

# DECISION-USEFULNESS IN FINANCIAL REPORTS

## RESEARCH REPORT NO.4

THE EFFECT OF COMPANY SIZE, PROFITABILITY AND  
THE INTRODUCTION OF IFRS ON THE RELEVANCE OF  
FINANCIAL REPORTS FOR INVESTOR DECISION MAKING

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## EXECUTIVE SUMMARY

This is the fourth in a series of five reports that are based on a research study that explores the decision-usefulness in financial reports of Australian listed companies. The first three reports in this series highlighted that, while financial reports have been criticised for increasingly not meeting the needs of users, recent Australian evidence indicates they are still of relevance to investors. While the results suggest there is room for improvement, the findings do not indicate a decline in the decision-usefulness of financial reports in Australia, contrary to some research findings elsewhere.

In this report, we examine the effect of company size, profitability and the introduction of International Financial Reporting Standards (IFRS) on the relevance of financial reporting for investor decision making in Australia. Conjecture has surrounded not only the relevance of financial reporting to investors, but also whether the traditional financial reporting model enables all companies to generate equally-useful information. Moreover, there is conflicting evidence as to whether Australia's adoption of IFRS has enhanced the relevance of financial reports. In response to such conjecture and inconclusive findings, we examine whether the relevance of financial reporting to equity investors is influenced by the size of the company, its profitability and whether the introduction of IFRS, in general, improved the relevance of annual financial statements.

Our results show the following:

- First, a one size fits all financial reporting model is inappropriate, as the relevance of financial reporting is influenced by company size. In particular, annual financial reports are comparably decision-useful for equity investors of large ASX-listed companies, but less so for small ASX-listed companies.
- Second, annual financial reports are more relevant to investors of profit-making companies than loss-making companies, suggesting that investors look to other non-accounting indicators in determining whether to invest in a loss-making company.
- Finally, the adoption of IFRS did enhance the relevance of alternative firm performance metrics, as equity investors found the information within these performance metrics to be more decision-useful for investment purposes post-IFRS.

# INTRODUCTION

The objective of this report is to examine the effect of company size, profitability and the introduction of International Financial Reporting Standards (IFRS) on the relevance of financial reporting for investor decision making in Australia. The research is motivated by the significant criticism over the past decade questioning the decision-usefulness of financial statements for equity valuation, as well as the conflicting international evidence, particularly across Europe and the United States, as to whether financial statements are still relevant to equity investors.<sup>1</sup> Frequent assertions have been made that traditional financial reports have lost their relevance for investor decision making.

To examine the effect of company size, profitability and IFRS adoption on the usefulness of financial statements for equity investors in Australia, a team of Australian academics adopted a mixed method research approach comprising two methods (quantitative and qualitative).

First, the authors examined the association between sample firms' reported net income and shareholders' equity and their share price to determine the relevance of Australian companies' financial statements for capital market decisions. This type of archival method is based on the annual financial statements of ASX-listed companies and resulted in 29,838 observations, and is undertaken in three contexts.

First, to assess whether the usefulness of financial statements varies according to company size, sample firms were partitioned each year into size-based quartiles, where size was measured using end of year market capitalisation. For each quartile and year of the sample period (1992-2015), the authors examined the association between share price and reported net income and shareholders' equity. Second, to assess the impact company profitability has on the usefulness of their annual financial statements to equity investors, sample firms were partitioned each year according to whether reported net income was positive (a profit firm) or negative (a loss firm). The authors then investigated the association each year between share price and reported net income and shareholders' equity separately for profit firms and loss firms. Third, the authors examined the change in the relevance of financial reporting following the introduction of IFRS. To assess the change, if any, in financial reporting relevance the authors examined

the association between company share price and three alternative key performance metrics, namely reported net income, EBIT and EBITDA, across two time periods: 1992-2005 and 2006-2015. The authors split the sample period into pre-2006 and 2006 onwards to correspond with Australia's adoption of IFRS.

Second, to gain an understanding of how information is useful for investor decision making the authors conducted a series of 17 interviews with investors (7), regulators (5) and practitioners (5). Commonalities across the different stakeholder groups provide strong evidence from which conclusions can be drawn.

The authors developed a semi-structured interview protocol drawing on prior literature and consultation with experts in the practice of financial reporting and regulation. The interview protocol was pilot-tested with experienced representatives from stakeholder groups to reach a stable and well-functioning protocol. Consistent with good research practice for interview-based research,<sup>2</sup> the authors began with broad open-ended questions (e.g. "What is the process you undertake to evaluate a company for investment purposes? What information do you use in this process?"). This helped to ensure that the interviewees were not unduly prompted or primed to focus on a particular source of information (for example, financial statements). Only later in the protocol did the authors narrow the focus to address specific questions about the role of alternative performance measures, including industry-specific non-financial measures. Importantly, both in the use of broad open-ended initial questions, and in subsequent, more targeted questions, the protocol was worded so as not to bias responses either for or against the role of any particular type of information in investor decision making.

The use of a standard protocol ensured there was a base set of questions that were asked of all interviewees. The protocol comprised seven main questions, with prompts to ensure elaboration by the interviewee on issues of concern. The conduct of the interview bore out the appropriateness of the protocol, as the natural progression of the interviewees' unprompted discourse often pre-emptively mirrored the order of our questions.

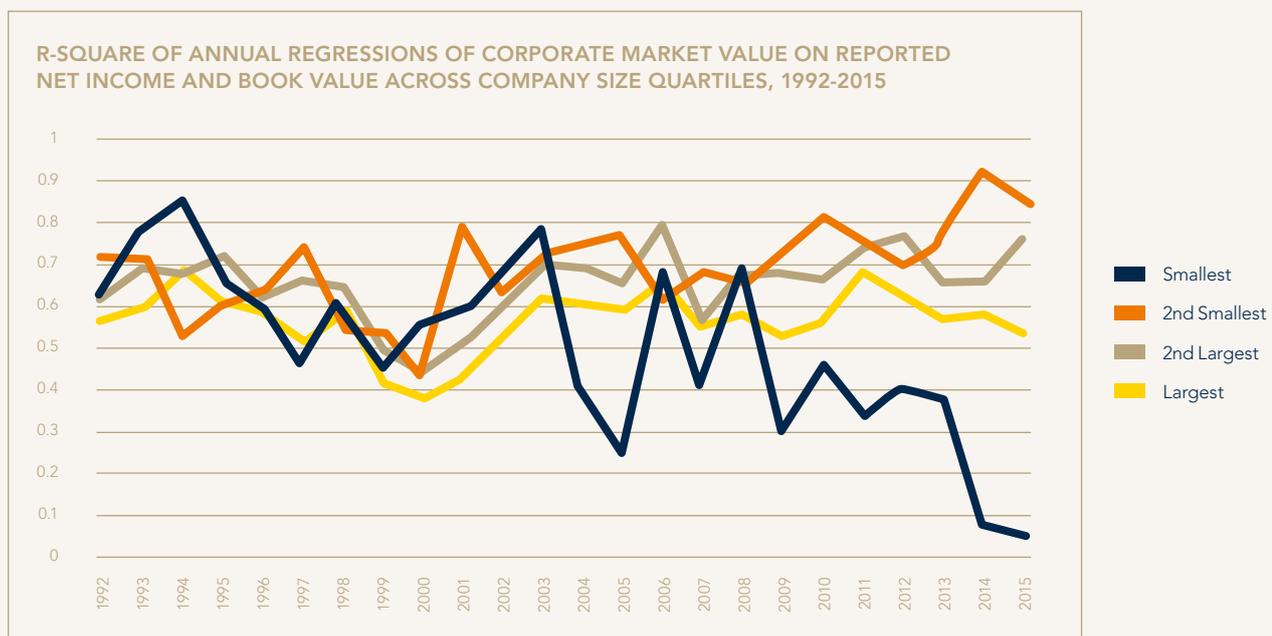
<sup>1</sup> Compare, for example, the findings of Gassen and Schwedler (2010) and Cascino et al (2016) with the findings of Lev and Gu (2016) and Lev (2018).  
<sup>2</sup> Yin (2013), Galletta (2013), Schultze and Avital (2011).

## RELEVANCE OF COMPANY SIZE – SHARE PRICE EVIDENCE

As documented in Research Report 1<sup>3</sup> and Research Report 3,<sup>4</sup> we find no reduction in financial reporting relevance over 1992-2015 for all sample firms, and find an increase in financial reporting relevance over time for firms in five of eight industries, including intangibles-intensive industries. This is despite the assertion that the traditional reporting model is not relevant in a knowledge-based and service-orientated economy. A potential explanation for finding no systematic decrease in financial reporting relevance is that it may be that ‘new economy’ service-orientated firms may be younger and smaller. We provide an analysis of the effect of company size on financial reporting relevance by partitioning firms into four size quartiles based on market capitalisation, ranging from very small to very large, and examine whether the financial reports of different sized firms are similarly relevant to equity investors. As Figure 1 shows, net income and shareholders’ equity

reported by the top 75 percent of sample firms according to size remain consistently relevant to equity investors over the sample period. In contrast, for the very smallest portfolio of firms there is volatility in the usefulness of their net income and shareholders’ equity for equity investors. There does, however, appear to be a trend downwards in the combined value relevance of net income and shareholders’ equity across time for the smallest portfolio of firms. In particular, there is a dramatic decline in usefulness in 2008, which coincides with the lingering effects of the global financial crisis, and a further decline from 2013 onwards. These results may be a reflection of share prices of small firms being a “noisy” measure of firm value. Consequently, a disconnection exists between share price and accounting information.

**FIGURE 1:**  
**POWER OF NET INCOME AND SHAREHOLDERS’ EQUITY COMBINED IN EXPLAINING SHARE PRICES ACROSS COMPANY SIZE PORTFOLIOS.**



3 See <https://www.cpaaustralia.com.au/~media/corporate/allfiles/document/professional-resources/reporting/are-financial-reports-still-relevant-to-investors.pdf?la=en>

4 See <https://www.cpaaustralia.com.au/~media/corporate/allfiles/document/professional-resources/reporting/the-effect-of-industry.pdf?la=en>

## RELEVANCE OF COMPANY SIZE – EVIDENCE FROM FIELD INTERVIEWS

While interview protocol did not specifically address the issue of company size, interviewees did note that in terms of financial reporting, a one size fits all approach was clearly inappropriate:

...different types of companies and different size require different things and I think we're making a broad brush approach to saying everything applies to the same industry and also different size companies (Auditor 5)

At the smaller end of the spectrum, financial statements may be less useful because it can be possible, particularly in the unlisted space, for the investor to get direct first-hand information:

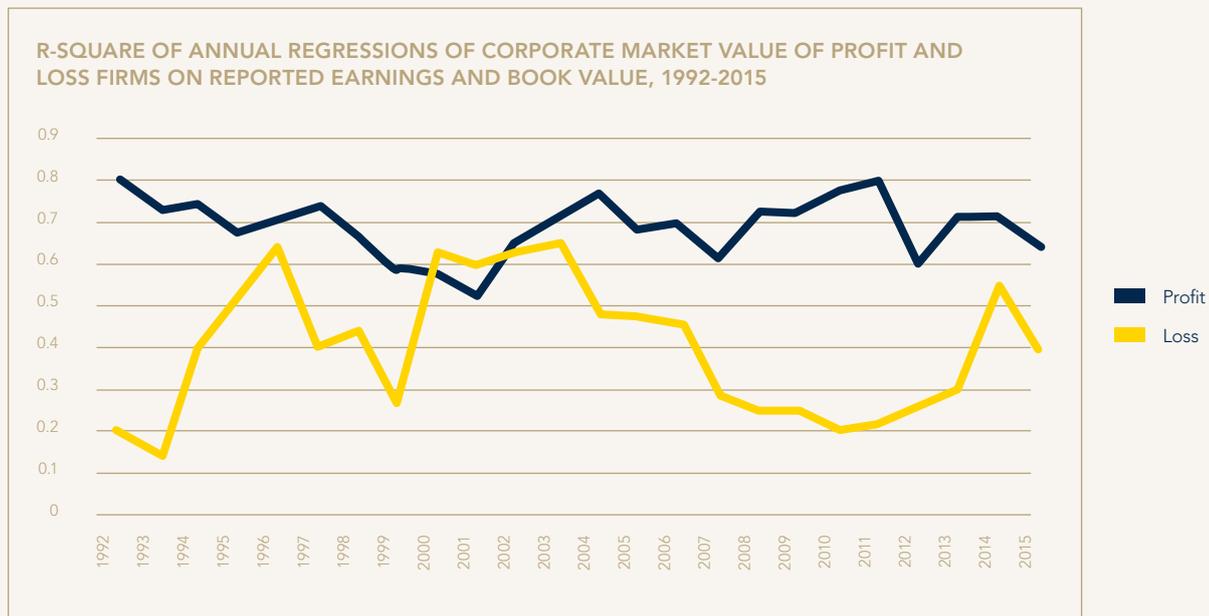
...it would come back to how well they felt they knew the business. So, and I think that generally then tends to be more at the smaller and lower end of town or whether it's a private equity transaction or something else (Auditor 3)

## RELEVANCE OF COMPANY PROFITABILITY – SHARE PRICE EVIDENCE

We next examine whether the usefulness of financial reporting to equity investors differs depending on whether the firm is a profit-making or loss-making firm. To do this, for each year we divided sample firms into those that

made a profit or loss and separately examined the association each year between share price and reported net income and shareholders' equity for profit and loss firms. The results are reported in Figure 2.

**FIGURE 2:**  
POWER OF NET INCOME AND SHAREHOLDERS' EQUITY COMBINED IN EXPLAINING SHARE PRICES FOR PROFIT AND LOSS FIRMS.



Our results show that net income and shareholders' equity reported by profit firms is more useful to equity investors in making investment decisions than reported net income and shareholders' equity of loss firms. As Figure 2 indicates, apart from the year 2000 and 2001, reported net income and shareholders' equity combined is better to explain the share price performance of profit-making firms than loss-making firms. In particular, the mean adjusted  $R^2$  for profit firms is 69 percent. This means that, on average, a profitable company's financial performance and position, measured as reported net income and shareholders' equity respectively, explain 69 per cent of the company's share price. This is greater than the mean adjusted  $R^2$  of 64 percent for all sample firms reported in Research Report 1. Moreover, the ability of net income and shareholders' equity to explain a profitable company's share price is relatively stable over the sample period, indicating that equity investors have

consistently considered these measures of financial performance and position as important inputs in their valuation of profitable companies.

For loss-making firms, however, the mean adjusted  $R^2$  is 40 percent, meaning that less than half of a loss-making company's share price is associated with their financial performance and position. Over the sample period, there is also an apparent volatility in financial reporting relevance of loss-making companies, as investors perhaps look to non-financial considerations to inform their investment decisions for loss-making firms.

Overall, our findings indicate that reported net income and book value of equity are important inputs in explaining a profitable company's share price. However, equity investors consider other inputs in the valuation of loss-making companies.

## RELEVANCE OF COMPANY PROFITABILITY – EVIDENCE FROM FIELD INTERVIEWS

The interview evidence similarly revealed a different approach to the use of financial statement information in valuing profit versus loss-making companies:

the other example that I was giving you about highspeed broadband or fibre internet, the P and L might show that it's a lossmaking business because its {the business} depreciation's so high but the cashflow might show that you know it's generating 10% of its market cap in free cash each year so I – yes, use all three {financial statements}, all three are absolutely important. (Investor 5)

The usefulness of information for valuation purposes also depends on the time horizon that the investor has, which can change the way a profit versus loss-making firm is evaluated:

So is it an investment or is it a yield investment. If it's a yield investment they'll [the investors] focus on the profitability and things like that but if it's [the investment] for the longer term I think they look at the quality of the assets and the quality of the profit and loss and how predictable that is going forward. (Auditor 4)

Clearly the usefulness of financial statement information is a nuanced issue with different aspects of the financial statements having varying degrees of usefulness in different situations. A broad-brush analysis likely understates usefulness as it glosses over subtleties like profit vs. loss-making, time horizons and so on.

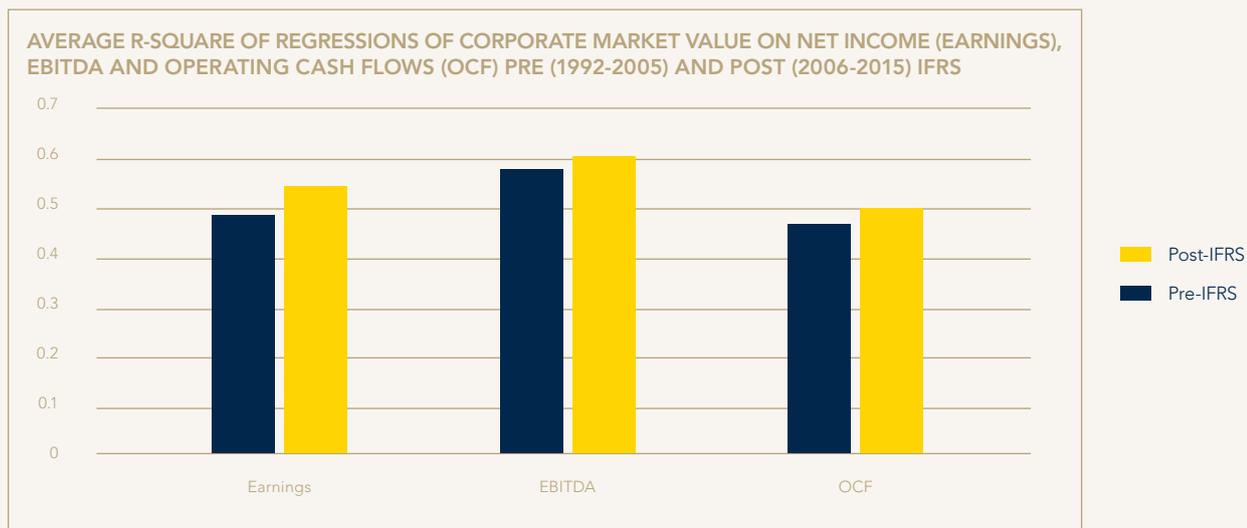
## RELEVANCE OF IFRS ADOPTION – SHARE PRICE EVIDENCE

Finally, we examine the impact of IFRS adoption on the relevance of financial reporting in Australia. There are several Australian studies that examine the impact of IFRS adoption on the relevance of accounting information, with inconclusive findings. For example, Goodwin et al (2008) find that Australian GAAP (AGAAP)-reported net income and book value of equity are more relevant for equity valuation than IFRS-based net income and book value of equity. On the other hand, Chalmers et al (2011) find that the relevance of net income increases post-IFRS and the relevance of book value of equity remains constant over the pre- and post-IFRS periods, while Clarkson et al (2011) find no change in the relevance of either net income or book value of equity post-IFRS. In the context of intangible assets, Chalmers et al (2008) find IFRS provides incrementally relevant

information for equity valuation purposes in relation to goodwill, while AGAAP provides incremental value-relevant information on identifiable intangibles.

Our analysis differs from the above studies by examining the impact of IFRS adoption on the relevance of alternative performance metrics, which is pertinent given the documented increase in pro forma earnings disclosures following the adoption of IFRS (Coulton et al 2016; Crowley et al 2016). As part of our analysis, we divide our sample period into pre (1992-2005) and post (2006-2015) IFRS periods and compare the mean adjusted  $R^2$  across both sub-periods for three alternative performance metrics: statutory profit (i.e., earnings); EBITDA; and cash earnings (i.e., operating cash flows). The results are reported in Figure 3.

**FIGURE 3:**  
**POWER OF NET INCOME, EBITDA AND OPERATING CASH FLOWS IN EXPLAINING SHARE PRICES PRIOR TO AND FOLLOWING THE INTRODUCTION OF IFRS.**



Our results show an increase in the relevance of all performance metrics post-IFRS. In the context of net income, the mean adjusted  $R^2$  is 49 percent prior to the introduction of IFRS and 55 percent following IFRS adoption. This means that, on average, a company's net income explains 49 percent of a company's share price when net income is calculated using AGAAP and 55 percent of a company's share price when net income is measured using IFRS. Similarly, the ability of EBITDA to explain a company's share price increased from 58 percent to 61 percent following the introduction

of IFRS, while the relevance of operating cash flows for equity valuation increased from 47 percent to 51 percent post-IFRS. Consistent with our earlier analysis in Report 2, the mean adjusted  $R^2$  reported for EBITDA indicates that EBITDA is more value relevant than net income and operating cash flows in explaining the variation in company share prices, whether pre- or post-IFRS. Overall, our findings indicate an increase in the decision-usefulness of firm performance metrics following the introduction of IFRS.

## RELEVANCE OF IFRS ADOPTION – EVIDENCE FROM FIELD INTERVIEWS

The interview protocol did not specifically address the issue of IFRS adoption. Although, the value of an international standard was recognized and the lack of conformity between US GAAP and IFRS was lamented:

I guess there's not much you can do about that, the US has still got to use US GAAP and the rest of the world has got to use IFRS so what can you do? (Investor 5)

## CONCLUSION

Following on from the first three reports in this series, which show that:

1. financial reports remain relevant for equity valuation in Australia;
2. investors view non-GAAP and other non-financial information as complements, rather than substitutes, to financial reports; and
3. financial reports remain relevant for investors regardless of industry

This report examines whether the relevance of financial reports vary according to company size and profitability, and Australia's adoption of IFRS. This is demonstrated by archival findings, and supported by evidence from field interviews.

Our results also show that, in general, financial reporting is relevant over time for larger listed companies, but in recent times it is declining in relevance for small listed companies. These findings may be attributable to share price being a "noisy" measure of firm value, thereby creating a disconnection between share price and accounting information. We also find that financial reports are more relevant for

profit-making than loss-making firms, suggesting investors make investment decisions differently for profit-making than loss-making firms. In particular, investors seem to predominantly consider non-accounting factors when making investment decisions about loss-making firms. Finally, we find that the introduction of IFRS improved the relevance of financial reports, as investors found EBITDA, EBIT and operating cash flows more decision-useful post-IFRS.

The results of this study are important for practitioners, regulators and standard-setters by providing empirical evidence to explain the role that financial information plays in investor decision making in Australia according to company size, profitability and IFRS adoption. Our research provides a basis from which standard-setters and other regulators can provide a nuanced response to the criticisms levelled at financial reporting. In particular, our findings suggest that a one size fits all financial reporting model is inappropriate and should take into account firm characteristics such as size.

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## GLOSSARY

AASB	Australian Accounting Standards Board
ASX	Australian Stock Exchange
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
IFRS	International Financial Reporting Standards
Market capitalisation	The market value of a publicly-listed company's outstanding shares, and is measured as closing share price at financial year-end multiplied by the number of shares outstanding at financial year-end
Regression analysis	A statistical technique that examines the correlation between a dependent variable (e.g., share price) and one or more explanatory variables (e.g., net profit and shareholders' equity)
R-square ( $R^2$ )	The extent to which variation in the dependent variable is associated with variation in the explanatory variables.

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