Financing Decisions of REITs and the Switching Effect

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Real estate investment trusts (REITs) frequently collect new financial resources by issuing new shares and bonds or requesting for new loans to finance their investment policy. Due to the low transparency of the market, the success and the cost of financing are significantly affected by the reputation and the guarantee offered by the syndicated consortium. International evidence suggests that the decision to change syndicated banks could impact the success of raising new capital for industrial and financial firms, but there is no concrete evidence which suggests that this is the case in the real estate industry.

The paper considers a representative sample of US REITs to examine the frequency of switching decisions in the industry and their relationship with leverage policy. The empirical analysis demonstrates a greater likelihood of creating a new financing consortium when a REIT is poorly performing and the average interest rate is increasing. Moreover, the switching strategy is more frequently adopted when the REIT is planning to increase leverage and the current level of leverage is still far from the target value. Results obtained are robust with respect to the new consortium definition and the initial public offering (IPO) effect.

Keywords

REITs, Syndicated Consortium, Financing Decisions, Relationship Lending, Target Leverage

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1.   Introduction

Real estate investment trusts (REITs) invest in illiquid assets for which the market has limited information available and rely more often on external financing to fund investments with respect to other firms (Deng et al. 2014). The success of a new financial instrument placement is normally positively influenced by the reputation of the financial intermediaries (mainly investment banks) that are involved in the financing process (Wang et al. 1992). Syndicated consortiums frequently offer a guarantee for the success of the placement by underwriting financial instruments that have to be sold in the market. Therefore, the main financial intermediaries with a better reputation that can offer a higher guarantee will result in a greater probability of success of the placement and lower expected cost of financing for the issuer (Bairagi and Dimovsky, 2012). As the reputation of the syndicated consortiums is very important, investment banks with a better reputation in the market may charge higher fees to their customers if they assume that they cannot be substituted by other market players (Gokkaya et al. 2013).

The financing policy of REITs not only has to take into consideration the amount of financial resources necessary for the investment strategy but also evaluate the convenience of establishing a long-term relationship with a few intermediaries against their turnover over time. Empirical evidence, which has predominantly focused on bank loans (e.g. Harrison et al. 2011), demonstrates that REITs that raise financial resources by using the same counterparties as previously offer a stronger signal to the market, especially if the counterparties are highly reputable financial institutions that investors consider to have the ability to collect and process information that is not publicly available. On the other hand, the availability of a set of new counterparties interested in offering their services increases the capability of REITs to raise capital on the basis of the quality of assets owned and the new investment planned. The existence of multiple relationships normally signals a lack of credit constraints and, in a crisis scenario, the excessive usage of a few financing solutions by REITs, especially loans, could lead to liquidity problems and sometimes bankruptcy (Ooi et al. 2012).

Independent of the financing instrument selected (shares, bonds, or loan), there is no evidence available on the main determinants of a change in the reference lenders/arrangers on the real estate investment vehicles (hereinafter switching). This paper therefore aims to shed light on the switching effect for REITs by offering a unique framework for testing such a signalling effect due to the high opacity of real estate investments that may affect access to the debt/equity market. The use of the REIT market for analysis is particularly interesting because this type of real estate investment vehicle is legally compelled to distribute a large percentage of earnings and so there is incentive for REITs to adopt earning management solutions in the event that there is a lack of liquidity (Ambrose and Bian, 2010). The incentive to adopt an earning management

policy reduces the quality of information available on the balance sheet for less sophisticated investors (Deng and Ong, 2018) and maximizes the usefulness of the certification effect related to selecting the best syndicated consortium for new capital raising solutions. Moreover, as the average size of each new investment in the real estate industry is large, REITs have to collect new financial resources in the market more frequently and their managers have to properly evaluate the advantages and losses related to consortium switching and the cost of financing (Gyourko and Sinai, 1999). The large demand for credit from the REIT industry is normally appreciated by investors and lenders because, unlike other borrowers that are raising new capital frequently on the market, they are large market players frequently rated by international agencies that may provide real estate guarantees for new capital raising (Lemieux and Decker, 1999). They are not frequently financially constrained and so may have the opportunity to select the best fundraising solution by comparing different alternatives (equities, bonds or loans) offered at the same time on the market.

The paper presents a detailed analysis of the main drivers identified in the literature to explain for the choice of financing instrument (Section 2) and provides an empirical analysis of the listed US REITs to test the difference between establishing a long-term relationships and promoting a turnover of the financial intermediaries engaged in the money-raising solution (Section 3). The results show that lenders are switched more frequently with multiple-issuing as the financing solution and the probability of switching is driven more by trends in the REIT and bond markets than the specific features of each security. A switching strategy is more frequently adopted for increasing rather than reducing leverage and the speed of the adjustment to the target leverage is normally lower for REITs that borrow from relationship lenders that cannot significantly modify their debt structure in the short term.

2.   Literature Review

The literature on the switching of reference lenders predominantly focuses on IPO consortiums and the subsequent capital raising solutions. Issuers are normally aware of the underpricing related to information opacity and the probability of switching is higher when the IPO performance is worse than similar capital raising solutions in the same time horizon (Beatty and Ritter, 1986).

Empirical analyses show that the switching strategy is still a residual choice for firms that are requesting investment banking services because there are clear advantages related to relationship lending. In fact, the retention rate for new capital issuing seems to be affected by the type of financing source used and normally less transparent firms will avoid a switching strategy, especially for debt financing solutions while equity financing strategies may consider more

carefully the opportunities related to a change in the lending consortium (Bharath et al. 2007).

The switching strategy may be justified when firms are looking for highly reputed consortium members who are not always attainable for all firms that need to raise new capital from the market. The reputation of the consortium members is important because it has an impact on the investors who could be involved in the capital raising and normally highly reputed investors among consortium members are those who are better able to maximize the number of investors (Carter et al. 1998) and reduce underpricing (Fernando et al. 2015). Empirical evidence shows that issuers are not always able to directly interact with highly reputed underwriters especially during IPOs and for small issuing, so once a firm is established, a switching strategy may be justified by the opportunity to hire more reputed consortium members previously not available (Carbò-Valverde et al. 2017).

The pricing of the service offered by different investment banks that can be hired for capital raising is standardized and there are no significant differences in the initial fees requested independently based on the reputation of the consortium members (Chen and Ritter, 2000). An additional revenue source is represented by the aftermarket trading made by consortium members but, even if the amount of profit could be significantly different on the basis of the inventory and underpricing, the income related to aftermarket trading is significantly lower than the initial fees (Ellis et al. 2000). A switching strategy based only on the expected savings of fees requested for capital raising does not seem to be economically reasonable for an issuer because there is no evidence of significant saving related to a change in reference lenders.

In order to retain customers, investment banks apply discount fees for new capital raising initiatives that will be performed in few months from the first security issue / debt request and so the time between two consecutive capital raisings may affect the choice to retain the same lending consortium. Empirical evidence suggests that a longer time lag between two consecutive capital raisings will result in a greater probability of switching (James, 1992).

The literature on the switching effect mainly focuses on the difference between the structure of IPO and secondary equity offering (SEO) consortiums in the stock market, but there is also evidence of the impact of a change in reference lender on bond issuing (McKenzie and Takaoka, 2013). The loyalty of firms to the consortium structure is not only affected by the type of securities issued but the specific features of firms or a sector may also affect the convenience of a switching strategy (Burch et al. 2005). Moreover, firms that decide to change their consortium structure might only change the role of the consortium members or replace all of them, but the former is more frequently adopted in the market (Krigman et al. 2001).

The literature on the financing choices of REITs focuses on the main advantages and disadvantages related to the use of different capital sources. Studies focus on the issue/buyback of shares or bonds and the request/refund of loans. The two main theories proposed to explain the choices of REITs are related to the market timing approach and differences in the financial needs of REITs.

The market timing theory assumes that the debt policy of REITs is affected by stock and bond market trends and the market evaluation of the future performance of the REITs.

If the ratio between price and earnings decreases due to market trends or earnings dynamics, the market demand for REITs increases rapidly because investors assume that investment risk (proxied by the time necessary to recover the initial expenditure) is reduced (Ambrose and Bian, 2010). In such a scenario, the choice to issue new shares could be more profitable for the firm due to the lower cost of capital of such a financing solution.

The market trend of REITs can affect the decision to raise capital because, under information asymmetry, issuing new capital instead of financing debt (both bonds and loans) is more economically convenient in a growing market (Ghosh et al. 1997). During these uptrends, REITs have a greater incentive to issue new shares instead of using other financing instruments because the cost of equity is reduced without diminishing the tax shield effect (REITs are normally tax exempt) and increasing the risk perceived by investors (due to earnings distribution constraints).

REITs could be affected by changes in the short- and medium- to long-term market interest rates, but the degree of sensitivity depends on the type of REIT (equity versus mortgage REIT) and the amount of short-term versus medium- to long-term debt exposure (Chen and Tzang, 2001). Normally, increasing interest rates imply less likelihood of bond issuance or requests for floating rate loans (Huerta-Sanchez et al. 2012) and can have a negative impact on the growth of REITs due to the lower profit margin related to available real estate investment opportunities (Mueller and Pauley, 1995).

The sensitivity of REITs to market dynamics is significantly heterogeneous and, on the basis of the literature, the main features that justify higher or lower sensitivity to these external factors are the REIT size, growth opportunities, and optimal level of leverage.

Larger REITs are better able to access external financing despite frictions in the public debt and equity markets and larger firms are normally characterized by stronger and longer relationships with their lenders. Generally, size positively affects the relationship of a firm with its main bank and, until the relationship expires, will have a negative impact on the cost of lending, as will the incentive to raise money through the main lender (Hardin and Wu, 2009). The decision to increase debt (through both bonds and lending solutions) is also justified by

the advantages related to reducing the amount of free cash flow available to REIT managers (Hardin et al., 2009).

REITs with a high book-to-market value are assumed to have high growth opportunities that can influence the convenience of raising stock over that of raising money though lenders or bondholders (Hardin and Hill, 2011). Empirical evidence demonstrates that stocks assign a premium for investing in high book-to-market value firms (Goebel et al., 2013) and such REITs therefore try to avoid seasonal equity offerings to avoid paying an extra premium to subscribers related to the expected growth.

Every firm has its own optimal level of leverage based on the characteristics and market reputation of the business, and new capital-raising solutions will be affected by the misalignment of the current debt/equity structure of a firm and its optimal one (Hovakimian et al. 2001). Even if optimal leverage is not as relevant in selecting financing sources as in other industries, in the long run, REITs adjust their capital structure towards target debt levels (Ooi et al. 2010).

Independent of the type of financing solution selected, REIT managers have to decide if they want to proceed to raise new capital by using the same syndicated consortium used in previous placements or switch to a new consortium. Empirical evidence on the switching strategy is still limited and shows that the decision to change the committed syndicated consortium is affected by the reputation of the banks involved and access to the financial markets. Syndicated banks with a better reputation are those that are replaced less frequently because REITs can retain an advantage by showing that banks involved in previous successful capital raising initiatives are still working with them (e.g. Harrison et al. 2011). The choice to raise money from different syndicated consortiums could represent an interesting strategy for REITs that already have a reputation in the market and want to increase the number of possible financial sources that could be used in a credit crunch scenario (Ooi et al. 2012).

The literature does not provide any evidence on the role of REIT characteristics in explaining the frequency of using the switching strategy or clear evidence on the convenience of loyalty to a financing consortium for real estate investment vehicles that want to change their leverage and/or their speed of adjustment to the target leverage.

3.   Empirical Analysis
3.1   Sample

Our sample considers all REITs listed in the Standard and Poor's US REIT Index (S&P US REIT Index) during a 10-year time horizon (2004–2013), for a total of 173 REITs. We collect all of the data published in the quarterly reports.

In order to analyse the consortium structure, we consider all new shares and bonds issued, and new loans requested over the ten year time horizon (Table 1).

Table 1   Sample Description

Year	Number of REITs	New capital collected			
		Overall (mln USD)	Value of new share issued (mln USD)	Value of new bond issued (mln USD)	Value of new loan issued (mln USD)
2004	114	35140.32 (100%)	8999.53 (25.61%)	10143.43 (28.87%)	15997.36 (45.52%)
2005	118	28258.72 (100%)	8160.88 (28.88%)	6569.58 (23.25%)	13528.26 (47.87%)
2006	121	64674.67 (100%)	23374.75 (36.14%)	14017.58 (21.67%)	27282.34 (42.18%)
2007	124	48478.70 (100%)	19121.87 (39.44%)	10637.04 (21.94%)	18719.79 (38.61%)
2008	124	30138.86 (100%)	8355.58 (27.72%)	7563.24 (25.09%)	14220.04 (47.18%)
2009	126	57080.87 (100%)	19796.17 (34.68%)	10595.09 (18.56%)	26689.61 (46.76%)
2010	138	57611.24 (100%)	23527.73 (40.84%)	11512.87 (19.98%)	22570.64 (39.18%)
2011	146	47073.42 (100%)	19452.94 (41.32%)	8008.09 (17.01%)	19612.39 (41.66%)
2012	155	51339.15 (100%)	26389.44 (51.40%)	7615.64 (14.83%)	17334.07 (33.76%)
2013	173	60202.33 (100%)	31761.99 (52.76%)	6082.2 (10.10%)	22358.14 (37.14%)

Source: Thomson Reuters data processed by authors.

The number of REITs in the sample increases over time due to the launch of new ones during the last decade and none that were delisted during this period of time. We collect detailed information for all deals during the 10-year period to evaluate the differences in financing policy.

The results show an increase in the overall amount of capital raised over time (from $35 to 60 billion USD) and an increase in the usage of equity financing solutions with respect to other alternatives (from 26% in 2004 to 52% in 2013). Bonds are the less relevant financing solution for all the years considered and their relevance is even decreasing over time. Loans represent a solution frequently used by REITs for fund raising even if their role is decreasing over time (from 46% in 2004 to 37% in 2013). The difference in the degree of usage between these two alternative debt financing solutions could be ascribed to their different levels of standardization which are at the maximum for bonds and the

minimum for loans that could be more customized in the guarantees, time horizon, type of obligation, etc. (Brown and Riddiough, 2003).

To consider REIT financing choices in greater detail, we collect all of the information related to all counterparties involved in the capital-raising process and their role in the transaction[1] (Table 2).

Table 2   Consortium Structure and Role of Financial Intermediaries

Number of intermediaries involved in the syndicated consortium		Syndicates classified by fund raising solution			
		Equity issuing	Bond issuing	Loan issuing	Overall
1-5 members		350	341	423	1114
6-10 members		367	286	478	1131
11-20 members		165	177	236	578
More than 20 members		25	15	56	96
Overall		907	819	1193	2919
Role of intermediaries involved (% of the number of placements)		Syndicates classified by fund raising solution			
		Equity issuing	Bond issuing	Loan issuing	Overall
Coordinator or bookkeeper	% Syndicates	100.00%	99.39%	1.51%	59.58%
	Average n°	8.70	3.90	3.03	3.62
Manager	% Syndicates	83.24%	76.56%	0.84%	47.69%
	Average n°	1.71	2.96	1.83	4.68
Agent or member	% Syndicates	5.84%	2.20%	100.00%	43.30%
	Average n°	3.10	3.09	3.08	4.97

Notes: % Syndicates = Percentage of syndicated consortiums with at least one member who assumes the role identified in the row. Average n° = Number of syndicated committee members classified with the role identified in the row.
Source: Thomson Reuters data processed by authors

The overall sample considers 2919 consortiums created by the REITs for raising new capital by issuing equities (907) or bonds (819), or requesting loans (1193). More than 75% of the consortiums considered have fewer than 10 members and less than the 5% have more than 20 members.

In almost all of the syndicated consortiums for equity and bond issuing, the REITs identify at least one coordinator while for a new loan request, it is not necessary to hire a coordinator for the capital raising. Equity and bond issuing as a financing solution normally involves few agents with administrative, documentation, and management duties and frequently has financial intermediaries who are involved as manager or co-manager. The loan

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[1] The information about the reputation of the financial intermediaries involved in the syndicated consortium proposed by Bairagi and Dimovsky (2012) cannot be collected for the sample selected.

syndication by consortiums normally involves different banks who are members (predominantly lenders) in order to share the risk of the lending exposure among them and frequently do not have a coordination or supervision manager.

On the basis of this information, we identify the organizers of share and bond issues and the main lenders for loan purchases. We compute the summary statistics to analyse whether capital was raised by using the same bank(s) as before or by switching to a new lender (Table 3)[2].

In equity financing solutions, the number of REITs that change their financing consortium and book runners has increased during the last decade in terms of both number and value of issues. During the crisis period (2008–2011), this solution was more frequently adopted for larger deals while for small capital issues, the probability of switching was lower.

Bond issues have decreased over time and, in almost all years, the average size of the bonds advised by new consortiums is larger than that advised by the old consortiums. The amount of new loans offered by pre-existing consortiums or lenders is stable over time, while that offered by new lenders doubles in the time horizon considered and the average amount of each new loan is also higher. Nevertheless, independent of the consideration of the loan amount, the probability of switching banks is among the lowest, probably due to the existence of a strong long-term relationship in lending.

3.2   Methodology

The analysis of the switching effect is performed by considering the differences between REITs that use the same syndicated group with respect to selecting new financial intermediaries for managing the new capital raising. Therefore, the research question is as follows:

HYP 1: Is there any difference in the REIT characteristics that justify the choice of creating a new syndicated consortium?

A firm may decide to jointly issue securities or request new loans and therefore multiple nested logit models should be considered. Following the approach proposed by Huang and Ritter (2009), our model includes two decision levels but, unlike their study, we focus on bank-switching opportunities.

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[2] If during the time horizon considered, the lender was changed due to a merger and acquisition between different banks, we do not consider this to be an event of switching because it cannot be ascribed as the decision of the REIT.

Table 3   REIT Financing Solutions and Bank Switching

The table presents the amount of new capital collected through share and bond issuing and loans request for the overall sample of REITs and the average amount collected year by year for all the capital raisers. The switching probability is computed as the ratio of (the number or the value) of issues released by an existing consortium with respect to those in which new financial intermediaries are involved.

			2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Shares Issued	Overall	Old	7166.30	5537.68	12165.28	8974.27	2317.74	5318.94	10866.22	7826.03	15016.59	14754.32
	(mln USD)	New	1833.23	2623.20	11209.47	10147.60	6037.84	14477.23	12661.51	11626.91	11372.85	17007.67
	Mean size	Old	140.52	167.81	233.95	289.49	121.99	151.97	194.04	173.91	288.78	254.38
	(mln USD)	New	130.95	131.16	228.76	281.88	215.64	253.99	263.78	242.23	227.46	274.32
	Switching	Num	21.54%	37.74%	48.51%	53.73%	59.57%	61.96%	46.15%	51.61%	49.02%	51.67%
	Probability	Value	20.37%	32.14%	47.96%	53.07%	72.26%	73.13%	53.82%	59.77%	43.10%	53.55%
Bonds Issued	Overall	Old	6870.63	2956.55	7219.07	4019.80	4604.05	6076.63	3385.69	3443.87	3493.15	3463.47
	(mln USD)	New	3272.80	3613.03	6798.51	6617.24	2959.19	4518.46	8127.18	4564.22	4122.49	2618.73
	Mean size	Old	163.59	147.83	180.48	182.72	270.83	184.14	147.20	172.19	183.85	173.17
	(mln USD)	New	204.55	172.05	219.31	287.71	211.37	225.92	325.09	240.22	242.50	261.87
	Switching	Num	27.59%	51.22%	43.66%	51.11%	45.16%	37.74%	52.08%	48.72%	47.22%	33.33%
	Probability	Value	32.27%	55.00%	48.50%	62.21%	39.13%	42.65%	70.59%	57.00%	54.13%	43.06%
Loans requested	Overall	Old	11194.51	8351.59	19027.26	8337.89	6491.34	10426.32	15836.77	11800.66	11961.76	11289.50
	(mln USD)	New	4802.85	5176.67	8255.08	10381.90	7728.70	16263.29	6733.87	7811.73	5372.31	11068.64
	Mean size	Old	243.36	269.41	328.06	277.93	309.11	260.66	293.27	310.54	306.71	282.24
	(mln USD)	New	343.06	323.54	284.66	519.10	429.37	542.11	336.69	371.99	282.75	345.90
	Switching	Num	23.33%	34.04%	33.33%	40.00%	46.15%	42.86%	27.03%	35.59%	32.76%	44.44%
	Probability	Value	30.02%	38.27%	30.26%	55.46%	54.35%	60.93%	29.83%	39.83%	30.99%	49.51%

Source: Thomson Reuters data processed by authors

The first-level alternatives involve equity and bond issues, and loan requests versus no new raising of capital and second-level alternatives related to the type of consortium (old versus new). This can be written as follows:

$$\Pr(y = s) = \frac{e^{X\beta(s)}}{1 + e^{X\beta(E)} + e^{X\beta(B)} + e^{X\beta(L)} + e^{X\beta(M)}} \tag{1}$$

where the probability of new securities (s) considers the opportunity to issue equities (E), bonds (B), loans (L), or multiple securities (M) as financing alternatives and the base scenario is the choice of not raising new money (NC).

Following the approach proposed by Ooi et al. (2010), we consider variables related to both the market timing theory and firm features as explanatory factors (X) (Table 4).

Table 4   Factors that Explain Financing Choice

Type	Variable	Details
Market timing	Price–earnings ratio	Moving-average annualized P/E ratio
	REIT performance	Yearly appreciation of REIT share price
	Market performance	Yearly appreciation of the S&P US REIT Index.
	Interest rate	10-year US government bond yield[4]
	Term structure	Difference in the yield of 10-year and 1-year US government bonds
REIT charac-teristics	Size	Natural logarithm of total assets
	Growth opportunities	Moving-average annualized P/BV ratio
	Deviation from target leverage	Leverage ratio minus the target-leverage ratio of the REIT

The target leverage for each REIT at time t is computed by following the approach proposed by Flannery and Rangan (2006) that identifies the current optimal leverage based on a set of the firm characteristics that may affect the cost and benefits of operating with different leverage ratios in the following equation:

$$Lev_{it}^{*} = \alpha_t + \sum_{k=1}^{n} \beta_{kt} F_{kt} + \gamma_{it} Leverage_{it}^{IM} \tag{2}$$

where $Leverage_{it}^{IM}$ is the median industry leverage and F_{kt} is a set of the specific control variables of a REIT that include the earnings before interest and taxes as a proportion of the total assets, the market-to-book ratio of firm assets, depreciation expenses as a proportion of the total assets, natural log of the total assets, fixed assets as a proportion of the total assets, a dummy variable that

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[4] The analysis was performed by also using an alternative interest rate benchmark and the results hold independently to the time horizon considered.

indicates that the firm did not report research and development (R&D) expenses, and R&D expenses as a proportion of the total assets.

The second decision level considers, once the security has been issued or the loan has been requested, the differences between REITs that raise funds by using the same lenders and those that create a new consortium[5]. This can be written as follows:

$$\begin{cases} \Pr(y = s / E) = \dfrac{e^{X\beta(s)}}{1 + e^{X\beta(EO)} + e^{X\beta(EN)}} \\[2ex] \Pr(y = s / D) = \dfrac{e^{X\beta(s)}}{1 + e^{X\beta(DO)} + e^{X\beta(DN)}} \\[2ex] \Pr(y = s / L) = \dfrac{e^{X\beta(s)}}{1 + e^{X\beta(LO)} + e^{X\beta(LN)}} \\[2ex] \Pr(y = s / M) = \dfrac{e^{X\beta(s)}}{1 + e^{X\beta(MO)} + e^{X\beta(MN)}} \end{cases} \tag{3}$$

where the financial choices consider the equity issuing (E), bond issuing (B), loan request (L) or a mixed financing solution (M) released by using the same consortium used for the previous capital raising (O) or a new one (N). All equations use the matrix X in Equation (1) as the explanatory factor and all results are computed as the difference with respect to the base scenario of not issuing new money.

The analysis of the syndicated consortium structure is performed by separately considering new capital raising solutions addressed to increase or decrease the REIT leverage with respect to those with no effect on leverage. The research question addressed is as follows:

HYP 2: Is syndicate switching more frequent when REITs adopts a new financial leverage strategy?

The new analysis performed is as follows:

$$\Pr(y = s) = \dfrac{e^{X\beta(S)}}{1 + e^{X\beta(ILO)} + e^{X\beta(ILN)} + e^{X\beta(DLO)} + e^{X\beta(DLN)}} \tag{4}$$

where we compare the scenario of no effect on leverage ($y = SL$) with that of increasing or decreasing leverage by using a new or existing consortium ($y =$

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[5] Our assumption on the leverage policy is that the REIT decides its leverage policy independently with respect to the financing solutions available because every time the company raises new funds (as equities, bonds or loans), it is obliged to re-invest immediately into real estate assets in order to maintain its REIT status. In the REIT framework, the hypothesis to raise new capital only for switching purposes could be considered less likely and so the endogeneity issue matters less with respect to a standard corporation.

ILN, $y = ILO$, $y = DLN$, $y = DLO$, respectively). For all the equations we used as explaining factors, matrix X in Equation (1) and all results are computed as the difference with respect to the base scenario of stable leverage.

The last issue considered is the impact of the switching effect on the speed of adjustment to the target leverage (Huang and Ritter, 2009). The research question addressed is as follows:

HYP 3: Is the speed of adjustment to target leverage different for REITs that switch to a new syndicated consortium?

Following Flannery and Rangan (2006), we measure the speed of adjustment as follows:

$$Lev_{it} = \gamma Lev_{it-1} + \lambda(Lev^*_{it-1} + \xi_{it}) + \delta_{it} \tag{5}$$

where the current leverage (Lev_{it}) is a linear function of the past leverage (Lev_{it-1}) and past target leverage (Lev^*_{it-1}). The term λ is the speed of adjustment with respect to the target leverage and ξ_{it} is an error term related to the estimate of the target leverage that has an average of zero and different assumed levels of standard deviation (respectively from 0 to 0.5). The analysis of the type of consortium used to change the current leverage is performed by considering the following formula:

$$\begin{aligned} Lev_{it} = & \gamma_1 Lev_{it-1} + \lambda_1(Lev^*_{it-1} + \xi_{it}) + OC_{it} \times \gamma_2 Lev_{it-1} \\ & + OC_{it} \times \lambda_2(Lev^*_{it-1} + \xi_{it}) + NC_{it} \times \gamma_2 Lev_{it-1} \\ & + NC_{it}\lambda_2(Lev^*_{it-1} + \xi_{it}) + \delta_{it} \end{aligned} \tag{6}$$

where the new formula considers two additional dummy variables (OC_{it} and NC_{it}) that assume a value of one when the REIT decides to raise new capital by using a consortium (respectively the same one used before or a new one) and their interaction term with the target leverage and past leverage.

3.3   Results

The summary statistics of the explanatory variables for the full sample as well as for the subsamples are classified in accordance with the four mutually exclusive financing categories, and reveal interesting differences among the REITs (Table 5).

When REITs raise new capital, they normally prefer to use equity financing solutions (447 cases) with respect to using bonds (171) or loans (249), but also

frequently adopt the solution of issuing multiple securities at the same time (379)[6].

Table 5   Sample Characteristics by Type of Financing Activity

Variable	Passive	Pure Equity Issue	Pure Bond Issue	Pure Loan Issue	Multiple Issue	Full Sample
Price–earnings ratio	23.19	27.85	22.31	34.81	27.41	23.19
	(54.70)	(72.56)	(31.32)	(85.63)	(66.41)	(54.70)
REIT performance	0.02	0.07	0.02	0.0487	0.12	0.02
	(0.41)	(0.41)	(0.41)	(0.42)	(0.43)	(0.41)
Market performance	0.04	0.01	0.01	0.03	0.05	0.04
	(0.26)	(0.31)	(0.28)	(0.26)	(0.31)	(0.26)
Interest rate	0.03	0.03	0.03	0.03	0.04	0.03
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Term structure	0.03	0.02	0.02	0.02	0.02	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Size	7.68	7.78	8.13	7.73	7.95	7.68
	(1.08)	(0.88)	(0.889)	(0.90)	(0.97)	(1.08)
Growth opportunities	1.81	1.41	1.48	1.49	1.76	1.81
	(5.2252)	(3.28)	(2.14)	(1.52)	(1.02)	(5.23)
Deviation from target leverage	0.01	-0.01	0.01	0.01	-0.01	0.01
	(0.17)	(0.13)	(0.14)	(0.14)	(0.12)	(0.17)
Observations	5524	477	171	249	379	6800

Notes: Variables are defined in Table 4. The table reports the average value and the standard deviation in brackets. The sample covers the financing activities of REITs between 2004Q1 and 2013Q4

Source: Thomson Reuters data processed by authors

REITs that are priced significantly above current earnings do not adopt, on average, a passive strategy and prefer to issue new shares and request new loans to raise money. High returns in the REIT market normally allow, on average, easier access to equity or multiple financing solutions, but a passive strategy is adopted when the overall REIT market is growing.

When the bond market is characterized by higher current interest rates, REITs prefer to organize multiple or bond issuing, whereas the strategy adopted is predominantly passive or equity based if there is a positive yield curve spread.

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[6] The high frequency of issuing multiple securities does not allow exclusion of these events from the analysis even if the results for this category are expected to be similar to those achieved in share issuing because normally this type of security represents the main new financial instrument used in the multiple issuing scenario.

Larger players do not frequently adopt a passive strategy and, due to their reputation in the market, prefer to issue bonds or have multiple placements in the same quarter. Higher average growth opportunities do not seem to lead to greater activity in the capital markets.

Regarding the target leverage, as expected, REITs with leverage above the optimal level adopt equity or multiple issuing solutions, while those with leverage below the desired value try to reach the threshold by issuing new bonds or requesting new loans.

The summary statistics are significantly affected by the large variability of each subsample of REITs and the relationship between REITs and financing choices has to be tested by using a multiple logit regression model (Table 6).

Table 6   Multiple Nested Logic Regression for Different Types of Financing Solutions

Explanatory variable	Dependent variable: [Hyp: Base Scenario = Passive]			
	Pure Equity Issue	Pure Bond Issue	Pure Loan Issue	Multiple Issue
Constant	-2.42***	-6.77***	-2.49***	-5.88***
Price–earnings ratio	0.00	-0.00	0.00***	0.00
REIT performance	0.85***	0.30	0.53**	1.11***
Market performance	-1.10***	-0.76*	-0.63*	-1.09***
Interest rate	-13.90**	9.68	-10.00	27.57***
Term structure	-6.02	-15.08*	-7.01	-0.26
Size	0.10*	0.45***	0.01	0.32***
Growth opportunities	-0.02*	-0.02	-0.01	-0.01
Deviation from target leverage	-0.34	-0.24	0.37	-0.86**
Observations	477	171	249	379

Notes: The table presents the MNL estimation results on the probability of each financing event against a no transaction alternative in a given quarter. The dependent variables are the four mutually exclusive financing choices, with passive or no material financing activity being the base option. The explanatory variables are defined in Table 4. The sample covers the financing activities of REITs between 2004Q1 and 2013Q4. * p=0.1; ** p=0.05; and *** p=0.01

Source: Thomson Reuters data processed by authors

REITs with a high (low) price–earnings ratio are more (less) interested in issuing new shares and requesting new loans, but the relationship is statistically significant only for loan requests. The results support the hypothesis of a certification effect; that is, more credit offered by lenders leads to positive market price reactions (Campbell et al. 2008).

A share appreciation (depreciation) positively (negatively) affects the probability of issuing new shares, requesting new loans, or using a mixed financing solution. The bond solution, as expected, is not worthwhile if the share price is increasing because the choice between the two instruments is normally driven by a comparison of their relative costs (returns for equity holders and bondholders) (Howton et al. 2003).

The overall growth of the REIT market has a negative impact on all capital financing solutions, because empirical evidence demonstrates that REIT behaviour is comparable with that of firms with low beta risk. Given market growth, the low beta that characterizes REITs (e.g. Chiang et al. 2005) negatively affects the demand for new shares and other types of capital-raising procedures due to the greater performance obtained by other high-beta securities available in the market.

Normally, high bond market interest rates imply a lower probability of issuing new shares and a higher probability of mixed issues instead of simple issues. An increasing yield curve normally lowers the probability of raising new capital and the financing solution that is penalized the most is the issuance of new corporate bonds by REITs. Both results are consistent with the tax exemption of REITs: a high rate of increase in the bond yield market implies less demand for REIT-issued securities and greater demand for securities or loans offered by other firms, which can offer higher returns due to the advantages of tax shields (Howe and Shilling, 1988).

Larger firms are normally more active in the capital markets and their preferred solutions are, in order of importance, bond, multiple, and equity issuing (Rovolis and Feidakis, 2014). Growth opportunities do not seem to explain for the financial choices of REITs and only equity issues are negatively related to the price-to-book value ratio, but the relationship is not statistically significant.

The misalignment between current and optimal leverage is not one of the main drivers of the financing choices of REITs and the only statistically significant relationship is linked to the choice of multiple issues, which are normally used when a REIT is overindebted, to redefine the proper debt–equity mix.

Regarding the intermediaries involved in raising new capital, some interesting differences arise between REITs that use the same existing consortium and those who switch (Table 7).

Regarding equity issuing, the results previously shown for the determinants of pure equity solutions are mostly related to the use of an existing consortium, while the choice of creating a new consortium is mostly determined by market timing opportunities. New consortiums are created when REITs are outperforming and the market is decreasing, to reap the benefits related to the excess demand for securities issued, while the other relevant variables for issuing shares by using an existing consortium (interest rate, size, and growth

opportunities) are not statistically significant. The choice to use a new consortium to issue shares seems to be economically reasonable only if the additional performance obtained is enough to eventually cover the negative effects related to the new issuing, given the lack of a certification effect (Helou and Park, 2001).

Table 7   Multiple Nested Logic Regression for Existing vs. New Consortium

Explanatory variable	Dependent variable: [Hyp: Base Scenario = Passive]							
	Equity Issue		Bond Issue		Loan Issue		Multiple issue	
	Old	New	Old	New	Old	New	Old	New
Constant	-2.86***	-3.37***	-9.32***	-5.72***	-3.92***	-2.70***	-9.50***	-5.51***
Price–earnings ratio	0.00	0.00	-0.00	-0.01	0.00**	0.00*	0.00	0.00
REIT performance	0.68***	1.04***	0.24	0.40	0.95**	0.31	1.13***	1.12***
Market performance	-1.23***	-0.93**	-0.70	-0.85*	-1.25**	-0.28	-1.39***	-0.98***
Interest rate	-18.67**	-8.99	5.64	12.51	-11.69	-9.27	19.79	30.03***
Term structure	-11.45	-1.05	-26.63**	-4.39	-13.51	-3.94	10.63	-3.30
Size	0.11*	0.09	0.71***	0.20	0.08	-0.03	0.59***	0.23***
Growth opportunities	-0.02**	-0.01	-0.02	-0.02	-0.01	-0.01	0.00	-0.01
Deviation from target leverage	-0.59	-0.10	0.47	-0.85	0.22	0.44	-1.05	-0.79*
Observations	215	202	73	71	82	139	79	258

Notes: The table presents the MNL estimation results on the probability of each financing event against a no transaction alternative in a given quarter. The dependent variables are the nine mutually exclusive financing choices, with passive or no material financing activity being the base option. The explanatory variables are defined in Table 4. The sample covers the financing activities of REITs between 2004Q1 and 2013Q4. * p=0.1; ** p=0.05; and *** p=0.01

Source: Thomson Reuters data processed by authors

The choice to issue bonds by using a new consortium is essentially related to negative performance in the REIT market. Larger players, especially given decreasing interest rates, prefer to solicit bondholders by using the same consortium as before to fully take advantage of the certification effect.

A high price–earnings ratio facilitates the access of REITs to the lending market, independently of their choice to use the same or new lenders. If the stock price of a REIT is rising during a market downturn, the most frequently adopted solution is to avoid substituting past successful consortium members who have

offered lending conditions considered to be sustainable in the long term by the market.

Independent of the consortium characteristics (existing or new), the decision to use multiple financing solutions in the same quarter is driven by REIT performance, market trends, and size. REITs usually substitute consortium members when current interest rates are high and current leverage is significantly below the target value. In such cases, managers will look for a new consortium that offers better financing conditions and one which allows for significant changes to the previous debt strategy to more quickly achieve the target financial structure.

To evaluate whether the choice of creating a new consortium is more suitable to increase or decrease leverage, we perform the same multinomial logit regression on a new dummy variable that considers the type of consortium and the sign of the leverage change (Table 8).

Table 8   Multiple Nested Logic Regression for Type of Leverage Change

| Explanatory variable | Dependent variable: [Hyp: Base Scenario = leverage neutral] | | | |
| | Leverage increase | | Leverage decrease | |
	Old	New	Old	New
Constant	-0.76	1.27	1.69	2.10^{*}
Price–earnings ratio	-0.00	0.00	0.00	-0.00
REIT performance	0.92^{**}	0.91^{**}	1.12^{***}	0.58^{*}
Market performance	-1.02	-0.34	-1.40^{**}	-0.59
Interest rate	-32.71^{**}	-30.81^{**}	-77.51^{***}	-44.42^{***}
Term structure	69.39^{***}	75.78^{***}	92.60^{***}	100.31^{***}
Size	0.07	-0.18	-0.07	-0.23^{*}
Growth opportunities	-0.06	-0.04	-0.08	-0.03
Deviation from target leverage	-1.53	-1.81^{*}	-0.71	0.12
Observations	127	194	193	289

Notes: The table presents the MNL estimation results on the probability of each financing event against a no changes alternative in a given quarter. The dependent variables are the five mutually exclusive financing effects on the current leverage, with passive or no material financing activity being the base option. The explanatory variables are defined in Table 4. The sample covers the financing activities of REITs between 2004Q1 and 2013Q4. *p=0.1; **p=0.05; and ***p=0.01

Source: Thomson Reuters data processed by authors

The strategy of changing leverage (increase or decrease) is significantly affected by the dynamics of the REIT stock performance and bond market trends. If the REIT is performing well, the manager will be more interested in

changing the financial structure and the effect of the performance change will be stronger for REITs that use the same consortium. An increase in the current interest rate will negatively affect the probability of leverage changes, especially for REITs that are using the same consortium, while an increasing yield curve will positively impact the probability of leverage changes, especially for the REITs that decide to raise money through a new consortium.

REITs that are planning to increase their leverage are more interested in using a new consortium, especially if their financial structure is close to optimal, because they assume that the market will accept the new issue independently of the sponsor and promoters of the new capital issuing. REITs that decide to reduce their leverage by using a new consortium are normally larger players who assume that their reputation is sufficient to ensure the success of the new placement, independently of the consortium characteristics. Both results support the hypothesis that security issues or debt requests that will affect leverage will use a new consortium only if they can ensure that the REIT reputation will improve in the market and there is a lower probability of failure for the new placement.

The analysis of the speed of adjustment of REITs with respect to their target leverage demonstrates the strong time persistence of leverage choices, with differences between REITs that commonly use existing consortiums and those that use new ones (Table 9).

Table 9   Speed of Adjustment to Target Leverage

Explanatory variable	Dependent Variable: Lev_{it}					
	$\xi_{it} \sim N(0\%, 0\%)$		$\xi_{it} \sim N(0\%, 25\%)$		$\xi_{it} \sim N(0\%, 50\%)$	
Lev_{it-1}	0.84^{***}	0.76^{***}	0.98^{***}	0.88^{***}	0.99^{***}	0.89^{***}
$Lev_{it-1}^{*} + \xi_{it}$	0.16^{***}	0.08^{***}	0.02^{***}	0.00^{**}	0.01^{***}	0.00^{*}
$Lev_{it-1} \times NC_{it}$		0.07^{***}		0.04^{***}		0.04^{***}
$\left(Lev_{it-1}^{*} + \xi_{it} \right) \times NC_{it}$		0.05^{***}		0.02^{***}		0.01^{***}
$Lev_{it-1} \times (OC_{it})$		0.03^{*}		0.01^{*}		0.01^{*}
$(Lev_{it-1}^{*} + \xi_{it}) \times OC_{it}$		0.04^{***}		0.01^{**}		0.01^{*}
N	5119	5119	5119	5119	5119	5119
R^2	91.06%	91.36%	91.10%	91.28%	91.13%	91.28%

Notes: The table presents the maximum likelihood panel linear regression of the current level of leverage with respect to the past and the target values and two dummy variables related to new capital raising performed with an existing or a new consortium. The sample covers the financing activities of REITs between 2004Q1 and 2013Q4. *p=0.1; **p=0.05; and ***p=0.01

Source: Thomson Reuters data processed by authors

The use of quarterly data implies a higher autocorrelation of the results obtained and less relevance of adjustment to target leverage with respect to other studies. Consistent with the literature, if we include the possibility of errors in the definition of the target leverage, the current financial structure of REITs is less affected by misalignment with respect to the target leverage.

If we consider the type of consortium used by REITs (old vs. new), the speed of adjustment with respect to the target leverage is higher for REITs that switch their reference consortium; this result holds even if we allow a white noise error term in the definition of the target leverage (for a standard error of the white noise below 50%). This result is consistent with the information asymmetry theory which explains that firms that borrow from relationship lenders are most likely to be subject to an externally imposed debt capacity and are slower to reach their target leverage (Lemmon and Zender, 2010).

3.4   Robustness Test
3.4.1   Consortium Structure

An alternative approach for evaluating consortium switching considers all the members and identifies switching only if a new member is added or dropped with respect to the previous raising of capital. The new proxy assumes that, inside the consortium, it is possible to change the role of the members due to the specific needs of the lenders or the debtor. Moreover, there is international evidence that the decision to increase (decrease) the number of consortium members (especially for loans) reduces (heightens) the incentive to monitor exposure (Bae and Goyal, 2009).

Using this definition of consortium switching, the number of new consortiums used by REITs is significantly lower due to the high frequency of cases in which the turnover of the consortium leader is internally managed. The determinants of consortium switching presented in Table 10 are consistent with those presented in Table 6 and the main difference is that the inclusion/exclusion of new members is more affected by interest rate market trends than substitution of the leading player, while the role of the REIT share performance is weaker.

The analysis of the aim of new capital raising and the speed of adjustment to the target leverage based on the new definition of consortium switching (Table 11) does not show any statistically significant difference with respect to the analysis done on the full sample (Tables 8 and 9).

Table 10   Multiple Nested Logic Regression for Existing vs. New Consortium (Member Change)

Explanatory variable	Dependent variable: [Hyp: Base Scenario = Passive]							
	Equity Issue		Bond Issue		Loan Issue		Multiple issue	
	Old	New	Old	New	Old	New	Old	New
Constant	-2.48***	-5.00***	-7.78***	-4.65**	-3.17***	-1.68	-5.88***	-8.34***
Price–earnings ratio	0.00*	-0.02	-0.00	-0.01	0.00**	0.00	0.00	0.00
REIT performance	0.79***	1.92***	0.35	0.05	0.51*	0.63	1.27***	0.65
Market performance	-1.10***	-0.83	-0.65	-1.16	-0.69*	-0.40	-1.05***	-1.19**
Interest rate	-12.45**	-38.74*	16.92	-25.27	-2.75	-52.69***	26.17***	31.11**
Term structure	-3.96	-44.56*	-13.32	-23.19	-8.21	12.49	-6.41	22.22*
Size	0.09	0.27	0.51***	0.12	0.05	-0.22	0.30***	0.37***
Growth opportunities	-0.02*	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01
Deviation from target leverage	-0.33	-0.56	-0.11	-0.88	0.32	0.63	-1.01**	-0.32
Observations	390	27	121	23	187	34	266	71

Notes: The table presents the maximum likelihood panel linear regression of the current level of leverage with respect to the past (Lev_{it-1}) and the target (Lev_{it-1}^*) values and two dummy variables related to new capital raising through existing (OC_{it}) and new (NC_{it}) financing consortiums. ξ_{it} is an error term related to the estimate of the target leverage. *p=0.1; **p=0.05; and ***p=0.01

Source: Thomson Reuters data processed by authors

Table 11   Multiple Nested Logic Regression for Type of Leverage Change and Panel Linear Regression for Speed of Adjustment to Target Leverage (Member Change)

Panel A: Type of Leverage Change					Panel B: Speed of Adjustment						
Explanatory Variable	Dependent variable: [Hyp: Base Scenario = leverage neutral]				Explanatory variable	Dependent Variable: Lev_{it-1}					
						$\xi_{it} \sim N(0\%,0\%)$		$\xi_{it} \sim N(0\%,25\%)$		$\xi_{it} \sim N(0\%,50\%)$	
	Leverage increase		Leverage decrease								
	Old	New	Old	New							
Constant	0.79	0.03	2.76**	-0.12	Lev_{it-1}	0.84***	0.88***	0.97***	0.87***	0.99***	0.90***
Price–earnings ratio	-0.00	0.00	0.01	-0.01	$Lev^*_{it-1} + \xi_{it}$	0.16***	0.10***	0.03***	0.01***	0.01***	0.01***
					$Lev_{it-1} \times NC_{it}$		0.09***		0.02***		0.05***
					$\left(Lev^*_{it-1} + \xi_{it}\right) \times NC_{it}$		0.02***		0.05***		0.02***
REIT performance	1.03**	0.25	0.78**	0.88*	$Lev_{it-1} \times (OC_{it})$		0.01*		0.02***		0.01***
Market performance	-0.70	-0.30	-0.91	-0.92	$(Lev^*_{it-1} + \xi_{it}) \times OC_{it}$		0.02*		0.03***		0.01***
Interest rate	-31.13**	-33.83	-57.17***	-67.35***	Observations	5119	5119	5119	5119	5119	5119
Term structure	72.71***	78.29***	93.50***	113.84***	R²	0.9106	0.9143	0.9109	0.9112	0.9113	0.9114
Size	-0.06	-0.19	-0.20*	-0.04	Panel A: The table presents the MNL estimation results on the probability of each financing event against a no changes alternative in a given quarter. The dependent variables are the five mutually exclusive financing effects on the current leverage, with passive or no material financing activity being the base option. The explanatory variables are defined in Table 4.						
Growth opportunities	-0.04	-0.04	-0.06	0.02							
Deviation from target leverage	-1.89**	-0.51	-0.16	-0.32							
Observations	279	42	407	84	Panel B: The table presents the maximum likelihood panel linear regression of the current level of leverage with respect to the past (Lev_{it-1}) and the target (Lev^*_{it-1}) values and two dummy variables related to new capital raising through existing (OC_{it}) and new (NC_{it}) financing consortiums. ξ_{it} is an error term related to the estimate of the target leverage.						

Notes: The sample covers the financing activities of REITs between 2004Q1 and 2013Q4. * p=0.1; ** p=0.05; and *** p=0.01

Source: Thomson Reuters data processed by authors

3.4.2   Initial Public Offering Effect

The choice of financing solution could be affected by the time since the IPO and, for REITs, the choice to use financing solutions is normally more profitable some months from the first issue (e.g. Wang et al. 1992). The choice of new counterparties in a securities issue or loan request is more probable after an REIT has developed a market reputation, instead of during the first few years of its life. To address this issue, we apply the same methodology as in the previous analysis, excluding from the sample all REITs that had an IPO at least two years before the new issue (independently of the type of issue).[7]

The analysis which excludes the IPO effect confirms the results previously obtained with the full sample for the differences in capital-raising solutions between REITs that use existing and new consortiums (Table 12).

Equity issues are not significantly affected by the IPO effect and all the explanatory variables remain significant over time for REITs that use existing consortiums and those that use new ones. The decision of the consortium to issue bonds, excluding the years immediately after the IPO, is essentially driven by the issuer size and larger REITs prefer not to switch consortiums. The decision to request a loan from the same lender is not affected by excluding IPO years and the main drivers remain the price–earnings ratio, REIT market performance, and overall market trends. The decision to create a new consortium for a new loan request is unaffected by the characteristics analysed.

Focusing only on the post IPO effect period, we find that the main drivers of changes in REIT leverage do not change but the interest rate market variables have different roles. A comparison of the coefficients related to the current interest rate and the term structure for the full sample and the sample without the IPO effect shows that the relevance of interest rate expectations is greater after the IPO period than before, while the opposite is true for the current interest rate.

The speed of adjustment to the target leverage is, as expected, significantly lower if the analysis excludes the IPO effect and the results are consistent for REITs that use an existing consortium or both new and old consortiums (Table 13).

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[7] An empirical analysis demonstrates that IPOs are followed (on average) by a first seasoned equity offering in less than two years (Ghosh et al. 2000).

Table 12. Multiple Nested Logic Regression for Existing vs. New Consortium Excluding IPO Effect

Explanatory variable	Dependent variable: [Hyp: Base Scenario = Passive]							
	Equity Issue		Bond Issue		Loan Issue		Multiple issue	
	Old	New	Old	New	Old	New	Old	New
Constant	-3.33***	-3.66***	-9.60***	-5.62***	-4.26***	-3.01***	-9.38***	-6.01***
Price–earnings ratio	0.00	0.00	-0.00	-0.00	0.00**	0.00	0.00	0.00
REIT performance	0.68***	1.09***	0.22	0.36	1.01**	0.32	1.08***	0.90***
Market performance	-1.32***	-1.05***	-0.74	-0.80	-1.30**	-0.34	-1.35***	-0.91***
Interest rate	-21.95***	-6.21	0.94	7.43	-11.71	-3.35	17.43	26.77***
Term structure	-6.04	-3.64	-19.88	-9.12	-7.12	-1.91	13.22	-0.09
Size	0.16**	0.11	0.74***	0.22*	0.11	-0.02	0.58***	0.29***
Growth opportunities	-0.02*	-0.01	-0.02	-0.02	-0.01	-0.01	0.00	-0.01
Deviation from target leverage	-0.66	0.04	0.47	-0.93	0.22	0.59	-1.07	-0.96**
Observations	185	172	64	66	69	123	73	218

Notes: The table presents the MNL estimation results on the probability of each financing event against a no transaction alternative in a given quarter. The dependent variables are the nine mutually exclusive financing choices, with passive or no material financing activity being the base option. The explanatory variables are defined in Table 4. The sample covers the financing activities of REITs between 2004Q1 and 2013Q4. * p=0.1; ** p=0.05; and *** p=0.01

Source: Thomson Reuters data processed by authors

Table 13　Multiple Nested Logic Regression for Type of Leverage Change and Panel Linear Regression for Speed of Adjustment to Target Leverage Excluding IPO Effect

Panel A: Type of leverage change					Panel B: Speed of adjustment						
Explanatory variable	Dependent variable: [Hyp: Base Scenario = leverage neutral]				Explanatory variable	Dependent Variable: Lev_{it-1}					
						$\xi_{it} \sim N(0\%,0\%)$		$\xi_{it} \sim N(0\%,25\%)$		$\xi_{it} \sim N(0\%,50\%)$	
	Leverage increase		Leverage decrease		Lev_{it-1}	0.97***	0.88***	0.99***	0.85***	0.99***	0.88***
	Old	New	Old	New	$Lev^*_{it-1} + \xi_{it}$	0.03***	0.02***	0.01***	0.03***	0.01*	0.00*
Constant	-0.90	1.22	1.65	2.23*	$Lev_{it-1} \times NC_{it}$		0.05***		0.06***		0.05***
Price–earnings ratio	-0.00	-0.00	0.00	-0.00	$\left(Lev^*_{it-1} + \xi_{it}\right) \times NC_{it}$		0.02***		0.04***		0.03***
REIT performance	0.87*	0.88*	1.07**	0.55	$Lev_{it-1} \times (OC_{it})$		0.02**		0.01***		0.03**
Market performance	-1.02	-0.34	-1.42**	-0.62	$Lev^*_{it-1} + \xi_{it} \times (OC_{it})$		0.02***		0.01***		0.02*
Interest rate	-30.62**	-32.30**	-78.57***	-41.86***	Observations	4357	4357	4357	4357	4357	4357
Term structure	75.93***	73.38***	101.51***	98.54***	R²	94.49%	94.59%	94.45%	94.51%	94.47%	94.58%
Size	0.06	-0.16	-0.08	-0.24**							
Growth opportunities	-0.06	-0.05	-0.09	-0.04							
Deviation from target leverage	-1.30	-1.69*	-0.39	0.31							
Observations	114	157	179	259							

Panel A: The table presents the MNL estimation results on the probability of each financing event against a no changes alternative in a given quarter. The dependent variables are the five mutually exclusive financing effects on the current leverage, with passive or no material financing activity being the base option. The explanatory variables are defined in Table 4.

Panel B: The table presents the maximum likelihood panel linear regression of the current level of leverage with respect to the past (Lev_{it-1}) and the target (Lev^*_{it-1}) values and two dummy variables related to new capital raising through existing (OC_{it}) and new (NC_{it}) financing consortiums. $\tilde{\xi}_{it}$ is an error term related to the estimate of the target leverage.

Notes: The sample covers the financing activities of REITs between 2004Q1 and 2013Q4. * p=0.1; ** p=0.05; and *** p=0.01
Source: Thomson Reuters data processed by authors

4.   Conclusion

REITs normally raise new capital by creating a syndicated consortium that will follow the placement and will increase the probability of successful placements and, hopefully, reduce the cost of financing. During their life, REITs normally collect financing resources several times from the financial markets and for every new capital raising initiative, managers have to evaluate the advantages and losses related to hiring the same consortium used before or switching to a new one.

The paper considers a representative sample of listed US REITs and provide some unique evidence on the role of switching for different types of financing solutions (bonds, equities, and debt) and different leverage policies (increasing, decreasing or stable leverage). The results show that the main reason behind a switching strategy is market timing or extraordinary loss or revenue obtained by the REIT shares. Hiring a new financing consortium is more feasible when the REIT is planning to increase leverage and the current leverage is far from its target.

Our results offer guidelines for REIT managers in selecting the best financing solution on the basis of market trends and determining real estate vehicle characteristics on the basis of the strategy adopted by the main US market players. From the perspective of an investor or lender, the results provide insight into the standard features of REITs that request money from new financing consortiums, to identify the best investing opportunity available.

International evidence demonstrates that the raising of capital by REITs is affected by overall market trends, because the cost of capital will be higher if the REIT decides to raise money in a hot market (Huerta-Sanchez et al. 2012). The period analyzed is predominantly characterized by a market downturn and cannot be generalized to a market upturn or bubble period. Moreover, comparison with financial systems characterized by less competitive capital markets or more bank-oriented markets (e.g., European ones) is necessary to determine whether the results can be generalized independently with respect to the liquidity and efficiency of the REIT market.

The literature not only shows that the consortium structure but also the reputation, market share, and specialization of each investment bank may affect the success of capital raising and the cost of financing for the issuer (Dunbar, 2000). A more detailed analysis of the syndicated consortium characteristics that are mostly relevant to REIT investors may allow an evaluation of the industry behaviour and if reputation has a higher or lower premium for real estate investments.

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