

# An Investigation Of Earnings Management Through Investments In Associated Companies: An Australian Perspective

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## Abstract

*Until recently, Australian companies have been precluded from adopting equity accounting for investments in associated companies in the consolidated accounts. As reported profits were based on the cost method (albeit with note disclosures utilising equity accounting procedures), this paper investigates the incentives of Australian firms to manage earnings in a reporting environment which facilitated opportunism. It is argued that the higher the ex ante probability of managing accounting earnings from investments in associates, parties will contract to remove those incentives by restricting the accepted set of accounting procedures to equity accounting. Opportunism is more likely to be observed for firms for which it is inefficient to specify ex ante the method of accounting for associates. The ability to act opportunistically is defined as the degree of influence which an investor exercises over the financial and/or operating policies of its investees. The results are confirmatory. For firms which have a lower ex ante probability of managing earnings, use of the cost method significantly improves consolidated return on investment compared with returns calculated using the equity method. Firms which are more likely to choose the equity method for efficiency reasons have an insignificant difference between cost and equity returns.*

## 1.0 Introduction

Associates have historically been a popular form of investment in Australia. Ryan, Andrew, Gaffikin and Heazlewood (1991) show that for the 1987 year, 74 per cent of the largest (by market capitalisation) 150 listed companies reported investments in associates. However, Petzke (1995) identifies a declining trend in the number of investors with associates, decreasing to fifty-five per cent in 1994.<sup>1</sup> The fall in associates follows changes to regulation of accounting for investments in associates and subsidiaries.

Accounting for investments in associates has presented a significant problem for regulators in Australia. While recognition of equity-accounted profits was allowable under the professional accounting standard AAS 14, *Equity Method of Accounting*, a perceived legal impediment to the adoption of equity accounting in the statutory accounts had, since June 1989, restricted equity information to footnote disclosure as mandated by AASB 1016, *Disclosure of Information About Investments in Associated Companies*. Following amendments to the Corporations Law in 1998 to remove the perceived impediment, AASB 1016, *Accounting for Investments in Associates*, was reissued to again permit equity accounting in the consolidated accounts (hereafter referred to as AASB 1016 revised)

The accounting procedures adopted in this reporting hiatus were unique to Australia and of particular interest to this study. The cost method was required in the primary accounts with equity accounting of associates as

<sup>1</sup> Sixty-five per cent of investors had associates in 1991.

## **2.0 Institutional Background**

### **2.1 Accounting Procedures for Investments**

Regulation restricts the accounting choices available for particular types of investments. There are four primary accounting techniques which may be employed in accounting for investments: cost, equity, consolidation and mark to market. Investments which are controlled by the investor are required to be consolidated; material investments in which the investor exerts significant influence over operating or financing decisions are equity accounted; investments which are immaterial are carried at cost; with short-term investments marked to market. Consolidation is reserved for the production of financial statements which reflect an economic entity or group of related entities. The remaining methods may be applied in either investor or consolidated accounts.

### **2.2 Cost**

The cost method recognises as income dividends declared by the investee. Dividends in excess of post-acquisition profits reduce the investment, regarded as a return of capital. The carrying value of the investment is based on historical cost, although it may be reduced where there is a permanent diminution in value, or increased through revaluation.

There are a number of limitations with the cost method (Whittred, 1987; Mazay, Wilkins and Zimmer, 1993; Zimmer, 1994). As income is recognised only to the extent of dividends received or receivable, the cost method does not reflect the profitability of the investee company unless all profits are paid out as dividends; losses are ignored. Also, the scheduling and quantum of the dividends may be subject to direction by the investor. Where the investor is able to significantly influence the dividend policy of the investee, income of the investor can be managed through the acceleration or retardation of dividend receipts. Another limitation of the cost method is that intercompany transactions with the investee are ignored. Profits (and losses) arising from transactions between investor and investee are recognised and treated as realised under the cost method even though the investor may be able to influence investment, financing and/or operating decisions of the investee.

### **2.3 Equity Accounting**

The equity method adjusts the carrying value of the investment by the investor's proportionate ownership interest in post-acquisition profits and other reserves of the investee. As dividends are a realisation of investee profits they reduce the carrying value of the investment. Equity accounting provides expanded disclosures about investments in material associates (relative to the cost method) by detailing the changes in net assets underlying the investment. Accountability and stewardship have been used to provide a rationale for the adoption of equity accounting (IAS 28, *Accounting for Investments in Associates*, para. 8; SSAP 1, *Accounting for Associated Companies* (revised 1982), para. 5; APB 18, *The Equity Method of Accounting for Investments in Common Stock*, para. 12). Moreover, it is usually accompanied by specific disclosures such as the identity of the investee, the ownership interest of the investor, the balance date of the investee if different from the investor, post-balance date events which may materially affect the reported performance of the investee, and dissimilar accounting policies to the extent that the effects have not been removed.

The equity method can be operationalised to simulate consolidation with respect to income and shareholders' funds (APB Opinion No. 18, para. 19). Although consolidation requires the assets and liabilities, revenues and expenses of the parent and subsidiary to be combined on a line-by-line basis, net income and shareholders' funds attributable to the investor may be identical under both the equity and consolidation methods. Disclosure of the investment under the equity method, however, is on a one-line basis. To the extent that the investment is not eliminated, the equity method imitates the cost method (Leo and Hoggett, 1993).

There are two notable exceptions to equivalence. The first is the treatment of losses where they exceed the carrying amount of the investment. Consolidation requires the recognition of accumulated losses. In contrast, the

Supporting these developments, Stevenson (1990), former Director of the Australian Accounting Research Foundation (AARF), argues that the conceptual framework project, in particular the development of an asset definition and the reporting entity concept, challenged prevailing wisdom. AAS 14 represented the economic entity as comprising the investor, its subsidiaries and its share of associated companies. Control, applied to subsidiary enterprises, did not extend logically to entities over which the investor had significant influence. The reporting entity that emerged was limited to the investor and its controlled entities (AASB 1025, *Application of the Reporting Entity Concept and Other Amendments*).

Furthermore, McGregor<sup>8</sup> (1989) suggested that the supplementary disclosures on associates would become superfluous following the issue of separate accounting standards on consolidation and the disclosure of market value information for other investments. To this end, the consolidation standard AASB 1024, *Consolidated Accounts*, was issued in September 1991, operative from December 1991. Associated companies and other investments controlled by the investor are now required to be consolidated.<sup>9</sup>

Moreover, ED 59, *Financial Instruments*, was issued for comment in March 1993. ED 59 was developed from the IASC exposure draft, E40, *Financial Instruments* but departed from it by including associated companies. It recommended the use of either cost or net market values for accounting for investments in associated companies (para. 105). Where associated companies were recognised at net market value, AASB 1016 would no longer apply (para. 207). However, ED 59 was superseded by ED 65 *Presentation and Disclosure of Financial Instruments (and Revision of Set-off Criteria in AAS 23 and AASB 1014)* and then by AASB 1033, *Presentation and Disclosure of Financial Instruments*. AASB 1033, operative from December 1997, limits the scope of the standard to exclude interests in associated companies.

Despite the conceptual grounds for excluding equity accounting from consolidated accounts, the demand for harmonisation of accounting regulation increased and the Australian Accounting Standards Board revisited AASB 1016. The Board released an exposure draft, ED 71, which formally requires recognition of equity interests in associates in consolidated accounts subject to enactment of enabling legislation. Following the passage of the amendments to the Corporations Law in 1998, AASB 1016 revised was issued. Australian legislation now conforms to internationally accepted practices.

#### 4.0 Hypothesis Development

Ex ante, the accepted set of accounting policies is chosen to minimise agency costs and hence maximise firm value (Watts, 1977), but it is not cost effective to stipulate all outcomes contractually, and some discretion will remain with managers in choosing accounting policy. Efficient accounting technology will be determined endogenously with financing, investment and other policies of the firm (Watts and Zimmerman, 1990). For example, restricting the accepted set of accounting procedures may reduce the ability of managers to minimise agency costs through investment and financing arrangements. Peasnell and Yaansah (1990) contend that there is a demand for off-balance sheet financing to allow debt to be taken on without incurring additional agency costs. Diversification across investment opportunity sets with negatively or imperfectly correlated cash flows increases the capacity to assume debt and avoid the incurrence of additional agency costs of debt arising from default (Klein et. al., 1978; Berger and Ofek, 1995). Increased debt capacity also attenuates the underinvestment problem. To minimise agency costs and encourage maximisation of the value of the firm, contracting parties will not eliminate all incentives to utilise off-balance sheet structures.

The allowed set of accounting procedures for off-balance sheet vehicles may, however, be more or less restrictive. The cost method provides considerable discretion in managing earnings. It brings to account dividend income, therefore reported profits of the investor are not affected by losses incurred by the investee. Compared to the equity method, it is income increasing for investments in which dividends are paid out of prior year profits. The greater the balance of retained profits and reserves of investees available for distribution, the greater the scope to

<sup>8</sup> Warren McGregor was at the time Director of the AARF.

<sup>9</sup> See Lambert and Zimmer (1996) for a discussion of the effect of AASB 1024 on associated companies.

## 5.0 Research Method

### 5.1 Sample Selection

The 1991 year was chosen because the transitional provisions of AASB 1024 require application of the standard as at the beginning of that year in circumstances in which control exists. Although earnings are a flow variable, the year immediately preceding introduction of AASB 1024 reduces the probability of classification error in assigning firms to groups based on degree of influence. Sample selection commenced with the largest 400 Australian companies by market capitalisation (provided on request by the Australian Stock Exchange) as at December 31, 1991. The sample excluded firms that were subject to regulation other than approved accounting standards, ie, financial institutions such as banks and insurance companies (fourteen), foreign companies (thirty four) and trusts (twenty six); and companies that were in liquidation, delisted or for which information was not available through the Australian Graduate School of Management annual report file (thirty seven). This resulted in the examination of the accounts of 289 companies for the 1991 financial year. Eighty eight (88) companies disclosed that they had material investments in associated companies. Details of sample selection are shown in Table 1.

**Table 1**  
**Sample Selection Procedure**

|   |           |            |
|---|-----------|------------|
| Initial sample                                    |           | 400        |
| Banks and other financial institutions            | 14        |            |
| Trusts  | 26        |            |
| Foreign companies                                 | 34        |            |
| Delisted and/or information unavailable           | <u>37</u> |            |
| Total excluded                                    |           | <u>111</u> |
| Reduced Sample                                    |           | 289        |
| Investor firms with material associates           |           | 88         |
| Investors which control investee                  |           | 17         |
| Investors which significantly influence investees |           | <u>71</u>  |

A direct measure of effective control is provided by Lambert and Zimmer (1996). Dominant influence over operating and financing policies of the investee is implied by subsequent consolidation. Lambert and Zimmer identify associated companies which were required to be consolidated pursuant to AASB 1024. As the current study examines investments classified as associates in 1991, the effect of early adoption of AASB 1024 is removed. Further, we restrict consolidators to those investees for which ownership interest remained unchanged.<sup>11</sup> The number of investors required to consolidate one or more associates was 17. This includes two firms which delayed consolidation of minority-owned associates until 1993, after negotiations with the Australian Securities Commission.

Reported return on investment (ROI) is calculated as consolidated reported profit available to shareholders of the parent company scaled by the book value of total assets of the group. Equity ROI requires adjustment to both numerator and denominator. Equity profit is consolidated reported profit less dividends provided or paid by associates plus the equity-accounted profit (loss). The investment is calculated as the book value of total assets less the carrying value of the investment in associates plus the equity-accounted amount of the investment in associates.

<sup>11</sup> This restriction avoids the inclusion of associates which were not controlled prior to the purchase of additional equity in the year of adoption of AASB 1024.

Table 3

## ROI by degree of influence over investees

|  | Cost-based<br>ROI<br>median<br>mean<br>(std. dev) | Equity-based<br>ROI<br>median<br>mean<br>(std. dev) | Wilcoxon<br>Matched<br>Pairs | One-tailed<br>probability |
|--|---|---|------------------------------|---------------------------|
| Dominant influence<br>(n=17)           | 0.036<br>0.031<br>(0.111)                         | 0.034<br>0.030<br>(0.111)                           | 1.065                        | 0.143                     |
| Significant influence<br>(n=71)        | 0.020<br>-0.006<br>(0.159)                        | 0.020<br>-0.018<br>(0.192)                          | 3.379                        | 0.000                     |
| Mann Whitney<br>Two-tailed probability | 1.136<br>0.256                                    | 1.316<br>0.188                                      |                              |                           |

Losses are reduced by the application of the cost method for the significant influence group, whereas the dominant influence group are profitable using either method. These findings are interesting because the incentives to manage earnings are likely to be asymmetrical. First, management may take a “big bath” by writing off potential losses in poor earnings years to avoid charges in future good years. That is, the “big bath” hypothesis predicts delay in recognising dividends in loss years. However, the significant influence group show a mean reduction in losses using the cost method. Second, opportunism is premised on accelerating the recognition of earnings, yet the dominant influence group do not gain significantly from the use of the cost method.

Table 3 also allows comparison of returns *between* groups. It shows median and mean return on investment using the cost method for investors with dominant and significant influence. The difference is statistically insignificant. Investors with dominant influence have a median ROI of 3.6% compared with ROI of 2.0% for investors with significant influence. Nor is there a statistical difference between equity-based ROI for investors with dominant and significant influence. Investors with dominant influence have a median ROI of 3.4% compared with ROI of 2.0% for investors with significant influence.

Return on investment is expected to vary with the investment opportunity set of the investor and investees and the interaction between them. AASB 1016 does not require the disclosure of the assets of investees and precludes further investigation of this explanation. Investors with dominant influence are larger (as measured by book value of assets,  $p = 0.092$ , two-tailed) than the significant influence group, and have more associates ( $p = 0.004$ , two-tailed). Political cost explanations may temper the otherwise opportunistic income increasing behaviour of the dominant influence group. Finally, no differences are observed between groups on reported leverage ( $p = 0.260$ , two tailed).

## 7.0 Summary and Conclusion

This paper investigates the incentives of managers to choose income increasing accounting methods for investments in associates. Circumstances are identified in which contracting is likely to restrict accounting policy choice. Managers of firms with greater ability to act opportunistically are posited to contract to remove the incentives to manage reported profits. Opportunism is then more likely to be observed in firms for which it is inefficient to ex ante specify the method of accounting for investments in associates. The results are confirmatory. For firms which are less likely to be constrained in accounting policy choice, the consolidated return on investment using the cost method improves profitability as compared with returns calculated using the equity method. Firms

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