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William Dimovski* and Christopher Kelly*
*** School of Accounting, Economics and Finance, Deakin University**

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William Dimovski* and Christopher Kelly*

* School of Accounting, Economics and Finance, Deakin University

Correspondence to: Christopher Kelly, School of Accounting, Economics and Finance, Pigdons Rd, Waurn Ponds, Geelong, Victoria, 3001, Australia. Phone: 61-3-5227 2562, Fax:61-3-52272151,E-mail:cfk@deakin.edu.au

ABSTRACT

This paper follows Balvers, McDonald and Miller (1988) and Beatty (1989), who find lower underpricing in initial public offerings (IPOs) when prestigious auditors are used to attest to the IPO's financial statements. Australian IPOs are not obliged to nominate audit firms in the prospectus but often identify that they will have audit committees so as to assist in more appropriate corporate governance. This paper analyses if IPOs identifying the existence of audit committees in the prospectus have a lower underpricing return. While our findings are consistent with previous studies concluding that both the size of the new issue and the use of an underwriter are important ingredients in the level of underpricing return, the inclusion of an audit committee in the prospectuses has actually increased underpricing returns. The capital market may view the audit committee identification with some skepticism.

1. Introduction

There are numerous studies into initial public offerings (IPOs) documenting the phenomenon of "underpricing". Underpricing refers to the issue price of the shares of a new publicly listed company being lower than the trading price of those shares on the first day of lisiting. The underpricing literature has consistently found significant initial day returns to investors who subscribed for shares in IPOs. Loughran, Ritter and Rydqvist (1994) identify a range of international evidence.

For the six year period 1994 to 1999, equity capital of over AUD 24.4 billion was raised by 358 IPO companies listing on the Australian Stock Exchange. The mean underpricing return for this sample of IPOs was 25.6%. This translates to the subscribers to the IPOs making a 25.6% first day return if they had bought an equivalent amount of every IPO during this period and had sold at the closing price of the first day's trading. It is also interesting to note that these initial public offerings (IPOs) had an aggregate market capitalisaton of around AUD 30.1 billion at the end of the first day. This translates to the former owners of the IPOs leaving around AUD 5.7 billion of what is commonly referred to as "money on the table" for the subscribers.

It was Beatty and Ritter's (1986) famous study that argued that lower *ex ante* uncertainty about the value of an IPO reduces the "need" for underpricing. Since then, researchers have been seeking to find variables that help explain this uncertainty. Ibbotson, Sindelar and Ritter (1994) and Michaelly and Shaw (1994) found a negative relationship between underpricing and the amount of the capital raising of an IPO. Balvers, McDonald and

Miller (1988) and Beatty (1989) argue that the more prestigious the auditor, the higher the quality of the certification and the lower the underpricing of the IPO. James and Weir (1990) find that even the existence of a borrowing relationship with a banker reduces the uncertainty and hence lowers the underpricing return.

This study is motivated by the Balvers, McDonald and Miller (1988) and Beatty (1989) findings. Australian IPOs are not obliged to nominate audit firms in the prospectus but often identify that they will have audit committees so as to assist in more appropriate corporate governance. This paper analyses if IPOs identifying the existence of audit committees in the prospectus have a lower underpricing return.

The plan of this paper is as follows. In section 2 we briefly summarise the general role of audit committees then review some of the literature on auditors and the underpricing of IPOs. Section 3 presents the regression model. Section 4 reports our empirical results. In Section 5 we make some concluding remarks.

2. Audit Committees, Auditors and Underpricing.

In this section we briefly discuss the general role of audit committees and then identify some literature regarding auditors and the underpricing of IPOs. While the Board of Directors is responsible for the strategy and strategic direction of the company, the Audit Committee responsibilities would generally include nominating external auditors and reviewing the terms of their engagement; overviewing the effectiveness of internal and external audit procedures; ensuring accurate and reliable financial information is

provided to shareholders and statutory authorities in a timely manner and providing external auditors with access to the Board. Essentially, the Audit Committee is a committee of the Board designed to provide additional assurance regarding the quality and reliability of financial data and financial statements relied on by the Board and issued by the Board to the shareholders.

Three major studies regarding auditors and the underpricing of IPOs are reported in the literature. Firstly, Titman and Trueman (1986) argue that the more costly that the auditor, the higher the quality of the certification and hence the lower the uncertainty about the IPOs value and the lower the underpricing. Balvers, McDonald and Miller (1988) and later, Beatty (1989) argue that underpricing was lower when prestigious auditors (defined as one of the then big 8 accounting and audit firms) were used in the IPO.

A later study by Michaelly and Shaw (1995) confirms that IPOs associated with more prestigious auditors are less risky because such auditors seek to protect their reputational capital. They argue that good firms are willing to pay the higher fees charged by the then big 8 firms.

3. Data and Methods

The data consists of 358 Australian industrial and resource IPOs that sought equity capital from January 1994 to December 1999. Only those companies that raised sufficient public equity capital to list on the Australian Stock Exchange were included. Property and equity trust IPOs were excluded (consistent with How and Low (1993)), as were

those that involved convertible preference share or debt issues. The primary source of the data was from the *Connect 4 Company Prospectuses* database.

This study includes variables from previous studies that have been found to be statistically significant in explaining the level of underpricing and hence likely to influence the underpricing return. The audit committee variable is chosen to see if it is relevant to underpricing returns. The variables to be tested are defined as follows:

- the total capital sought (LNTOTAL) [Michaely and Shaw (1994), Ibbotson, Sindelar and Ritter (1994)];

- the underwritten (UWRITTEN) variable is a (0 or 1) dummy variable reflecting no underwriter (0) or an underwriter (1) was used in the IPO [Dimovski and Brooks (forthcoming) and adapted from the underwriter reputation variables in Carter and Manaster (1990), Michaelly and Shaw (1995);];

- the audit committee (AUDTCTEE) variable is a (0 or 1) dummy variable reflecting no audit committee (0) or an audit committee (1) was used in the IPO [adapted from Balvers, McDonald and Miller (1988) and Beatty (1989)]

An ordinary least squares regression model is performed on the data. The dependent variable, underpricing return (RETURN) is the difference in the closing price of the shares (plus the options if any (How and Howe (2001)) on the first day of listing less the public issue price, divided by the public issue price. The closing prices were obtained from the IRESS database.

The regression model with underpricing return on the table as the dependent variable is:

$$RETURN = \beta_0 + \beta_1\,LNTOTAL + \beta_2\,UWRITTEN + \beta_3\,AUDTCTEE + \varepsilon \qquad (1)$$

where all the variables are as defined previously, the β's are unknown parameters to be estimated and ε is assumed $\sim N(0, \sigma^2)$.

The first variable (LNTOTAL) has been found to be significant in previous empirical underpricing studies and is expected to relate to the underpricing return. The UWRITTEN variable reflects whether the issue is underwritten or it is not. From Dimovski and Brooks (forthcoming) it is expected that underwriters involved in the issue (as opposed to an issue not being underwritten) may allow a higher underpricing return.

The AUDTCTEE variable tests the hypothesis that the identification of an audit committee in the prospectus, the higher the standard of corporate governance in the firm and the lower the uncertainty about the new issue and hence the lower the underpricing. Of the 358 IPOs, 111 had identified the existence of an audit committee.

4. Results

Table 1 reports the multiple ordinary least squares regression results between the underpricing return and the selected explanatory variables for the overall six year period.

Table 1 also reports the results when the data is partitioned into resource / industrial categorisations. To account for some individual observations that may be exerting undue influence on the partial coefficients, any observations whose underpricing returns are over 3.5 standard deviations from the mean return are excluded from the model and modified regression results reported. The identification of outliers over 3.5 standard deviations is consistent with How (2000). A range of standard regression diagnostics were calculated for the models applied to the data. In testing for non-normal errors, a Jarque-Bera statistic is applied to the data. In testing for heteroscedasticity, a White test is applied and White (1980) heteroscedasticity-consistent coefficients and p-values are reported. In testing for omitted variables or model misspecification, a Ramsey Reset test is applied and reported.

For the overall six year period and for the industrials categorisation, the results of the regression analysis suggest that the LNTOTAL variable has explanatory power in regard to the amount of underpricing return of IPOs. When the outliers are removed, all three variables have some explanatory power in regard to the amount of underpricing return of IPOs in the overall six year model and in the partitioned data of Industrial IPOs. The model is not useful for the resource categorisation.

5. Conclusion

The overall six year (excluding outliers) and industrials (excluding outliers) models are useful. Our findings are consistent with previous studies concluding that both the size of the new issue and the use of an underwiter are important ingredients in the level of

underpricing return. Interestingly, however, the inclusion of an audit committee in the prospectuses of IPOs appears to actually increase underpricing returns. Perhaps the capital market views the inclusion of an audit committee in the prospectus with some skepticism.

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Table 1

This table reports on the results for underpricing across a number of regression model specifications. The specifications include all of the data, the data categorised by industry characteristics and the data excluding outliers.

The table reports OLS parameter estimates (Coef.) and p-values (Pr.) as well standard regression diagnostics. White (1980) heteroscedasticity-consistent coefficients and p-values are reported where HCC is identified.

Categorization/ No. of IPOs		C	LNTOTAL	UWRITTEN	AUDTCTEE	Adjusted R-sq	Jarque-Bera	White test	Reset test
1994-99	Coef.	1.019	-0.055	0.120	0.086	0.014	15478.930	7.329	5.548
IPOs 358	Pr.	0.006	0.017	0.143	0.221		0.000	0.119	0.021
1994-99 No outliers	Coef.	0.544	-0.029	0.115	0.101	0.026	643.286	6.901	5.548
IPOs 353	Pr.	0.021	0.046	0.026	0.023		0.000	0.142	0.064
RESOURCES	Coef.	0.858	-0.053	0.239	-0.129	-0.011	4525.034	2.412	5.336
IPOs 96	Pr.	0.480	0.493	0.302	0.640		0.000	0.660	0.198
RESOURCES No outliers	Coef.	0.043	-0.001	0.109	-0.068	-0.007	447.753	2.871	21.633
IPOs 94	Pr.	0.923	0.966	0.193	0.493		0.000	0.580	0.172
INDUSTRIALS	Coef.	1.120	-0.058	0.089	0.098	0.024	2722.974	8.401	5.744
IPOs 262 HCC	Pr.	0.014	0.024	0.292	0.186		0.000	0.078	0.001
INDUSTRIALS No outliers	Coef.	0.775	-0.041	0.125	0.089	0.033	341.172	5.292	5.471
IPOs 259	Pr.	0.006	0.015	0.045	0.083		0.000	0.259	0.018