

# MARKET DISCOUNTS AND SHAREHOLDER BENEFITS: EVIDENCE FROM A-REIT PRIVATE PLACEMENTS

Chris Ratcliffe and Bill Dimovski

Deakin University

## ABSTRACT

*This study investigates the wealth effects of Australian Real Estate Investment Trusts (A-REITs) during the issuance of private placements from January 2000 to December 2012. Utilising event study methodology we examine the impact on existing shareholders wealth by measuring the abnormal returns around the placement announcement. Our results support the information signalling hypothesis, in that existing investors in A-REITs earn negative and significant cumulative abnormal returns of -1.3% over the three-day event window [-1,+1]. This result is in contrast to prior studies conducted on industrial firms, for example; Hertz and Smith (1993), Krishnamurthy et al. (2005) and Wruck and Wu (2009). We also find evidence, consistent with Marciukaityte et al. (2007), that A-REIT managers are able to time their placements. Regression analysis shows A-REITs trading at a premium to net tangible assets and A-REITs that use placement funds for their core business have a positive impact on announcement abnormal returns. Finally, we find evidence of a negative relationship between discount offered on the placement and announcement abnormal returns.*

Keywords: Private placements, A-REITs, abnormal returns, information signalling.

## INTRODUCTION

The purpose of this study is to investigate the wealth effects to existing shareholders during the issuing of private equity in the Australian Real Estate Investment (A-REIT) sector. We extend on the research by Dimovski and O'Neill (2012) who reported on the broad characteristics of A-REIT private placements from 2006 to 2011. We employ event study methodology on private placements from January 2000 to December 2012. This study evaluates the potential direct costs and benefits to existing shareholders by measuring abnormal and cumulative average abnormal returns around the announcement of private placements. Private placements are generally made to larger institutional investors such as insurance companies, pension funds and investment banks (Parrino et al., 2012). Placements provide a number of advantages over public issues, namely they are a relatively quick way of raising funds, the issuing firm does not need to provide a disclosure document or prospectus. The offer price is likely to be higher than a public offer due to the investors being institutional investors that are expected to be better informed and thus need less incentive to purchase

the shares on offer than the general public. Finally, the shares can be selectively placed with investors that the board see as supportive of the current management structure (Parrino et al., 2012).

However, existing shareholders often do not like private equity raisings due to reduced proportional ownership and therefore voting power (Dimovski and O'Neill, 2012). To protect existing shareholders the Australian Stock Exchange (ASX) listing rules 7.1 and 7.2 place a restriction on the number of shares that can be placed privately without shareholder approval, currently 15% in any one year.

The A-REIT sector is a significant component of the global REIT market. Australia is ranked second behind the US in terms of market capitalisation, making up over 9% of the global REIT market and 49% of the Asia Pacific REIT sector (EPRA, 2012). The A-REIT sector is recognised as a world leader in securitised property, operating in an established regulatory environment providing investors with governance and liquidity (Higgins and Ng, 2009). Furthermore, Newell (2008) highlights the sector's importance to superannuation funds, with the Australian Prudential Regulatory Authority (APRA) estimating that the collective worth of Australia's superannuation funds is over \$1.5 trillion as at March 2013, of which 10.1% is invested in real estate (APRA, 2012, 2013). The importance of the A-REIT sector is expected to continue to grow as the retirement investment industry responds to the demands of an ageing population. Dimovski (2008, 2009) further identify the importance of A-REIT IPOs and capital raisings along with dividend forecasts for both retail and institutional investors, while Newell and Peng (2008) highlight the importance of emerging property sectors both in Australia and the US.

Prior research in this area has shown that private placements by industrial firms have resulted in positive and significant abnormal returns (Krishnamurthy et al., 2005; Wruck, 1989; Wruck and Wu, 2009). Hertz and Smith (1993) argue that the positive abnormal returns are due to the undervaluation hypothesis. The undervaluation hypothesis is derived from the information signalling theory, which suggest that new equity issues by a firm conveys new information to the market that managers believe the firm is overvalued (Myers and Majluf, 1984). Myers and Majluf (1984) suggest that managers of undervalued firms that have a positive NPV project, but lack financial slack, will elect not to issue new equity if the portion of existing assets transferred to the new shareholders is greater than the increase in firm value retained by existing shareholders, resulting in managers forgoing a positive NPV project. However, the authors note that this problem can be overcome if managers can costlessly convey their private information to the market. Hertz and Smith (1993) hypothesise that private placement of equity can solve the undervaluation problem for managers and therefore avoid forgoing an investment opportunity. It then follows that managers who use private placements to

finance projects are signalling to the market the firm is undervalued resulting in positive abnormal returns (Hertzel and Smith, 1993).

The institutional features of the A-REIT market provide a unique setting to test the undervaluation hypothesis. More specifically, A-REITs are required to distribute 100% of net taxable income to shareholders to avoid paying income tax at the trust level (tax transparency). Thus limiting the ability to utilise retained earnings to finance new investments. Furthermore, this high level of distribution and the reliance on the capital markets for funding investments (Marciukaityte et al., 2007) may reduce information asymmetries between A-REITs and shareholders resulting in the market being able to price A-REITs more effectively (Ratcliffe et al., 2009). Prior empirical investigations show a high reliance on the capital markets, for example Ghosh et al. (1997) show that from 1992 to 1997, US REITs issued equity three times more frequently than debt and raised twice as much capital using equity as compared to debt. Masulis and Korwar (1986) argue that regulated structures have less adverse reaction to equity announcements than industrial firms. The structure forces the firms to issue equity frequently and as such, the market anticipates the offerings. Therefore, the authors suggest that equity issues by regulated firms have less information content.

This study is the first to measure the abnormal returns related to a private placement announcement in the A-REIT sector. Prior research by Marciukaityte et al. (2007) found, contrary to general industry studies, that existing shareholders of US REITs earn negative and significant CARs of -0.82% around the announcement date. The authors suggest that this result is due to “REIT managers being able to time the placements with hot equity markets and good real estate investment markets” (Marciukaityte et al., 2007, p. 398), contradicting the undervaluation hypothesis of Hertzel and Smith (1993) and supporting the information signalling hypothesis.

An innovative feature of this study is that it will investigate the impact that the global financial crisis may have had on the placement of private equity by A-REITs and the impact for existing shareholders. Since the mid-1990's the A-REIT sector has grown from a market capitalisation of approximately \$10 billion to a peak of \$147 billion in October 2007 prior to the global financial crisis. The global financial crisis had a significant impact on the A-REIT sector with the market capitalisation falling 68.7% to \$46 billion in February 2009. Since then the A-REIT sector has rallied to approximately \$92 billion market capitalisation as at December 2013.

The remainder of the paper is organised as follows; section two provides a discussion of previous literature. Section three presents the method employed in this study, section four discusses the data collection for our sample and section five presents the results of the event study and regression analysis. Finally, we provide some concluding discussions in section six.

## PREVIOUS LITERATURE

Prior research on equity offerings by REITs has focused on seasoned equity offerings (SEO) and results have shown, on average, support for the information signalling theory. For example, Ghosh et al. (1999) find significant negative abnormal returns (ARs) around the event window  $[0,+1]$  in their study of US REITs. Ghosh et al. (2013) finds negative and significant abnormal returns in the days leading up to the announcement and the five days post and conclude that issuing REITs underperform when compared to non-issuing REITs. Ong et al. (2011) also find significant negative ARs of -1.2% over the  $[0,+1]$  event period for both Japan and Singapore REITs. The authors also find evidence that REIT managers time SEOs with favourable market conditions.

Dimovski and O'Neill (2012) reported on some of the characteristics of A-REIT placements from 2006 to 2011. The study showed that the average price discount around announcement on private placements was 7.1%<sup>1</sup> and an average standard deviation of returns for 250 days prior of 3.5% for the full study period. The study partitioned the data set into pre and post-GFC. Results showed an increase in the average of funds raised, \$112 million in the pre-GFC set compared to \$269 million in the post-GFC. Furthermore the average price discount jumped from 2.6% pre-GFC to 12.1% post and the standard deviation of returns was 1.4% and 4.8% for pre and post-GFC respectively.

Dimovski and O'Neill (2012) also examined the returns to subscribers and existing shareholders on both the listing day and ten days post announcement. For the full sample subscribers received, on average, a 7.7% return on the announcement day and a 7.8% on day ten. Existing shareholder returns were -0.8% and 0.1% respectively. Comparison of pre and post-GFC showed subscribers earned, on average, a 1.6% return pre-GFC and 14.5% returns post-GFC over the ten day period. Existing shareholders received returns of 0.1% pre and 0.3% post-GFC over the same time period.

These results highlight the impact that the GFC has had on the overall market and in particular the A-REIT sector. Namely, volatility nearly 3.5 times more, a substantial increase in funds raised privately and an increase in the discount offered of nearly 2.5 times than that of the earlier period. Furthermore, the study supports the findings of Zarebski and Dimovski (2012) who highlighted the limited funding opportunities due to very low liquidity in debt markets and falling asset values had a dramatic impact on the A-REIT sector.

Examination of the announcement period excess returns of US REITs by Marciukaityte et al. (2007) found existing shareholders receive significant and negative CARs of -0.82% over the  $[-1,+1]$  event window during the study period of 1981 to 1999. This result is in contrast to the findings of Wruck (1989), Hertz and Smith (1993) and Wruck and Wu

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<sup>1</sup> Price discount was calculated as the closing price the day before the placement announcement less the subscription price, divided by the closing price the day before.

(2009) who all found positive and significant CARs around announcement in their examination of private placements by industrial firms. Furthermore, Marciukaiyte et al. (2007) found long term positive and significant buy-and-hold abnormal return over the two to five year period. Again this result is in contrast to prior studies of industrial firms (Hertzel et al., 2002; Krishnamurthy et al., 2005; Wruck and Wu, 2009). The authors concluded that REIT managers time their placements for when equity prices are high, but long term ARs are associated with prior performance and REIT managers are able to utilise the funding from placements to generate wealth for their shareholders.

## METHOD

### Event Study

The study employs an event study methodology based on that set out by Brown and Warner (1985) to measure abnormal shareholder returns to existing shareholders around the announcement period. To implement the event study methodology the market model method is employed which accounts for the risk associated with the market and mean returns. The market model was estimated for each company over a 100 day estimation period ( $t_{-120}, t_{-20}$ ). Ordinary least squares (OLS) regression was used to determine the parameter estimations. The following market model is employed:

$$E(R_{i,t}) = \alpha + \beta_i(R_{m,t}) + \varepsilon_{i,t} \quad (1)$$

Where  $E(R_{i,t})$  is the estimated return on security  $i$  on day  $t$ ,  $\alpha_i$  represents the intercept term,  $\beta_i$  is the slope coefficient.  $R_{m,t}$  is a measure of the observed return for the market index, in this case the S&P/ASX200<sup>2</sup>, on day  $t$ ; and  $\varepsilon_{i,t}$  is the standard error term. Heggen and Gannon (2008) note that there is a potential bias in estimating the parameters of the market model when using daily returns for shares that trade infrequently, to avoid this bias we utilise the Scholes and Williams (1977) adjusted beta method<sup>3</sup>. The abnormal return (AR) of the shares for firm  $i$  in the event window is calculated as:

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) \quad (2)$$

We estimate the cumulative average abnormal returns (CAR) for any interval  $[t_1:t_2]$  during the event window as:

$$CAR_{[t_1:t_2]} = \frac{1}{N} \sum_{[t_1:t_2]} AR_{i,t} \quad (3)$$

The event window is 21 days ( $T = [-10,+10]$ ), where  $t = [0]$  denotes the day the placement is announced. To investigate the robustness of our results and to provide comparison with previous literature, analysis of a number of additional

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<sup>2</sup> S&P/ASX200 is the investable benchmark for the Australian equity market. The index is comprised of the top 200 stocks listed on the Australian Stock Exchange.

<sup>3</sup> See Scholes and Williams (1977) for full discussion on adjusted beta methodology.

event periods within the event window: [-10,0], [0,+10], [-1,+1] and [0] was conducted. To determine the statistical significance of the calculated AR and CAR, a standard cross-sectional test statistic was estimated<sup>4</sup>.

## Regression Analysis

A regression model was developed to examine the abnormal returns calculated above for A-REITs involved in a private placement, with independent variables being selected on the basis of prior literature. OLS regression was utilised to test the significance of the relationship between each A-REIT cumulative average abnormal returns over the three-day event window [-1,+1], the regression model is:

$$\begin{aligned} CAR_i = & \alpha + \beta_1 DISC + \beta_2 FRACTION + \beta_3 GFC + \beta_4 NETGEARING + \beta_5 SIZE + \beta_6 BVMV \\ & + \beta_7 REASON + \varepsilon_i \end{aligned} \quad (4)$$

The dependant variables are defined as follows:

- DISC is the percentage discount of the subscription price in relation to the share price the day prior the announcement, calculated as the share price day -1, less the subscription price divided by day -1 share price. A positive value here means the investor in the placement has received the shares at a discount. Hertz and Smith (1993) suggest that the more difficult it is to value a firm; investors in private placements will require larger discounts. Given this information content we would expect a negative relationship between abnormal returns and the discount. Alternative way of interpreting the negative coefficient is the higher the discount offered on the placement the lower the CARs (i.e. move towards negative returns).
- FRACTION is the fraction of shares placed as a percentage of the total outstanding shares on issue before the placement. The information hypothesis suggests the larger the fraction placed the greater the information signal, therefore we expect a negative relationship between fraction placed and the CARs.
- GFC is binary variable with the value of 1 if the placement was announced after the GFC (we use December 2007 as the cut-off date). Dimovski and O'Neill (2012) showed A-REITs raised, on average, \$269 million post-GFC compared to \$112 million pre-GFC. Furthermore, the average discount was greater in post-GFC placements, 12.1% compared to 2.6%. A negative relationship with the dependant variable is expected here.
- NET GEARING is calculated as short-term debt plus long-term debt less cash, divided by shareholders equity. Jensen (1986) argues that firms with higher gearing levels make better investment decisions due to lower

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<sup>4</sup> See Brown and Warner (1985) for event study statistical tests.

levels of free-cash flow. However, Campbell et al. (2001), suggests that the institutional structure of REITs and the restrictions placed on REITs free-cash flow may mitigate Jensen's (1986) claim.

- SIZE is the natural log of the A-REITs market capitalisation on the day prior the announcement. Hertz and Smith (1993) argue that information asymmetries are likely to be greater for smaller firms, therefore a negative relationship is hypothesised for size and excess returns.
- BVMV is the ratio of the A-REITs book value equity to market value equity at the last released financial report (both annual and semi-annual reports were used to find the book value equity). Low BVMV ratios reflect higher expected future returns due to perceived growth opportunities. Given this we hypothesise that A-REITs with a low BVMV ratio to have lower information problems. We expect placement announcement excess returns to be negatively related to the BVMV ratio.
- REASON is a dummy variable of 1 if the A-REIT identifies that the placement funds will be used for an acquisition of property or development of a property. The reason for the placement contains a large amount of information for the market, if the A-REIT is using the funds to support their core business (generation of rental income) we would expect the information signal to be positive and hence a positive impact on excess returns.

## DATA

Private placement announcements from January 2000 to December 2012 were collected from the *Datanalysis* database, using the search function for ASX announcements. For the placement to be included in the dataset the following screens were conducted:

- The firm must be classified as an Australian Real Estate Investment Trust.
- There must be an absence of large-scale confounding events occurring within ten days of the announcement.
- The firms share price data must be listed on *Datanalysis* for the period beginning 120 trading days prior the announcement and ending ten days post.
- The A-REIT cannot have a concurrent equity issue, for example a rights issue, on offer within the analysis and comparison period.

A total of 96 private placement announcements were identified that met the above criteria. Table 1 provides the descriptive statistics for the 96 placements. We see that the average placement size was \$146.24 million, slightly lower than the average reported by Dimovski and O'Neill (2012) that covered a period of 2006 to 2011. The largest placement was conducted by Westfield in 2009 for a value of \$2.9 billion. The average discount offered for private placements was 2.37%, again lower than the 7.1% presented by Dimovski and O'Neill (2012). The average size of the A-REIT

involved in our sample is almost \$2 billion, however, the median is over \$900 million, suggesting that larger A-REITs utilise private placements more often than smaller A-REITs. The average fraction of shares placed is 10.37%, below the 15% level that requires shareholder approval under ASX listing rules.

**Table 1: Descriptive statistics**

	<b>Proceeds (\$M)</b>	<b>Discount</b>	<b>BVMV</b>	<b>Size (\$M)</b>	<b>Net Gearing</b>	<b>Fraction</b>
<b>Mean</b>	146.24	2.372%	0.948	1,926.83	57.94%	10.37%
<b>Median</b>	70.25	3.046%	0.915	917.55	39.74%	9.11%
<b>Min</b>	2.68	-20.930%	0.000	20.24	0.00%	0.09%
<b>Max</b>	2,900.00	22.222%	5.877	23,773.73	358.76%	60.48%
<b>SD</b>	347.30	5.734%	0.617	3,077.92	59.62%	8.72%

## RESULTS

### Event study results

Table 2 displays the daily excess returns for the full data sample of private placements from January 2000 to December 2012. We only find significant ARs of +0.32% four days prior to the announcement, suggesting minimal, if any, information leakage about the placement to the market. Days 0 and +1 following the announcement display significant negative average ARs of -0.25% and -1.07% respectively. This result provides support for the information signalling hypothesis, in that the new information conveyed that managers believe the firm is overvalued (Myers and Majluf, 1984).

**Table 2: Daily Average Abnormal Return**

Daily Average AR (event window -10,+10)		No Obs: 96
Day	Avg. AR	(p-value)
-10	0.56%	(0.011)**
-9	0.24%	(0.669)
-8	0.13%	(0.983)
-7	0.26%	(0.838)
-6	-0.01%	(0.839)
-5	0.37%	(0.298)
-4	0.32%	(0.008)***
-3	-0.17%	(0.184)
-2	0.09%	(0.790)
-1	0.03%	(0.974)
0	-0.25%	(0.001)***
1	-1.07%	(0.000)***
2	0.02%	(0.978)
3	-0.10%	(0.442)
4	-0.14%	(0.513)
5	-0.08%	(0.980)
6	-0.02%	(0.599)
7	0.11%	(0.488)
8	-0.27%	(0.273)
9	-0.10%	(0.858)
10	0.21%	(0.452)
CAR	0.105%	

\*\*\*, \*\*, \* show statistical significance at the 1% and 5% levels respectively.

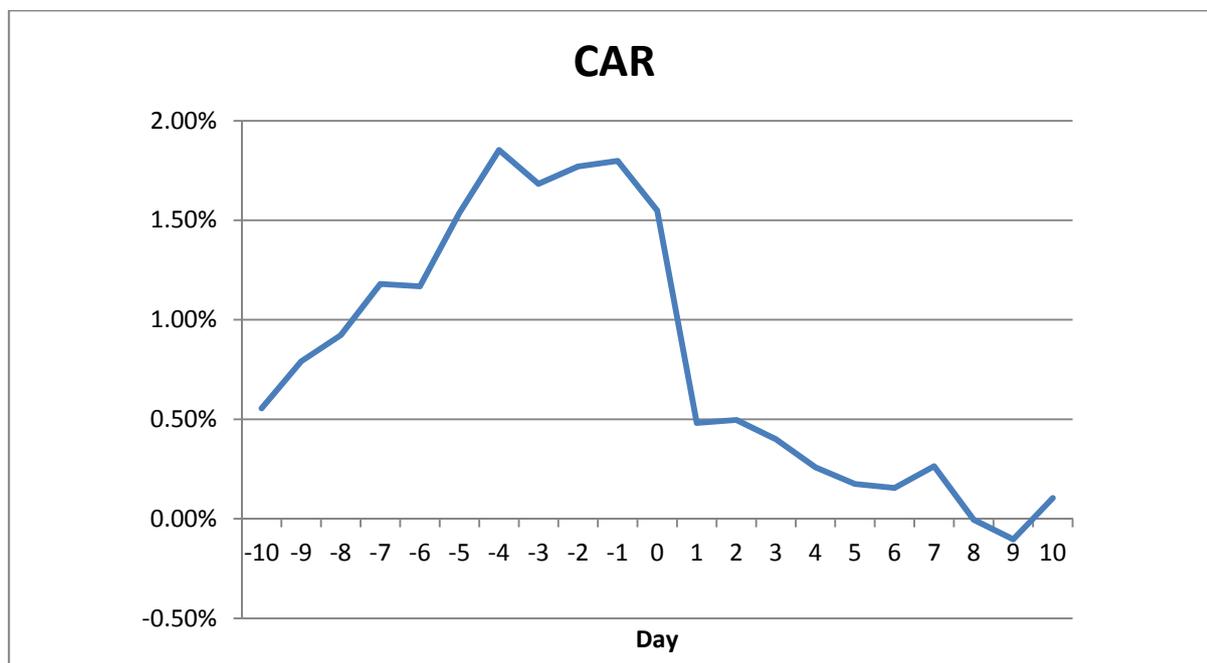
**Figure 1: Cumulative Average Abnormal Returns**

Figure 1 displays the CARs for the A-REIT private placement sample over the 21-day event period. We can see that in the days leading up to the announcement there is an upward trend in the CARs, this result provides support to the claims by Marciukaityte et al. (2007) that REIT managers are able to time their placements with the market. On the days after

the announcement the CARs drop significantly and the trend continues for the remainder of the study period. This outcome is in contrast to the findings of Wruck (1989) who finds no evidence of post announcement share price drift.

To further investigate the impact of private placements on A-REIT shareholders we examined the CARs over a number of different event windows, these results are displayed in table 3. Panel A displays the results for the full study period of January 2000 to December 2012. We find, consistent with Marciukaityte et al. (2007) but in contrast to prior general corporate finance studies<sup>5</sup>, that A-REITs experience negative and significant abnormal returns around the three-day event window [-1,+1] of -1.29%. Examination of pre and post announcement event windows shows that in the period leading up to the announcement, [-10,0], A-REITs earn positive but insignificant CARs of 1.549%. Whilst post announcement CARs are negative and significant, -1.694% over the [0,+10] window. These results provide further support for our daily excess returns results.

**Table 3: Cumulative Average Abnormal Returns**

<b>Panel A: 2000:2012 (no. obs = 96)</b>	<b>CAR</b>	<b>(p-value)</b>
[-10,+10]	0.105%	(0.484)
[-10,0]	1.549%	(0.242)
[0,+10]	-1.694%	(0.001)***
[-1,+1]	-1.290%	(0.000)***
[0]	-0.250%	(0.001)***
<b>Panel B: Pre GFC (no. obs = 81)</b>	<b>CAR</b>	<b>(p-value)</b>
[-10,+10]	-0.587%	(0.837)
[-10,0]	0.007%	(0.221)
[0,+10]	-1.008%	(0.007)***
[-1,+1]	-1.001%	(0.000)***
[0]	-0.414%	(0.000)***
<b>Panel C: Post GFC (no. obs = 15)</b>	<b>CAR</b>	<b>(p-value)</b>
[-10,+10]	3.837%	(0.025)**
[-10,0]	9.872%	(0.907)
[0,+10]	-5.397%	(0.031)**
[-1,+1]	-2.846%	(0.023)**
[0]	0.637%	(0.397)

\*\*\*, \*\*, \* show statistical significance at the 1% and 5% levels respectively.

To investigate the impact of the GFC, we divided the sample into pre and post-GFC, the CARs over these sub periods are displayed in panels B and C respectively of table 2. The pre-GFC results show, consistent with the full sample, that

<sup>5</sup> For example, Hertz and Smith (1993); Krishnamurthy et al. (2005) and Wruck and Wu (2009) all found positive and significant excess returns around the announcement period.

existing shareholders experience negative and significant excess returns on the day of announcement and post announcement. Panel C displays the results for the post-GFC sub-sample, we again find post announcement excess returns in the [0,+10] window to be significant and negative (-5.397%). This result is higher than those presented in the full sample and pre-GFC sample. Furthermore, we note that the CARs across all event windows are larger than those presented in panels A and B<sup>6</sup>. This highlights the higher market volatility that was experienced as a result of the GFC, Dimovski and O'Neill (2012) also provided evidence of greater market volatility between their pre and post-GFC data sample. Consistent across all periods we find positive, but insignificant, excess returns in the period's prior announcement, suggesting A-REIT managers are attempting to time their announcements with the market.

Our results are comparable to those presented for REIT SEOs, both Ghosh et al. (1999) and Ong et al. (2011) find that REITs experience negative and significant excess returns around a SEO announcement. We find strong support for the information hypothesis and suggest that A-REITs face greater information asymmetries than what has been previously suggested (Hartzell et al., 2006; Sah and Seagraves, 2012). Feng et al. (2007) discusses in a regulated industry management has less discretion and therefore information asymmetry is less severe. Feng et al. (2007) note that some authors argue that illiquidity and heterogeneity of property assets make valuation difficult, while others posit that the value of a REIT is the aggregate value of its assets. Our findings are supported by Ratcliffe and Dimovski (2007) who provide evidence of a structural shift in the risk characteristics of A-REITs due to factors such as a greater reliance on non-passive income, higher debt levels, and a greater exposure to international property. Furthermore, Ling and Ryngaert (1997) note a dramatic shift in REIT management and thus a greater investment in managerial skills resulting in REITs being more vulnerable to information asymmetry problems.

### **Cross-section Regression Results**

In regression analysis a number of the independent variables may exhibit high levels of correlation, this can have an impact on their explanatory power and hence the robustness of the results. Table 4 displays the correlation matrix of the explanatory variables. It can be seen that we experience a moderate level of correlation (-0.404) between the variables GFC and REASON, however this level is not high enough to warrant adjustment of the model. The remaining variables all exhibit a low level of correlation.

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<sup>6</sup> We acknowledge that the lower number of observations may have an impact on our findings; however, they do show higher volatility in the market place post-GFC.

**Table 4: Correlation Coefficient Matrix of Independent Variables**

	<b>DISCOUNT FRACTION</b>	<b>GFC</b>	<b>NET GEARING</b>	<b>SIZE</b>	<b>BVMV</b>	<b>REASON</b>
<b>DISCOUNT FRACTION</b>	1.000					
<b>GFC</b>	0.240	1.000				
<b>NET GEARING</b>	0.146	-0.017	1.000			
<b>SIZE</b>	0.292	-0.069	-0.023	1.000		
<b>BVMV</b>	-0.235	-0.307	-0.086	0.019	1.000	
<b>REASON</b>	0.073	0.067	0.257	-0.189	-0.100	1.000
	-0.160	-0.046	-0.404	-0.150	0.102	0.049

Table 5 displays the regression model results. Ordinary least squares is employed to test the significance of the relationship between A-REIT three-day CARs [-1,+1] and the independent variables described above. Standard diagnostic tests are also run to examine for normality, hetroskedasticity<sup>7</sup> and omitted variables. Panel A shows the regression results for the full sample; Panel B provides the results after removal of the GFC variable, which appears to have no impact on the observed abnormal returns.

The results show a negative relationship between excess returns and discount across both models, suggesting that the higher the discount offered on a placement the greater the information signalling impact. This result supports Hertzell and Smith (1993) hypothesis that the more difficult it is to value a firm the larger the discount investors will require. We also find a positive relationship with reason for the placement, suggesting that when A-REITs announce the placement funds will be used to fund their core business the information signal is positive. However, the significance of the variable disappears in panel B.

Consistent with Hertzell and Smith (1993), we find a strong negative relationship across both panels for BVMV ratio. This result suggests that A-REITs that are trading a premium to net tangible assets earn higher excess returns, supporting our hypothesis that A-REITs with low BVMV ratios have lower information problems. We note from the descriptive statistics table that the maximum value of the BVMV variable was 5.877, over five-times greater than the mean. To investigate if this observation was driving the significance, the model was ran after winsorising the BVMV value. Results showed that the coefficients and p-values remained stable, however, the significance of BVMV fell to the 5% level. Finally, we find that net gearing is negative and significant at the 5% level in panel A and at the 10% level in panel B. That is, higher geared A-REITs earn lower excess returns in a placement announcement. Campbell et al. (2001) posit that highly geared REITs (with low historical growth rates) may find it challenging to decrease their gearing levels due to the payout requirements of REITs.

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<sup>7</sup> White Test reported hetroskedasticity, thus model was re-run to adjust for this.

**Table 5: Regression Results for private placements by A-REITs**

Variable	Panel A		Panel B	
	No. of Obs	(p-value)	No. of Obs	(p-value)
<b>Intercept</b>	96	(0.023)**	96	(0.012)**
<b>DISCOUNT</b>	-0.067	(0.031)**	-0.124	(0.036)**
<b>FRACTION</b>	-0.125	(0.234)	0.046	(0.244)
<b>GFC</b>	0.046	(0.899)	0.046	(0.244)
<b>NET GEARING</b>	0.001	(0.047)**	-0.017	(0.082)*
<b>SIZE</b>	-0.016	(0.707)	0.001	(0.704)
<b>BVMV</b>	0.001	(0.000)***	-0.027	(0.000)***
<b>REASON</b>	-0.027	(0.091)*	0.012	(0.109)
<b>R<sup>2</sup></b>	0.013		0.329	
<b>Adjusted R<sup>2</sup></b>	0.329		0.272	
<b>White Test</b>	0.264	(0.002)	55.300	(0.008)
<b>Jarque-Bera</b>	72.218	(0.304)	2.200	(0.332)
<b>Ramsey Reset</b>	2.379	(0.403)	-3.555	(0.469)

Notes: \*\*\*, \*\*, \* show statistical significance at the 1%, 5% and 10% level respectively.

To investigate the net gearing result further, we isolated any observation from our dataset that noted the reason for the placement was to repay debt or restructuring of their balance sheet<sup>8</sup>. We found that the average excess return for these A-REITs was -3.246% over the [-1,+1] period, they also had higher than average BVMV ratios (1.35 vs. sample average of 0.948) and higher gearing (104.11% vs. sample average of 57.94%). These results suggest that the announcement of the placement has conveyed information to the market of possible financial distress.

## CONCLUSION

Using event study methodology we examine the wealth effect of A-REIT shareholders around the announcement of a private placement. Overall our results reject the undervaluation hypothesis suggested by Hertz and Smith (1993), we find support the information signalling theory as presented by Myers and Majluf (1984). We find, in contrast to prior studies of industrial firm placements (e.g. Wruck and Wu, 2009), shareholders suffer negative and significant excess returns post placement announcement. We also find evidence to support Marciukaityte et al. (2007) that A-REIT managers attempt to time their placements with the market. Our regression analysis shows that price reversal from the information content in the placement announcement is lower for A-REITs with low BVMV ratios, along with A-REITs that utilise placement funds for core business. However, we find A-REITs with higher gearing levels may signal to the

<sup>8</sup> We extracted 13 observations. Full results are not presented here, but available upon request.

market of possible financial distress when making a placement announcement. Finally, results suggest that A-REITs with higher information asymmetries offer higher price discounts. We believe that more research in this area is warranted. Testing of the monitoring hypothesis for A-REITs may shed more light on the announcement returns observed. In addition, further research into the relationship between private placements by A-REITs, separated by management structure (internal versus external) and announcement abnormal returns may also shed more light on the underlying hypotheses.

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**Email contact: [c.ratcliffe@deakin.edu.au](mailto:c.ratcliffe@deakin.edu.au)**