

# *Discussion of* Do Acquirers Manage Earnings Prior to a Share for Share Bid

STEVEN YOUNG\*

Botsari and Meeks (2008) (hereafter BM) replicate the analysis of Erickson and Wang (1999) using a sample of UK acquirers. Empirical tests seek to determine whether bidders in share swap acquisitions manipulate earnings upwards during the pre-acquisition period in an attempt to inflate their share price and hence minimise the number of shares issued in exchange for the target. BM present results consistent with this prediction and as such their findings add to a growing body of evidence highlighting the importance of capital market-driven incentives for earnings management. My discussion focuses on the following aspects of their study. First, I examine the theory underlying BM's main prediction and review their empirical findings. Then I discuss aspects of BM's research design from the perspective of both their study and the broader earnings management literature.

## 1. THEORY AND EVIDENCE

### *(i) The Benefits and Costs of Inflating Share Price in a Share Swap Acquisition*

The paper's central thesis is that bidders in share for share acquisitions inflate their share price immediately prior to the acquisition agreement date to reduce the cost of acquiring the target (because the number of shares exchanged with target shareholders is typically based on the value of the bidder's shares on the acquisition agreement date). Accordingly, a higher share price reduces the number of shares issued by the bidder in the exchange. BM do not explain in any detail precisely how shareholders of the bidding firm benefit from such behaviour; and neither do they consider the potential costs associated with this strategy.

Shleifer and Vishny (2003) argue that acquirers can use overvalued stock to purchase real assets at less than their economic value to the benefit of their original shareholders,

\*The author is from Lancaster University. This discussion has benefited from conversations with Suchitra Keswani and John O'Hanlon.

**Address for correspondence:** Steven Young, Lancaster University Management School, Lancaster University, Lancaster LA1 4YX, UK.  
e-mail: s.young@lancaster.ac.uk

even if share price subsequently falls. Assuming that the acquirer's share price reverts to its true value following the acquisition, the per share gain to shareholders of the acquiring firm ( $G_A$ ) is given by:

$$G_A = \left( \frac{V_A^{PM} + V_T}{S_A + NS_A^T} \right) - P_A^{PM}, \quad (1)$$

where  $V_A^{PM}$  is pre-manipulated aggregate value of the acquirer,  $V_T$  is the agreed acquisition value of the target,  $S_A$  is the number of shares outstanding in the acquirer prior to the deal,  $NS_A^T$  is the number of new shares issued by the acquirer to purchase the target, and  $P_A^{PM}$  is the true (i.e., pre-manipulated) share price of the acquirer. The aggregate gain to the acquirer's shareholders is equal to  $G_A \times S_A$ .<sup>1</sup> Holding overvaluation of the acquirer's shares constant, the gain to bidder shareholders is increasing in the acquisition price, suggesting that the incentive to manipulate earnings upward to boost share price will be more pronounced for larger deals. Unfortunately, the scope for sample partitioning based on deal value is limited by sample size in BM's case.

Erickson and Wang (1999) suggest that shareholders of acquiring firms may also benefit from a lower exchange ratio through a reduction in earnings dilution. Prior research suggests that managers view earnings dilution as a potentially serious problem (despite the absence of any overall valuation implications in a traditional corporate finance framework).<sup>2</sup> However, the importance of earnings dilution in the context of share swap acquisitions is ambiguous because although the pure share issue effect serves to dilute bidders' post-acquisition eps, this will be offset in cases where the target's underlying eps performance exceeds that of the acquirer. (Indeed it is possible that eps for combined entity could increase as a consequence of the acquisition.) All else equal, therefore, the impact of earnings dilution considerations on the incentive to inflate share price is likely to be most pronounced for deals where the number of shares issued by the acquirer to fund the acquisition represents a high proportion of existing shares outstanding and where the bidder's eps substantially exceeds that of the target firm.

Other possible reasons why bidders might seek to minimise the exchange ratio by manipulating share prices upward include avoiding dilution of shareholders' voting and control rights (Erickson and Wang, 1999) and minimising equity servicing costs.<sup>3</sup> While BM and Erickson and Wang (1999) both document evidence consistent with earnings

1 The precise source of these gains depends on the behaviour of the target's shareholders. If target shareholders retain their shares beyond the price reversal date, then they bear the entire cost of this wealth transfer. However, target shareholders can insulate themselves from this wealth loss by selling out for cash before the price reversal occurs. Loughran and Vijh (1997) find that target shareholders who sell out soon after the acquisition effective date gain from acquisitions, whereas those who hold on to the acquirer's stock received as payment find their gains diminish over time.

2 In their survey of corporate finance practices, Graham and Harvey (2001) find that eps dilution remains one of the biggest concerns for managers in equity issuance. Brav, Graham, Harvey and Michaely (2005) report that two-thirds of their survey respondents feel that offsetting dilution is important or very important in affecting share repurchase decisions.

3 Discussions with investment bankers suggest that the cost of servicing equity represents an important practical issue for bidders in share swap acquisitions. All else equal, bidders pursuing a high dividend payout strategy are predicted to minimise the number of shares issued because this helps avoid the risk of unsustainably high payout ratios. This effect is expected to be particularly acute when the bidder's dividend yield is substantially higher than the target's yield.

management by bidders in swap acquisitions, the precise reason or reasons driving this behaviour remain unclear. Research designed to elucidate managers' incentives to artificially increase share price prior to a share for share acquisition would therefore represent a useful contribution to the literature.

BM focus exclusively on the benefits of overvalued equity; the costs associated with overvaluation are either overlooked or implicitly assumed to be immaterial. However, recent research documents potentially serious costs to overvalued equity in the form of low accounting quality (Kothari, Loutskina and Nikolaev, 2006), excessive debt and equity issues (Baker and Wurgler, 2002), overinvestment in fixed assets (Polk and Sapienza, 2004), value-destroying acquisitions (Jensen, 2005; and Moeller, Schlingemann and Stulz, 2005), and a higher probability of legal action (DuCharme, Malatesta and Sefcik, 2004). Assuming the earnings management documented by BM is an attempt by acquirers' managers to temporarily boost share prices in an effort to minimise the exchange ratio, the extent to which such behaviour benefits bidders' shareholders in the long-run remains an open question worthy of future research.

### *(ii) Overvalued Equity as an Alternative Explanation*

An alternative interpretation consistent with BM's evidence of earnings management prior to share swap acquisitions is rooted in the literature on overvalued equity. Jensen (2005, p. 5) defines a firm as being overvalued when it is unable to deliver (except by luck) the performance implicit in its market price. A growing body of research articulates the agency costs of overvalued equity, which include manipulating earnings and undertaking value-destroying acquisitions paid for using equity (Jensen, 2005; Kothari, Loutskina and Nikolaev, 2006; and Moeller, Schlingemann and Stulz, 2005). This evidence suggests a scenario in which managers artificially inflate reported earnings to promote or sustain temporary overvaluation, which in turn increases the likelihood of subsequent acquisitions paid for using (overvalued) shares. Empirically, this scenario yields an identical prediction to that tested by BM: earnings management by share swap bidders in the pre-acquisition period. However, the earnings management in this scenario is not a direct consequence of acquirers' desire to minimise the exchange ratio in equity financed acquisitions, as predicted by BM. Instead, the earnings management and share financed acquisitions are both driven by overvaluation. BM's tests do not provide a means of discriminating between these competing (though not necessarily mutually exclusive) hypotheses.<sup>4</sup> Given that the sample window in BM's analysis includes a period characterised by severe overvaluation in certain sectors, further research aimed at disentangling these competing effects seems warranted.

<sup>4</sup> Results of supplementary tests reported in Section 5 using performance-matched discretionary accruals (Kothari, Sabino and Zach, 2005) may shed some light on this issue. Findings presented in Table 15 provide little evidence of statistically significant levels of income increasing earnings management in year 0 after controlling for underlying ROA performance. These findings contrast with those reported in Table 8 using the traditional Jones model. Instead, results in Table 15 provide robust evidence of earnings management in year -1. Evidence of manipulation in year -1 (i.e., earnings released at least 14 months prior to the agreement date) coupled with the absence of earnings management in year 0 is, I would argue, more consistent with the overvalued equity hypothesis than the acquisition-driven earnings management hypothesis.

## 2. RESEARCH DESIGN

### (i) *Financial Statement Data Sources*

BM attribute discrepancies in accrual results using the balance sheet and cash flow methods to measurement error associated with the balance sheet approach. Measurement error in accruals computed using changes in successive balance sheets is likely to be a particular problem when examining earnings management around acquisitions due to a break down in articulation between consolidated changes in balance sheet accounts and the accrual component of revenues and expenses reported in the consolidated income statement (Hribar and Collins, 2002). Accordingly, BM conclude that findings reported using the cash flow method are likely to be more reliable. While I accept the proposed benefits of using the cash flow method in such circumstances, practical data considerations may confound these benefits in BM's case.

BM measure operating accruals using data from Thomson Financial's Worldscope database. Worldscope contains standardised financial statement data: Thomson analysts adjust reported numbers in accordance with Worldscope's editorial rules to reverse out differences in local accounting practices and enhance the international comparability of their data.<sup>5</sup> Testing for evidence of earnings management using Worldscope-adjusted data (rather than as-reported numbers) is potentially problematic because the resulting accrual measures risk conflating comparability adjustments made by Worldscope with accrual choices made by management; and this problem will be exacerbated when the magnitude of Worldscope adjustments varies across the individual items used to compute accruals.

Alves, Beekes and Young (2007) compare the properties of income statement, balance sheet and cash flow statement items from Worldscope with corresponding items from Extel Financial and the Datastream Company Accounts Archive (both of which contain as-reported data). Results based on a sample of 11,579 firm-years for 2,830 UK firms common to all three databases reveal material differences in the definition and construction of certain variables. In particular, Alves et al. (2007) document dramatic disparities in operating cash flow: mean and median Worldscope values are 25 percent lower than those from Extel and the Company Accounts Archive.<sup>6</sup> Results reported by UK retail giant Tesco PLC illustrate the difference between operating cash flow computed according to UK GAAP and Worldscope's adjusted operating cash flow figure. Tesco reported operating cash flows of £1,219, £1,156 and £1,321 million for financial years ending 22 February, 1997, 28 February, 1998 and 27 February, 1999, respectively. Corresponding values reported on Worldscope are £944, £824 and £955 million.<sup>7</sup> In contrast, Worldscope operating profit (*WC04001*) is identical to the UK GAAP numbers reported by Tesco: £774, £817 and £934 million in 1997, 1998 and 1999,

5 Thomson Financial does not publish details of its Worldscope global template for proprietary reasons and so few details of adjustment procedures are available.

6 No statistically significant difference exists between operating cash flow values reported by Extel and the Company Accounts Archive.

7 Following BM, Worldscope operating cash flow is computed as the sum of *WC04201* and *WC04831* for Worldscope accessed through the Datastream platform. In Tesco's case, the sum of *WC04201* and *WC04831* is equal to Worldscope item *WC04860* (Net Cash Flow - Operating Activities).

respectively.<sup>8</sup> Accordingly, BM's cash flow-based accrual measure contains a mixture of Worldscope adjustments (to cash flow), non-discretionary accruals, and earnings management. Whether procedures such as the Jones and modified-Jones models are capable of fully disentangling these effects is doubtful.<sup>9</sup>

### *(ii) Market Rewards to Earnings Management*

Underpinning BM's empirical analysis are the joint hypotheses that managers manipulate earnings using accruals and that share prices respond positively to such manipulation (see Section 6 in their paper). Focusing on the second of these predictions, the precise mechanism through which earnings management succeeds in (artificially) boosting share price is not elucidated in the paper. Presumably BM have in mind recent evidence on the market rewards to meeting and beating analysts' earnings expectations (Barth, Elliot and Finn, 1999; Bartov, Hayn and Givoly, 2002; Kasznik and McNichols, 2002; and Skinner and Sloan, 2002). A consistent result emerging from this body of research is that share prices tend to rise when firms announce earnings that meet or beat analysts' forecasts.

Linking the earnings management behaviour predicted by BM prior to share swap acquisitions with the literature documenting market rewards to meeting and beating earnings expectations suggests the following three supplementary predictions. First, to the extent that market rewards to income increasing accruals are hard to justify in the presence of negative earnings surprises, share swap bidders are expected to report non-negative earnings surprises prior to the agreement date (i.e., year 0 and possibly year -1). Second, conditional on observing a positive earnings surprise, the agreement date for bidders intent on securing the market rewards to earnings management should follow quickly after the earnings announcement date (in case prices subsequently fall as less favourable earnings information arrives). Third, the pricing gains to income increasing earnings management are expected to concentrate at the point when earnings information is released to the market. Accordingly, a large fraction of the positive abnormal returns reported in Table 16 for the two-year window preceding the agreement date should cluster around earnings announcement dates. Evidence consistent with these three predictions would lend further weight to BM's conclusion that bidders in share for share acquisitions manage their pre-acquisition earnings upwards in an attempt to influence the exchange ratio.

### *(iii) Alternatives to Managing Accruals*

Consistent with a large body of work in the earnings management literature, BM focus on operating accruals as the manipulation instrument of choice. Good reasons exist to explain why BM and prior research focus on operating accruals. Nevertheless, it is important to recognise that managers intent on manipulating investors' perceptions of firm performance and value are able to select from an array of different methods.

8 Tesco's comparative income statement figures for 1998 were restated in its 1999 accounts to comply with Financial Reporting Standard No.12: *Provisions, Contingent Liabilities and Contingent Assets*. Figures reported by Worldscope for 1998 are the original numbers published in the 28 February, 1998, accounts rather than the subsequently restated comparatives from the 27 February, 1999, accounts.

9 If Worldscope applies the same adjustment procedure to all firms then a portion (but not all) of the Worldscope-specific effect may be captured by the constant in the first stage regression estimation.

Managing reported earnings is one option. However, even for this option the choices available to management are extensive. In addition to manipulating operating accruals, managers are able to exploit their discretion over non-operating items (Comprich and Muller, 2006) and classificatory decisions (McVay, 2006). Prior research also demonstrates that earnings are managed through real operating decisions including transaction timing (Hirst and Hopkins, 1998), discretionary investment expenditures (Bange and DeBonds, 1998; and Bushee, 1998) and share repurchases (Bens, Nagar, Skinner and Wong, 2003; and Hribar, Jenkins and Johnson, 2006). Of course, managers seeking to influence investors' perceptions need not resort to manipulating GAAP earnings. Alternative strategies include walking down analysts' earnings expectations to increase the probability of reporting a positive earnings surprise (Bartov et al., 2002; and Kasznik and McNichols, 2002) and disclosing alternative non-GAAP earnings constructs (Bhattacharya, Black, Christensen and Larson, 2003; Lougee and Marquardt, 2004; and Choi, Lin, Walker and Young, 2007).

Extant earnings management research has done a poor job of attempting to understand how and why managers choose between these alternative manipulation methods. My guess is that the pecking order of methods depends on managerial, firm and environmental factors. Research aimed at identifying these conditioning variables and understanding how managers choose between alternative manipulation methods represents an important next step for the earnings management literature for several reasons. First, assuming that all firms in a particular sample employ broadly the same (single) approach to manipulation is likely to yield extremely low power tests. Second, attempts to better understand managers' manipulation choices arguably represents a more interesting and relevant research question (particularly to standard setters and regulators) than the traditional and more prosaic question of whether managers actually engage in manipulation (the well established answer to which is: yes they do!).

Recent research has started to shed light on managers manipulation strategies. For example, Graham, Harvey and Rajgopal (2005) use a survey approach to elicit managers' preferred methods for manipulating earnings. Their findings are interesting because contrary to received wisdom in the earnings management literature, managers indicate a preference for real earnings management over pure accounting manipulations. In related work, Zang (2006) explores the interaction between managers' use of real and accrual manipulations. Results indicate that managers use real manipulation before accrual manipulation, and that the two methods serve as substitutes.

#### *(iv) Measuring Earnings Management in Small Samples*

Sample selection rules applied by BM yield in a relatively small final sample: just 55 observations. As empiricists, we often view such small samples with considerable scepticism due to concerns about insufficient statistical power, while entirely overlooking the potential benefits that a small sample can offer. The advantages of large sample work are frequently emphasised in the context of earnings management research (see BM: Section 6). However, these benefits are obtained at a significant price: most notably the use of relatively blunt procedures such as discretionary accruals models for estimating earnings management activity. Accordingly, what appears based on sample size to be a high power test actually turns out to be nothing of the sort due to problems with measuring earnings management.

Small yet relative comprehensive samples such as the one used by BM provide researchers with an opportunity to adopt a more detailed forensic approach to the identification of earnings management, based on careful analysis of published financial statements. This was the method used by Smith (1992) in his influential study of UK accounting practices. Despite lacking the usual methodological and statistical rigor associated with academic research on earnings management, Smith's work generated the interest and impact that most accounting researchers can only dream about. A key reason why Smith's research proved so influential was that his approach convincingly demonstrated both the methods used by management to inflate reported earnings and their overall impact on published numbers: readers could see the earnings management and its effects for themselves. In short, Smith's work focused on real accounting practices. Exploiting the opportunity afforded by a small sample to conduct a Smith-style analysis of actual earnings management practices represents one potentially fruitful way of shedding new light on managers' reporting behaviour, as well as providing new insights into the primary accounting methods used to manipulate reported results.

## REFERENCES

- Alves, P., W. Beekes and S. Young (2007), 'A Comparison of UK Firms' Financial Statement Data From Six Sources', Working Paper (University of Lancaster).
- Baker, M. and J. Wurgler (2002), 'Market Timing and Capital Structure', *Journal of Finance*, Vol. 57, pp. 1–32.
- Bange, M. M. and W. F. M. De Bondt (1998), 'R&D Budgets and Corporate Earnings Targets', *Journal of Corporate Finance*, Vol. 4, No. 2, pp. 153–84.
- Barth, M. E., J. A. Elliott and M. W. Finn (1999), 'Market Rewards Associated with Patterns of Increasing Earnings', *Journal of Accounting Research*, Vol. 37, No. 2, pp. 387–413.
- Bartov, E., D. Givoly and C. Hayn (2002), 'The Rewards to Meeting or Beating Earnings Expectations', *Journal of Accounting and Economics*, Vol. 33, No. 2, pp. 173–204.
- Bens, D., V. Nagar, D. Skinner and M. Wong (2003), 'Employee Stock Options, EPS Dilution, and Stock Repurchases', *Journal of Accounting and Economics*, Vol. 36, Nos. 1–3, pp. 51–90.
- Bhattacharya, N., E. Black, T. Christensen and C. Larson (2003), 'Assessing the Relative Informativeness and Permanence of Pro Forma Earnings and GAAP Operating Earnings', *Journal of Accounting and Economics*, Vol. 36, pp. 285–319.
- Botsari, A. and G. Meeks (2008), 'Do Acquirers Manage Earnings Prior to a Share for Share Bid?', *Journal of Business Finance & Accounting*, Vol. 35, Nos. 5&6 (July), pp. 633–670.
- Brav, A., J. Graham, C. Harvey and R. Michaely (2005), 'Payout Policy in the 21st Century', *Journal of Financial Economics*, Vol. 77, pp. 483–527.
- Bushee, B. J. (1998), 'The Influence of Institutional Investors on Myopic R&D Investment Behavior', *The Accounting Review*, Vol. 73, No. 3, pp. 305–33.
- Choi, Y.-S., S. Lin, M. Walker and S. Young (2007), 'Disagreement Over the Persistence of Earnings Components: Evidence on the Properties of Management-Specific Adjustments to GAAP Earnings', *Review of Accounting Studies*, Vol. 12, No. 4, pp. 595–622.
- Comprix, J. and K. Muller (2006), 'Asymmetric Treatment of Reported Pension Expense and Income in Amounts in CEO Cash Compensation Calculations', *Journal of Accounting and Economics*, Vol. 42, pp. 385–416.
- DuCharme, L., P. Malatesta and S. Sefcik (2004), 'Earnings Management, Stock Issues, and Shareholder Lawsuits', *Journal of Financial Economics*, Vol. 71, pp. 27–49.
- Erickson, M. and S.-W. Wang (1999), 'Earnings Management by Acquiring Firms in Stock for Stock Mergers', *Journal of Accounting and Economics*, Vol. 27, No. 2, pp. 149–76.
- Graham, J. and C. Harvey (2001), 'The Theory and Practice of Corporate Finance: Evidence from the Field', *Journal of Financial Economics*, Vol. 60, pp. 187–243.
- and S. Rajgopal (2005), 'The Economic Implications of Corporate Financial Reporting', *Journal of Accounting and Economics*, Vol. 40, Nos. 1–3, pp. 3–73.

- Hirst, D. E. and P. Hopkins (1998), 'Comprehensive Income Reporting and Analysts' Valuation Judgements', *Journal of Accounting Research*, Vol. 30 (Supplement), pp. 47–75.
- Hribar, P. and D. Collins (2002), 'Errors in Estimating Accruals: Implications for Empirical Research', *Journal of Accounting and Economics*, Vol. 40, pp. 105–34.
- , N. Jenkins and W. B. Johnson (2006), 'Stock Repurchases as an Earnings Management Device', *Journal of Accounting and Economics*, Vol. 41, pp. 3–27.
- Jensen, M. (2005), 'Agency Costs of Overvalued Equity', *Financial Management*, Vol. 34, No. 1, pp. 1–19.
- Kaszniak, R. and M. F. McNichols (2002), 'Does Meeting Earnings Expectations Matter? Evidence From Analyst Forecast Revisions and Share Prices', *Journal of Accounting Research*, Vol. 40, No. 3, pp. 727–59.
- Kothari, S., E. Loutschina and V. Nikolaev (2006), 'Agency Theory of Overvalued Equity as an Explanation for the Accrual Anomaly', Working Paper (Tilburg University).
- , J. Sabino and T. Zach (2005), 'Performance Matched Discretionary Accrual Measures', *Journal of Accounting and Economics*, Vol. 39, pp. 163–97.
- Lougee, B. and C. Marquardt (2004), 'Earnings Quality and Strategic Disclosure: An Empirical Examination of 'Pro Forma' Earnings', *The Accounting Review*, Vol. 79, pp. 769–95.
- Loughran, T. and A. Vijh (1997), 'Do Long-Term Shareholders Benefit From Corporate Acquisitions?', *Journal of Finance*, Vol. 52, No. 5, pp. 1765–90.
- McVay, S. (2006), 'Earnings Management Using Classification Shifting: An Examination of Core Earnings and Special Items', *The Accounting Review*, Vol. 81, No. 3, pp. 501–31.
- Moeller, S., F. Schlingemann and R. Stulz (2005), 'Wealth Destruction on a Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave', *Journal of Finance*, Vol. 60, No. 2, pp. 757–82.
- Polk, C. and P. Sapienza (2004), 'The Real Effects of Investor Sentiment', Working Paper (Northwestern University).
- Shleifer, A. and R. Vishny (2003), 'Stock Market Driven Acquisitions', *Journal of Financial Economics*, Vol. 70, pp. 295–311.
- Skinner, D. J. and R. G. Sloan (2002), 'Earnings Surprises, Growth Expectations, and Stock Returns: Don't Let an Earnings Torpedo Sink Your Portfolio', *Review of Accounting Studies*, Vol. 7, Nos. 2–3, pp. 289–312.
- Smith, T. (1992), *Accounting for Growth: Stripping the Camouflage for Company Accounts* (London: Century Business).
- Zang, A. (2006), 'Evidence on the Tradeoff Between Real Earnings Manipulation and Accruals Manipulation', Working Paper (University of Rochester).