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The expenses of real estate funds in a small market: their determinants

Abstract

This paper analyzes the determinants of expenses for Portuguese real estate funds from 2007 to 2012 and is a pioneer study on the determinants of expenses concerning real estate funds. Closed-end and open-end real estate funds benefit from economies of scale. However, the most important result of this study concerns the fiscal policy implemented by the Portuguese authorities during the 1980s. Closed-end funds flourished by capturing tax benefits, even in the event that risk was not rewarded by return. Investors created financial instruments in which to allocate their real assets, instead of holding them individually.

Introduction

The role of fees (management, custody, auditing, supervision and auditing) charged by mutual funds and the analysis of their determinants has been debated since the 1990s. Expenses are a key element in regard to examining the performance of managers and are often observed as an important component for the presentation of poor performance by mutual funds. However, no consensus has formed on this topic (see Otten and Bams, 2002; and Wermers, 2000). At the same time, the determinants of mutual fund expenses have also been studied by many researchers (vd. Dellva and Olson, 1998; LaPlante, 2001; Luo, 2002; Korkeamaki and Smythe, 2004; and Korpela and Puttonen, 2006, for example). These authors consider many independent variables to explain the determinants of mutual fund expenses, namely size, risk, return, category, and turnover, among others.

This study differs from the previous research on fund expenses because it only considers real estate funds. It is an innovative and pioneering study on real estate finance and should serve as a basis for analyzing and comparing the expenses of closed-end funds and open-end funds, different managers, different regulatory environments and different fiscal regimes. However, it must be highlighted that Alves (2015) compared the fees charged by mutual and real estate funds. The main objective of the current study is to evaluate the determinants of expenses for real estate funds domiciled in Portugal.

The first regulatory framework for Portuguese real estate funds (*fundos de investimentoimobiliário*) was presented in the mid-1980s and bears similarities with the Italian and the Spanish real estate fund industry. Fundraising to finance real estate development activity, the best allocation of financial resources and the promotion of economic growth served as the impetus to introduce these financial instruments. The development of the real estate funds industry was accomplished by the Portuguese government authorities' promotion of an aggressive tax policy. In the late 1980s, the authorities created a legal framework for closed-end funds with the primary objective of overcoming the difficulties previously imposed in terms of asset allocation in that category of funds. The Portuguese real estate funds industry flourished primarily through the activity of closed-end funds. In the early 2000s, the industry had 3,000 million euros under management and 40 real estate funds, of which 20 were closed-end with a net asset value of 1,000 million of euros; in 2012, the industry was worth 12,000 million euros spread over 260 funds, of which 240 were closed-end with 7,000 million euros under management. Closed-end funds developed largely due to the tax regime created by Portuguese authorities and by asset managers who built the financial instrument under an approach that involved customization to meet customers' needs. Generally speaking, this financial instrument has a small number of participants, which stands in contrast to open-end funds. In the face of this environment closed-end real estate funds, in general, are managed by independent fund management companies, which contrasts with open-end funds that are managed by fund management companies integrated with financial institutions due to the need for branches to sell such financial instruments.

The paper is organized as follows. Section 1 presents the sample, the determinants of expenses of real estate funds and the methodology. Section 2 discusses the results, and Final Section concludes.

1. Sample, determinants of expenses, hypothesis and methodology

The database is original and was built after consulting the reports of real estate funds managed in Portugal from 2007 to 2012. We use a balanced panel of 102

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real estate funds divided between 92 closed-end and 10 open-end funds. To evaluate the survivor bias, we also considered an unbalanced panel that varies between 112 and 208 observations.

The expenses are the sum of management fees, custody fees and auditing and supervisory fees divided by the fund's net asset value. Front loads and redemption fees are not considered in this research. In general, average fees charged by real estate companies decreased in the period under consideration. This occurred for all of the samples, including closed-end and open-end funds (see Table 1, panels A, B and C).

Table 1. Descriptive analysis of expenses

Panel A. All sample						
	2007	2008	2009	2010	2011	2012
Mean	0.85%	0.82%	0.82%	0.83%	0.83%	0.74%
Median	0.66%	0.65%	0.64%	0.63%	0.62%	0.60%
Maximum	4.38%	4.41%	4.40%	5.86%	5.86%	2.86%
Minimum	0.01%	0.01%	0.01%	0.01%	0.07%	0.00%
Stand. dev.	0.59%	0.59%	0.59%	0.71%	0.70%	0.48%
Nº OBS	102	102	102	102	102	102
Panel B. Closed-end funds						
	2007	2008	2009	2010	2011	2012
Mean	0.79%	0.76%	0.76%	0.77%	0.78%	0.70%
Median	0.60%	0.59%	0.59%	0.60%	0.59%	0.57%
Maximum	4.38%	4.41%	4.40%	5.86%	5.86%	2.86%
Minimum	0.01%	0.01%	0.01%	0.01%	0.07%	0.00%
Stand. dev.	0.58%	0.57%	0.58%	0.71%	0.71%	0.46%
Nº OBS	92	92	92	92	92	92
Panel C. Open-end funds						
	2007	2008	2009	2010	2011	2012
Mean	1.43%	1.39%	1.34%	1.39%	1.30%	1.19%
Median	1.34%	1.29%	1.26%	1.33%	1.25%	1.21%
Maximum	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Minimum	0.92%	0.92%	0.92%	0.92%	0.74%	0.70%
Stand. dev.	0.41%	0.38%	0.36%	0.37%	0.41%	0.47%
Nº OBS	10	10	10	10	10	10

As previously mentioned, many studies have addressed the determinants of mutual fund expenses, while few have focused on real estate funds. The specificity of the real estate funds prevents use of certain variables that are used in mutual funds. For example, Korkeamaki and Smythe (2004) considered fund category (equity funds, bond funds, balanced funds, etc.) and the use of derivatives and Dellva and Olson (1998) took into account the location of securities (funds of local securities and funds of international securities).

The determinants of fund expenses considered in this study are the following:

Turnover (TR) – a proxy for management activism that is expected to present a positive sign as a determinant of real estate expenses once fund managers require a higher remuneration for their activism (see Dellva and Olson, 1998; Lesseig et al., 2002; and Korpela and Puttonen, 2006). However, we expect a higher sensibility of turnover on open-end funds in the face of subscriptions and redemptions on that category of real estate funds. This variable results from the sum of the value acquisitions and sales of a fund during a year divided by the monthly average of its net asset value over the same period.

Size (LN (NAV)) – a proxy for economies of scale that we expect to present a negative sign (vd. Ferris and Chance, 1991; Tufanoand Sevick, 1997; Berkowitz and Kotowitz, 2002; and Golec, 2003). However, we would like to highlight the results obtained by Lesseig et al. (2002) that indicate that management fees are positively influenced by the value of the managed assets. Latzko (2003) concluded that economies of scale are observed in administrative costs in particular, but the same cannot be concluded for management fees. Korkeamaki and Simth (2003), in turn, found a positive relationship between size and total expenses. Moreover, Latzko (1999) and Gao and Livingston (2008) found a non-monotonic relationship because they did not detect the existence of economies of scale in larger funds. Size is measured by the logarithm of a fund's net asset value at the end of year.

Sharpe-Ratio (SR) – we expect a positive impact of SR on real estate expenses. Investors prefer managers that offer higher returns for a determined level of risk. However, this does not always happen (vd. Haslen et al., 2008). Luo (2002), for the US market,

found a positive impact of risk and return on mutual fund expenses. Gil-Bazo and Martinez (2004), on the other hand, only found a positive impact of risk on mutual fund management fees. Concerning returns, in general, the results show a positive relationship between such variables and fund expenses, but even in this case the results are not consensual (see Malhotra and McLeod, 1997; Berkowitz and Kotowitz, 2002; and Lesseig et al., 2002). SR is obtained considering the funds' annual profitability from 2006 to 2011; the annualized volatility for the years 2006-11 is obtained by considering monthly data for two years. The one-year bond yield is the risk-free asset.

Closed-end funds (CED) – It is expected that the coefficient sign of this variable is negative once the portfolio should present greater stability in comparison with open-end funds, requiring less activity and demand for information. However, Martin et al. (2001) found mixed results regardless of whether the closed-end funds and open-end funds manage local or international assets. This dummy variable assumes one for closed-end funds and zero for open-end funds.

Age (LN (Age)) – It is expected that a fund commercialized for more years has been subjected to expense reduction given the increasing operating efficiency as a result of the learning curve (vd. Ferris and Chance, 1987); consequently, we expect that older funds will charge higher fees. However, even in this case, several authors have found a negative relationship between the two variables, namely Dellva and Olson (1998), Lesseig et al. (2002) and Luo (2002). The fund's age is the number of years from the beginning of its trading until the year that is being analyzed.

Independence (Indep) – a fund managed by a management fund company that belongs to a financial group should benefit from lower marketing and administrative costs due to economies of scale (vd. Frye, 2001). However, the fund manager can exploit the relationship between the client and the bank (a consequence of the clients being "hostages" of the financial group), requiring higher fees. On the other hand, independent firms may require a higher fee since the relation between the customer and the real estate fund company is closer. The relationship between fund expenses and independence in management is not completely evident. We use a dummy variable to differentiate real estate funds managed by independent financial firms from those managed by financial conglomerates. This dummy variable assumes one for real estate funds managed by an independent real estate company.

In Table 2, we present the coefficient correlation between the independent and dependent variables. The results indicate that smaller and younger closed-end real estate funds charge lower fees. We admit that such

a result is a consequence of the fiscal policy implemented by Portuguese authorities that served to benefit the recent development of real estate funds that took into account the needs of few participants to obtain a tax shield.

Table 2. The correlation coefficient between the independent and dependent variables

EF are fund expenses. TR (turnover) is the total value of acquisitions and sales during a year divided by the average net asset value of the fund. CEF (closed-end fund) is a dummy variable that assumes 1 for a closed-end fund. NAV is the fund's net asset value. SR is the difference between annual return of a mutual fund and one-year yield divided by mutual fund volatility. Age is the fund's number of years since it began trading. Indep is a dummy variable that assumes 1 when a fund is managed by an independent financial firm.

Correlation p-value	EF	TR	CEF	LN (NAV)	SR	LN (Age)	Indep
EF	1.00						
TR	0.07	1.00					
CEF	-0.28	0.03	1.00				
LN (NAV)	-0.04	-0.14	-0.51	1.00			
SR	-0.02	0.00	-0.13	0.11	1.00		
LN (Age)	0.06	-0.13	-0.31	0.59	0.08	1.00	
Indep	0.09	0.17	-0.02	0.08	0.00	0.19	1.00

To analyze the expenses' determinants we consider the average of dependent and independent variables calculated between 2007 and 2012:

$$EF_{i,t} = \beta_1 + \beta_2 X_{i,t-1} + \cdots + \beta_n X_{i,t-1} + u_{i,t},$$

where $X_{i,t-1}$ represents the different independent variables (with a one-year lag) used for the estimation; $u_{i,t}$ are random disturbances.

The robustness tests are done using Fama-MacBeth (1973) approach.

2. Results

In Table 3, the results of the multivariate analysis are presented. We analyze the entire sample of closed-end funds and open-end funds.

When the entire sample is considered, only two variables – CEF and size – present statistical significance to explain a fund's expenses. This occurs because closed-end funds charge 0.76% annually on average, while open-end funds charge 1.34%. In fact, the real estate fund's expenses are lower in closed-end funds as expected. The maintenance of asset allocation policy by closed-end real estate funds and their goal, fundamentally related to tax benefits, explain the lower fees charged by real estate asset managers.

Regarding size, there is evidence of economies of scale. Larger funds, independent of being closed or open-end, charge lower fees. However, this suggests that the Portuguese authorities created a financial product fundamentally to benefit a small number of investors – even the largest closed-end funds have a small number of participants – to promote the real

estate market. The largest closed-end fund only had 106 investors, which compares with 24.273 investors in the case of open-end funds. On average, while closed-end funds presented 5.72 participants, open-funds had 5.237 participants.

In the face of this opportunity many real estate fund companies emerged and seized a small part of the tax benefits. This can also be observed after seeing the negative sign of the Sharpe ratio (-.00032), when only closed-end funds are analyzed. The negative impact of return and risk is rewarded by fiscal benefits. The opposite occurs for open-end funds, although without statistical significance (p-value = 0.46). In this case, investors are able to pay higher expenses that also requires a higher Sharpe ratio.

Concerning the remaining variables, the positive impact of turnover, fund age and independence on expenses should be highlighted, although without statistical significance. This occurs because, as previously mentioned, Portuguese industry is primarily composed of closed-end funds that do not have an active investment policy; this explains why turnover does not have statistical significance. On the other hand, real estate investment companies played a decisive role in the development of closed-end funds and require higher expenses in comparison with financial conglomerates, which are less focused on this financial product. They take advantage of the closer relationship with customers. Furthermore, in relation to the independence, it is plausible that this had happened because such companies have higher operating costs, in contrast with real estate fund companies integrated on financial groups that manage mutual funds and real estate funds. Relative to fund age, it is possible that competition between all players has reduced the fees charged to new real estate funds, particularly closed-end ones. Moreover, in the majority of cases, real estate funds are made according to the customer needs (tailor made) and it is expected that older ones charge higher fees and, in contrast, that the new real estate funds arising in an adverse and competitive economic environment will offer lower expenses.

When only closed-end funds are analyzed we conclude that only size and the Sharpe ratio present statistical significance to explain fund expenses. As previously mentioned, such is related to economies of scale and the fiscal benefits of closed-end funds. Tax benefits are the real reward in creating a closed-end fund. The remaining variables maintain the sign, although without statistical significance.

In relation to open-end funds we must highlight the results obtained regarding statistical significance for turnover, size and age. As in the case of closed-end funds the investors benefit from economies of scale,

but the same cannot be concluded for economies of experience (age). Younger managers charge lower fees. In fact, the largest and the oldest open-end funds charge higher fees. However, higher expenses are required by the manager's activity (turnover) in line with what was expected.

Table 3. Multivariate analysis

EF are fund expenses. TR (turnover) is the total value of acquisitions and sales during a year divided by the average net asset value of the fund. CEF is a dummy variable that assumes 1 for closed-end funds. SF is a dummy variable that assumes 1 for stockfunds and 0 for the other ones. NAV is the fund net asset value. SR is the difference between annual return of a mutual fund and one-year fund yield divided by mutual fund's volatility. Part is the number of investors of a mutual fund. Age is the fund's number of years since it began trading. Indep is a dummy variable that assumes 1 when a fund is managed by an independent financial firm. White heteroscedasticity − consistent standard errors & covariance.

	All	Closed	Open
Intercept	0.03783	0.02742	0.03627
p-value	0.00	0.01	0.05
TR	0.00118	0.00117	0.02515
p-value	0.30	0.31	0.03
CEF	-0.00872		
p-value	0.00		
LN (NAV)	-0.00130	-0.00119	-0.00177
p-value	0.02	0.00	0.06
SR	-0.00006	-0.00032	0.00002
p-value	0.35	0.04	0.46
LN (Age)	0.00031	0.00034	0.00322
p-value	0.25	0.22	0.10
Indep	0.00063	0.00083	-0.00002
p-value	0.63	0.57	0.99
Adj R^2	0.13	0.08	0.73
N	102	92	10

In Table 4, we use the approach of Fama and MacBeth (1973) as a robustness test. All of the previous results were confirmed in terms of their impact on fund expenses. However, after using this approach many variables present statistical significance. In the case of all sample (panel A) this can be concluded, not only for CEF and size, but for the remaining variables. And the same also can be said for closed-end funds (panel B). In the case of open-end funds (panel C), there are changes on the signs of the variables, which is possibly a consequence of having a small number of that type of real estate fund. A year-based analysis in this case is less reliable in comparison to the use of average for different variables.

To evaluate the impact of survivor bias, we built an original unbalanced panel of real estate funds. We also used the approach by Fama and MacBeth (1973) to evaluate our previous results (Table 5, panels A, B and C). In general, the results do not differ from those presented in panels A, B and C of Table 4.

Table 4. Multivariate analysis – Fama and MacBeth

EF are fund expenses. TR (turnover) is the total value of acquisitions and sales during a year divided by the average net asset value of the fund. CEF is a dummy variable that assumes 1 for closed-end funds. NAV is the fund's net asset value. SR is the difference between annual return of a mutual fund and one-year fund yield divided by mutual fund volatility. Age is the fund's number of years since it began trading. Indep is a dummy variable that assumes 1 when a fund is managed by an independent financial firm. White heteroscedasticity − consistent standard errors & covariance.

Panel A. All							
	2007	2008	2009	2010	2011	2012	2007-2012
Intercept	0.03341	0.04064	0.03902	0.04462	0.03894	0.02530	0.03699
p-value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TR	0.00011	0.00047	0.00411	0.00038	0.00048	0.00026	0.00097
p-value	0.70	0.66	0.01	0.53	0.67	0.81	0.09
CEF	-0.00918	-0.00635	-0.00812	-0.00929	-0.00860	-0.00630	-0.00797
p-value	0.00	0.05	0.00	0.00	0.00	0.00	0.00
LN (NAV)	-0.00098	-0.00165	-0.00142	-0.00165	-0.00135	-0.00073	-0.00130
p-value	0.09	0.00	0.01	0.02	0.02	0.09	0.00
SR	-0.00012	-0.00006	0.00001	0.00002	-0.00026	0.00000	-0.00007
p-value	0.05	0.64	0.93	0.70	0.00	0.86	0.09
LN (Age)	0.00022	0.00029	0.00042	0.00024	0.00007	0.00004	0.00021
p-value	0.44	0.28	0.12	0.47	0.82	0.85	0.01
Indep	0.00136	0.00172	0.00116	0.00069	0.00063	0.00099	0.00109
p-value	0.32	0.17	0.35	0.67	0.66	0.35	0.00
Adj R^2	0.14	0.14	0.16	0.08	0.25	0.08	
N	102	102	102	102	102	102	
Panel B. Closed-end							
	2007	2008	2009	2010	2011	2012	2007-2012
Intercept	0.02428	0.03027	0.03274	0.03715	0.03248	0.01637	0.02888
p-value	0.02	0.00	0.00	0.01	0.00	0.03	0.00
TR	0.00012	0.00030	0.00408	0.00029	0.00054	0.00029	0.00094
p-value	0.68	0.79	0.02	0.64	0.64	0.78	0.09
LN (NAV)	-0.00098	-0.00137	-0.00152	-0.00175	-0.00147	-0.00058	-0.00128
p-value	0.11	0.02	0.01	0.03	0.02	0.03	0.00
SR	-0.00016	-0.00003	0.00001	0.00003	-0.00026	-0.00009	-0.00008
p-value	0.06	0.79	0.92	0.63	0.00	0.27	0.06
LN (Age)	0.00024	0.00030	0.00048	0.00029	0.00013	0.00002	0.00024
p-value	0.43	0.29	0.09	0.41	0.67	0.93	0.00
Indep	0.00135	0.00156	0.00086	0.00030	0.00015	0.00101	0.00087
p-value	0.37	0.25	0.52	0.87	0.93	0.38	0.00
Adj R^2	0.03	0.02	0.09	0.01	0.21	0.04	
N	92	92	92	92	92	92	
Panel C. Open-end							
	2007	2008	2009	2010	2011	2012	2007-2012
Intercept	0.04705	0.04666	-0.00514	0.02863	0.01756	0.07373	0.03475
p-value	0.22	0.02	0.87	0.39	0.66	0.01	0.01
TR	0.00963	0.00966	-0.01621	0.00408	-0.00363	-0.02445	-0.00349
p-value	0.77	0.07	0.59	0.12	0.84	0.05	0.28
LN (NAV)	-0.00181	-0.00186	0.00124	-0.00097	-0.00098	-0.00241	-0.00113
p-value	0.08	0.05	0.49	0.56	0.99	0.05	0.04
SR	-0.00004	0.00018	-0.00133	-0.00006	-0.00027	0.00001	-0.00025
p-value	0.72	0.59	0.26	0.82	0.56	0.43	0.15
LN (Age)	0.00033	0.00052	-0.00242	0.00102	-0.00163	-0.00591	-0.00135
p-value	0.94	0.62	0.25	0.56	0.58	0.03	0.13
Indep	0.00113	0.00030	0.00150	0.00135	0.00000	0.00000	0.00071
p-value	0.82	0.87	0.65	0.71	0.00	0.00	0.02
Adj R^2	0.07	0.77	0.05	0.34	0.04	0.65	
N	10	10	10	10	10	10	

Summing up, closed-end funds charge lower fees and benefit from economies of scale. On the other hand, investors are available to pay expenses even when they are not rewarded in terms of risk and return once they benefit from having fiscal economies of having that financial instrument.

Table 5. Multivariate analysis – survivorship bias

EF are fund expenses. TR (turnover) is the total value of acquisitions and sales during a year divided by the average net asset value of the fund. CEF is a dummy variable that assumes 1 for closed-end funds. NAV is the fund's net asset value. SR is the difference between annual return of a mutual fund and one-year fund yield divided by mutual fund volatility. Age is the fund's number of years since it began trading. Indep is a dummy variable that assumes 1 when a fund is managed by an independent financial firm. White heteroscedasticity − consistent standard errors & covariance.

Panel A. All							
	2007	2008	2009	2010	2011	2012	2007-2012
Intercept	0.03612	0.02507	0.07805	0.05159	0.05464	0.08367	0.05486
p-value	0.00	0.00	0.00	0.00	0.00	0.14	0.00
TR	0.00000	0.00004	-0.00196	-0.00035	0.00030	-0.00239	-0.00073
p-value	1.00	0.21	0.51	0.47	0.85	0.56	0.09
CEF	-0.00885	-0.00795	-0.01417	-0.01076	-0.00991	-0.00871	-0.01006
p-value	0.00	0.00	0.02	0.00	0.01	0.00	0.00
LN (NAV)	-0.00195	-0.00172	-0.00524	-0.00237	-0.00243	-0.00254	-0.00271
p-value	0.00	0.00	0.00	0.01	0.00	0.00	0.00
SR	0.00009	-0.00024	-0.00063	-0.00063	-0.00075	-0.00145	-0.00060
p-value	0.76	0.31	0.42	0.11	0.09	0.22	0.01
LN (Age)	0.00186	0.00262	0.00441	0.00108	0.00078	0.00067	0.00190
p-value	0.02	0.00	0.16	0.58	0.72	0.92	0.01
Indep	0.00166	0.00107	0.00276	0.00023	-0.00181	-0.00165	0.00038
p-value	0.19	0.23	0.34	0.88	0.26	0.75	0.32
Adj R^2	0.23	0.15	0.05	0.05	0.07	0.06	
N	112	150	196	204	204	208	
Panel B. Closed-end							
	2007	2008	2009	2010	2011	2012	2007-2012
Intercept	0.02169	0.01544	0.06625	0.04064	0.04444	0.06621	0.04245
p-value	0.01	0.02	0.01	0.00	0.01	0.23	0.00
TR	0.00004	0.00004	-0.00279	-0.00035	0.00037	-0.00238	-0.00084
p-value	0.87	0.21	0.39	0.47	0.82	0.57	0.09
LN (NAV)	-0.00147	-0.00176	-0.00570	-0.00246	-0.00245	-0.00395	-0.00297
p-value	0.02	0.00	0.00	0.01	0.01	0.12	0.00
SR	0.00015	-0.00027	-0.00060	-0.00065	-0.00073	-0.00154	-0.00061
p-value	0.66	0.29	0.49	0.13	0.14	0.24	0.02
LN (Age)	0.00153	0.00297	0.00514	0.00133	0.00087	0.00147	0.00222
p-value	0.09	0.00	0.14	0.53	0.72	0.85	0.01
Indep	0.00131	0.00095	0.00287	0.00008	-0.00213	-0.00200	0.00018
p-value	0.36	0.32	0.34	0.96	0.21	0.72	0.41
Adj R^2	0.04	0.08	0.06	0.04	0.07	0.01	
N	100	139	182	191	191	198	
Panel C. Open-end							
	2007	2008	2009	2010	2011	2012	2007-2012
Intercept	0.02920	0.09001	0.02307	0.08070	0.05577	0.08786	0.06110
p-value	0.17	0.01	0.04	0.02	0.08	0.25	0.00
TR	0.01768	-0.02055	0.00518	-0.01632	-0.00595	-0.01240	-0.00539
p-value	0.02	0.13	0.00	0.04	0.38	0.65	0.80
LN (NAV)	-0.00168	-0.00091	-0.00104	-0.00114	-0.00104	-0.00165	-0.00124
p-value	0.00	0.34	0.09	0.24	0.08	0.05	0.00
SR	0.00064	-0.00014	0.00051	-0.00048	-0.00049	-0.00035	-0.00005
p-value	0.16	0.74	0.11	0.15	0.20	0.73	0.40
LN (Age)	0.00620	-0.00671	0.00092	-0.00502	-0.00040	-0.00503	-0.00167
p-value	0.01	0.09	0.30	0.07	0.88	0.37	0.22
Indep	0.00217	0.00233	0.00013	0.00285	0.00497	0.00158	0.00234
p-value	0.37	0.44	0.93	0.16	0.06	0.73	0.01
Adj R^2	0.84	0.49	0.68	0.45	0.49	0.21	
N	12	11	14	13	13	10	

Conclusion

In this paper, we analyze the determinants of real estate funds domiciled in Portugal. The determinants of real estate fund expenses reflect the characteristics of the industry and its development. The fiscal policy developed by the Portuguese authorities stimulated the creation of real estate funds, particularly closed-end ones. Closed-end funds flourished once they were created, in most cases benefiting a small number of investors. In general, these types of funds were smaller and had a small number of investors whose main objective was to be rewarded by fiscal benefits even if the financial product presented higher risk and return. Instead of having a portfolio of individual real estate assets, they use a financial instrument to allocate their assets there, benefiting from fiscal benefits. Finally, we must highlight that both categories of real estate funds benefit from economies of scale.

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