LPT IPO DIVIDEND FORECASTS.

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Abstract

While dividend forecasts in the prospectuses of initial public offerings (IPOs) are common, Brown *et al.* (2000) have found them to be optimistically biased. This study investigates the dividend/distribution forecasts in the prospectuses of Australian LPT IPOs during the period 1994 to 2004 and finds on average that they are not optimistically biased. Because dividends have important cash flow implications for investors, this study also examines factors that might influence the magnitude of the errors between the forecast and the actual distributions. It finds that LPT IPOs that offer stapled securities have overestimated their distribution paying ability.

1. Introduction

Dividend forecasts are common in the prospectuses of companies seeking to raise equity capital from their initial public offering (IPO). The relevance and value of such forecasts however depends upon their accuracy. Brown et al (2000) suggest that both dividend forecasts and earnings forecasts in the prospectuses of Australian IPOs are optimistically biased and should be of concern to investors. This finding of optimistic bias is consistent with other international literature (see Firth and Smith (1992) with New Zealand IPOs, and McConomy (1998) with Canadian IPOs).

While these findings of optimistic bias are useful and interesting, the samples used in these studies appear to be drawn from industrial company IPOs. The purpose of this study is to examine the dividend forecast accuracy of property trust IPOs.

The valuation of firms is often based on forecasted earnings and or forecasted dividends. Australian listed property trusts (LPTs), like their U.S. counterpart, real estate investment trusts (REITs) have no specific taxation payment obligations at the legal entity level if all of the earnings made by the entity are paid to the unitholders or shareholders. As such, dividend forecasts for LPTs and REITs are useful substitutes for earnings forecasts and hence the importance of their accuracy is magnified.

The sample consists of 54 Australian LPT IPOs that sought public equity capital between 1994 and 2004 and provided a dividend forecast in their prospectuses. The conclusion is that while the dividend forecasts of LPTs are on average not optimistically biased, those

LPT IPOs that offered stapled securities appear to have overestimated their dividend paying ability.

The structure of this paper is as follows. In section 2 we briefly summarise some previous work on earnings and dividend forecasts. Section 3 identifies the data and method of investigation. In section 4 we report the results of our analysis. Section 5 contains our conclusions.

2. Previous Work

Because of the linkage between dividends and earnings, this section briefly identifies some of the IPO literature on the forecasts of both. Some early Australian work on earnings forecasts in prospectuses is found in Lee et al (1993) who examined 98 IPO earnings forecasts between 1977 and 1986. Two thirds of the forecasts were optimistic and the mean earnings forecast was 21.4% higher than the actual earnings. Similarly, McConomy (1998), in Canada, investigated 192 prospectuses for IPO companies that sought to list on the Toronto Stock Exchange between 1983 and 1994 and also found optimistic bias in the forecasts, with the mean average earnings forecast being around 6% higher than the actual earnings.

Firth and Smith (1992) investigated 89 New Zealand IPOs between 1983 and 1986 and found similar results regarding the accuracy of the forecasts in the prospectuses in that only 19% of the companies in the sample set reported earnings within 20% of their forecast. In a study of 110 Singaporean earnings forecasts in IPO prospectuses during

1980 to 1993, Firth et al (1995) found 60% of firms reported earnings within 10% of their forecast. Firth and Smith (1992) and Firth et al (1995) also found that larger size firms issued *less* accurate forecasts. The size of the firm was measure by the amount of assets owned by the firm after the capital raising. They speculate that larger size firm's earnings forecasts may be more difficult to make because of the uncertainty of the new investments they are making.

In a later Australian study, Brown et al (2000) analysed the earnings forecasts of 172 IPOs between 1984 and 1997. Similar to most other studies, they found that the mean average forecast earnings were around 5% higher than actual earnings. They also report that of 168 dividend forecasts during this period, 43% of firms over-predicted the dividends, 32% equaled their prediction and 25% under-predicted. Brown et al (2000) identify that the level of retained ownership and shorter forecast horizons help to explain the accuracy of the dividend forecasts.

In contrast, Mohamad et al (1994) investigated the earnings forecasts of 65 Malaysian IPOs during 1975 to 1988 to find underestimated future earnings. Interestingly, they find gearing is related to the forecast error. Jelic et al (1998), investigated 124 Malaysian IPOs during 1984 to 1989 after it became mandatory that Malaysian IPOs furnish earnings forecasts and found similarly that the earnings forecast was under-predicted by around 33.37%. They do not find the size of the firm or gearing levels as significant variables but do find that firms involved in construction, services and special activities have a higher forecast errors.

In summary, the empirical evidence shows that earnings forecasts and the dividend forecasts are generally erroneous and except for Malaysia, the forecasts are optimistically biased. As a possible explanation for this optimistic bias, Blair and Taylor (1989) suggest that the attractiveness of the IPO may be enhanced by optimistic forecasts.

3. Data and Method

Individual company prospectuses were used from the *Connect 4 Prospectuses* database to identify 58 LPT IPOs that sought to raise equity capital from the public between January 1994 and December 2004. The 58 subsequently listed on the Australian Stock Exchange. Three of these LPT IPOs did not forecast dividends and one was delisted before the forecast had time to eventuate. This left a sample set of 54 LPT IPOs that forecast dividends for the forthcoming full year. Actual dividends paid figures were derived from the *FinAnalysis database.* A total of 28 LPT IPOs paid more than their forecast dividend 11 paid the same as their forecast and 15 paid less than their forecast (1 made a loss for the operating year and therefore did not pay a dividend at all).

Table 1 provides some descriptive statistics relating to dividend forecast errors. Panel A of that table reports the errors in cents per unit from the forecast for all 54 IPOs, for 53 IPOs deleting the outlier that made a loss and did not pay a dividend, and for the 46 IPOs, which excludes all the stapled LPT IPOs. The error in cents per unit from the forecast is the result of the actual dividend paid less the forecast dividend, divided by the forecast dividend. The mean average error in cents per unit for all 54 IPOs is -0.112, for the 53

IPOs is 0.062 and for the 46 IPOs is 0.236. This suggests that the mean dividend paid for all 54 was 0.112 cents less per unit than that which was forecast, however excluding the one outlier, the mean dividend paid was 0.062 cents per unit more than that which was forecast and excluding all the stapled LPT IPOs, the average dividend paid was 0.236 cents per unit more than that which was forecast. It is worth noting that in the 46 IPO set, 28 LPT IPOs paid more than their forecast dividend 10 paid the same as their forecast and 8 paid less than their forecast. The median average error in cents per unit from the forecast for all 54 IPOs was 0.065, for the 53 IPOs was 0.080 and for the 46 IPOs was 0.127.

Panel B of that table reports the errors as dividend yield percentages on the original IPO investment from the forecast for the same three sample sets. The error in the dividend yield from the forecast is the result of the actual dividend yield paid less the forecast dividend yield, divided by the forecast dividend yield. The mean average error in the dividend yield for all 54 IPOs is -1.219%, for the 53 IPOs is 0.645% and for the 46 IPOs is 2.172%. This suggests that the mean dividend yield actually paid for all 54 was 1.219 percentage points less than that which was forecast, however excluding the one outlier, the mean dividend yield paid was 0.645 percentage points more than that which was forecast and excluding all the stapled LPT IPOs, the average dividend yield paid was 2.172 percentage points more than that which was forecast. The median average error in dividend yield from the forecast for all 54 IPOs was 0.680 percentage points, for the 53 IPOs was 0.823 percentage points and for the 46 IPOs was 1.455 percentage points.

(insert table 1 about here)

These mean and median average figures suggest that on average LPTs actually are more generous in paying dividends than their IPO prospectus forecasts they will pay. The p-values suggest however that the forecasts are generally not all that accurate either (except for the error in cents per unit from the forecast for the sample set of 46 LPT IPOs which excludes the stapled entities which is significant at the 10% level).

Factors expected to explain differences in the dividend forecast accuracy were extracted from each of the prospectuses of the 54 LPT IPOs and are as follows:

- LNSIZE – reflects the natural logarithm of the expected gross assets of the LPT upon listing. The natural log specification is used to reduce the skewness of the distribution;
- LNDETTOEQ – the leverage of the LPT IPO using the formula ln(1 + % total liabilities). The natural log is used and 1 is added to the percentage of total liabilities because some IPOs have no liabilities;
- UWRITTEN – a 0 or 1 variable with a value of 1 if the issue is underwritten;
- STAPLED – a dummy variable is recorded for those property trusts that issued stapled securities;

- DELAY – the number of days between the registration of the prospectus and the listing of the IPO;
- LNINSTIT – the equity involvement of a large investor/institution at the outset of the capital raising as advised in the prospectus. This variable is calculated using the formula ln(1 + % investor/institution holding). Again, the natural log specification is used to reduce the skewness of the distribution while 1 is added to the percentage holding because some LPT IPOs have a zero investor/institution holding;
- POST1999 – a dummy variable of 1 for those LPT IPOs that listed after year 1999.

An ordinary least squares regression (OLS) model is run on the data using error in cents per unit from the forecast (EXCESSDIVS) and error in dividend yield percentage from forecast (EXCESSDIVYLD) as dependent variables. The ordinary least squares regression models with EXCESSDIVS and EXCESSDIVYLD as the dependent variables are:

$$EXCESSDIVS = \beta_0 + \beta_1 SIZE + \beta_2 LNDETTOEQ + \beta_3 UWRITTEN + \beta_4 STAPLED + \beta_5 DELAY + \beta_6 LNINSTIT + \beta_7 POST1999 + \varepsilon \quad (1)$$

$$EXCESSDIVYLD = \beta_0 + \beta_1 LNSIZE + \beta_2 LNDETTOEQ + \beta_3 UWRITTEN + \beta_4 STAPLED + \beta_5 DELAY + \beta_6 LNINSTIT + \beta_7 POST1999 + \varepsilon \quad (2)$$

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

The LNSIZE variable has been found useful in Firth and Smith (1992) and Firth et al (1995) and investigates whether larger sized firms issued *less* accurate forecasts. More particularly, our model tests whether the Firth and Smith's contention that larger size firm's earnings forecasts may be more difficult to make because of the uncertainty of the new investments they are making and dividend payments made by these new LPTs were lower than their prospectus forecasts.

The LNDEBTTOEQ variable is included to test if leverage influences the accuracy of the dividend forecasts as in Mohamad et al (1994). It is expected that the LPT IPOs with higher debt levels may find it more difficult to exceed forecasted earnings and therefore dividends. A negative relationship is expected.

In Australia, IPOs do not need to be underwritten to list. A total of 47 of these LPT IPOs were, however, underwritten. It could be expected that the involvement of an underwriter

adds credibility to the forecast and such underwritten (UWRITTEN) IPOs might have the ability to exceed dividend forecast expectations.

The STAPLED LPT IPOs consist of a unit in a trust and a share in a company. The unit and the share are not generally tradable without the other. The trust is likely to be the holder of income producing real estate while the company is likely to deal in property development activities. As in Jelic et al (1998) companies involved in property development may find it more difficult to exceed dividend expectations.

The DELAY variable reflects how quickly an issue is filled. It has been used in Lee et al (1996) to identify more informed investors flocking quickly to better issues. Similarly the LNINSTIT variable used in Dimovski and Brooks (2006) identifies large investor/institutional backing at the outset of the issue. Both these variables are tested to determine if more informed investors as proxied in these two variables are able to identify LPT IPOs that will exceed dividend forecasts.

Prior to 30 June 2000, Australian LPT IPOs engaged both a Manager and a Trustee. The Manager managed the activities of the trust but it needed to get formal trustee approval for both property acquisitions and disposals. The trustee provided added protection and safeguard to unitholders. Since 30 June 2000, the *Managed Investments Act 1998* removed the separate roles of Manager and Trustee and merged the two roles into one single Responsible Entity role. The POST1999 variable tests whether post 1999 LPT IPOs are different in their ability to exceed forecast dividends.

4. Results

The regression results related to the factors influencing LPT IPOs being able to exceed their dividend and dividend yield forecasts are presented in Table 2. A range of diagnostic tests were used in analyzing the data. A Jarque-Bera test for normality, a White test for heteroskedasticity and a Ramsey Reset test for omitted variables were applied on the data and the results reported. White corrections to the parameter estimates and p-values are made and reported if it was necessary to correct for heteroskedasticity. Multicollinearity was also tested for and does not appear as a problem.

Panel A of Table 2 reports the regression results for factors influencing LPT IPOs being able to exceed their dividend in cents per unit forecasts while Panel B of Table 2 reports the regression results for factors influencing LPT IPOs being able to exceed their dividend yield forecasts. The first row of each of the panels reports the results for all 54 IPOs. The second row of each of the panels reports the results when the one outlier who did not make a profit and hence could not pay a dividend is removed from the data set. A gross proceeds raised variable was attempted in the model also but because of a potential multicollinearity problem with LNSIZE, the gross proceeds variable was removed. Models with fewer variables were also attempted where the LNDEBTTOEQ and UWRITTEN variables were removed but still only STAPLED declared itself as a useful

explanatory variable. Also attempted but not reported here were models that excluded the stapled security LPT IPOs. No variables in these models were identified as useful.

(insert table 2 about here)

5. Conclusion

This paper examined whether the dividend forecasts of 54 Australian LPT IPOs that sought to raise capital from the public during 1994 to 2004 were optimistically biased. The evidence suggests that only LPT IPOs that offered stapled securities have generally overestimated their dividend paying ability. Such entities tend to engage in property development activities and as such may suffer much the same optimistic bias as industrial company IPOs generally.

Excluding the stapled LPT IPOs, however, the prospectus dividend forecasts of the others are not optimistically biased, and in fact these IPOs likely may pay out more than their forecast, which is in contrast to the findings of optimistic bias amongst industrial company IPO prospectus forecasts. It appears property is a useful base of support for the dividend forecasts of most property trust IPOs.

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Table 1: Dividend Forecast Errors for LPT IPOs 1994 to 2004

Panel A **Error in cents per unit from forecast**	**54 LPT IPOs**	**53 LPT IPOs**	**46 LPT IPOs - excluding stapled**
Mean	-0.112	0.062	0.236
Median	0.065	0.080	0.127
Maximum	3.600	3.600	3.600
Minimum	-9.300	-3.796	-2.227
Standard Deviation	1.664	1.081	0.870
p-value	0.624	0.680	0.072*

* = significant at the 10% level

Panel B **Error in dividend yield percentages from forecast**	**54 LPT IPOs**	**53 LPT IPOs**	**46 LPT IPOs - excluding stapled**
Mean	-1.219	0.645	2.172
Median	0.680	0.823	1.455
Maximum	33.028	33.028	33.028
Minimum	-100.000	-42.413	-33.108
Standard Deviation	17.539	11.060	9.518
p-value	0.612	0.673	0.129

TABLE 2: Factors influencing dividend forecast error

This table reports the OLS results of factors influencing the dividend forecast error for LPT IPOs along with R^2 values and standard regression diagnostics. The table reports OLS parameter estimates and p-values (in parentheses). The number of observations (N) is also recorded.

Panel A **Error in cents per unit from forecast**	C	LN INSTIT	LN DEBTTOEQ	UWRITTEN	STAPLED	DELAY	LNSIZE	POST 1999	R^2 ADJ R^2	Jarque-Bera test	White test	Reset test
EXCESSDIVS N=54 +++	0.055 (0.329)	0.015 (0.186)	0.021 (0.238)	-0.016 (0.179)	-0.013 (0.040) **	-0.002 (0.126)	-0.003 (0.331)	-0.001 (0.845)	0.375 0.280	43.710 (0.000)	23.849 (0.013)	-52.808 (0.000)
EXCESSDIVS (1) N=53	-0.0134 (0.658)	0.004 (0.609)	-0.001 (0.907)	0.002 (0.770)	-0.013 (0.004) ***	-0.001 (0.522)	0.008 (0.624)	0.004 (0.296)	0.249 0.132	15.031 (0.000)	12.481 (0.329)	135.300 (0.021)
Panel B **Error in dividend yield percentages from forecast**												
EXCESSDIVYLD N=54 +++	0.491 (0.418)	0.147 (0.228)	0.233 (0.231)	0.157 (0.219)	-0.108 (0.103)	-0.002 (0.155)	-0.029 (0.414)	-0.016 (0.771)	0.337 0.237	56.429 (0.000)	25.115 (0.009)	-5.339 (0.000)
EXCESSDIVYLD (1) N=53	-0.264 (0.413)	0.022 (0.706	-0.012 (0.920)	0.001 (0.991)	-0.111 (0.019) **	-0.001 (0.698)	0.015 (0.383)	0.033 (0.333)	0.194 0.064	33.536 (0.000)	12.327 (0.340)	-12.990 (0.081)

(1) Removal of 1 outlier.

** = significant at the 5% level, *** = significant at the 1% level.
+++ = White (1980) heteroskedasticity corrected parameter and p-values are reported.