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The value relevance of deferred tax attributed to asset revaluations ☆

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ABSTRACT

Our study focuses on the incremental value relevance of the balance sheet relative to the income statement approach to deferred tax accounting and whether such value relevance is attributable to firms being required to report the deferred tax consequences of asset revaluations. Our results suggest that the increment to deferred tax balances upon adopting the balance sheet approach has value relevance, with such value relevance driven by the deferred taxes on certain asset revaluations (specifically, property, plant and equipment, and equity-accounted investments). We interpret our results as reflecting investors' preference for the balance sheet approach to deferred tax accounting and their view that deferred taxes on asset revaluations are real liabilities.

1. Introduction

There are numerous studies on the association between share prices and deferred taxes, including those that examine the relevance of: the timing of the reversal of differences between accounting and taxation regulations that give rise to deferred taxes (Jeter and Chaney, 1988; Chaney and Jeter, 1989; Givoly and Hayn, 1992; Guenther and Sansing, 2000, 2004; Citron, 2001; Lynn et al., 2008; Wong et al., 2011); the income statement approach to accounting for deferred taxes (Beaver and Dukes, 1972; Chaney and Jeter, 1994; Chang et al., 2009); and the disclosure of components comprising deferred tax balances (Amir et al., 1997; Amir and Sougiannis, 1999). Our study complements the above literature by examining the incremental value relevance of the balance sheet approach to accounting for deferred taxes relative to the income statement approach and whether such incremental value relevance (if any) is attributable to the deferred tax consequences of asset revaluations.

Following the adoption of International Financial Reporting Standards (IFRS) in Australia, the Australian equivalents to IFRS (AIFRS) prescribed a change in the accounting for deferred taxes by introducing AASB112 *Income Taxes* (AASB 112), a balance sheet approach to accounting for deferred taxes, to replace the income statement approach of AASB1020 *Accounting for Income Tax (Tax-effect Accounting)* (AASB 1020). This change was similar to that experienced earlier in the United States (US), when an income statement approach to deferred taxes (Accounting Principles Board Opinion No. 11

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Accounting for Income Taxes (APB 11)) was replaced by a balance sheet approach (Statement of Financial Accounting Standards No. 109 *Accounting for Income Taxes* (SFAS 109)). Australia operates in an environment that allows the revaluation of assets, including property, plant and equipment (PPE), as opposed to the non-revaluation environment of the US where evidence of the incremental value relevance of the balance sheet approach to deferred taxes has been reported (Ayers, 1998). We expect that the balance sheet approach of AASB 112 will have differing equity valuation implications to those previously recognized in the US literature because it operates in an asset revaluation environment. Our results are, therefore, pertinent to policy makers, including accounting regulators, mindful of investor perceptions of deferred taxes under the balance sheet approach and, more specifically, those arising from asset revaluations.

The balance sheet approach recognizes deferred tax liabilities (DTLs) on taxable temporary differences which arise when the carrying amount of assets exceed their tax base. The upward revaluation of assets for accounting purposes, which is not permitted for tax purposes, creates a taxable temporary difference and a resultant DTL representing a future tax obligation on the revaluation amount. The recognition of this additional new liability, which does not exist under either the income statement approach or the balance sheet approach in an environment where asset revaluations are not permitted, is likely to influence investor perceptions of the value relevance of the balance sheet approach. Relying on the information contained within the revaluation reserve an investor could, under the income statement approach, estimate 'notional' DTLs on asset revaluations and price these accordingly. Any evidence related to the balance sheet approach under AIFRS that we observe in our study suggests that the balance sheet approach provides incremental value relevance beyond what has potentially been captured through investors' efforts to indirectly determine the deferred tax consequences of asset revaluations in the absence of the balance sheet approach.

Prior studies provide inconclusive evidence on whether a DTL is viewed as a "real and imminent liability" (Givoly and Hayn, 1992, p. 395) by investors. In the US, previous findings that DTLs are value relevant under the income statement and balance sheet approaches (Beaver and Dukes, 1972; Givoly and Hayn, 1992; Ayers, 1998) are tempered by the likelihood and timing of the DTLs' settlement (Givoly and Hayn, 1992; Amir et al., 1997). Within an Australian context, the value relevance of DTLs under the income statement approach is limited to loss-making, tax-consolidating firms only (Chang et al., 2009), with no Australian study examining the valuation of DTLs determined under the balance sheet approach. The sensitivity in findings seems attributable to investors' perceptions of whether the timing (or temporary) difference creating the DTL will reverse in the foreseeable future and, consequently, necessitate a future tax payment. Upward asset revaluations reflect their enhanced estimated value (Aboody et al., 1999), recoverable through the asset's use and/or disposal (Barth and Clinch, 1998). While prior research finds evidence that investors view asset revaluations, including the revaluation of PPE, as informative (Amir et al., 1993; Easton et al., 1993; Barth and Clinch, 1998; Aboody et al., 1999), no empirical evidence exists on the value relevance of the deferred tax consequences of revaluations. We contend that enhanced asset values increase firms' future tax commitments, as the enhanced value is recovered through the asset's continued use as an income-producing asset (triggering income tax payable) or its disposal as an appreciated asset (triggering capital gains tax payable). As such, the DTLs on asset revaluations reflect forthcoming tax payments that, consequently, investors will perceive as real liabilities.

The previously unexplored research question we address is whether the value relevance of the balance sheet approach holds in a revaluation environment and whether deferred taxes directly attributable to asset revaluations are value relevant. To address this question, we first examine the incremental value relevance of the balance sheet approach beyond the income statement approach in Australia, which permits the upward revaluation of assets. Second, we investigate the role of DTLs arising exclusively from the upward revaluation of assets, including PPE, in contributing to the value relevance of the balance sheet approach. We find that the balance sheet approach to deferred taxes provides investors with more value relevant information when compared with the income statement approach. Moreover, the results from cross-sectional analyses indicate that DTLs attributable to asset (in particular, PPE) revaluations are value relevant, and significantly more so than DTLs arising from non-revaluation sources, providing evidence that recognizing the deferred tax consequences of PPE revaluations contributes directly to the incremental value relevance of the balance sheet approach.

The remainder of the study is organized as follows. A background to the regulatory changes in deferred tax accounting is provided in Section 2. Development of hypotheses is discussed in Section 3. Section 4 presents the sample selection and empirical methods of the study. Main results are reported in Section 5, with sensitivity analysis conducted in Section 6. Summary and conclusions are drawn in Section 7.

2. Regulatory background

Australian firms are required to prepare their financial statements in accordance with AIFRS for reporting periods commencing on or after 1 January, 2005. In the year of transition from Australian GAAP (AGAAP) to AIFRS, Australian firms were required to prepare full comparative financial statements in accordance with both AGAAP and AIFRS, with any divergence disclosed in the notes to accounts. In the year of transition, AGAAP required an application of the income statement approach to deferred taxes in accordance with AASB 1020.

The income statement approach recognizes deferred tax balances on timing differences that, under AASB 1020, are defined as differences between pre-tax accounting profit (loss) and taxable income (tax loss) for a given financial period. Timing differences arise because the financial period in which some items of revenue and expense are included in the deter-