

**THE EVOLUTION OF REAL ESTATE PRICES AND PRICES OF  
ALTERNATIVE INVESTMENTS IN GREECE DURING THE PRE-COVID  
PERIOD 2004 - 2020**

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**Abstract**

The study compares real estate returns with the returns of alternative investment products, in Greece during the period 2004 – 2020 (pre-Covid 19 period). Alternative investment assets were selected gold, shares, 10-year Greek government bonds, and bank deposit interest rates. Their selection was based on the most common investment assets that make up the wealth of Greek investors. The study of the evolution of investment prices in the specific period leads to the conclusion that gold was the most efficient investment and the housing market the most stable. Also, there was a large positive correlation between housing prices and stock and banking interest rate deposits. Results are useful for the Greek government, companies, all types of investors, and institutional authorities.

**Keywords:** *Investment, Real Estate, Stocks, Gold, Bonds, Housing*

**INTRODUCTION**

In recent years, there has been an upsurge in the construction and exploitation of real estate, both commercial and residential, and mobility in their purchase and sale, both in Greece and internationally. More investors are choosing the real estate market as a safe investment that protects them from political-economic turmoil and inflationary pressures (Hardouvelis, 2009). At the same time, at the state level, the real estate market has emerged as a primary objective for the monetary and fiscal policies of countries that seek balanced development (Baffoe-Bonnie, 1998).

Greece, during the observation period, went through various stages of economic and political conditions. In 2004, Greece theoretically maintained a fairly strong economic position, with Greek companies and Greek banks having developed throughout the wider Balkan region and setting the stage for economic developments. The sudden change, which caused a few years later the financial crisis, which transferred from the United States culminating in the collapse of Lehman Brothers, in Europe, will find the Greek economy exposed and unable to meet its obligations due to the large public deficits that were growing at a rate greater than the GDP growth rate. There will be a period of difficult economic conditions, heavy borrowing, surveillance, political turmoil, and banking insecurity until we reach 2019-2020 when a period of calm and readiness to restart the economy begins to appear. Examining mainly real estate, we have to know that the high rates of home ownership in Greece helped the crisis to find strong resistance in this particular market (Davradakis and Hardouvelis, 2006). In Greece, the rate of owner-

occupation reaches 75%, so the real estate market is a market with an important role in the state's economy. Housing is traditionally an investment in Greece and Greeks invest their savings in real estate. According to Hardouvelis (2009), the housing market is directly linked to the economic cycle through investment, consumption, and lending, while it also affects the stability of the financial system.

As we are particularly interested in the evolution of prices or returns on investments that Greek households would choose for their portfolio and with all the peculiarities that characterize Greek investors, as an investment in real estate during the period of our research, we will consider the housing market in the large urban centers.

### **Review of Relevant Literature**

In an interview with Bloomberg, (Fleisher, 2021), John Paulson (an international investor), when asked what he would say if someone asked him how he should invest \$100,000, replied: *"I always say that the best investment for the average person is to buy his own house. So if you take that \$100,000, put it down as 10%, and take out a \$900,000 mortgage, you can buy a \$1 million home. It has just been announced that house prices have increased by 20% in the last month. So if you bought a \$1 million home with a \$100,000 down payment and the home appreciated 20%, that's \$200,000 on a \$100,000 investment. The longer you wait, the more the home will appreciate and the return on your investment will increase. So I think the single best investment for anyone with that much money would be to buy their own house or apartment."*

In the international literature, attempts have been made to calculate, capture, and compare the performance of various investment options. The main way was by directly comparing the evolution of investment returns and by correlating them. Many of the reports compare real estate returns as examined through the stock market prices of Real Estate Investment Trust (REITs).

Ibbotson and Siegel (1984) studying the United States market, tried to compare investment returns on various assets by calculating the investment and reinvestment of a dollar from 1947 to 1982. Their results for the above period are that stocks showed a return of 11% while housing 7.4% and federal bonds 4%. Norman et. al., (1995), concluded that the average yield of real estate to the average yield of stocks or bonds is sometimes higher and sometimes lower. But when the comparison is made in risk-adjusted returns, then real estate has a higher return per unit of risk. Their research was based on studying and comparing previous studies conducted in the 1970s, 1980s, and early 1990s.

In April 2009, at the Bank of Greece Yearly Conference about Real Estate Markets – Developments and Prospects, Mr. Hardouvelis presented the longitudinal evolution of the nominal value of alternative forms of investment in Greece from the end of 1995 to the end of 2008. The alternative investments were, the housing market, the stock portfolio market representing the Athens Stock Exchange index, and savings bank deposits. An investment of €100 in real estate on 31.12.1995 is converted on 31.12.2008 into €312.7, i.e. tripled, with a cumulative nominal return of 212.7%, while savings deposits are converted into €241.3 and shares (with dividends) to €209.7. In the same period of 13 years, the household basket of goods and services from €100 increased to €159.3. This means that all three assets above brought positive deflated returns. Real estate, before taxes, had a cumulative real return of 96.3%, or 5.3% per annum above inflation. The country's construction industry registered growth of 7.9% in 2018, in real terms, which was up from 0.4% in 2017 (Lois et al., 2021).

Jordan et al., (2019), examined investments in 16 different countries from 1870 to 2015 and concluded that the rate of return on residential real estate averaged over 7% per year. By comparison, stocks averaged less than 7%, while bonds came in around 3%. Equity

returns have gone through many cycles, far more than housing returns, with real returns as high as 16% and as low as -4% over the entire observation period. Stock returns fell in World War II, boomed during postwar reconstruction, and fell again in the climate of macroeconomic instability in the late 1970s. Prices rebounded after a wave of privatizations in the 1980s only to fall again in the recent Global Financial Crisis which also passed on to stock returns. Housing yields, on the other hand, have remained remarkably stable throughout the post-World War II period. They also concluded that although the total returns on stocks were greater than the total returns on housing, stocks did not outperform housing if these returns were adjusted for the risk of each investment. After adjustment, housing appears to have a higher return per unit of risk and almost double that of equities. The most interesting result of the above study is that the long-term returns of housing and stocks appear to be remarkably similar. However, while returns are comparable, residential real estate is less volatile (Jorda et al., 2019).

Credit Suisse (2018), in its annual report, *Global Investment Returns Yearbook* summarizes long-term returns on stocks, bonds, bills, inflation, and currencies over the past 118 years, since 1900 in 23 countries. The separation between financial and non-financial investments does not allow us to have a comparison between the returns of housing and alternative investments, however, these conclusions are quite helpful. In the 2018 survey, the return for stocks from 1900 to 2017 comes in at 5.2% and for bonds at 2%.

Chambers et al., (2021), consider that real estate returns especially housing are a less profitable investment in the long term. For his research, they collected property-level financial data from the real estate portfolios of four major colleges over the period 1901–1983. Gross returns initially are around 5%, but then decline for residential real estate. Long-term real income growth rates are close to zero for all property types. Findings suggest annualized real total returns of around 2.3%. Chambers et al., (2021), and Jorda et al., (2019), for the same observation period in the English territory, has quite large discrepancies in returns, with the second survey coming up with significantly lower rates of 2.3% compared to 4.7% of Jorda et al., (2019).

In addition to the attempt to capture with specific percentages the returns of the various assets, there was also the attempt to investigate whether these returns are correlated with each other. Niarchos and Granger (1972), showed a low correlation of gold with bonds. The absence of real estate from the survey does not make it useful in the present survey but is interesting due to its outcome.

Ibbotson & Siegel (1984) identified a negative correlation between the returns of the real estate market and the stock market. Real estate has close to zero correlations relative to stocks and bonds when returns are adjusted for inflation. These results offer a very good investment opportunity through the diversification of the portfolio, to compensate for the risk as well as a compensatory solution against inflation. Their research, from 1947-1982, resulted in a -0.06 correlation between the S&P 500 index and the real estate market. Goetzmann et. al., (1990), reach the same results showing that real estate's low correlation with stock and bond returns makes real estate a portfolio hedger and that it is the only asset that has outperformed inflation. Worzala & Vandell (1995) with an observation period of the years 1980–1991 showed a negative correlation of a value of -0.0971. Norman et al. (1995) found the same conclusion that real estate markets are not significantly correlated with stocks and bonds and sometimes their correlation is negative. Gounopoulos et al., (2012), also report a negative correlation between the two markets.

In the studies with positive correlation results, Geltner (1993) reports a correlation with a positive value of 0.3. Quan & Titman (1997) studied the relationship between stock

returns and the real estate market in 17 countries and in the majority of the countries under review (16 out of 17) they found a strong positive correlation between the two markets.

The same result was reached by Huang & Ge (2009), and Jordan et al., (2019), who show that housing yields have remained remarkably stable throughout the post-WWII period. The correlation between stock and housing returns was very positive before World War II but has not remained over the past five decades.

Finally, a study by Ali & Zaman (2017) investigated the role of house prices on stock prices in a panel of 22 European countries. The study showed that 15 countries in the European Union had a positive correlation, while five countries had a negative correlation with each other.

## **RESEARCH METHODOLOGY**

The present research focuses on the examination of the evolution of the prices or yields of five investment assets: real estate, gold, bonds, interest rates on bank deposits, and shares in Greece, in the period 2004-2020. The specific investment assets, according to research, are the ones that usually make up the investment wealth of Greek households. Some of these are traditionally considered safe options and passed down from generation to generation such as real estate and gold and some are considered more modern options and have boomed in households since the 1980s, such as deposits and later stocks and bonds. For each category, research examines the product that theoretically holds the largest percentage of household wealth.

Specifically, from the real estate market, we selected residential properties, then from the gold market, we selected the British pound coins, from the bond market, we selected the 10-year Greek Government Bonds, and from the stock market, we selected stocks as a whole, using the change in the general price index of Athens Stock Exchange.

Considering real estate as a key element of our comparison, the study proceeds to an individual comparison of them with each of the other assets and examines the correlation between them. The data was drawn from public authoritative sources mainly from the Bank of Greece, the Hellenic Statistical Authority, and the Athens Stock Exchange. Daily, monthly, or quarterly prices provided the data for the average price of each of the 17 years of the period under review. The average value used was given by the following formula:

$$\bar{x} = \frac{(X^1 + X^2 + \dots + X_n)}{n}$$

The results of each asset will be compared on this basis, to be able to show the first conclusions about the evolution of their returns and to connect them in time with various events that took place either in Greece or internationally and explain part of these changes. The individual annual returns were then homogenized, with a base year of 2004 and a base price of 100, to be able to compare the result of each element with the results of the real estate market. In the second part of our methodology, we will analyze the correlation of the assets and contrast them with previous literature reports.

The variation and standard deviation of the average price of each asset from the average price of its performance evolution, as calculated with a base year of 2004, lends one more detail to our research, regarding the dispersion of the prices of each asset in the period under review.

Variation (Var) is defined as the average of the squares of the deviations of all results from their mean value and as standard deviation (SD) the positive square root of the variation (Cecchetti and Schoenholtz, 2017). The formulas are given below:

$$\text{Var} = \frac{1}{n-1} [(X_1 - \bar{X})^2 + (X_2 - \bar{X})^2 + \dots + (X_n - \bar{X})^2]$$

$$\sigma = \sqrt{\text{VAR}}$$

The steps followed are as below:

- First calculate the average period price for each investment item.
- Then calculation of the deviation of each annual price from the average period price will take place.
- Calculation of the squares of the deviations, the average of the squares of the deviations, and the variance, to find the standard deviation, which is the square root of the variance.

The research methodology will continue by studying the correlation of base year-adjusted prices for each of the investment products. Variance and correlation measures will be calculated. To calculate the correlation, we divide the covariance by the standard deviations of the assets. The correlation coefficient  $R$  expresses the degree and manner in which the two variables are correlated, that is, how one random variable varies concerning the other. If the resulting values are positive or negative, their correlation will be positive or negative respectively, if the values are zero we consider that they are not correlated. The correlation coefficient always takes values between  $-1$  and  $+1$ . The characteristic values of  $R$  are interpreted as follows:

- $R = 1$ : there is a perfect positive correlation between  $X$  and  $Y$ ,
- $R = 0$ : there is no (linear) correlation between  $X$  and  $Y$ ,
- $R = -1$ : there is a perfect negative correlation between  $X$  and  $Y$

When one variable increases and the other increases at the same time, then we have a positive correlation and sign. The same happens when one variable decreases and the other decreases as well. Whereas when one variable increases and the other decreases, then we have a negative correlation and sign.

To extract the results of the study, the functions "CORRELATION", and "REGRESSION", offered by the Excel program, were used for data analysis. Testing for the linear correlation of two variables  $X$  and,  $Y$  can be done through a hypothesis testing procedure. In this case, for a two-sided test, hypotheses:

$H_0: R = 0$  and  $H_1: R \neq 0$  are defined and tested for critical values by the t-Student distribution with  $n-2$  degrees of freedom.

The null hypothesis means that there is no correlation, while  $H_1$  means that there is, a correlation. To find out which is true, the value of  $F$  is taken under consideration and if  $F < \alpha = 5\%$  then we reject the null hypothesis and conclude that there is a correlation between the variables under control, otherwise the opposite happens (Field, 2016).

To characterize the results Evans' score (1996) was used, according to which the very low correlation of the  $R$  index has values between  $0.00 - 0.19$ , low between  $0.20 - 0.39$ , moderate between  $0.40 - 0.59$ , high between  $0.60 - 0.79$  and finally the very high with values between  $0.80 - 1.00$ .

During the period 2004-2020 in this research, data were collected from the Bank of Greece, specifically from the table of the historical series of the housing price index of the urban areas of Greece (Table 1). The fact that there are no sharp changes is a consequence of what we mentioned earlier, namely that due to the large percentage of ownership, the crisis did not cause a rapid decrease in prices. The reduction caused may have been quite large as a whole, but it took place gradually and over many years. The decline started in 2008 and continued until 2014-2015 when it stabilized and slowly started to increase again.

As reported in an empirical study by the International Monetary Fund, the analysis of data from the last 40 years on the real estate market in 19 countries showed that upswings last 6-7 years on average longer than downswings, lasting about 4.5 years. An important

finding is also that the fall in prices is smaller in percentage than the rise that preceded it (Bracke, 2011).

**Table 1: House Price Index (Historical Series) – Urban Areas**

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
193.4	214.5	242.3	257.3	261.1	249.8	238.9	225.7	199.2	177.4	163.3	155.0	151.2	149.6	152.3	163.5	171.2

Source: Authors calculations

### Comparison with the price of gold

The average annual real estate price index that will be the comparative element, has been calculated with a base year of 2004 to have a common point in the comparative result. The same method in the comparison with gold was used.

According to Mishra, (2018), it is difficult to choose between gold and real estate to find out the right investment proposition. Compared to real estate, gold can be liquidated more easily and much faster. However, gold only yields when it is sold, while real estate can also yield while it is held, through its lease, and until it is sold. Also shows that gold works better as a hedge against economic uncertainty than as a long-term investment option. Real estate gives rental income, can be bought with a mortgage, and does not directly open a financial hole in the investor's pocket like gold does (Mishra, 2018).

Examining Table 2, in the comparison of the evolution of the prices of the two assets we observe a greater variation in the prices of gold to the prices of houses.

**Table 2: Prices of houses and gold (base year 2004)**

Year	Houses	Gold
2004	100.00	100.00
2005	110.89	136.65
2006	125.29	149.38
2007	133.05	171.73
2008	134.99	193.99
2009	129.19	239.08
2010	123.54	330.65
2011	116.72	380.12
2012	102.99	393.28
2013	91.75	271.54
2014	84.43	308.48
2015	80.13	303.57
2016	78.20	342.66
2017	77.34	337.08
2018	78.76	349.38
2019	84.56	424.36
2020	88.51	480.03

Source: Authors calculations

Data shows the simultaneous upward trend of the two assets from 2004 to 2008, after which a downward trend begins for house prices that will continue until 2018, when a slight recovery will begin again. Instead gold has been trending up until 2012 and down for a year in 2013, before slowly leveling off until 2018 and then making a big jump up.

An interesting finding is the evolution of sales of gold pounds by the Bank of Greece, as well as the evolution of the relationship of purchases to sales. It is characteristic that during the crisis the sales of gold pounds, which had peaked in May and June 2010, i.e. when the country appealed to the European community partners and the International Monetary Fund, reached a very high level again in December 2011, a period negotiations on the second Adjustment Programme. The purchase-to-sales ratio also moved accordingly, which indicates an excess demand for pounds from private individuals when its prices are lower than unity.

### Comparison with the 10-year Greek government bond yield

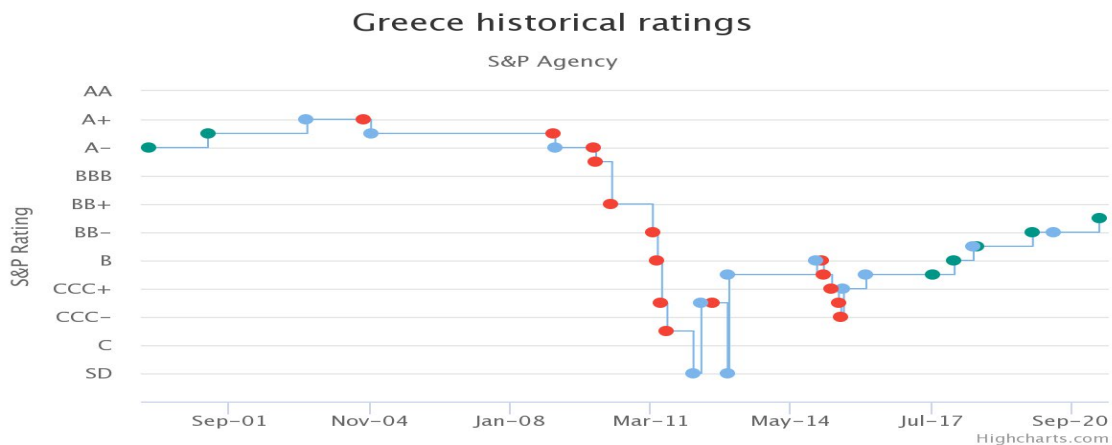
Examining whether they are safe havens in shock conditions, Flavin et al., (2014), concluded that both gold and the 10-year US bond can be safe havens. In the period under review, the study examines the extent to which the Greek bond has changed compared to the level of house prices. Homogenizing with the base year of 2004, table 3, presents the evolution of the two investment assets. The first period was of course quite good for the Greek economy with low inflation and an average annual growth rate of around 4-5%.

**Table 3: Comparison of prices of houses to 10 years Greek government bond yields**

Year	Houses	10-year Greek government bond
2004	100.00	100.00
2005	110.89	84.25
2006	125.29	95.65
2007	133.05	105.76
2008	134.99	112.85
2009	129.19	121.57
2010	123.54	213.65
2011	116.72	370.13
2012	102.99	536.17
2013	91.75	236.29
2014	84.43	162.84
2015	80.13	227.19
2016	78.20	196.47
2017	77.34	140.49
2018	78.76	98.35
2019	84.56	60.75
2020	88.51	29.89

Source: Authors calculations

The sharp rise in bond yields after 2009 and into 2012, is linked to investor distrust of an economy on the brink of bankruptcy. It is noteworthy that in January 2005 the yield of the Greek 10-year bond differed from the yield of the corresponding German one by only 10 basis points. Since Standard & Poor's first downgraded the Greek country's credit rating from A to A -, spreads between Greek and German government bonds increased to 300 basis points in January 2009 and remained at this until March of the same year. Two difficult years followed until the end of 2012 when the positive perspectives from the reduction of public debt from the participation of private investors through the Private Sector Involvement and the approval for the second disbursement of the second support program that upgraded the credit rating of Greece and Standard & Poor's ranks it from the brink of bankruptcy to B- on December 18, 2012. The path of Greece's creditworthiness, according to Standard & Poor's, from 2001 to 2020 is shown below in diagram 1.



**Diagram 1: Credit rating of Greece 10-year government bond by Standard & Poor's during 2004-2020**

### Comparison with the Athens Stock Market Index

Using the data collected, for the two investment assets and their evolution in the period under consideration, the base year was 2004, with a base price of 100. It is smoother than the change in real estate prices over of the years compared to the change in the shares index. As shown in Table 4, it starts upward in the observation period and normalizes to lower prices from 2012 onwards. From 2004 to 2007, an investor who would choose to place their money in the stock market would have a higher return on their investment than investing in real estate. On the contrary, the losses of someone who invested in real estate during the same period and until today are lower compared to an investment in shares.

**Table 4: Comparison of prices of houses to the Athens Stock Market Index**

Year	Houses	Athens Stock Market Index
2004	100.00	100.00
2005	110.89	129.47
2006	125.29	163.68
2007	133.05	200.20
2008	134.99	134.57
2009	129.19	89.12
2010	123.54	67.84
2011	116.72	46.96
2012	102.99	29.15
2013	91.75	40.93
2014	84.43	46.19
2015	80.13	29.92
2016	78.20	23.77
2017	77.34	30.33
2018	78.76	30.33
2019	84.56	33.55
2020	88.51	27.52

Source: Authors calculations

### Comparison with bank deposit interest rates

The same is repeated in Table 5, comparing the evolution of real estate prices to deposit interest rates, where a smooth course without major fluctuations can be seen. On the contrary, deposit interest rates seem to have been significantly affected by the financial crisis before and during the difficult two years from the first memorandum onwards. The very low interest rates of recent years, almost zero, discourage investors from investing. But the banks also seek the same by discouraging through low interest rates the overconcentration of liquidity in deposits, since they receive huge amounts as financing. The cost of Emergency Liquidity Assistance, while well above the European Central Bank's base lending rate, was still well below the interest rates banks would have to pay depositors. Despite this, deposits in banks have increased, but depositors choose to have their money in permanent readiness in deposit accounts and not in terms of investing it in a product with a more attractive yield. Since the beginning of the COVID-19 crisis, the increase in deposits has been justified by the various economic stimulus measures and the postponement of tax payments.



**Table 5: Comparison of prices of houses to bank deposit interest rates**

Year	Houses	Bank deposit interest rates
2004	100.00	100.00
2005	110.89	100.00
2006	125.29	129.75
2007	133.05	185.12
2008	134.99	245.45
2009	129.19	161.16
2010	123.54	154.55
2011	116.72	196.69
2012	102.99	233.88
2013	91.75	201.65
2014	84.43	130.58
2015	80.13	74.38
2016	78.20	34.71
2017	77.34	25.62
2018	78.76	24.79
2019	84.56	20.66
2020	88.51	9.92

Source: Authors calculations

### **Other findings and discussion of conclusions**

Results show that investing in gold in 2004 (base year) without changing the investment position during the period under review would have almost quintupled the value of their money. The next most profitable investment is real estate. Its smooth movement indicates a safe investment over time. The results are based on real property prices and do not include other parameters, such as the large transaction costs of real estate or the costs of preservation of assets. Also, the annuities that may have been received during the period under review, such as rents, dividends, etc., have not been taken into account.

The variation and standard deviation of the average price of each asset from the average price of its performance evolution are also calculated with the base year of 2004. The results confirm the fact that in this particular period the real estate market is more smooth without sudden changes and the variation as well as its standard deviation, 20 points, are by far the smallest compared to the other investment assets. They are followed by the Athens Stock Market Index and deposit interest rates, which fluctuate at the same levels, followed by gold and finally the 10-year Greek government bond, with much larger fluctuations and deviations from their average values.

The above findings refer only to the specific period, as the Greek Government Bond is presented with a huge deviation, 121 points, as a result of the recent financial crisis of Greece and the inability of the country to borrow. Also, gold is likely to have large fluctuations due to the large increase in its price in recent years, an increase for which, recently, there are fears of a possible bubble in this market. On the other hand, stocks seem to have less volatility than the 10-year Greek government bond, but it is very useful to think about what the volatility and divergence of the Athens Stock Market General Price Index would be like if the observation period was before and after the stock market crisis in 1999. The above results strengthen the position of the real estate market as a safe investment asset, as a higher deviation means a higher risk.

Research also examined the correlation of base year-adjusted prices for each of the investment assets. Variance and correlation were also measured. To extract the results Excel program was used and testing for linear correlation of two variables X and, Y took place. In this case, for a two-sided test, hypotheses  $H_0: R = 0$  and  $H_1: R \neq 0$  are defined and tested for critical values by the t-student distribution with n-2 degrees of freedom.

The results are presented below in Table 6. To characterize the results we used Evans' score (1996) according to which the very low correlation of the R index has values

between 0.00 - 0.19, low between 0.20 - 0.39, moderate between 0.40 - 0.59, high between 0.60 - 0.79 and finally the very high with values between 0.80 – 1.00.

**Table 6: Correlation of real estate with alternative investment assets**

2004 – 2020		2004 – 2009		2010 – 2020	
Correlation of Real estate index with:		Correlation of Real estate index with:		Correlation of Real estate index with:	
Gold	-0.524	Gold	0.800	Gold	0.086
10-year Greek government bond	0.011	10-year Greek government bond	0.595	10-year Greek government bond	0.529
Athens Stock Market Index	0.789	Athens Stock Market Index	0.460	Athens Stock Market Index	0.769
Bank deposit interest rates	0.715	Bank deposit interest rates	0.816	Bank deposit interest rates	0.728

The first observation is that real estate relative to the 10-year Greek government bond exhibits a very low correlation of almost zero. Real estate has a moderate negative correlation with gold, while it has a high positive correlation with both the stock index and deposit interest rates. The results of the correlations were very different when examined separately during the period 2004-2009 and the period 2010-2020. There is a much higher price correlation in the first period, i.e. before the financial crisis in Greece, and a very low correlation in the second period, during the crisis and after. Results show that:

- Real estate – Athens Stock Market Index:  $r = 0.789$  and  $p = 0.000164$ , high positive correlation, statistically significant.
- Real Estate – Bank Deposit Interest Rates:  $r = 0.715$  and  $p = 0.00125$ , high positive correlation, statistically significant.
- Real Estate – 10-year Greek Government Bond:  $r = 0.010$  and  $p = 0.96753$ , very low positive correlation, which is not statistically significant.
- Real Estate – Gold:  $r = -0.523$  and  $p = 0.03102$ , moderate negative correlation, statistically significant.

Comparing our findings, with the various international studies of previous and more recent years, we conclude that in terms of the correlation of real estate prices with stock prices, we have a moderate to high price correlation for the entire survey period and a moderate to high, for the individual periods before and after the crisis. In other words, we agree with the research of Quan & Titman (1997), Huang & Ge (2009) and partly with the conclusions of Geltner (1993), Jorda et al. (2019), and Ali & Zaman (2017).

This study tries to offer an on the profitability of specific investment assets. It is important to mention that a very crucial role in any research is played by the period under consideration, whether it is short or long, or whether it includes an important event, such as wars or economic crisis. In our case, the research period was 17 years and included a major financial crisis, which significantly affected Greece. Also, it is important to mention that the real estate market allows the investor to choose between many different options, but study focused on housing and not on any commercial property because our goal was how the selections of an ordinary and not specialized investor in Greece were affected. The results of the research can provide additional information and data capable of influencing the investment decision of the potential investor.

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