Briefing
Are dividends really more informative than earnings?

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The Centre for Business Performance promotes and funds, through the ICAEW’s charitable trusts, leading-edge research on performance-related issues of immediate and long-term importance to the business community. Its goal is to advance thinking and practice related to performance enhancement and value creation and to encourage discussion of new ideas by directors, entrepreneurs and others.
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Background to the study

The role of dividends in equity valuation has been the subject of a great number of theoretical and empirical studies. Since the important theoretical contribution made by Modigliani and Miller (1961), it has generally been understood that company equity valuation should be based on the dividend discount model which represents company value as the discounted present value of future dividend payments. However, in the practical estimation of equity values it is also clear that dividends are not necessarily the only variable to consider, since they are the consequence of the success of the company’s investment policy; they do not determine that investment policy. Hence the apparent conflict between the two propositions in Modigliani and Miller (1961), namely (i) value is the discounted value of future dividends, and (ii) the timings of dividends do not affect valuation, once investment policy is known.

In the light of the second proposition, equity valuation models have placed less emphasis on dividends and more emphasis on the causes of dividends, including information such as earnings and book value of total assets as well as non-accounting measures of performance. The theoretical underpinnings of such models have been developed in a number of papers by for example Ohlson (1995, 1989), Stark (1997) and Ashton, Cooke, Tippett and Wang (2004).

On the empirical side, research has been moving in a different direction. Results have suggested that dividends are value relevant even when the variables that drive investment policy are included in the model. In a recent study, Koch and Sun (2004) suggest that changes in dividends can be used as predictors regarding future earnings. The theoretical link between changes in dividends and the persistence of earnings changes has been demonstrated in a series of empirical studies by Kormendi and Zarowin (1996), DeAngelo, DeAngelo et al. (1992) and Guay and Harford (2000). All these studies assign predictability of future permanent earnings (earnings which are likely to persist in to the future) to dividends in a cross-sectional-panel-data statistical framework, when they can differentiate between different classes of firms.

An important class of model used to assess the impact of dividends is an earnings levels specification based on the Ohlson residual income valuation model and it is the one we adopt here. This class of model is common in the literature (for example, Francis and Schipper, 1999) and has a clear link with the Ohlson approach (Akbar and Stark, 2003). In the model, dividends are added as an independent variable to the equation and it specifies market value (MV) as:

\[ MV = a + b.BV + c.E + d.D \] (1)

where BV is the book value of assets, E is earnings and D is dividends. In order to adjust for any heteroscedasticity in the data, all the variables in the model are usually scaled by a size measure such as sales, assets, or the number of shares in issue. In addition, the coefficient on earnings is the same for profits as it is for losses. Using this type of model, studies have shown both in the UK (Rees 1997, Akbar and Stark 2003) and the USA (Hand and Landsman 2005) that dividends do in fact play a role in practical equity valuation, even when investment policy is known. The studies suggest that dividends contain information about future performance that is not captured by accounting performance measures such as earnings and book value. These findings add weight to the well understood idea that current dividends are based on management’s estimate of permanent and sustainable performance, whereas earnings reflect current performance and can be affected by transitional, non-permanent factors. In some cases (for example, in Akbar and Stark 2003) the dividend effect is so strong that it displaces current earnings as a measure of future performance.

In this context, of special interest is a time series study undertaken by Lamont (1998) for the US stock market using quarterly data between 1947(q1) and 1994(q4). The work reports that in forecasting excess returns both earnings and dividends have identifiable predictive power, with dividends being the more important of the two predictors, similar to the findings of Akbar and Stark (2003).

However, the really interesting conclusion in the Lamont (1998) study is that earnings have a quite new and distinct role in valuation, namely as a measure of risk. This stems from Lamont’s finding that, in contrast to dividends, earnings have a negative association with future returns. Lamont interprets this as earnings proxying for the discount rate applied to expected dividends. The rationale here is that earnings follow a cycle. When earnings are relatively high, then future earnings are likely to be lower and therefore this increases the discount factor that is applied to current earnings. Similarly,
when current earnings are low, the discount factor applied to them is reduced. In essence, earnings contain information about the direction of future performance. This is consistent with the mean reverting nature of earnings documented by Fama and French (2000).

The purposes of the study

There are several purposes to the study. Firstly we wish to investigate whether the Lamont US results translate to the UK. Secondly, we wish to corroborate and extend UK research on the subject in a number of ways.

In the Akbar and Stark (2003) study, although they find that the significance of dividends is robust to scaling by different size variables, the value of the estimated coefficients varies markedly across different specifications. For example, even when dividends are excluded from the model, the coefficient on earnings varies between 0.99 and 3.82. Furthermore, these low values seem to suggest that the sustainability of earnings is weak. When dividends are included in the model, the values of the earnings coefficient are lower still, varying between 0.00 and 1.83. But the coefficient on dividends is much higher, varying between 11.36 and 16.65. These results suggest that dividends are far more important than earnings, and therefore question the resources used in developing rigorous accounting standards for measurement of company performance. This is an important practical issue which deserves some attention.

We also extend previous work by decomposing earnings into cash flow and accruals. The earnings number is constructed by weighting cash flows and accruals equally. Therefore when earnings are used for valuation purposes, both cash flow and accruals components are assumed to have the same predictive characteristics. However, this assumption may not be warranted. Givoly and Hayn (2000) report quite different time series properties for the cash flow and accrual components of earnings. They find that whilst cash flows are growing over time, in contrast accruals are declining and even becoming negative, reflecting the increasingly conservative nature of accruals. Sloan (1996) finds that reported cash flows capture the persistence of future earnings better than accruals. The individual characteristics of the components of earnings are also well documented in Barth, Cram and Nelson (2001). Furthermore, accruals can be managed in order to achieve particular earnings targets; see for example Burgstaler and Dichev (1997), Peasnell et al. (2000a) and Peasnell et al (2000b). This means that investors may find earnings a noisy signal and find more reliable information in reported dividends.

Results

For the study, we used data from ‘Datamart Advanced’ for the 585 companies included in the FTSE All Share index for the period 1992–2004, giving a balanced panel of 7,605 company-year observations. This is similar to Akbar and Stark (2003), whose sample period is 1990-2001, except that they include companies that do not have a full set of observations and therefore use approximately 13,000 company-year observations in their tests. Our sample selection procedure means that there is likely to be a survivorship bias in our results. This means that our sample is likely to consist of relatively stable companies which have less need to signal the quality of earnings through dividends. Our results are also likely to be relevant for investors who construct their portfolio from established companies.

Table 1 presents the key result that both dividends and earnings have a statistically and economically significant influence on share value. This supports the findings of previous UK research (Rees 1997, Akbar and Stark 2003). However, in contrast to Lamont (1998) who finds that earnings have a negative affect on value, both earnings and dividends have a positive influence on value. The estimated coefficients are shown in Table 1.
The results also give a greater role to book value and earnings than in Akbar and Stark (2003). BV has a coefficient of 0.74 and the multiple for earnings is 13.8. These differences may be the result of our sample; in contrast to Akbar and Stark, they were in existence throughout the whole period and therefore their performance is probably less volatile.

Dividends have a coefficient of 32.7, which is more than twice that of earnings. This suggests that the market believes that dividends convey information about future performance over and above that contained in earnings. This is consistent with other empirical work on dividends, such as Garrett and Priestly (2000), which indicates that dividends have predictive power about company future performance. However, unlike Lamont (1998) who finds that the coefficient on earnings is negative in the presence of dividends, we find that the coefficient on both earnings and dividends is positive. This suggests that the possibility of the reversion in cash flows does not play so significant a part in the valuation of equity in the UK as in the USA.

One potential explanation for the relatively poor showing of earnings against dividends is that the cash flow and accruals components of earnings have different information concerning equity value, as found by Barth, Cram and Nelson (2001) in the US. The aggregation of the two components may then provide investors with less information thereby compelling them to rely on dividends. In order to investigate this further, we decompose earnings into cash flow and accruals to examine whether dividends are still dominant. The results are given in table 2.

Table 1: The incremental effect of dividends in explaining market value

| MV = a + b.BV + c.E + d.D |
|---|---|---|---|---|
| Estimated coefficient | 38.8* | 0.74* | 13.8* | 32.7* | 0.75 |
| T value | 4.9 | 67.2 | 5.6 | 8.9 |
| (P value) | (0.00) | (0.00) | (0.00) | (0.00) |

Note: MV is market value six months after the year end; BV is book value of assets, E is earnings, D is dividends. Variables are deflated by opening assets. T values are White-corrected for heteroscedasticity. * indicates a coefficient that is significantly different from zero at the 5% significance level.

Table 2: Decomposing earnings into cash flow and accruals

| MV = a + b.BV + c.CF + c1.ACC + d.D |
|---|---|---|---|---|---|
| Coefficient | 39.9* | 0.74* | 20.7* | -6.9 | 33.9* | 0.75 |
| T value | 5.0 | 67.1 | 5.1 | -0.7 | 9.2 |
| (P value) | (0.00) | (0.00) | (0.481) | (0.00) |

Note: MV is market value six months after the year end; BV is book value of assets, CF is cash flows, ACC is accruals, D is dividends. Variables are deflated by opening assets. T values are White-corrected for heteroscedasticity. * indicates a coefficient that is significantly different from zero at the 5% significance level.

Table 2 shows that the results in table 1 are robust to decomposing earnings into cash flow and accruals. The coefficients on book value and dividends are significant and practically identical in both tables. However, the coefficient on cash flows is 20.7 which is larger than the coefficient on earnings (13.8) in table 1. However, even with earnings decomposed into cash flows and accruals, dividends still influence valuation and have a higher coefficient than cash flows (33.9 for dividends compared with 20.7 for cash flows). Of some interest is the finding that accruals do not affect valuation, since the coefficient is not statistically significant. This result contrasts with US evidence where accruals seem to be overpriced (Xie, 2001; DeFond and Park, 2001). One explanation for this is that the accruals component of earnings is managed opportunistically and this action is recognised by the market. Another explanation is that excessively pessimistic provisions are made, as suggested by Givoly and Hayn (2000), which the market discounts. Future work may investigate these explanations further.
The policy implications of the study

1. One of the implications of the study is to support the rationale for the ‘performance reporting/reporting comprehensive income’ project currently being undertaken by the International Accounting Standards Board. Earnings contain a variety of components and when they are aggregated into a single measure, information is lost. This feature of earnings is well documented by Barth, Cram and Nelson (2001). This aspect is also apparent in our study in that the cash flow component of earnings has different implications for market value than the accruals component.

2. An important finding of our study is that dividends are more important for valuation than either earnings or cash flows. The reasoning behind this is probably related to the permanence or otherwise of current company performance. Current measurements of company performance are related to the stock of physical resources controlled by the company (the balance sheet) and how those resources have changed over the year (the earnings measure). However, there is very little quantitative information on the permanence of the current performance. Moreover, with the development of standards which involve marking to market, changes in risk will be included in earnings and this will make current earnings less indicative of permanent performance. It would seem that the information about this dimension is currently being provided by dividends.

The issue is currently being addressed by the accountancy profession in a number of ways. Within the EU there are proposals to give companies greater flexibility in declaring dividends, which will enable the dividend signal to be even more informative about future cash flows. The operating and financial review as suggested by the Company Law Review Steering Group enables companies to provide investors with forward looking narratives rather than through quantitative financial information. Perhaps directors should be encouraged to disclose all the factors they have taken into account in fixing the proposed dividend. Narrative information is also suggested in ICAEW (1997) and in the more recent ICAEW title New reporting models for business, published in late 2003. That report reviews the difficulties that traditional earnings numbers have in reflecting the range of corporate activities such as the creation of intangible assets and value in the business. Therefore, it is not surprising that companies need to signal the quality of their activities with dividends when the current financial reporting model cannot capture some key elements of business value.
References


ICAEW (2003), New reporting models for business, Institute of Chartered Accountants in England & Wales.


About the authors

Len Skerratt

Len Skerratt was a student at the LSE and has held posts at Lancaster, Durham (Professor) and Manchester (Professor). His main area of research is financial reporting. He has published over 30 books as well as numerous papers in international research journals (including two prize winning papers). He has been a Visiting Professor at University Utara, Malaysia and Anman University, Jordan and a consultant to the Securities Commission, Malaysia and Shenzhen Stock Exchange China.

He is currently Emeritus Professor in his old Department at Manchester; a Visiting Professor at Brunel Business School and Kingston University Business School; and also President of Philips College, Cyprus.

Christos Ioannidis

Professor Christos Ioannidis joined the School of Management of the University of Bath in September 2004 where he is convenor of the Accounting and Finance section of the School. Previously he was the Head of the Department of Economics and Finance at Brunel University. His teaching expertise covers corporate finance, finance and investment analysis, international finance and financial econometrics at both the undergraduate and postgraduate levels.

Professor Ioannidis’ main research themes are asset valuation models, empirical financial accounting and financial markets and the macroeconomic environment. He has published a number of papers in scholarly journals including The Journal of Forecasting, The Journal of Political Economy, The Journal of Business Finance and Accounting, European Journal of Finance and The Journal of Futures Markets. He has been acting as a consultant to a number of public bodies and private firms including ONS, DEFRA and First Plus Bank and has a long-term association with other universities and research institutions in the UK and France.

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