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THE DIRECT COSTS OF RAISING EQUITY CAPITAL BY RENOUNCEABLE RIGHTS ISSUES *in Australia*

Rights issues continue to be a common means of raising equity capital for Australian companies listed on ASX. This study finds that from 2001 to 2006 the direct capital raising costs of Australian renounceable equity rights issues averaged nearly 4 per cent of gross proceeds raised. It also shows that issue size, percentage underwritten, concentration of ownership and issuer risk significantly influence the percentage direct costs of the rights issue.¹

A rights issue is one method available to a company that wishes to raise additional equity capital for reasons such as future growth, acquisitions or debt retirement. In a renounceable rights issue a company offers existing shareholders the right to purchase new shares on a pro rata basis to their current shareholding. Shareholders have three options available to them. They can accept the right to buy the additional shares and maintain their proportional stake in the company, or allow dilution of their existing proportional stake either by selling (renouncing) their right or by simply letting the right expire.

It is important for any potential issuing company to understand the costs involved in a renounceable rights issue. Higher direct and indirect costs increase the number of additional shares that need to be issued for a given amount of net proceeds required by the issuing company. The direct costs include legal, accounting, printing, stockbroking and underwriting costs, and are commonly measured as a percentage of gross proceeds raised. Indirect costs, such as adverse price reaction to issuance announcements are also incurred as a consequence of the rights issue. Studies on indirect costs have been undertaken by Owen and Suchard (2008) and Balachandran et al. (2008). Brown et al. (2006) and, later, Brown et al. (2009) report a significant level of longer-term underperformance of Australian seasoned equity issues, suggesting that managers may time seasoned equity offerings when equity prices are high. They also suggest that the quality of the entity's corporate governance is positively related to its post-issue performance.

This study investigates the direct capital raising costs for Australian renounceable equity rights issues. This is important as rights issues continue to be a common method of raising equity capital in Australia. The study by Chan (1997) found that they accounted for 37.7 per cent of total equity capital raised by Australian Stock Exchange listed companies. More recently, Connal and Lawrence (2010) reported that slightly under \$100 billion of equity capital was raised in Australia during 2008 and 2009 through 279 capital raisings. Renounceable rights accounted for around 15 per cent of the amount raised (and non-renounceable issues accounted for 30 per cent). It is worth noting that many private placements were also undertaken during this period (often to institutional investors), with some followed very quickly by rights issues. An issue for future research could be to examine the merits of alternative issuance methods, comparing the direct issue costs of these more recent accelerated issues with those of rights issues prior to the global financial crisis, as derived in this paper.

This study examines 130 renounceable rights issues for Australian Stock Exchange (ASX) listed companies from 2001 to 2006. The total direct costs of these rights issues averaged 4 per cent of gross proceeds raised. This figure is slightly less than the estimates of just over 5 per cent of gross proceeds, which were made by Armitage

(2000) for the United Kingdom and Martin-Ugedo (2003) for Spain.

As in Armitage (2000) and Martin-Ugedo (2003), this study finds that economies of scale are important in explaining the direct cost percentage. The proportion underwritten, ownership concentration and issuer risk also significantly influence these direct costs. These results are relevant to the debate surrounding the recent proposal by the Australian Securities Exchange² (2012) to allow smaller listed entities to issue more than the presently permitted 15 per cent of issued capital by way of private placement. However, while our results suggest that such firms face relatively higher direct costs for rights issues than larger firms, they do not provide information on the comparative (direct and indirect) costs of placements versus rights issues.

Related literature

Most US literature examines costs of seasoned equity issues other than rights issues, which have become infrequently used. An early-1970s US study by Smith (1977) found an average direct cost of 6.05 per cent for standby underwriting agreements and only 2.45 per cent for rights offerings without an underwriter. Lee et al. (1996) reported an average direct cost of 7.11 per cent for US issues in the early 1990s and found that utility offerings were significantly cheaper, averaging only 4.92 per cent. These two US studies both found substantial economies of scale. Corwin (2003) used a large sample of 4,454 US seasoned equity offerings from 1980 to 1998 and reported an average direct cost of 6.65 per cent.

Armitage (2000) studied 928 UK rights issues between 1985 and 1996 and found the average direct cost to be 5.78 per cent. After accounting for size categories of gross proceeds and the proportion of non-underwritten issues, he found that, on average, UK issues were 31 per cent cheaper than the US seasoned equity offerings reported in Lee et al. (1996). It is worth noting, however, that the seasoned equity offerings in the United States in more recent times are most likely general cash offerings (share sales to any investors) rather than rights offerings to existing shareholders. Martin-Ugedo (2003) examined 57 rights issues from 1989 to 1997 in the Spanish market and reported an average total direct cost of 5.78 per cent. Chen and Wu (2002) reported a very low average direct cost of 2.85 per cent in the Hong Kong market using a sample of 384 seasoned equity offerings between 1991 and 1996. Interestingly, economies of scale are not present in their results. It should be noted that in their study the underwriter component of direct costs was not explicitly given in many prospectuses.

Many studies have specifically considered the underwriting fee paid by issuing firms. Chan (1997) found underwriting fees averaged 1.71 per cent for Australian rights issues from 1987 to 1993, while Armitage (2000) reported an average underwriting cost of 1.53 per cent for UK rights issues. Contrary to some other

studies, Armitage (2000) suggested underwriting costs represented the smaller part of total direct costs and did not exhibit economies of scale. However, he found that the variation in underwriting costs is due predominately to the proportion of the issue underwritten. In contrast, Lee et al. (1996) reported average underwriting costs of 5.44 per cent for US seasoned offerings. Similarly, Corwin (2003) reported the underwriter spread to be 5.32 per cent.

Armitage (2000) reported an average non-underwriting cost of 4.18 per cent for rights issues in the United Kingdom and found significant evidence of large economies of scale, which caused the economies of scale found in the total direct costs. In approximately two-thirds of cases, non-underwriting costs were greater than underwriting costs. His explanation for this result is that his sample consisted mainly of small issues thereby having relatively larger non-underwriting costs. In addition, he found solicitor and accountant fees were the largest components of the non-underwriting direct costs. Lee et al. (1996) and Corwin (2003) reported these other direct costs to be 1.67 per cent and 1.33 per cent of gross proceeds, respectively.

Direct cost influencing factors

Prior research has suggested several factors that can be expected to have an impact on the costs of raising equity capital.

Economies of scale

Martin-Ugedo (2003) suggested that the direct cost of raising capital (as a percentage of issue size) is a decreasing function of the size of gross proceeds raised by the firm. Such economies of scale are to be expected because equity raising firms should incur similar standard fixed costs and relatively constant or declining marginal costs as gross proceeds increase.

Armitage (2000) found this variable to be the most significant influencing factor in determining the total direct costs of rights issues in the United Kingdom. Martin-Ugedo (2003) found that the size of the issue in the Spanish markets was highly negatively related to total capital-raising costs. Many other studies support the hypothesis that economies of scale exist in the equity capital raising markets.

Percentage underwritten

While Smith (1977) and Armitage (2000) reported that underwriting costs influence the total direct costs in rights issues, Martin-Ugedo (2003) identified that the percentage underwritten has high explanatory power in determining the total cost of the issue.

Ownership concentration

Hansen and Pinkerton (1982) suggested total direct costs should decrease as ownership concentration increases. In relation to rights issues, if ownership is concentrated in a few investors, the administration and selling costs will be smaller. Less printing is required and share title transfer fees

are reduced. Overall, it is easier to organise and sell when ownership is concentrated. Martin-Ugedo (2003) found strong evidence that shareholder ownership concentration was negatively related to total costs. Other results which support the ownership concentration theory have been reported by Armitage (2000) in the United Kingdom and Hansen and Pinkerton (1982), Eckbo and Masulis (1992) and Hansen and Torregrosa (1992) in the United States.

Discount or underpricing

Armitage (2000) hypothesised that the deeper is the discount or underpricing, the lower is the underwriter fee and, hence also, the total direct cost of capital raising. This is because, with a large discount, the insurance and marketing underwriter costs should be lower. However, he found that the deeper the discount becomes, the higher total costs become. The argument behind this is that deep discounts (30 per cent or more) are not, on their own, a substitute for underwriting. Martin-Ugedo (2003) also found a lack of evidence to support the hypothesis that the larger is the discount the lower is the cost.

Issuer risk

Issuer risk is the total risk (systematic and firm-specific risks) of the issuing company. Armitage (2000) and Martin-Ugedo (2003) measured issuer risk as the standard deviation of company daily returns for one year prior to the announcement date. Armitage (2000) found issuer risk only accounts for a minor part of the costs. Martin-Ugedo (2003) did not find any explanatory power in this variable.

Data and models

All Australian renounceable rights issue prospectuses issued during the period January 2001 to December 2006 were collected from the *Connect 4 – ASX Listed Company Intelligence* database. The prospectuses provided the direct capital raising cost information that consists of the estimated total cost and its components, the underwriting, legal, accounting and other costs. In addition, the gross proceeds, prospectus date, percentage underwritten, new/old share ratio, attached options and the offer price of the rights issues were obtained from the prospectuses. A total of 130 Australian renounceable equity rights issues were identified.

FinAnalysis was used to collect the daily closing share price and the daily trading volumes data for each company. *DatAnalysis* was used to gather general company information including the age, sector and the percentage of ordinary shares held by the top 20 ordinary shareholders.

In brief, during the period from 2001 to 2006, a total of nearly \$11 billion of new equity capital was raised by Australian companies using renounceable rights issues. And, underwriters were used in around four out of every five issues. The average offer-price discount from the current market price was around 17 per cent while total direct costs averaged around 4 per cent.

The results in Table 1 show that total direct costs are negatively related to proceeds and, hence, exhibit economies of scale. This is consistent with the equity capital raising literature.

Analysis of the variables that may influence the total direct cost of rights issues was conducted using the following regression model:

$$TCOST = \beta_0 + \beta_1 LnProcd + \beta_2 PerUdrw + \beta_3 Ownship + \beta_4 Disc + \beta_5 Risk + \beta_6 Options + \varepsilon \quad (1)$$

TCOST is the total direct cost of rights issue capital raising as a percentage of gross proceeds. *LnProcd* is the natural logarithm of the maximum amount to be raised from the issue when fully subscribed. *PerUdrw* is the percentage of the issue underwritten. *Ownship* is the percentage of ordinary shares held by the top 20 ordinary shareholders. *Disc* is the discount of the offer price from the closing market price the day before announcement date. *Risk* is the total risk of the issuing company measured as the standard deviation of daily returns for one year prior to the announcement date. *Options* is a dummy variable equal to 1 if the rights issue has an attached option to buy more shares and 0 if not. (This variable was found to be relevant in studies by Dimovski and Brooks (2004) in relation to initial public offering (IPO) underpricing and Ng and Smith (1996) in relation to its use with underwriters.)

Similar regression models are used to explore how these independent variables influence the three main components of total direct costs. (While there were 130 *TCOST* observations in aggregate, equation (2) considers only the underwritten observations and equations (3) and (4) consider the cases where these legal and accounting costs were identified.) These are as follows:

$$UDRWFE = \beta_0 + \beta_1 LnProcd + \beta_2 PerUdrw + \beta_3 Ownship + \beta_4 Disc + \beta_5 Risk + \beta_6 Options + \varepsilon \quad (2)$$

$$LEGAL = \beta_0 + \beta_1 LnProcd + \beta_2 Ownship + \beta_3 Disc + \beta_4 Risk + \beta_5 Options + \varepsilon \quad (3)$$

$$ACCOUNT = \beta_0 + \beta_1 LnProcd + \beta_2 Ownship + \beta_3 Disc + \beta_4 Risk + \beta_5 Options + \varepsilon \quad (4)$$

UDRWFE is the fee charged by the underwriter, *LEGAL* is the legal costs, *ACCOUNT* is the accounting costs all as a percentage of gross proceeds and all other terms are as previously defined.

TABLE 1: Multivariate direct cost regression results

Dependent Variable (as % of proceeds)	No. of Obs.	Explanatory Variables	C	Ln Procd	Per. Udrw	Owship	Disc	Risk	Options	R ² Adj. R ²	Jarque-Bera	White Test	RESET Test
Total Direct Cost	130	Coef.	0.1803	-0.0089	0.0003	-0.0004	0.0153	0.1807	-0.0088	0.4626	29.3939	9.6390	5.3052
		p-value	(0.0000)***	(0.0000)	(0.0000)	(0.0001)	(0.1285)	(0.0053)	(0.1921)	0.4364	(0.0000)	(0.5631)	(0.2672)
Total Direct Cost Excluding outliers	129	Coef.	0.1660	-0.0082	0.0003	-0.0003	0.0160	0.1807	-0.0079	0.4604	16.1300	8.5553	3.0707
		p-value	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0967)	(0.0034)	(0.2174)	0.4339	(0.0003)	(0.6629)	(0.5494)
Underwriter Cost	91	Coef.	0.0640	-0.0049	0.0005	2.94E-5	0.0108	0.1884	-0.0015	0.4783	13.4006	16.3416	0.8990
		p-value	(0.0115)	(0.0001)	(0.0000)	(0.7138)	(0.2942)	(0.0002)	(0.8071)	0.4410	(0.0012)	(0.1289)	(0.9251)
Legal Cost	124	Coef.	0.0372	-0.0019	-	-2.25E-5	0.0048	-0.0118	0.0015	0.2930	605.891	17.8225	164.918
		p-value	(0.0000)***	(0.0000)	(0.0994)	(0.1119)	(0.4338)	(0.4423)	0.2630	(0.0000)	(0.0373)	(0.0013)	
Legal Cost Excluding outliers	121	Coef.	0.0272	-0.0014	-	-2.00E-5	0.0038	-0.0031	0.0008	0.3119	63.1187	19.4452	170.213
		p-value	(0.0000)***	(0.0000)	(0.0102)	(0.7243)	(0.5678)	0.2820	(0.0000)	(0.0217)	(0.0057)		
Accounting Cost	66	Coef.	0.0194	-0.0010	-	6.28E-6	0.0030	-0.0025	-0.0004	0.1718	2250.41	10.2958	362.545
		p-value	(0.0034)	(0.0036)	(0.7481)	(0.2600)	(0.8767)	(0.8582)	0.1028	(0.0000)	(0.3271)	(0.0162)	
Accounting Cost Excluding outliers	65	Coef.	0.0113	-0.0006	-	-3.74E-6	0.0006	0.0028	0.0010	0.2250	111.542	9.3025	373.928
		p-value	(0.0014)***	(0.0033)	(0.7158)	(0.6668)	(0.7420)	(0.3135)	0.1593	(0.0000)	(0.4098)	(0.1487)	

This table shows the multivariate regression results for total direct, underwriting, legal and accounting costs of rights issues using ordinary least squares. The R² adjusted R², Jarque-Bera, White and Ramsey RESET test statistics are also shown. The coefficient and p-values (in parentheses) are reported for the constant, variables and regression diagnostics. Each regression model was conducted using the full sample and when outliers were removed. ^ Reported figures are corrected for White (1980) heteroskedasticity. ***, **, * shows statistical significance at the 1%, 5% and 10% levels, respectively.

Results

Table 1 reports the regression results for the total direct costs of the renounceable rights issue capital raising and for the underwriter, legal and accounting costs. If any of the dependent variables have observations over three-and-a-half standard deviations from the mean, these outliers were removed and the models were re-run. These results are also reported. Where heteroskedasticity was a concern, the models utilised White (1980), and corrected parameter and *p*-values are reported. Three standard regression diagnostic tests were completed and are also reported. The Jarque-Bera test assesses the distribution's normality by comparing the distribution with that of a normal distribution. The White (1980) test examines observation variance and reports on heteroskedasticity. The Ramsey Regression Specification Error Test (RESET) test detects model misspecification by an omitted variable. *R*-squared and adjusted *R*-squared results are also reported.

The results in Table 1 show that total direct costs are negatively related to proceeds and, hence, exhibit economies of scale. This is consistent with the equity capital raising literature (see Smith 1977; Ritter 1987; Lee et al. 1996; Kooli and Suret 2002). The results also show that the percentage underwritten is significantly positively related to total direct costs (consistent with Martin-Ugedo 2003) and total direct costs are negatively related to concentrated ownership, suggesting cost economies to concentrated ownership (also consistent with Hansen and Pinkerton 1982). It appears that the discount is positively related to total direct cost but is only significant at the 10 per cent level once outliers are excluded, and this is consistent with Armitage (2000). The results of this study also provide strong evidence that risk is positively related to total direct costs, also consistent with Armitage (2000). Options do not appear to be significant in influencing total direct costs.

Table 1 also indicates that gross proceeds are negatively related to underwriting costs, suggesting economies of scale in underwriting costs. As expected, the percentage underwritten is positively related to underwriting costs and is statistically significant at the 1 per cent level. It should be noted that those rights issues with an underwriter who was not at arm's length (to the parent company, director's other company or directors themselves) were excluded from the sample. It should also be noted that there are no underwriting cost outliers. Our results suggest that the risk variable is positively related to underwriting costs and this supports the hypothesis in Booth and Smith (1986) that underwriter certification costs increase as information asymmetry increases.

Table 1 also confirms a negative relationship between gross proceeds and legal and accounting costs, suggesting economies of scale in both. Once the outliers are removed, the discount variable is positively related to legal costs and is significant at the 5 per cent level.

It is worth noting that while risk is a determinant of underwriting costs, it does not appear to determine legal or accounting costs.

Conclusion

This paper adds to the international literature investigating potential influencing factors on the direct costs of renounceable equity rights issues by investigating Australian rights issues from 2001 to 2006. The results provide strong support for economies of scale in the direct costs of rights issue capital raising. The proportion of the issue underwritten, ownership concentration and issuer risk were also found to influence significantly the total direct costs, which averaged around 4 per cent of the proceeds. ■

Note

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2. The Australian Securities Exchange was formed from the 2006 merger of the Australian Stock Exchange and Sydney Futures Exchange.

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