATA	QPERP	RPAVS	BIST 100 %	XGMYO
Beta	0,227	-0,145	-0,006	0,078	-1,128	0,135	0,131	1,000	0,638
Average Return	0,000	0,000	-0,004	0,001	0,001	0,001	0,001	0,001	0,001
Standard	0,001	0,001	0,066	0,006	0,001	0,005	0,006	0,015	0,018

Source: Author's Own Calculations

When Table 5 is examined, it is observed that REIFs are lower than both Bist-100 and REIT sector index except for FPREP in terms of Beta and Standard deviation values, which are risk indicators. This situation may enable the fund to be used and preferred as a value protection tool, especially for the risk-averse green generation investor type. In terms of returns, it is seen that the returns are also lower than the averages of Bist-100 and REITs.

FINDINGS

Current Reif Statistics in Turkey

As of the end of August 2021, there are a total of 80 funds approved by the CMB on the basis of 21 founding companies in Turkey. The list of funds on the basis of the founding portfolio management company is shown in Table 6 below:

Table 6. Number of Funds by Portfolio Management Company

PORTFOLIO MANAGEMENT CORP.	# of FUNDS
24 Real Estate and Venture Capital Portfolio Management Corp.	7
Ak Portfolio Management Corp.	4
ALBARAKA Portfolio Management Corp.	8
ARZ Real Estate and Venture Capital Portfolio Management Corp.	5
ATLAS Portfolio Management Corp.	3
AURA Portfolio Management Corp.	1
FİBA Portfolio Management Corp.	1
İŞ Portfolio Management Corp.	5
KIZILAY Real Estate and Venture Capital Portfolio Management Corp.	1
MAQASID Real Estate and Venture Capital Portfolio Management Corp.	1
MÜKAFAT Portfolio Management Corp.	2
NEO Portfolio Management Corp.	7
NUROL Portfolio Management Corp.	9
OMURGA Real Estate and Venture Capital Portfolio Management Corp.	3
ORAGON Real Estate Management Corp.	1
OYAK Portfolio Management Corp.	1
QİNVEST Portfolio Management Corp.	2
RE-PIE Portfolio Management Corp.	15
ÜNLÜ Portfolio Management Corp.	2
ZİRAAT Portfolio Management Corp.	1
Akfen Real Estate Management Corp.	1
GRAND TOTAL	**80**

Source: www.kap.org.tr

As can be seen in Table 6 above, some of the founding companies are organized as REIF established to manage the portfolio consisting exclusively of real estate investments.

Out of a total of 80 funds, 25 are funds that have not yet issued a fund participation certificate / published financial statements, in other words, they are inactive funds. The distribution of funds by activity is shown in Chart 1 below:

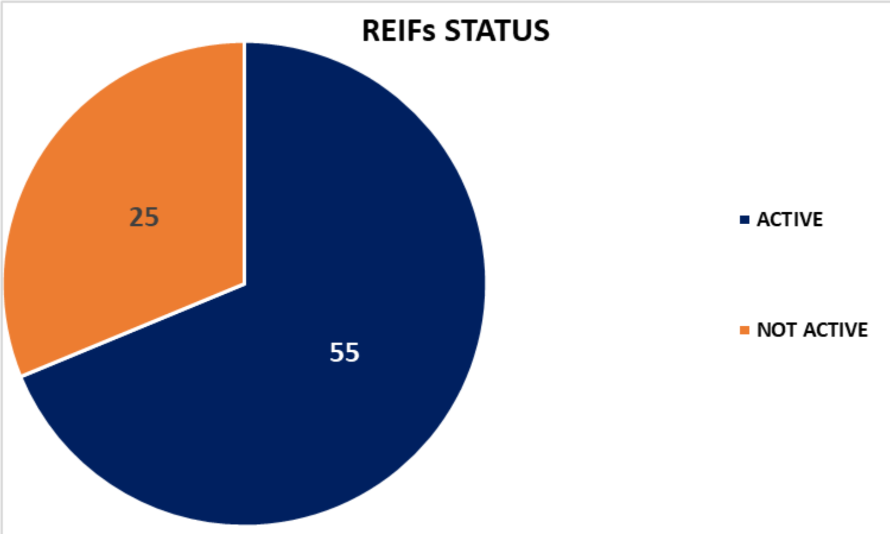

Chart 1. Breakdown of REIFs by Status (www.kap.org.tr).

Out of these 80 funds, there are 55 funds in total for which participation certificates were issued as of the analysis period. The number of issuances of REIFs over the years is shown in Chart 2 below:

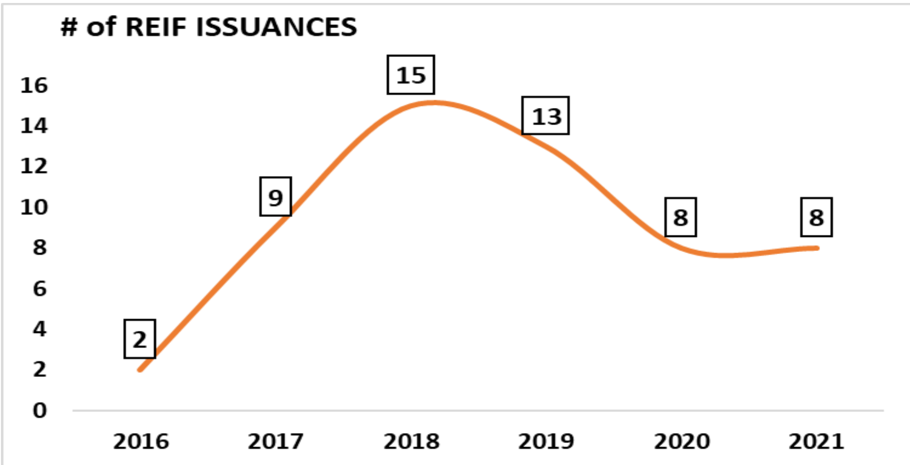

Chart 2. Number of REIFs by Years (www.kap.org.tr).

When Chart 2 is examined, it is seen that the number of REIF issuances increased regularly in the 2016-2018 period in parallel with the development of the real estate sector. However, it is observed that the number of REIF issuances decreased significantly due to the stagnation in the global economy caused by the Covid-19 epidemic, which emerged especially in the 2019 - 2020 period. Although the decline seems to have stopped in

2021, the course of the epidemic from now on will be decisive in the development of the global economy and especially the real estate sector. The issuance of REIFs by years and the frequency of initial public offerings in Borsa Istanbul by years are shown in Chart 3 below.

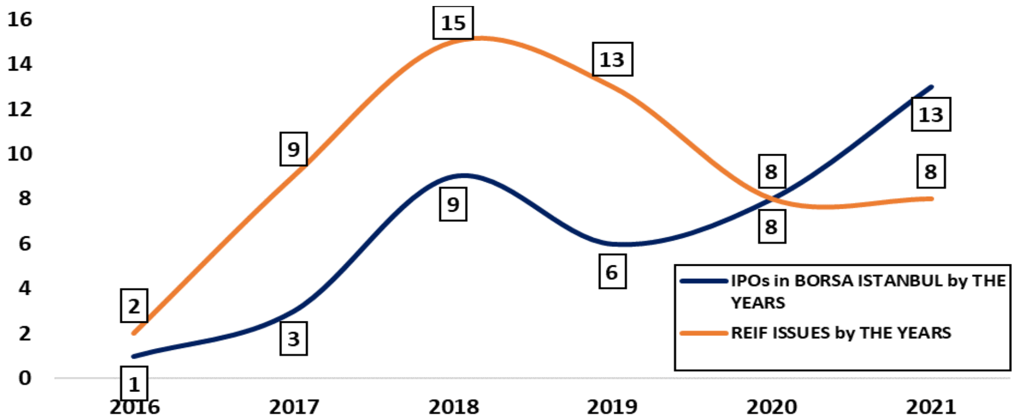

Chart 3. Number of REIF Issues and Number of IPOs of Stocks (www.kap.org.tr).

Chart 3 indicates that there is a positive correlation between REIF issuance frequency and stock public offerings in Borsa Istanbul. It is observed that the number of REIF issuances is higher than the stock public offerings in all years except 2021. In this case, it shows that REIFs are starting to be an alternative investment tool for investors.

As of the date of the analysis, 45 funds have exceeded 10 million TL in size. The consolidated fund size of the entire REIF sector in Turkey is shown in Chart 4 by years:

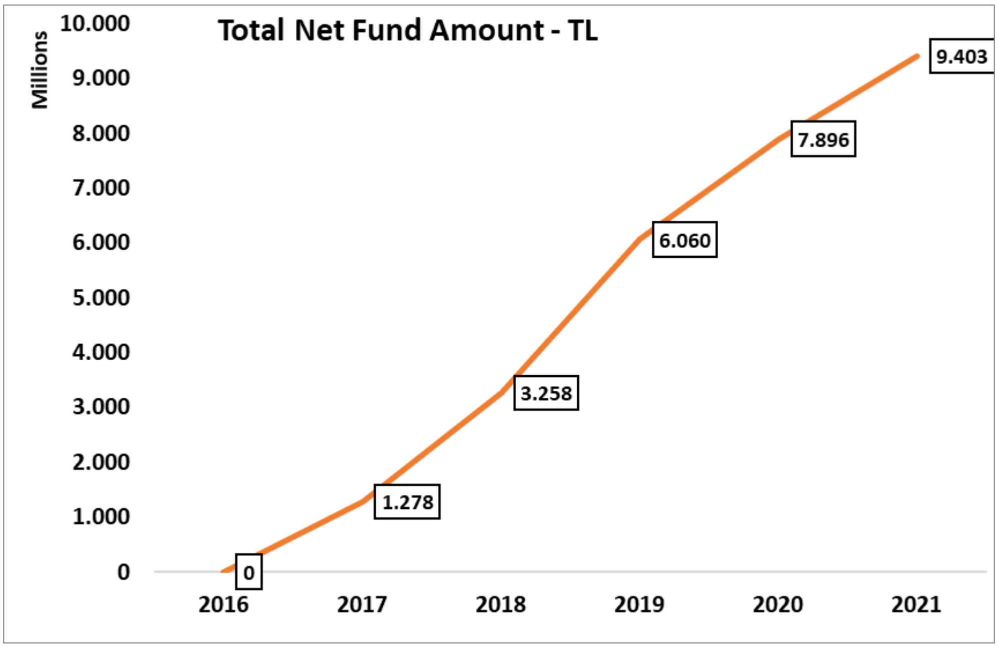

Chart 4. Consolidated Fund Size of REIF Sector by Years – TL (www.kap.org.tr).

While some of the existing REIFs are established indefinitely, some of them are established to operate for a certain period of time. The distribution of REIFs according to their operating periods is shown in Chart 5 below:

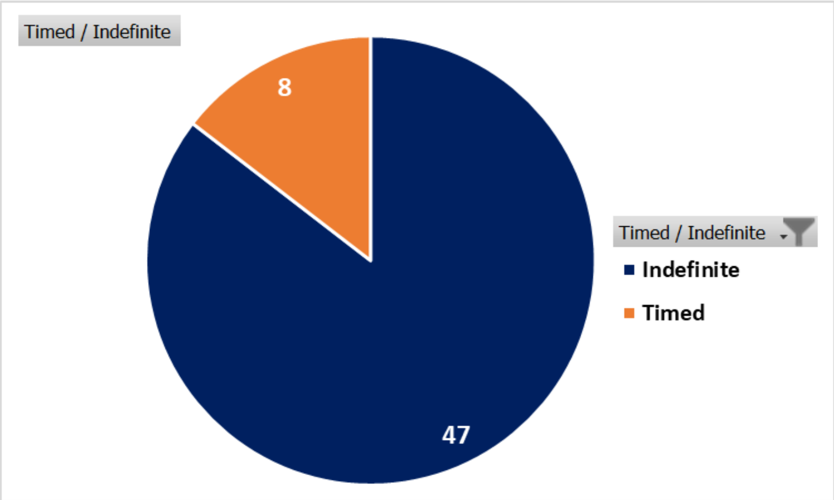

Chart 5. Timed and Indefinite REIFs (www.kap.org.tr).

As can be seen in Chart 5, almost all of the active funds have been established indefinitely.

The distribution of participation certificates issued by REIFs according to whether they are traded on the Exchange or not is shown in Chart 6 below.

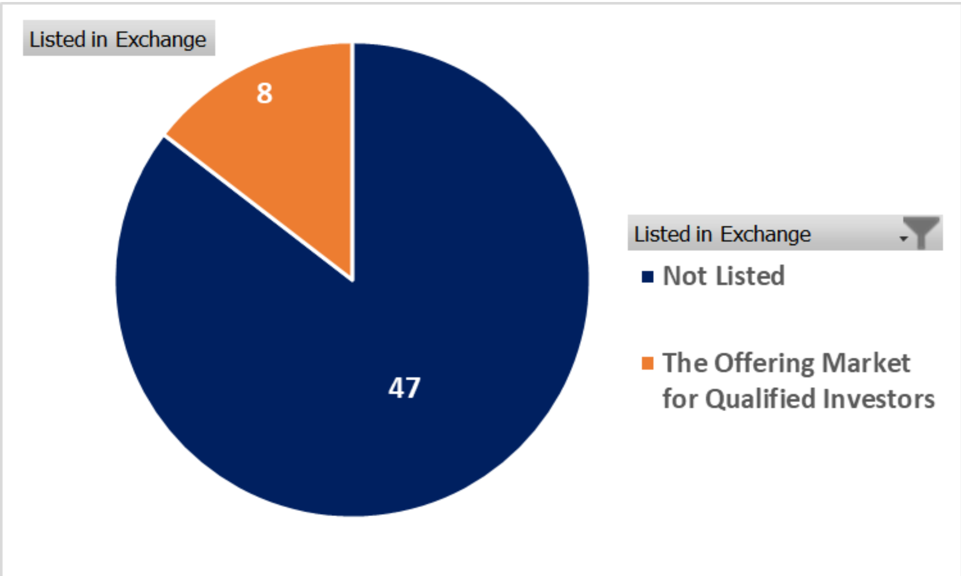

Chart 6. REIFs by Listing Status (www.kap.org.tr).

According to Chart 6, 47 of the 55 active funds are not traded in the stock exchange, while 8 of them are traded in the Qualified Investor Transaction Market in Borsa Istanbul.

The types of REIFs established in Turkey according to their fields of activity are shown in Chart 7 below.

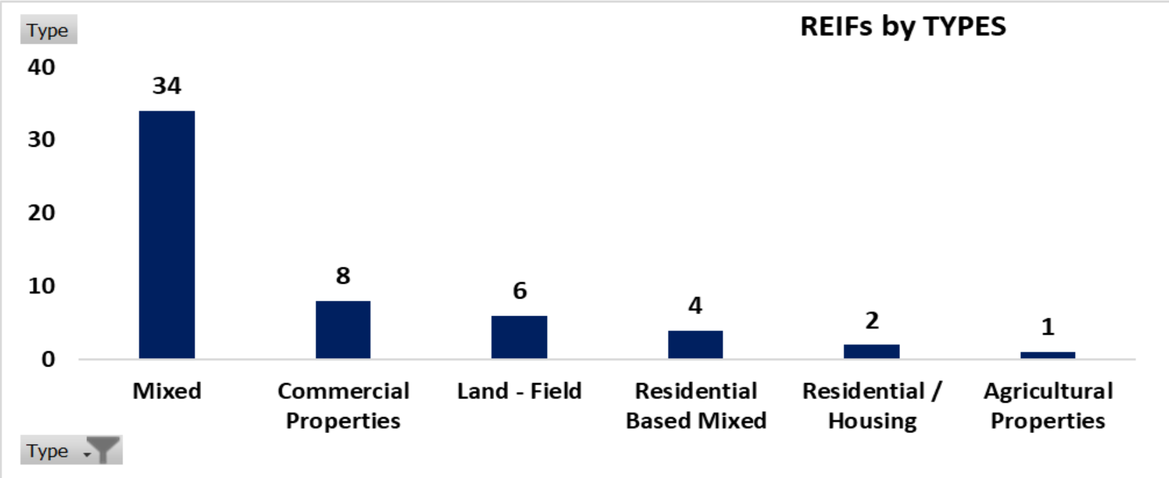

Chart 7. REIFs by TYPE (www.kap.org.tr).

According to Chart 7, most of the REIFs were established as mixed funds. However, there are also funds that concentrate only on agricultural areas or specific areas such as investing in land and field.

REFs according to target location concentrations are shown in Chart 8 below.

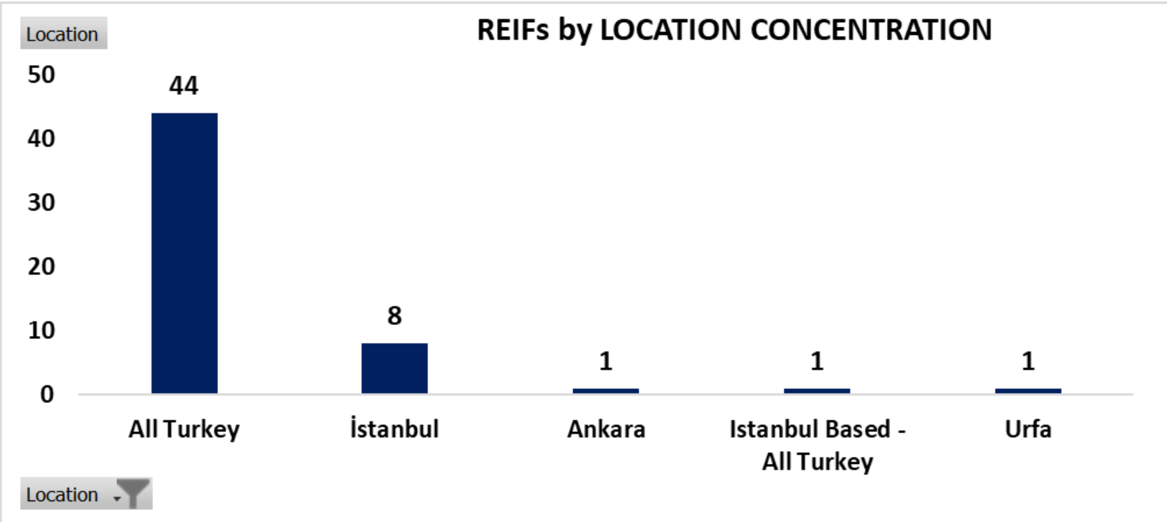

Chart 8. Number of the REIFs by Location (www.kap.org.tr).

According to Chart 8, almost all of the REIFs did not make any location restrictions in their issuance documents. Although it is seen in practice that all funds focus on major metropolitan cities, especially Istanbul, investment opportunities in all of Turkey are emphasized in the fund issuance documents. However, there are also funds that include specific location preferences such as only Istanbul or only Urfa.

When charts 7 and 8 are evaluated together, it is seen that most of the REIFs are organized in a mixed structure and to operate throughout Turkey.

The total fund amounts of the REIFs on the basis of the founder/management portfolio management company are shown in Table 7, sorted from the largest to the smallest.

Table 7. Total Fund Amounts by Portfolio Management Company – As of 30.06.2021

PORTFOILO MANAGEMENT CORP.	TOTAL FUND AMOUNT	%	2021 - 2020 Δ
İş Portfolio Management Corp.	2.542.200.446	27%	6,02%
Albaraka Portfolio Management Corp.	1.954.676.577	21%	18,56%
Ak Portfolio Management Corp.	1.471.126.577	16%	0,41%
Mükafat Portfolio Management Corp.	710.237.221	8%	94,03%
Re-Pıe Portfolio Management Corp.	581.499.662	6%	12,33%
Arz-Real Estate and Venture Capital Portfolio Management Corp.	579.531.719	6%	0,31%
Akfen Real Estate Portfolio Management Corp.	398.087.261	4%	4,32%
Ziraat Portfolio Management Corp.	395.790.787	4%	NA
Kızılay Real Estate and Venture Capital Portfolio Management Corp.	173.551.330	2%	NA
Ünlü Portfolio Management Corp.	127.421.330	1%	5,85%
24 Real Estate and Venture Capital Portfolio Management Corp.	118.513.529	1%	12,43%
Oyak Portfolio Management Corp.	111.957.026	1%	37,86%
Atlas Portfolio Management Corp.	83.715.909	1%	NA
Qinvest Portfolio Management Corp.	71.389.066	1%	8,14%
Aura Portfolio Management Corp.	45.867.113	0%	1330,20%
Fiba Portfolio Management	25.707.611	0%	6,98%
Omurga Real Estate and Venture Capital Portfolio Management	12.099.973	0%	8,05%
Maqasıd Real Estate and Venture Capital Portfolio Management	0	0%	
Neo Portfolio Management Corp.	0	0%	
Nurol Portfolio Management Corp.	0	0%	
GRAND TOTAL	**9.403.373.137**	**100%**	

Source: www.kap.org.tr

Fund total value information is obtained from the independently audited financial statements of the funds published on the Public Disclosure Platform dated 30.06.2021. According to Table 2 above, as of the end of June 2021, the largest fund belongs to Is Portfolio Management company with 2.5 Billion TL. About 27% of the total REIF size in Turkey belongs to Is Asset Management. The total amount of funds managed by İş portfolio management company increased by approximately 6.02% compared to the previous year and reached approximately 2.5 Billion TL. Apart from the Aura fund management company, the company with the highest increase in fund size compared to the previous year is the Mükafat portfolio management company with 94.03%.

The list of listed REIFs is shown in Table 8 below.

Table 8. LISTED REIFs

REIF NAMES	DATE of ISSUE	FOUNDER / MANAGER FIRM	LOCATION
BATIŞEHİR REIF	13.03.2017	ALBARAKA PORTFOLIO MANAGEMENT CORP.	İstanbul
DÜKKAN REIF	13.03.2017	ALBARAKA PORTFOLIO MANAGEMENT CORP.	All Turkey
ONE TOWER REIF	13.03.2017	ALBARAKA PORTFOLIO MANAGEMENT CORP.	Ankara
RE-PİE REIF	25.11.2019	FİBA PORTFOLIO MANAGEMENT CORP.	All Turkey
ATAŞEHİR METROPOL REIF	31.10.2018	MÜKAFAT PORTFOLIO MANAGEMENT CORP.	İstanbul
RE-PIE REIF	1.11.2018	QİNVEST PORTFOLIO MANAGEMENT CORP.	All Turkey
AVRASYA STRATEGIC REIF	2.02.2018	RE-PIE PORTFOLIO MANAGEMENT CORP.	All Turkey

Source: www.kap.org.tr

Although the first REIF was established in Turkey in 2016, the listing of funds on Borsa Istanbul started in 2017. As of August 2021, 7 REIFs have been listed on the stock exchange. Fund participation certificates are traded in Borsa Istanbul's Qualified Investor Transaction Market. This market differs from the stock market by criteria such as trading hours and trading limits.

Analysis of Investment Performance of REIFs in Turkey

The investment performance of the REIFs included in the analysis is shown in Table 9 below:

Table 9. Portfolio Performance of REIFs as of 30.06.2021

Performance Indicators	ALBTS	ALDUK	ALONE	FPREP	MPATA	QPERP	RPAVS	BIST 100 %	XGMYO
CAGR	6,85%	6,41%	5,47%	26,55%	7,85%	14,30%	19,28%	11,30%	15,63%
Sharpe Ratio	- 0,76	- 8,44	- 0,10	1,14	- 3,73	- 0,24	0,35	- 0,21	- 0,01
Treynor Ratio	- 0,05	0,66	18,63	1,35	0,07	- 0,13	0,25	- 0,05	- 0,01

Source: Author's Own Calculations

According to the table above, in terms of annual compound returns, it is observed that 3 funds (FPREP, RPAVS, QPERP) out of 7 funds included in the analysis provide higher returns than Bist-100, which is accepted as a benchmark indicator, and 2 funds (FPREP, RPAVS) provide higher returns than REITs. FPREP fund provides the highest return to its investor among all funds with 26.55%. When compared in terms of Sharpe ratio and Treynor ratio, which show risk-adjusted return performances, it can be stated that REIFs are not yet an attractive investment tool, except for the FPREP fund. According to this result, it can be claimed that REIFs have not yet created the expected effect in the sector. In this result, the contraction in the real estate sector, especially due to the Covid-19 epidemic, has a important role. Since global interest rates are on the rise, the return of REIFs becomes less attractive. Similar to the results of the Turkey case study examined in this study, the value of REIFs is decreasing in many countries due to the pandemic and global monetary policies. Participation shares of Annaly Capital Management, one of the largest companies operating in the field of real estate in the world, and the shares of many other real estate companies have experienced a serious loss in value in the market due to the covid-19 pandemic. Another important challenge for these companies will be the increasing interest rate trend as a result of global monetary policies. It can be stated that the same problem is valid for REIFs operating in Turkey.

CONCLUSION and DISCUSSIONS

REIFs are a very new investment tool for Turkish capital markets. Its legal basis is the Communiqué on Principles Regarding REIFs published by CMB dated 03.01.2014. The purpose of this legal regulation is to contribute to the development of the real estate sector, which is becoming more and more international in the globalizing economy, and to attract qualified and institutional investors to the sector. The most basic logic of REIFs is to ensure that real estate investments are managed as if a professional portfolio is managed and to provide a residual return to the investor above the benchmark indicator. As it is known, the real estate sector is a sector that is directly affected by the general economic conjuncture. This situation increases the sensitivity of the sector to macroeconomic developments. In addition, since the sector has a relatively high cost production process in terms of input and output, cash circulation management is vitally important in this sector. For this reason, it is necessary to manage the supply-demand balance of the sector very well, to make investment analyzes professionally and especially to develop innovative real estate projects (hybrid projects). In order to meet this need in the sector, REIFs have taken their place in the Turkish capital market.

This study has been prepared in order to examine the current situation of REIFs in Turkey and to analyze the investment performance of REIFs comparatively. Since the subject is new for Turkey, it is expected that the study will contribute to the existing literature. For this purpose, all funds operating in the period of 2016 – 2021 were examined in detail. In the study, data such as the number of REIFs established in Turkey as of August 2021, their listing status and fund sizes are from the Public Disclosure Platform (KAP), data such as the number of issues on a yearly basis are from Borsa Istanbul and the daily closing price data of the funds quoted on the stock exchange are obtained from investing.com.

In the study, first of all, summary statistics on REIFs were provided and interpreted with the help of tables and charts. Then, the investment performance of the funds listed on the stock exchange is analyzed comparatively. Sharpe and Treynor ratios, which are among the most used ratios in the literature, were used to measure investment performance. Both ratios calculate a portfolio's risk-adjusted return.

According to the results of the analysis, it can be concluded that REIFs are not yet an attractive investment tool for investors. As seen in every sector, the negative impact of the Covid-19 epidemic is observed in the REIF sector as well. As it is known, with the Covid-19 epidemic, the whole world faced stagnation on both the demand and supply sides for the first time, and this caused many production centers, business models and ways of doing business to change. It is expected that these developments will continue to increase in the coming years.

Due to the Covid-19 epidemic, the operational limitations of REIFs stemming from the legislation are among the reasons why REIFs have not yet been able to provide the expected high performance to their investors. In accordance with the current legal regulation, REIFs cannot diversify its portfolio abroad, develop projects, invest in developed projects, and make short-term real estate investments. Due to all these reasons, REIFs have not yet made the expected contribution in the real estate sector. Although real estate provides value protection to its investors against inflation by its nature, they cannot provide attractive returns compared to fixed income (a kind of risk free rate) instruments such as interest. It does not seem easy to attract institutional investors to real estate investments, especially in this conjuncture where global interest rates tend to rise. Today, many funds have been established to generate rental income, and it is seen that the annual average return of the sector is 3%-5%, especially in the housing segment, since rent-based payback periods have exceeded 30 years in many provinces, especially in Istanbul. When the average annual 5% capital gain is added to this, the average annual return of the sector before tax deductions will be a maximum of 10% on TL basis.

Considering that TL deposit interests in Turkey are 17%-18% annually, it can be stated that suitable macroeconomic conditions have not yet been formed for the sector to gain serious momentum. For this reason, it is recommended that legal regulations should be implemented as soon as possible, which will increase the efficiency of REIFs, especially enabling REIFs to develop projects and make international diversification.

RECOMMENDATIONS

In this study, the current status of REIFs established in Turkey and their portfolio performances as investment instruments are analyzed. In the study, it has been investigated whether the investors prefer REIFs in their portfolio basket can obtain higher returns than the REIT index and Bist-100 national share index used in this study as benchmark indicator return. However, the macro and micro determinants of portfolio returns of REIFs have not been analyzed. Determining the factors that affect the portfolio returns of REIFs will be beneficial both for investors in terms of asset management and for the fund managers to take these factors into account during the decision processes regarding on fund allocation. In addition, analyzing the portfolio performance of REIFs to cover more than one country will help to obtain more comprehensive and analytical findings. In addition to all these, the use of not only secondary data but also primary data to be obtained through questionnaires and interviews in the analysis of REIFs will be beneficial in terms of identifying current problems of REIFs and developing effective solutions accordingly.

ETHICAL TEXT

This article has been prepared in accordance with journal publication principles, writing rules, research and publication ethics rules and journal ethics rules. The author is responsible for any violation of the article.

Author's Contribution Rate Statement: The author's contribution rate in this research is 100%.

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