Book-Tax Conformity: Implications for Multinational Firms

Michelle Hanlon
University of Michigan

Edward L. Maydew
University of North Carolina

Working Draft Not for Quotation: July 13, 2006
Comments Welcome

Abstract

This paper examines the implications for multinational firms of recent proposals to conform tax and financial reporting (i.e., book-tax conformity). Proponents of book-tax conformity argue that the current dual system in the U.S. allows firms to simultaneously manage their taxable income down while managing their book income upward. By requiring book-tax conformity, they contend that firms will be forced to trade-off reporting high earnings numbers to shareholders and reporting low earnings to the taxing authority, resulting in improved financial reporting and less tax avoidance. Reduced compliance costs and easier auditing have also been cited as potential benefits of book-tax conformity.

Aspects of book-tax conformity that have not been examined, however, include its international implications, particularly regarding the foreign operations of U.S. multinationals. We describe several possible approaches to implementing book-tax conformity for firms that have both domestic and foreign operations. We discuss issues likely to arise with each approach and conjecture at the behavioral responses to each. Using firm-level financial data from Compustat, we simulate the effects of book-tax conformity on publicly traded U.S. firms. Specifically, we simulate the effects of book-tax conformity on the mean and variance of tax payments / collections and book earnings.

Scott Dyreng provided valuable research assistance on this project. Michelle Hanlon appreciates funding from the Ernst & Young Faculty Fellowship at the Ross School of Business at the University of Michigan and the Bank One Corporation Foundation. Ed Maydew appreciates funding from the David E. Hoffman Chair.

Book-Tax Conformity: Implications for Multinational Firms

1. INTRODUCTION

This paper examines the implications for multinational firms of recent proposals to conform tax and financial reporting (i.e., book-tax conformity). Proponents of book-tax conformity argue that the current dual system in the U.S. allows firms to simultaneously manage their taxable income down while managing their book income upward. By requiring book-tax conformity, they argue that firms will be forced to trade-off their desire to report high earnings numbers to shareholders and the desire to report low earnings to the taxing authority, resulting in improved financial reporting and less tax avoidance. Reduced compliance costs and easier auditing from having a single set of books have also been cited as potential benefits of book-tax conformity.

Aspects of book-tax conformity that have not been examined, however, include how the accounting for operations of U.S. multinationals would be affected. We describe several possible approaches to implementing book-tax conformity for firms that have both domestic and foreign operations. These approaches include: 1) book-tax conformity while retaining worldwide taxation but with no deferral of foreign income, 2) book-tax conformity while retaining both worldwide taxation and deferral of foreign income, 3) book-tax conformity along with territorial taxation, 4) book-tax conformity with formulary apportionment, 5) book-tax conformity based on International Accounting Standards/International Financial Reporting Standards (IAS/IFRS). We discuss issues with implementing each system and conjecture at the behavioral responses to each.

Using financial statement data for the publicly traded U.S. firms, we simulate the tax consequences of book-tax conformity for the first approach. Specifically, we simulate the effects of book-tax conformity on the mean and variance of tax payments / collections and book earnings.

We are not able to simulate the other approaches due to limitations in public financial statement data, i.e., not enough geographic breakdown in the data. Nevertheless, we describe in broad strokes what these approaches would look like if implemented.

Book-tax conformity has emerged in policy circles as a means to improve efficiency and curb the perceived ability of firms to "have their cake and eat it too." Professor Mihir Desai succinctly expressed this sentiment in his testimony before the House Ways and Mean Committee:[1]

> In the last decade, the two reporting systems have developed into parallel universes. Large, unexplained gaps – more than $100 billion – have developed between the profits reported to capital markets and tax authorities that can no longer be explained by accepted differences between the two reporting systems.
>
> In fact, we shouldn't be surprised by these developments. Imagine if you were allowed to represent your income to the IRS on your 1040 in one way and on your credit application to your mortgage lender in another way. You might, in a moment of weakness, account for your income in a particularly favorable light to your prospective lender and go to fewer pains to do so with the IRS. Indeed, you might take great liberties to portray your economic situation in two divergent ways that would serve your best interests. You might find yourself coming up with all kinds of curious rationalizations for why something is income (to the lender) or an expense (to the tax authorities).

Along these lines, the recent Tax Reform Panel established by President Bush considered a proposal to tax large entities based on their net income reported on financial statements. The Tax Reform Panel ultimately did not include book-tax conformity in its set of proposals and instead called for additional research to better understand the consequences of adopting book-tax conformity. The objective of this paper is to provide such research, at least in terms the international effects of book-tax conformity.

There is limited prior research on the implications of book-tax conformity. Most of the prior research is focused on opportunistic reporting, compliance savings, and U.S. capital market costs

[1] Statement of Mihir Desai, Testimony Before the Subcommittee on Select Revenue Measures of the House Committee on Ways and Means. May 9, 2006.

(see, for example, Desai, Dyck and Zingales, 2005; Desai and Dharmapala, 2006a,b; Hanlon, LaPlante and Shevlin, 2005; Hanlon and Shevlin, 2005; and Hanlon, Maydew and Shevlin, 2006). To date, however, no one has studied the international tax implications of moving to a conformed system of taxation. Because most large firms are multinational firms the implications of book-tax conformity for these firms in terms of tax planning and reporting, the accounting for income taxes, and the reporting of income under Generally Accepted Accounting Principles (GAAP) or IAS/IFRS is of great importance.

This paper proceeds as follows. Section 2 provides an overview of the current financial accounting rules for measuring income, as embodied in U.S. GAAP. Section 3 provides an overview of how current U.S. Federal taxation differs from U.S. GAAP. Section 4 describes how taxes, in particular book-tax differences, are reflected in firm's financial statements. Section 5 provides a review of the limited amount of prior research on book-tax conformity. Section 6 describes several possible approaches to applying book-tax conformity to firms that have both domestic and foreign operations. Section 7 simulates the effects of book-tax conformity on U.S. multinationals using firm-level financial data from Compustat. In this section, we examine the effects of book-tax conformity on the mean and variance of tax collections and on financial reporting earnings. Section 8 briefly discusses the experience of other countries. Section 9 concludes.

2. CURRENT FINANCIAL ACCOUNTING RULES FOR MEASURING INCOME

In the U.S., the entity with primary responsibility for setting GAAP is the Financial Accounting Standards Board (FASB), which is a private rule-making body that is overseen by the Securities and Exchange Commission (SEC). The basis for accounting is currently the accrual basis meaning that income is recognized in the financial statements when it is earned and is realized or realizable and expenses are recognized as they are incurred. The U.S. financial accounting system is not on the cash basis. The intent of the accrual rules is to present a more accurate picture of economic performance than is provided by simply recording contemporaneous cash flows.

A simple example of an accrual is when the company makes a sale and receives an account receivable (i.e., they do not receive cash but rather a promise to pay) from the customer. In this event, as long as payment is reasonably assured and the seller of the product has earned the revenue (i.e., loosely speaking meaning they have delivered the product or performed the service) then the revenue is recorded even though cash has not been received by the seller. Similarly, when the company incurs an expense but does not pay in cash and only promises to pay (i.e., they generate an account payable), an expense is recorded even though, again, cash has not been exchanged.

Another example of an accrual is when an asset is purchased. In the year of purchase the entire amount is not expensed immediately but rather the purchase price is depreciated over the useful life of the asset (the cost is allocated over the useful life of the asset) in order to better match the expense of the asset with the revenues that it generates. There are a variety of depreciation methods accepted for financial accounting purposes, although the majority of depreciation is taken on a straight line basis. Another example is the accrual for warranty expense. A firm that provides warranties with its products is required to estimate the warranty expense associated with the current sales of the products and record (accrue) that expense in the year of the sale. The same is true for bad debts. The firm may have accounts receivable due from a number of customers. Based on experience, suppose that out of 100 customers, the firm estimates that 95 will pay the money owed and 5 will not. However, at the time of the sale the firm does not know *which* of the 100 customers will not pay. Under GAAP, the firm must estimate bad debt expense and record the expense in the year of the sale even though they do not yet know *which* of their customers will fail to pay the money owed. Another example is what is known as deferred revenue. Firms sometimes receive cash from a customer before the firm has provided a product or service to the customer. Under GAAP, the firm is required to record a liability in the amount of cash received allocable to the unprovided services. Once the services have been performed or the product delivered to the customer, the firm will remove the liability for unearned income from its books and record the revenue. There are many different types of accruals for financial accounting purposes and discussing each is beyond the scope of this paper. The above examples are discussed to provide the spirit of the accrual system used under U.S. GAAP for financial accounting reporting. We now turn our attention to items more specific to multinational corporations and international accounting.

Under U.S. GAAP, the financial accounting for the firm is on a worldwide basis. Thus, in a firm's annual report the income shown is the worldwide income (meaning that it includes the income of foreign branches and subsidiaries, subject to level of ownership discussed below) and the assets and liabilities are worldwide assets and liabilities.

For financial accounting purposes, the consolidation rules work in the same manner for foreign subsidiaries of a U.S. parent as they do for domestic subsidiaries – there is no distinction in the rules between foreign and domestic subsidiaries. Thus, if a subsidiary (domestic or foreign) is owned 50% or more (in terms of voting rights) by the U.S. parent they are consolidated onto the same financial statements (SFAS 94).[2] Thus, all of the income or loss from the subsidiary is included in the financial statement of the consolidated group. If the subsidiary is not wholly owned (i.e., the ownership percentage is greater than 50 percent but less than 100 percent), the total net income or loss of the subsidiary is included in the consolidated income statement for financial accounting but is then reduced by the portion of income attributable to the minority interest owners.

[2] As in many places in the paper, there are exceptions to these rules that we omit for the sake of exposition.

If ownership is at least 20 percent but not more than 50 percent then the affiliate is accounted for using the equity method of accounting. The equity method means that the parent includes their share of the affiliate's income or loss for the year on the parent's financial statements (generally via one line item on the income statement entitled "net equity of unconsolidated subsidiaries") and the parent increases their investment in the affiliate asset account by the same amount. Finally, if the investment is less than 20% then the investment is recorded at cost and is marked-to-market each reporting period. This means that the investment account is marked up or down to the current market price as of the reporting date for the parent and the resulting increase or decrease is included in the parent's income (if the asset is classified as a trading security) or to other comprehensive income (if the investment is classified as an available for sale security). No portion of the income of the less than 20% owned entity, however, is recorded on the owner entity's financial statements.

If a dividend is received from a consolidated subsidiary, the parent reduces their investment account by the amount of dividend they receive and records the cash inflow. There is no income to record on the parent's books at the time of a dividend payment because the income is recorded when the subsidiary *earns* the accounting income, not when the subsidiary pays it back to the parent as a dividend. If a dividend is received by an equity method affiliate then again the parent reduces their investment account by their share of the amount of the dividend and records the cash inflow. There is no income to record upon the transfer of the dividend because the parent has, in every year, recorded its allocable share of the equity method affiliate's income. For an investment that is marked-to-market each year (one in which the investor's ownership is less than 20%), then the dividend is indeed income to the investor because this income has not been previously recorded on the firm's accounting books.

Little attention is paid by GAAP to where income is earned or where a firm is incorporated. What little breakdown there is between domestic and foreign is found in the notes to the financial statements. However, the information is limited. Firms are required to disclose pre-tax book income as domestic sourced or foreign sourced but detail beyond this (e.g., detail about revenues or specific expense accounts) is not available for the majority of firms, especially after the implementation of SFAS 131.[3] Thus, compared to the rules for sourcing income and for transfer pricing in the tax code and regulations, the GAAP rules for jurisdictional issues are not well developed.

In short, some features of GAAP that are relevant background for a discussion of book-tax conformity in an international setting include the 1) use of accrual method of accounting, 2) consolidation based for more than 50 percent owned subsidiaries, 3) equity method accounting and fair value accounting for unconsolidated affiliates, and 4) little emphasis on where the affiliate is incorporated or does business.

3. *CURRENT TAX RULES FOR MEASURING INCOME AND THE DIFFERENCES RELATIVE TO GAAP*

The U.S. tax law is set by Congress and is codified in the Internal Revenue Code (IRC) of 1986. While large corporations are required to use the accrual method for tax purposes, accrual accounting for tax purpose is not necessarily the same as accrual accounting for GAAP purposes. For example, similar to the financial accounting rules discussed above, when a firm makes a sale and receives an account receivable in exchange, income is recognized for tax purposes even though no cash has been exchanged. Similarly, if the firm incurs an expense and does not pay in cash but instead generates and account payable, the amount can still be expensed for tax purposes.

[3] See Statement of Financial Accounting Standards No. 131 "Disclosures about Segments of an Enterprise and Related Information" and Statement of Financial Accounting Standards No. 109 "Accounting for Income Taxes."

However, many differences between accrual accounting for tax purposes and GAAP exist. For example, depreciation is recorded differently for tax purposes, generally following the Modified Accelerated Cost Recovery System, which for many assets results in depreciation at an accelerated pace relative to the straight-line depreciation taken for financial accounting purposes.[4] In addition, there are fewer depreciation methods allowable for tax purposes compared to book-purposes.

Some other accruals are simply not allowed. For example, the estimates used to record the expense for the warranty expense and bad debt reserve discussed above generally are not allowed for income tax purposes. Thus, before expensing an amount for warranty costs the firm must actually pay these costs (the customer must return the product for warranty service and the seller must perform the service) before the expense can be deducted. Similarly, bad debts cannot be estimated but rather are only deductible once the debt has actually gone bad (thus, the company is on the specific write-off method for tax purposes). Again, describing the treatment of each account for tax (and/or book) purposes is beyond the scope of the paper but the above should provide a general description of how the systems operate.

In terms of international aspects, the tax code operates significantly differently than the rules for GAAP. Under the current U.S. tax system, U.S. resident companies are subject to current U.S. tax on their worldwide income.[5] However, no U.S. tax is owed on the earnings of a foreign subsidiary until those earnings are distributed to the U.S. parent in the form of a dividend.[6] The postponement of U.S. taxes until the time of repatriation is commonly referred to as ‘deferral.’ The

[4] Also, immediate expensing to some degree is allowed under IRC §179 and under the recent bonus depreciation rules put in place after September 11, 2001.

[5] Under a worldwide system such as that employed in the U.S., the U.S. taxes the worldwide income of its permanent residents and domestic corporations and uses foreign tax credits to mitigate double taxation of the earnings (we discuss the foreign tax credit further below). This is in contrast to a territorial tax system in which a country taxes only income that was earned within its borders. It is important to note that under the U.S. worldwide system, U.S. corporations are taxed on their worldwide income. However, foreign corporations are taxed only on the income they earn in the U.S. (thus, effectively a territorial system for foreign corporations).

[6] There are exceptions (e.g., Subpart F income rules) that will be discussed below.

deferral concept in tax is an important distinction from financial accounting. Deferral arises because for tax purposes, the consolidation rules are different for domestic and foreign subsidiaries. For tax purposes, consolidation onto a singe return can be elected, but is not required, when ownership, direct or indirect, of a *domestic* subsidiary is at least 80 percent in terms of voting power and value. Foreign subsidiaries generally cannot be included in the domestic tax consolidation.[7] Thus, the financial statements will include the income or loss of foreign subsidiaries that are more than 50 percent owned and the representative share of income or loss of foreign entities owned between 20 and 50 percent while the tax return will not include any of these amounts. Instead the tax return will include any dividends received from these entities while the financial statements will not include these dividend amounts.[8]

There are other differences between tax and financial consolidations. In contrast to consolidations in financial accounting, there is no deduction allowed for minority interests in tax consolidations. Financial accounting consolidations include 1) the income of domestic subsidiaries owned from between 50 and 80 percent, and 2) the parent's share of the income for subsidiaries owned from between 20 and 50 percent. The tax consolidation will include none of these amounts.

In sum, differences between tax and GAAP consolidation can lead to book-tax differences with regards to income from foreign (and domestic) affiliates. If the entity is greater than 50 percent owned by the U.S. parent the earnings will be part of U.S. worldwide income for financial accounting purposes. However, if the income from the foreign subsidiary is deferred for tax purposes (i.e., not repatriated back to the U.S. and made subject to tax currently) then a book-tax

[7] If the foreign subsidiary had income effectively connected with a U.S. trade or business then that income would be subject to U.S. tax, however the foreign subsidiary still would not be part of the tax consolidation with the U.S. parent.

[8] Another difference between tax and book consolidations is that intercompany transactions are eliminated for book purposes while they are deferred for tax purposes and the accompanying investment basis adjustment rules mimic the equity method of financial reporting.

difference will result because book income will include the foreign subsidiary's income and taxable income will not. We discuss the accounting for this book-tax difference in Section 4 below.

Because of the significant tax advantages potentially afforded under the deferral rules, a series of anti-abuse rules have been enacted to prevent U.S. taxpayers from deferring U.S. tax on certain classes of income, such as passive income that could easily be shifted to a tax haven. These anti-abuse rules are contained in subpart F of the IRC. Essentially, these rules act to restrict the benefits of deferral to the active business income of a foreign subsidiary and as a result, lessen the book-tax difference attributable to the deferral rules in the current U.S. tax system.

Another provision of the tax code that becomes important in the discussion of international book-tax differences is the allowance of tax credits against a firm's U.S. tax liability for foreign taxes paid. While the tax credits themselves are not book-tax differences, a firm's tax planning in the international arena is often directed toward maximizing the amount of foreign tax credit it can use to offset its U.S. tax liability, all else constant. Because firms have engaged in strategies to shift income to and between foreign sources to maximize the available credit, additional rules have been written in the tax code to 1) prevent the credit from offsetting U.S. tax on domestic-source income and 2) to provide guidance on how to allocate income and expenses between domestic and foreign sources. The tax strategies employed by the firms can generate additional book-tax differences and thus, a discussion of the foreign tax credit rules is necessary here.

Foreign tax credits are allowed in order to mitigate the double taxation that would occur when foreign sourced income is earned by a U.S. company because the income would be taxed in both the foreign country in which it was earned and in the U.S., where the company is incorporated. There are two different types of foreign tax credits allowed: direct foreign tax credits (IRC §901) and indirect foreign tax credits (or deemed paid credits, IRC §902). Direct foreign tax credits result when a tax is paid on the earnings of a foreign branch of a U.S. company or when withholding taxes are deducted from dividends or other forms of passive income paid to U.S. investors or U.S. parent corporations. Indirect foreign tax credits arise when dividends are received or deemed to be received from foreign corporations. The foreign dividend included in U.S. income is the dividend received grossed-up to include both the withholding tax and any deemed taxes paid. The potential credit is equal to the taxes paid on the underlying "earnings and profits" that produced the dividend (earnings and profits (E&P) are the accumulation of the company's taxable income (with some modifications) less dividends over the life of the firm). Indirect foreign tax credits are available only to U.S. shareholders owning 10% or more of a foreign corporation. The U.S. also has foreign tax credit limitation rules which, in general terms, limit the foreign tax credit to the U.S. tax rate times the foreign source income. Thus, the foreign tax credit after limitation is the minimum of 1) the sum of direct and indirect foreign taxes paid and 2) the foreign tax credit limitation (i.e., U.S. tax rate times the foreign source income).

An important consideration for the foreign tax credit limitation is, of course, the delineation of what is foreign source and domestic source income, How are these measures derived for tax purposes and how do they compare to the domestic pre-tax book income and foreign pre-tax book income reported for financial accounting purposes? For tax purposes, IRC §§ 861-865 deal with the allocation of worldwide income to U.S. source versus foreign source. These rules provide definitions for income from sources within the U.S. (§861 – e.g., what types of interest income, dividend income, personal services income, rentals and royalties, gains and losses from real property or inventory, and others) and without the U.S. (§862 – e.g., generally interest income, personal services income and dividends not classified as from the U.S. in §861, rentals and gains and losses from real property located outside of the U.S., and others).

There are also special rules (under §§863-865, and the regulations thereunder) for determining the source of income for items not listed in §§861 and 862. For example, §863(b) provides the sales-source rules which allows a company that exports good to elect to include a portion of its profits from exports in foreign-sourced income, which benefits companies in an excess foreign tax credit position by increasing their allowable foreign tax credits. IRC §864 provides, among other things, rules for allocating interest expense and research and experimental expenditures. In general, interest expense incurred in the U.S. is allocated between U.S. and foreign income on the basis of the value of the taxpayer's assets (book or market) that generate U.S.-source and foreign-source income.[9] Interest expense allocated to foreign-source income reduces the foreign tax credit limitation by reducing the amount of foreign source income for foreign tax credit purposes.[10] Research and experimentation expenditures (if not conducted to meet legal requirements imposed by a political entity) are allocated 50 percent to U.S. sourced income for expenditures attributable to activities conducted in the U.S., and for activities conducted outside of the U.S., 50 percent of such expenditures are allocated to foreign-sourced income. The remaining amounts not allocated (generally the other 50 percent), are generally apportioned at the annual election of the taxpayer on the basis of gross sales or gross income.

It is important to recognize that these rules affecting the source of income for foreign tax credit computation purposes do not otherwise determine the amount of taxable income a domestic firm reports. Because the U.S. parent is subject to tax on its worldwide income (with an exception

[9] Under Jobs Act §401 and revised IRC §864, taxpayers may make a one-time election to allocate and apportion third-party interest expense of U.S. members of a worldwide affiliated group to foreign-source income for foreign tax credit purposes in an amount equal to the excess, if any, of: 1) the worldwide affiliated group's interest expense multiplied by its worldwide assets, over 2) third party interest expense incurred by foreign members of the group that would otherwise be allocated to foreign sources (Merrill, et al., 2006).

[10] Note that the foreign tax credit limitation is as follows: $\frac{FSI}{WWI}$ X U.S. tax on worldwide income or more simply FSI * the U.S. tax rate, where FSI is foreign-sourced income and WWI is worldwide income.

for foreign subsidiary income) even taxable income allocated to a foreign source is taxed on the parent's tax return. Thus, there are no book-tax differences that result explicitly by §§ 861-865. There are book-tax differences created by different consolidation rules as discussed above and there could also be book-tax differences generated by tax planning done to avoid or minimize the effect of §§861-865 on the foreign tax credit limitation. .

In sum, taxable income will differ from book income because of different accrual rules, different consolidation rules, and tax planning to maximize the foreign tax credit. Where the income of a firm is earned or where the assets are located is of lesser importance for financial accounting purposes as the consolidation rules in financial accounting do not distinguish between domestic and foreign subsidiaries. This is very different from the IRC where the source of income matters because of the different taxing jurisdictions and the goal of mitigating double taxation across these jurisdictions.

4. FINANCIAL ACCOUNTING IMPLICATIONS UNDER CURRENT RULES

In this section, we briefly discuss how book-tax differences are reported for financial accounting purposes and how some of the above events/transactions affect a firm's effective tax rate and total income. The rules for the accounting for income taxes are found in Statement of Financial Accounting Standards No. 109 (SFAS 109). While a detailed discussion of these rules is beyond the scope of this paper we outline the basic principles with special attention given to international effects. When we review the various alternatives for achieving book-tax conformity we will discuss how each alternative would alter the reporting of the tax expense and tax assets and liabilities for financial reporting purposes.

SFAS 109 follows a balance sheet approach to the accounting for income taxes – the accounting for the deferred tax assets and deferred tax liabilities is the driving computation. Deferred tax assets and deferred tax liabilities are the tax effects of the cumulative temporary book-tax differences of the firm. In other words, they are the differences between the firm's book balance sheet and its tax balance sheet multiplied by the tax rate expected to be in effect at the date the basis difference reverses. The guiding principle for SFAS 109 is for firms to recognize in the financial statements the tax consequences of an event in the same period that the underlying event is recognized for GAAP purposes even if no tax is due currently related to the underlying event. This results in deferred taxes – the accrual of tax expense (benefit).

Thus, under SFAS 109 the firm will record what is called a current tax expense and a deferred tax expense (both in total and by jurisdiction (domestic or foreign)). The sum of these two total amounts is the total tax expense and this total tax expense divided by the firm's total (worldwide) pre-tax income is the firm's (worldwide) effective tax rate (ETR). The current tax expense should approximate (with some exceptions discussed below) the taxes on the firm's current year taxable income.[11] The deferred tax expense includes 1) the amounts of taxes payable (or if negative, the tax effects of future deductions) in the future generated by transactions in the current year and 2) the tax effects of reversals of previously established deferred tax assets and liabilities.

As stated above, a deferred tax asset or liability arises because of temporary basis differences in the book and tax balance sheets. A temporary book-tax difference is an item that is recorded differently for book and tax purposes because the rules for book and tax require the recognition of the transaction in different time periods. Thus, over the life of the firm these items are not differences between book and taxable incomes but they are differences temporarily. Some

[11] In general, we mean the taxable income of the entities included in the firm's 10-k, however, there are some exceptions which we discuss below.

examples from the transactions discussed above include depreciation and the accruals recorded for financial accounting purposes that are not allowed for tax purposes until the cash is paid or received. Firms are required to disclose material deferred tax assets and liabilities in the notes to financial statements.

Other book-tax differences are what are known as permanent differences. These are items that are reflected in book income but never recorded in the computation of taxable income (or vice versa). Thus, there is no reversal of these items and therefore no resulting deferred tax asset or liability. A common example of a permanent difference is tax-exempt municipal bond interest income, which is included in financial reporting income but is not included in taxable income. Permanent book-tax differences are reflected in what is called the effective tax rate reconciliation in the notes to the financial statements.[12]

A multinational corporation must generally compute deferred tax assets and liabilities for all temporary differences that exist between the book and tax bases of its worldwide assets and liabilities. A notable exception is Accounting Principles Board Opinion No. 23 (APB 23), which provides an exception to deferred tax accounting for the difference between book and tax bases of the shares in the foreign subsidiary. APB 23 provides that deferred taxes should not be recognized for undistributed earnings of subsidiaries if the indefinite reversal exception applies.[13] Under these rules a deferred tax liability is not recognized unless repatriation of the funds in the foreseeable future is apparent. To determine this the following factors are considered based on the facts and circumstances of each case: 1) the plans and expectations of management of the parent and the subsidiary, 2) cash flow projections, 3) capital expenditure plans, 4) the existence of an accumulated

[12] See Hanlon (2003) for further discussion on firm disclosures and what can be inferred from financial statements about a firm's taxable income and tax payments.

[13] SFAS 109 retains the indefinite reversal exception to deferred tax accounting.

earnings type tax in the foreign jurisdiction in which the subsidiary is located, 5) prior history of distributions from the subsidiary, and 5) tax planning strategies under consideration (Smith, 2005).

The deferral exception applies on an entity-by-entity basis and may be applied to only a portion of the basis difference between book and tax if part of the unremitted earnings in the subsidiary will be repatriated in the foreseeable future. Finally, if the facts and circumstances change over time then an increase or decrease to income tax expense is appropriate in the year in which the facts and circumstances change.

Thus, if a firm has foreign earnings in a foreign subsidiary that it deems permanently reinvested, the firm's tax provision will not include an accrual of U.S. taxes that would be due upon repatriation of those earnings. A book-tax difference exists but the deferred taxes related to this difference are not recorded. As a result total taxes will be different than taxes at the U.S. statutory rate and a difference will be listed in the firm's rate reconciliation (which reconciles the firm's expected tax on reported worldwide financial accounting earnings, using the U.S. statutory tax rate, and the actual total tax provision). The label is generally something like 'foreign income taxed at lower rates than U.S. statutory rate.' If the facts and circumstances surrounding these foreign earnings were to change in the next year, then a U.S. deferred tax liability would be provided for the additional taxes that would be owed upon repatriation and a U.S. deferred tax asset would be provided for the foreign tax credit available against these additional U.S. taxes (subject to the assessment of a valuation allowance).[14] Foreign branch earnings are not included as part of the exception to deferred tax accounting and thus all taxes related to foreign branches are accounted for

[14] A valuation allowance is an accrual (reserve) recorded against a deferred tax asset when that deferred tax asset is not more likely than not to be realized in the future. For more details see SFAS 109.

under SFAS 109 in a manner similar to U.S. division earnings (and foreign branch earnings are included on the U.S. tax return whether repatriated or not).[15]

We next turn to discussions of prior literature on book-tax conformity, how such a system could be implemented in the U.S., and changes necessary relative to the current rules discussed above.

5. REVIEW OF EXTANT RESEARCH ON BOOK-TAX CONFORMITY – ISSUES AND CONSEQUENCES

There have been several studies that discuss and/or examine the effects of book-tax conformity on reported financial income and the resulting information contained in reported financial income. An early study is Guenther, Maydew, and Nutter (1997) which examines the impact of book-tax conformity on firms' financial reporting and tax planning activities. They identify a small set of publicly traded firms (66 firms with available data) that prior to the Tax Reform Act of 1986 (TRA 86) were allowed to use the cash method of accounting (other than for purchases and sales of inventory items) for tax purposes and the accrual method of accounting for financial reporting purposes. After TRA 86 these firms were required to switch to the accrual method for tax purposes, strengthening the degree of book-tax conformity for these firms.

Using both univariate and multivariate analysis, Guenther et al. (1997) report results generally consistent with their hypotheses that cash basis firms recognized greater income before TRA 86 and that these firms decreased the level of revenue recognized relative to the accrual basis

[15] What is complicating with a foreign branch is that there can be two different inside bases and multiple relevant tax rates that need to be accounted for. For example, if a company locates a branch in a foreign country that has a different depreciation system for tax purposes than the U.S., the assets owned by that branch will have two different tax bases -- one in the U.S. for U.S. tax purposes that must be considered in the computation of the domestic deferred taxes and one in the foreign country for foreign tax purposes that must be considered in the computation of foreign deferred tax position. Associated with the foreign deferred tax position will likely be a foreign tax credit for which a domestic deferred tax asset should be recorded (subject to the assessment of a valuation allowance).

firms after TRA 86. Overall, Guenther et al. (1997) conclude that their results suggest that increasing the extent of book-tax conformity causes firms to defer financial statement income.

Desai (2005) argues that because the U.S. system of dual reporting allows (indeed, requires) different computations of income for book and tax purposes, the quality of earnings reported to both the capital markets and tax authorities is reduced by opportunistic behavior by managers. In other words, because managers attempt to maximize financial accounting income and minimize taxable income and are 'unconstrained' by the rules in the other system (i.e., the tax and book rules are not conformed) they can act opportunistically thereby reporting lower income to the tax authorities and also misleading shareholders.[16]

Hanlon, Maydew, and Shevlin (2006: HMS) extend Guenther et al. (1997) to examine the capital market effects of firms' response to the tax law change. HMS investigate whether earnings contain more or less information relevant to the capital markets after the TRA 86 for the cash basis firms studied in Guenther et al. (1997). If the firms were reporting artificially high financial accounting earnings prior to TRA 86 because the book and tax incomes were unconformed (i.e., Desai's (2005) arguments) then the prediction would be that financial accounting earnings should become no less and perhaps more informative to the market after conformity is increased (because firms would be reporting more honestly about their performance). However, if the firms now have financial reporting that is to some extent dictated by the tax laws then the prediction is that the financial accounting earnings number would be less informative because the tax laws are not intended to report a firm's economic performance. HMS report, based on their tests, that financial

[16] Note, however, that even under the U.S.'s current system of unconformed incomes firms may voluntarily conform when committing financial accounting fraud. For example, Erickson, Hanlon, and Maydew (2004) report evidence consistent with firms accused of reporting fraudulent financial accounting earnings simultaneously overstating taxable income and thus, paying taxes on the overstated income. These results provide one scenario that calls into question the validity of the argument that conforming book and taxable incomes will increase the quality of financial reporting or taxable earnings.

accounting earnings contain less information useful to the market after the required increase in conformity for the cash basis firms.

A related study, Hanlon, et al. (2005) uses a large sample of U.S. firms to investigate whether financial accounting earnings provide more information (i.e., exhibit greater relative information content) to the market than estimated taxable income. The authors report evidence consistent with this conjecture and also that both income measures provide incremental information to investors. Thus, they argue that if book and taxable incomes are conformed to one measure, the capital markets in the U.S. will suffer an information loss. While there are limitations to both of the above studies, the results taken together (and in conjunction with the international studies described below) indicate that earnings are less informative to the market when book-tax conformity is higher.[17]

Although the U.S. has not implemented an overall regime that closely links the two income measures, and thus large sample evidence of a regime change is unavailable using U.S. data, several international studies have examined these issues. Ali and Hwang (2000) examine the relation between measures of information content of financial accounting data and several country specific factors. Ali and Hwang (2000) find that the information content of earnings is lower when tax rules significantly influence financial accounting measurements. This result is consistent with tax laws being influenced by political, social, and economic objectives rather than the information needs of

[17] We also note two other cases where sub-samples of firms have been affected by an increase in conformity as a result of tax law changes in the U.S. One case was the implementation of the Alternative Minimum Tax in 1986, which required a link to book income in the calculation of the alternative tax. However, the evidence on whether this affected firms' financial reporting behavior is mixed (see Gramlich 1991, Dhaliwal and Wang 1992, and Choi et al. 1998) and there is no study to our knowledge that investigated changes in the information content of earnings surrounding the implementation of the AMT book-tax link.[17] Another example is the LIFO conformity rules. While much of the early evidence was mixed on the market reaction to a LIFO adoption, Kang (1993) and Hand (1993) provide plausible explanations for the observed negative reaction for LIFO adoptions: firms that adopt LIFO expect input prices to rise. However, to our knowledge there is no study that examines the information content of earnings surrounding the implementation of the LIFO conformity rules.[17] Because the income effect of being on LIFO must be disclosed in the firm's financial statements, the loss in information content because of conformity in this case is likely not comparable to other types of book-tax conformity requirements where disclosure of the low conformity outcome is not required.

investors. This evidence would lead to the prediction that if book and tax incomes are conformed in the U.S., there would be a loss of value-relevant information in the capital markets. [18]

Ball, Kothari and Robin (2000) also find that valuation in code-oriented countries (i.e., where tax and book incomes are very closely linked) is much less related to reported earnings, consistent with the findings of Ali and Hwang (2000). Similarly, Guenther and Young (2000) report evidence consistent with accounting earnings in the U.K. and the U.S. being more closely related to underlying economic activity than accounting earnings in France and Germany. They predict these results because of differences in legal systems and the demand for accounting information, differences in legal protection for external stakeholders, and differences in the degree of tax conformity in the different countries.[19]

There are at least two recent studies using computer simulations that investigate the effects of book-tax conformity using a common consolidated tax base (IAS/IFRS) in the European Union (these proposals are discussed more below). Both studies base their simulations on a program known as the European Tax Analyzer, which simulates the development of a hypothetical company over a period of ten years, incorporating variables to reflect production, investment, financing, etc. Jacobs et al. (2005) examines the consequences of IAS/IFRS-based tax accounting on the effective tax burdens of companies in 13 countries (Austria, Belgium, the Czech Republic, France, Germany,

[18] In addition, Harris, Lang, and Moller (1994) examine the value relevance of German accounting measures over a period in which the German accounting rules were considered by many to be particularly deficient in the information disclosed to investors. The German system included a closer link between book and taxable incomes, and a greater emphasis on both detailed prescriptive regulations and the needs of debtholders. Harris et al. (1994) also examine an earnings number calculated by the German financial analyst society, which was meant to represent the "permanent earnings" of the companies. The study reports that the correlation between 18-month returns and annual earnings for German firms is generally similar to that in the U.S. They also report that the earnings number produced by the analysts have more explanatory power for returns relative to the reported earnings, thus providing an example of an alternative form of information acquisition that arises when financial accounting does not provide the type of information demanded by investors (i.e., analyst groups calculating alternative measures of earnings).

[19] In another study, Young and Guenther (2003) use the degree of book-tax conformity as one of two proxies for the informativeness of financial accounting in a country (low book-tax conformity, higher informativeness) and test whether capital flows into a country are decreasing with increased book-tax conformity. Their results are consistent with this prediction. Thus, another cost of book-tax conformity documented by Young and Guenther (2003) is decreased capital mobility.

Hungary, Ireland, Latvia, the Netherlands, Poland, Slovakia, the United Kingdom, and the USA). The study uses certain provisions of IAS/IFRS as a starting point for a common base. They analyze the resulting effective company tax burdens and find that relative to the current tax burdens 1) an exclusive harmonization of the tax base by introducing IAS/IFRS will not significantly reduce the current EU-wide differences of effective company tax burdens, and 2) with no tax rate changes the effective burdens in all countries increase (except for Ireland) because of base broadening. They conclude by asserting that using the common broader base would provide an opportunity to cut rates, which would tend to increase the attractiveness of member states as a location for companies and would also reduce dispersions of effective tax burdens across countries. Haverals (2005) conducts a similar study in Belgium and finds that the impact of an IAS/IFRS-based tax accounting on the effective tax burden of Belgian companies is large and not uniform across sectors. The conclusions from the study are similar to those from Jacobs et al. (2005).

To our knowledge, however, there are no studies that discuss international tax and financial accounting implications of book-tax conformity or consider a variety of options in the method of conformity. Nor are we aware of any studies that examine the international implications of book-tax conformity based on micro data of actual firms. It is to these tasks that we now turn.

6. IMPLEMENTATION APPROACHES TO BOOK-TAX CONFORMITY IN AN INTERNATIONAL SETTING

When discussing book-tax conformity it is important to consider the manner in which conformity would be accomplished. The often heard refrain “the devil is in the details” is particularly appropriate here. In this section we consider how book-tax conformity could be implemented in the context of taxing multinational firms. We describe five different approaches to implementing book tax conformity. These approaches include: 1) book-tax conformity while retaining worldwide taxation but with no deferral of foreign income, 2) book-tax conformity while retaining both worldwide taxation and deferral of foreign income, 3) book-tax conformity along with territorial taxation, 4) book-tax conformity with formulary apportionment, 5) book-tax conformity based on IAS/IFRS.

In Section 7 we simulate the tax consequences of book-tax conformity for the first approach using financial statement data from U.S. publicly traded firms. The other approaches we are not able to simulate due to limitations in public financial statement data, i.e., not enough geographic breakdown in the data. Nevertheless, we describe in broad strokes what these approaches would look like if implemented.

With each of the approaches to book-tax conformity, an over-arching question is whether taxable income would be conformed to financial accounting income or whether financial accounting income would be conformed to taxable income. Even this question is likely not as simple as it seems. Most proposals and conjectures would call for the use of financial accounting income to compute taxable income (i.e. taxable income would conform to GAAP). If the FASB were retained as the primary standard setter of GAAP, this would effectively put the FASB in charge of writing the tax laws for entities that would be subject to book-tax conformity. Under this scenario, presumably the Congress would still determine the tax rates, but the tax base in terms of business income would be determined by the FASB.

Would Congress be able to resist the temptation to interfere with the FASB its new role? Hanlon and Shevlin (2005) argue that in practice the eventual result would be for Congress to begin tinkering with GAAP for the same fiscal and social policy reasons that it cites now when it amends the current tax code. The end result could be a GAAP that looks much like the current tax code. Indeed, as economist Milton Friedman observed, the end result of base broadening is just a renewed opportunity for lawmakers to sell old tax preferences (Thorndike, 2006). To be sustainable and withstand interference, Congress would likely require some say into who is appointed to the FASB; currently the government plays no role in their selection. Even in the absence of Congressional interference in GAAP, it is likely that firms' motivations to reduce their tax payments would cause them to alter their accounting choices, even while staying within GAAP, to achieve better tax treatment (as in Guenther et al. (1997)). However, for the moment, let us assume that taxable income will be conformed to book income and that the current accounting standards will be used to determine the one income measure that is reported to shareholders and reported to the tax authorities.

Another over-arching question is what entities would be subject to book-tax conformity. Would all corporations be subject to book-tax conformity, only corporations over a certain size threshold, or only publicly traded corporations? Would large partnerships and S corporations be subject to book-tax conformity? What about sole proprietorships? If book-tax conformity was not applicable to all businesses, then the tax code would need to be retained for the companies to which it would not apply. On the other hand, if book-tax conformity did apply to all companies, the GAAP rules would need to be applied by all the companies for which it is currently not required (e.g., non-public entities).

In addition, all methods of book-tax conformity would have to confront the issue of losses. Under GAAP, if a firm has negative income for a period it simply reports negative income. Losses are not carried back or forward under GAAP. The tax code, in contrast, allows for net operating loss (NOL) carrybacks and carryovers so that firms can offset income and losses. Under current law, NOLs can be carried back two years and forward up to twenty years. Without the opportunity for NOL carrybacks and carryovers, asymmetric taxation can result in which firms pay taxes in years they have positive income but get no tax relief from years in which they have negative income. Firms in cyclical industries would face heavier tax burdens over their life than would firms in stable industries. To avoid this result, it seems likely that NOL rules would need to be appended to GAAP for tax purposes. To preserve the informational role of financial statements, the effects of NOL carrybacks and carryovers on the income statement would need to be confined to their effects on tax expense, so that pre-tax income would reflect that of the current period.

Finally, an issue with all of the approaches is whether to preserve any of the current non-recognition provisions in the tax code, which are not currently in GAAP, and if not, how to make sure reliance on GAAP does not open up massive opportunities for tax avoidance. For example, the current tax code allows for certain transactions to be non-taxable, or more properly viewed as tax-deferred. Common examples include acquisitions and divestitures under Section 368, like-kind exchanges under Section 1031, and corporate formations under Section 351. Under these provisions the gain in the transaction is deferred for tax purposes, but the basis is not stepped up except to the extent that gain is recognized.

For example, suppose that firm A acquires all of the stock of firm B in exchange for A stock in a transaction that qualifies for non-recognition under Section 368. Neither firm B nor the shareholders in firm B will recognize any taxable income in the transaction itself. However, firm B's assets will keep the same tax basis that they had immediately before the transaction; the tax bases will not be stepped up to fair market value. This preserves the potential for future corporate level taxation of the gains built in to B's assets. Moreover, former shareholders of B who now hold A stock instead will take the same tax basis in A stock that they used to have in their B stock. This preserves the potential for future investor level taxation of the gains that B shareholders had in their B stock.

The closest analogy in GAAP to the non-recognition rules in the tax code was pooling of interests accounting, which is no longer allowable under GAAP. In a pooling transaction, an acquirer would purchase a target firm in a stock-for-stock exchange. The assets of the target firm would then be reflected on the balance sheet of the acquirer not at their fair market value, but at the same book values they had previously had on the target's balance sheet. In contrast, purchase accounting, the only method currently permissible under GAAP for business combinations, results in the target's assets and liabilities being recorded at fair market value on the balance sheet of the acquirer. Often this results in the recording of goodwill and other intangible assets to the extent the purchase price exceeds the fair market value of the tangible assets less liabilities.[20]

With purchase accounting as the only option for business combinations under GAAP, strict adherence to book-tax conformity would seem to eliminate the ability to acquire businesses via tax deferred methods. Selling shareholders and corporations would have to recognize gains and losses for tax purposes for the difference between their tax basis and the fair market value of the consideration received even in pure stock-for-stock acquisitions. To the extent capital allocation is improved by allowing acquisitions that defer taxation, there could be an efficiency loss associated with strict adoption of purchase accounting for tax purposes. On the other hand, if purchase accounting was retained for GAAP but exceptions were made to allow for different methods for tax purposes that would lead to the return of book-tax differences following acquisitions and would undercut many of the perceived benefits of book-tax conformity.

Below we discuss five possible options for conformity: 1) literal conformity on a worldwide basis, 2) conformity for U.S. sourced income but the retention of the deferral system for foreign subsidiary earnings, 3) conformity along with a movement to a territorial system, 4) book-tax

[20] See Statement of Financial Accounting Standards No. 141 "Business Combinations" and Statement of Financial Accounting Standards No. 142 "Goodwill and Other Intangible Assets."

conformity (world-wide or U.S. only) combined with the use of a formulaic apportionment system (like the one the U.S. employs for state taxation), and 5) worldwide adoption of book-tax conformity and the international financial reporting standards simultaneously. In the analysis below, we assume current GAAP is used as the basis for taxation but we allow losses to be carried forward indefinitely. We do not make any adjustment for purchase accounting and thus are allowing tax depreciation for basis step ups on which no tax was paid. We first discuss the various options assuming no behavioral responses or specific adjustments to get from financial accounting earnings to taxable income – thus, a straight conformity system using book income as it is computed currently. We then discuss potential behavioral responses by the firms and implications for government revenues that may prompt adjustments to compute taxable income using book income as a base.

6.1 WORLDWIDE TAXATION WITH BOOK-TAX CONFORMITY: NO DEFERRAL OF FOREIGN INCOME

The first and most straightforward option (at least on its face) is to simply adopt GAAP as the basis of taxation in its entirety. Since GAAP counts income when it is earned regardless of whether it is earned in the U.S. or abroad, this would maintain the current worldwide system of taxation but without the deferral of foreign income of foreign subsidiaries. This would accelerate the U.S. taxation of the earnings of foreign subsidiaries because currently these earnings are not taxed unless and until they are repatriated as dividends to the U.S. parent company. In addition, this type of a system would allow foreign losses to offset domestic income, which is currently not allowable. For publicly traded firms this approach would be equivalent to taking the total worldwide pre-tax income from the firm's 10K and using that as taxable income.

If we desire to retain a system in which we allow tax credits to mitigate the effect of double taxation, we would continue to allow for a foreign tax credit against the U.S. tax. If we retain a foreign tax credit we would need to either retain income and expense sourcing rules similar to those currently in IRC §§ 861-865 either as a separate system outside of GAAP or require FASB to include these rules within GAAP. A foreign tax credit under this approach to implementing book-tax conformity would be somewhat indirect because unless the financial accounting rules are the same worldwide *and* book-tax conformity is implemented worldwide (i.e., all countries used the same rules for both accounting and tax purposes) it is likely that the income included on the U.S. financial statement for the foreign subsidiaries would be different than the income reported for foreign tax purposes in the foreign jurisdiction. Thus, the credit system would be imperfect at offsetting double taxation year-to-year in the sense that it would not give a credit for foreign taxes paid or deemed paid on the exact dollar of earnings reported in the U.S. in the same period it is reported in the foreign jurisdiction. The reason being that that the income could be recognized in the U.S. before or after it is included in taxable income in the foreign tax jurisdiction. However, over the life of the firm theoretically a foreign tax credit system should accomplish the goal of mitigating double taxation.

The role of SFAS 109 (accounting for income taxes) in the financial statements would be reduced but not eliminated in this system. In particular, there would be no deferred taxes on domestic income, except for net operating loss carryforward deferred tax assets (which then requires the retention of the valuation allowance as well). There still could be deferred taxes related to foreign income to the extent that temporary differences exist between the tax bases under foreign tax purposes and the basis under GAAP. There would of course be no permanent differences related to domestic income (e.g., no muni-bond interest exemption) and no foreign tax rate differential due to deferral (although a firm could have additional taxes in foreign jurisdictions if not currently creditable). An effective tax rate reconciliation would likely still be necessary to show the effects of the additional state and local (and foreign if applicable) taxes as well as the effects of credits.

As with the current tax system, a behavioral response could arise under this system because, even though worldwide income would be currently taxable by the U.S., there would be incentives to shift income across jurisdictions in order to maximize the foreign tax credit (assuming all countries did not adopt the same system). This is much like the incentive that firms currently have under the tax law. In other words, more foreign source income for U.S. tax purposes that does not actually trigger foreign taxes (because of differencing source of income rules between the U.S. and the foreign jurisdiction) would increase the foreign tax credit limitation and thereby allow more foreign taxes to be creditable if the firm faces a binding foreign tax credit limitation. If the U.S. corporate tax rate was reduced as a result of base broadening under book-tax conformity, then more firms would face binding foreign tax credit limitations, which would accentuate this type of behavioral response. Thus, although worldwide income is taxed in the U.S. under this system income shifting would still be attractive in order to maximize the foreign tax credit. There would, of course, be cross-sectional variation in how attractive the income shifting would be under such a system based on the amount of base broadening for the firm and whether the firm had a binding foreign tax credit limitation.[21]

Another behavioral response common to all methods of book-tax conformity is that if financial accounting were used as the base for the measurement of taxable income, firms would

[21] Thus, as stated above, the importance of the identity of the source of income would either require additional rules in GAAP to specify where income is earned or a separate system of rules outside of GAAP (e.g., a mini-tax code). Currently GAAP does not have detailed rules to determine the source of income.

have incentives to reduce the amount of income reported for financial reporting which could reduce the information content of earnings for capital markets (see Guenther et al. (1997); Hanlon and Shevlin (2005); and Hanlon, Maydew and Shevlin (2006)).

In Section 7 we simulate what a book-tax conformed system would look like using financial statement data from publicly traded corporations. The data show that because the base would be broadened the corporate tax rate could be reduced while keeping the aggregate tax system revenue neutral.

6.2 WORLDWIDE TAXATION WITH BOOK-TAX CONFORMITY: ALLOWING FOR DEFERRAL OF FOREIGN SUBSIDIARY INCOME

A second manner in which book-tax conformity could be implemented would be to conform U.S. taxable income to U.S. GAAP but continue the system under which the U.S. waits to tax the foreign earnings of foreign subsidiaries until they are repatriated as dividends to the U.S. parent company. This would mean that there could be timing differences between when foreign subsidiary income would be recognized for GAAP and tax purposes. Thus, foreign income would not be included in U.S. taxable income and the current foreign tax credit system would operate as it does under the current system. Here we will assume that this system would be implemented by not allowing foreign subsidiaries into the U.S. tax consolidation. This would produce a different consolidated group for GAAP and tax purposes even though there would otherwise be book-tax conformity. That is, foreign entities would only be subject to U.S. tax on their U.S. source earnings and would use GAAP to determine those earnings. The foreign income of foreign subsidiaries would not be subject to U.S. taxation until repatriated to a U.S. shareholder (e.g., U.S. parent). When the income was repatriated, its amount would be determined under GAAP.[22]

Accounting for income taxes would still be necessary under this system. In particular, book-tax differences and thus deferred taxes could still arise with regards to income of foreign subsidiaries to the extent GAAP differed from foreign tax law. The APB 23 rule of not providing deferred taxes for the U.S. tax consequence of foreign earnings that are permanently reinvested abroad would still be applicable if current GAAP is maintained. The line in the effective tax rate reconciliation for differences between the U.S. tax rate and earnings taxed at foreign rates would continue to exist for many firms.

Similar to the first approach to conformity discussed above, this approach would place greater pressure than currently exists for GAAP to have rules to determine where income is earned. As in the current system and in the first approach above, firms would have an incentive to shift income for U.S. foreign tax credit purposes to create more foreign source income to increase the foreign tax credit limitation. In addition, firms could also have incentives to make sure their foreign source income is reported in foreign subsidiaries and not in domestic subsidiaries to keep the income out of the domestic consolidation and defer U.S. tax on the foreign income (similar to incentives in the current system). Transfer pricing between domestic and foreign subsidiaries could be a strategy employed. GAAP would need to be enhanced to specify rules for transfer pricing. Transfer pricing incentives issues are mitigated under current GAAP to some extent by consolidating entities under common control, regardless of whether they are domestic or foreign, and then eliminating intercompany transactions (e.g., no income is reported in the consolidated financial statements under GAAP if subsidiary A sells something to subsidiary B). If foreign

[22] There would likely need to be a gross-up provision to account for indirect foreign tax credits, as currently exists in the tax law. In addition, there would likely be a demand for rules to prevent deferral of passive income, similar to the Subpart F rules in the current tax law.

subsidiaries were not consolidated for tax purposes, then even though their taxable income was otherwise determined using GAAP rules, that would give rise to opportunities for transfer pricing to reduce the overall tax burden of the larger group of controlled entities.[23]

6.3 TERRITORIAL TAXATION WITH BOOK-TAX CONFORMITY

The third option for book-tax conformity would be to adopt a territorial tax system. Recall that territorial taxation would generally be consistent with the proposals in President Bush's Tax Reform Panel. Under this type of system, the conformity would then be that U.S. taxes would be based on U.S. domestic source financial accounting income but foreign source earnings would not be taxed by the U.S. Foreign source losses could not be used to offset domestic income.

A move to territorial taxation based on GAAP would require additional rules in GAAP to determine the source of income, similar to the approaches above. Indeed, the territorial option would likely place the most strain on these rules because foreign sourced earnings would never be taxed in the U.S. Shifting income to low tax jurisdictions would permanently reduce the aggregate tax burden of the group. Under this approach, GAAP would have a consolidated group consisting of the same entities as the tax consolidated group, however, only domestic source income from these entities would be included for tax purposes whereas worldwide income would be included for GAAP. Thus, a permanent book-tax difference for foreign sourced income of all entities would be created.

In terms of accounting for income taxes, under a territorial book-tax conformed system there would be no deferred taxes on domestic income because tax and book income would be perfectly

[23] Note that with deferral, rules similar to the current Subpart F rules would need to be retained. Also, note here the difference between the first approach to conformity and this second approach. Under the first approach even though all foreign subsidiaries would be consolidated income shifting may still be attractive to mitigate the foreign tax credit limitations. Under the second approach, income shifting is attractive to both shift income out of U.S. taxable income because foreign subsidiaries are not consolidated and to mitigate foreign tax credit limitations.

conformed at the domestic level (except again for deferred taxes resulting from net operating losses and any related valuation allowance). Deferred taxes could still arise with respect to foreign income to the extent there were temporary differences between GAAP and foreign tax rules. As stated above, there would be a permanent difference for the tax effects of the foreign sourced earnings never taxed in the U.S. (netting to the difference between the U.S. tax rate and foreign tax rates).

Several studies have examined the effects of moving to a territorial tax system and we do not re-examine this issue here except as it might interact with book-tax conformity (see Merrill et al. (2006) and Altshuler and Grubert (2001) as examples). While these studies conclude that there would likely not be an increase in foreign investment at the expense of domestic investment under a territorial system, income shifting using transfer pricing or other non-real investment methods (especially for passive type income) would likely be an issue. For the purposes of our examination of using GAAP as the basis for tax, the concern is that GAAP currently has very minimal rules regarding the source of income whereas territorial taxation places a lot of emphasis on the source of income. This discrepancy would need to be resolved either through much more rigorous rules added to GAAP or the maintenance of a tax code to supplement GAAP with these rules.

6.4 WORLDWIDE BOOK-TAX CONFORMITY COMBINED WITH THE USE OF A FORMULARY APPORTIONMENT SYSTEM

This would combine the first method of worldwide taxation with book-tax conformity with the method that U.S. states use to apportion income among them. Instead of attempting to determine the source of income, a firm’s income is apportioned among jurisdictions based on a formula. The traditional formula used by states apportions income based on property, payroll and sales. For example, suppose firm A was being taxed by State Z and had 10% of its sales in State Z, 30% of its property and State Z and 50% of its payroll in State Z. Assuming State Z’s apportionment formula equal-weighted each of the factors, then 30% of firms A's income would be taxable by State Z [(10% + 30% + 50%) / 3].[24] An advantage of formulary apportionment is that one does not need to try to figure out where income is sourced. In that sense formulary apportionment would go well with taxation based on GAAP income because determining the location where income is earned is not a major emphasis of the rules in GAAP. Moreover, the ability to shift income into low tax jurisdictions is mitigated under formulary apportionment because to shift income to the low tax jurisdiction the firm would have to shift factors, property, payroll and/or sales to the low tax jurisdiction.

Complications still arise with formulary apportionment, to be sure. For example, with formulary apportionment one does need to determine where to count sales for purposes of the sales factor. There can also be complications with where payroll and property are located, as employees have been known to travel and some property is mobile, but arguably these complications are less cumbersome than those that arise with attempting to source income.

To consider the behavioral response to book-tax conformity coupled with formulary apportionment, one can look how firms respond at the state level. Some types of state level tax planning involve transactions with subsidiaries that are not taxable in a particular state due to issues of nexus. For a firm to be taxable by a particular state it must have sufficient contact with the state, i.e., nexus. Thus, sometimes firms can reduce their state tax burden by simply avoiding nexus with certain states or causing only certain of its subsidiaries to have nexus with a given state. We expect nexus to be less of an issue at the Federal level, especially when coupled with book-tax conformity which would consolidate entities that are under common control. It would be hard for a large

[24] U.S. states can use different weightings. Over time, tax competition among the states has causes many states to weight the sales factor more heavily than the property and payroll factors, to reduce the tax burden on in-state producers and increase the tax burden on out of state producers (see Goolsbee and Maydew, 2000 and Anand and Sansing, 2000). In particular, many states double weight the sales factor and some states base apportionment solely on the sales factor.

multinational to avoid nexus with the entire U.S. and because its controlled entities would be consolidated for both book and tax purposes, this would mitigate the ability to avoid taxes by shifting income across entities.

6.5. WORLDWIDE BOOK-TAX CONFORMITY USING INTERNATIONAL FINANCIAL REPORTING STANDARDS

A fifth option for implementing book-tax conformity would be if all or many countries upon the adoption of the International Financial Reporting Standards (IFRS) also adopted book-tax conformity. The main advantage of coupling book-tax conformity to international accounting standards would result in one set of accounting for both book and tax purposes for all countries that so adopted. Each of the approaches discussed above could be implemented with taxable income conformed to book income based on IAS/IFRS rather than GAAP.

An advantage with having multiple countries using the same rules is that the foreign tax credit would more accurately mitigate double taxation on a year-to-year basis. For example, assume Company X reports $200 of earnings under IFRS. Further assume that $140 is designated as domestic source income and $60 is designated as foreign source income. This foreign source income was earned $40 in France and $20 in Ireland. Now if the U.S. taxes total worldwide income then $200 will be taxable in the U.S. whether repatriated or not. Because all countries would be on IFRS and have a conformed book-tax system (again assuming no country specific adjustments in the conformity process) and assuming the sourcing of income rules were the same, the company's taxable income in France would be $40 and their taxable income in Ireland would be $20. As a result, the U.S. could allow for foreign tax credits on taxes paid on foreign sourced earnings that would align annually between the foreign sourced income taxed in the U.S. and abroad.

Of course the main hurdle with such a program would be obtaining buy-in from the various countries, similar to issues the EU faces with a number of decisions. Small low-tax countries (i.e., tax havens) in particular may be reluctant to endorse such a system if they perceive that they are the beneficiaries of the current system of taxation.

7. SIMULATED ECONOMIC EFFECTS OF BOOK-TAX CONFORMITY USING WORLDWIDE INCOME

In this section, we simulate one of the approaches to book-tax conformity where we have sufficient data to permit reasonable estimation. We use firm level financial statement data for publicly traded firms. These data are sufficiently detailed to allow us to simulate what book-tax conformity would look like under the first approach above, which would adopt book-tax conformity on worldwide income with no deferral of foreign income.

We compute empirical estimates of the new U.S. tax rate that would be required to make the book and tax conformed system revenue neutral. We also compute the volatility of the tax revenue stream under the current and conformed systems. In general, we find that adopting book-tax conformity would broaden the corporate tax base relative to current tax rules. As such, the corporate tax rate could be reduced while holding the change revenue neutral at the aggregate level. We do not attempt to simulate the behavioral effects of the adoption of book-tax conformity in general or the efficiency effects of resulting lower marginal tax rates.

7.1. DATA LIMITATIONS

There are, of course, data limitations in computing these estimates. The first issues arise in the computation of book income. Under the current U.S. financial accounting rules, the income statement of the firm will show revenues and expenses and then the net of these before tax expense is called pre-tax book income. The next expense shown on the income statement is the income tax expense (both current and deferred) related to the pre-tax book income. Below this pre-tax book income number are several items reported net of tax (both current and deferred) – cumulative effect of an accounting change, extraordinary items, and discontinued operations. In our analysis, we make no adjustments for these net of tax items. We are not advocating that these items be tax exempt in a book-tax conformed system. However, due to data limitations, attempting to adjust for net of tax items could distort our analysis more than it would improve it. For example, we do not know the gross amount of income or expense for these items. Only the amount net of tax is reported in Compustat and the amount of tax is not disclosed separately. We could gross all of these items up by the statutory tax rate to estimate the gross amount of the income and expense but this would introduce measurement error into our computation of book income.

Perhaps even more problematic with trying to adjust for the net of tax items is that to compute revenue neutrality we assume that the firm's U.S. current tax expense is the amount of U.S. taxes actually owed or paid on the current year's income (we discuss the problems and benefits of this assumption below). Because the tax expense line on the firm's financial statement includes only taxes on pre-tax book income, this number will not include the taxes on the extraordinary items, the discontinued operations, or the cumulative effect of accounting changes. Thus, if we adjusted income for the net of tax items, our benchmark measure -- current tax expense -- would be understated to the extent our firms had current taxes on these items and overstated to the extent our sample firms reduced their current tax liability with losses generated by these items. As a result, we would not be making a valid comparison (or computation of a revenue neutral rate). In addition, we do not know the extent to which the taxes on these items are current or deferred or even which portion is U.S. or foreign so trying to adjust the current tax expense to be comparable with any income adjustment we could make would be nearly impossible. Thus, we opt to leave the income (loss) from the cumulative effect of an accounting changes, extraordinary items, and discontinued operations out of our pre-tax book income number. Based on descriptive data in our sample, only 8.7% of the sample has non-zero or non-missing amounts for any of these three items and the average of the three amounts is only -1.3% of pre-tax book income.

Another set of issues that arise in the computation of book income stem from how ownership of other firms is reported under GAAP and thus on Compustat. Many of the ownership/consolidation rules are discussed above and we discuss here how these specifically affect our computation of book income for our aggregate calculations. Most importantly is the potential for double counting of income. There are many cases where the same income is reported and filed on two separate 10-Ks (and are included in Compustat twice as a result). To the extent we can we try to eliminate this double counting. We discuss each case in turn below.

First, is the case where one company owns greater than 80% of another company and the remaining shares (or company debt) of the owned company are publicly traded. For discussion purposes, let's use General Motors (GM) and General Motors Acceptance Corp. (GMAC) as an example. GM owns 100 percent of GMAC during our sample period. Because GM's ownership of GMAC is greater than 50% the firms are required to file consolidated financial statements with the SEC. These consolidated statements will include all the income, assets, and liabilities of GMAC and the other entities greater than 50% owned by GM with an appropriate subtraction for portions not owned by GM (i.e., minority interests). In addition, because GMAC has publicly traded debt, GMAC is also required to file its own financial statements with the SEC.[25] As a result, when we

[25] As stated above, for tax purposes in a case such as this (where ownership is greater than 80%) the firms can elect of file a consolidated tax return, which GM and GMAC presumably do, and all of GMAC's income is included on the tax return. Any tax amount that is different on a consolidated versus a separate company basis is generally handled through intercompany payments. Note that if the ownership were greater than 50% but less than 80% the financial accounting issues would be the same as above but the firms would simply file separate company tax returns. Under this scenario (ownership between 50% and 80%) the tax return of the parent company would include only dividends received from

pull pre-tax book income from Compustat we will be double counting the income of GMAC. To eliminate this double counting, we eliminate all firms from our sample with a stock ownership code in Compustat (STK) that indicates it is a subsidiary of another publicly traded company (STK=1).[26] As a result in our analyses, we only tax the income of the subsidiary (GMAC in our example) one time and that is in the income of the parent (GM in this case).[27]

Second, is the case where one company owns between 20% and 50% (inclusive) of another company – for discussion purposes let's say Company X owns 40% of Company Z. As described above under such conditions Company X records 40% of the net income of Company Z on Company X's financial statements under the heading "Equity earnings (loss) of affiliates." As long as Company Z is publicly traded (its equity or debt), it will also file financial statements with the SEC showing 100 percent of its income. There are at least two possible ways such investments could be treated under a book-tax conformed system. We discuss and simulate each of these separately. First, is to subject the equity earnings recorded in Company X's financial statements to tax under the assumption of strict book-tax conformity (no book-tax differences for Company X). This treatment results in the equity earnings being taxed to X and to Z because Z will be taxed on its full pre-tax book income as well. We take this approach in our main analysis by making no

the subsidiary and thus an additional book-tax difference is generated between the dividends received and the parent's share of the financial accounting income. Under the conformed system this book-tax difference would be eliminated.

[26] This is a disclosure code in Compustat and thus probably not 100 percent accurate. For example, we looked up Kraft Foods, which is approximately 85 percent owned by Altria, and it did not have an STK code of 1. However, we looked up several other companies (e.g., GMAC, General Electric's subsidiaries, and others) and found all of these to have a code of 1. In addition, we believe this code to apply to only subsidiaries more than 50 percent owned. To investigate we looked up DirecTV which is 33.8% owned by News Corporation and it did not have a code indicating it was a subsidiary.

[27] We note that because we exclude subsidiaries of publicly traded companies from the sample, there is no adjustment necessary for minority interest because Compustat's data item #170 will (generally) not have minority interest subtracted from it (Compustat reports this number as a below data #170 item). Thus, 100 percent of the subsidiary's income remains fully taxed under our computation.

adjustments to the investor's pre-tax book income (Company X in our example).[28] The second option is to exempt the equity earnings in affiliates from taxation and continue to tax 100 percent of the Company Z's pre-tax book income as reported on their 10-K. This treatment would be consistent with the concept of not double taxing investment earnings (the approach we take with consolidated subsidiaries). However, doing this creates a (permanent) book-tax difference for Company X. As a result, we do not take this approach in our main analysis (strict book-tax conformity) but rather we implement this adjustment in our secondary analysis below where we add in other book-tax differences to the simulations.[29]

For entities that are owned 20% or less and are classified as trading securities, any changes in market value to the securities are included in the book income of the entity that owns the security under current GAAP rules. We include this mark-to-market income in the book income number we use assuming strict conformity. Note that the actual income (not market value based) of the partially owned company will also be taxed when that firm's own 10-K is subjected to taxation. Conceptually we would back out this mark-to-market income from pre-tax book income in our secondary analysis below to prevent taxation of investment income. However, there is no data item in Compustat that allows us to parse this income item out and as a result we do not adjust for this item. More broadly, how mark-to-market issues will be dealt with in a book-tax conformity system is beyond the scope of this paper.

[28] The first treatment where we do not adjust the investor's book income to back out equity earnings in affiliates results in the U.S. taxation of any 20%-50% ownership interests of foreign subsidiaries which would not be taxed in the U.S. system if we make the adjustment (as we do below) to back these earnings out of the investor's income.

[29] We note that under the current unconformed system equity earnings are not taxed to the parent when recorded for financial accounting purposes but any dividends paid from the investee to the investor are taxable, subject to the dividends received deduction. Under book-tax conformity the dividends would be fully exempt from taxation at the parent level because they are never included in book-income.

7.2. SAMPLE

Because we are assuming, at least at first, no book-tax differences at all and no behavioral response on the part of the firms, we use the pre-tax book income number reported on firms' 10-Ks in our main analysis. To conduct our analysis we first pull a sample of firms from Compustat with the requisite data. We start will all U.S. incorporated, non-financial firms on Compustat that are not subsidiaries of another publicly traded firm (STK not equal to 1), and have assets greater than zero, during the years 1995-2004 (10,912 firms and 68,143 firm-years). We then eliminate all observations that are ADRs, LPs, and Trusts, because of the different tax rules for these firms (and thus additional problems with the use of current tax expense disclosures), and we also eliminate observations with CUSIPs ending in "Z" or "Y" to help eliminate double counting of firms that have redundant data in Compustat.

We then delete observations for which we cannot obtain measures of worldwide, U.S., and foreign components of the firm's current tax expense, total tax expense, and pre-tax book income. Finally, we exclude observations that have an interrupted time series of data in Compustat because we cannot compute net operating loss carryforwards over the missing years. For these observations we include the longest continuous string of data available. The final sample consists of 52,811 firm-year observations from 9,967 firms. Sample selection is detailed in Table 1.

7.3. INITIAL RESULTS

Table 2 presents our simulated computations of the tax revenues under a book-tax conformed system. We perform the simulation under several assumptions. The first is that when we compute a rate to keep the system revenue neutral we assume the U.S. current tax expense is the actual tax collected by the U.S. government. We recognize that there are many problems with this assumption (e.g., the tax contingency reserve, the accounting for stock option deductions, etc. (see

Hanlon and Shevlin (2002) and Hanlon (2003))) but as a first pass we use it as an empirical estimation basically because of the lack of availability of anything better. For example, we also attempt to use Statistics of Income (SOI) data (untabulated) but because we do not know the exact intersection of Compustat firms and firms included in the SOI data we do not believe these data to be any more reliable than using the current tax expense as an estimation of taxes collected for our sample of firms. Further, we cannot use cash taxes paid from the cash flow statement for our sample firms because this amount will include taxes paid to all jurisdictions, for past years' audit settlements, and current year estimated payments but not the amount, if any, due with the current year's return (although it will include the amount due with the prior year's return).

Thus, we recognize that to the extent current tax expense differs from actual taxes paid this will introduce measurement error in our estimates. However, some of the measurement error will wash out across time and across firms. In addition, the mental exercise of considering the various methods of implementing book-tax conformity and the issues involved with the methods is of at least equal importance to the initial dollar estimates in many ways. If the policy debate moves closer to a book-tax conformed system firms can conduct their own analysis using their actual data and the IRS could conduct its own analysis (possibly using the new M-3 data that will soon be available that will allow them to better match up book and taxable incomes between the appropriate entities). In addition to this first assumption that current tax expense is a reasonable estimate of taxes paid, we also assume that under book-tax conformity there would be 1) no net operating loss (NOL) carrybacks, 2) indefinite NOL carryforwards, and 3) foreign tax credits subject to similar foreign tax credit limitations under the current system and that these credits can be carried forward indefinitely.[30]

[30] Note we do not have any other credits in the conformed system. For example, we do not include a research and development credit.

We begin with world wide financial accounting pre-tax book income (PTBI shown in the first column of Table 2). We then show the amount of U.S. current tax expense (Compustat data item #63) for the sample as is reported under the current unconformed system. Next we show current tax expense under the simulated conformed system, assuming revenue neutrality over the aggregate 10 year period. We do not enforce revenue neutrality on a year-by-year basis because if we did it would result in a statutory tax rate that changes year-to-year. Having a statutory tax rate that floated from year-to-year would likely be unacceptable and introduce many problems.

To arrive at the simulated revenue neutral tax rate, we calculate each firm's U.S. current tax expense for each year. In making this calculation we first adjust each firm's world-wide pre-tax book income for past losses, assuming no carryback and an indefinite carryforward period. This adjusted world-wide pre-tax book income number is then multiplied by a first pass simulated tax rate which results in the same amount of current tax expense as under the current unconfirmed system. Foreign tax credits are then computed as the lesser of foreign pre-tax income times the simulated tax rate or reported foreign current tax expense. The foreign tax credit is then subtracted from the calculated U.S. current tax expense. Foreign tax credits are carried forward indefinitely, but are not carried back, to make the simulation more tractable. Because the foreign tax credit (and therefore the simulated current tax expense) depends on the simulated revenue neutral tax rate, we iteratively choose the tax rate until the sum of the simulated current tax expenses (after foreign tax credits) over the years is close to actual current tax expense over those same years.

In the fourth column of Table 2 we show what the sample's net income after foreign and U.S. tax is as currently reported (PTBI (data #170) – U.S. current and deferred taxes (data items # 63 and # 269) - foreign current and deferred taxes (data items # 64 and #270). In the fifth column we report what the firm's net income would be under the conformed system (PTBI (data #170) –

simulated U.S. tax expense – foreign current tax expense (data #64) – foreign deferred tax expense (data # 270)).[31] Note that the new tax rate required is lower than the U.S. statutory rate under the current system: 26.3% versus the current statutory rate of 35%. The lower rate makes sense given the broader base of taxation – no book-tax differences and the inclusion of worldwide income (i.e., the income of foreign subsidiaries are taxed currently).[32] In addition, we find the volatility of the tax or income stream does not change dramatically. The volatility over time of the U.S. income tax receipts decreases slightly under this conformed system and the volatility over time of the total net incomes increases slightly. We also find that in 70% of the years the net income of the firms increases (due to the lower reported tax expense as a result of no deferred taxes).[33]

7.4. INDUSTRY EFFECTIVE TAX RATES

In Table 3 we present industry worldwide average effective tax rates, both current effective tax rates (U.S. and foreign current tax expense over pre-tax book income) and total effective tax rates (U.S. and foreign current plus any applicable deferred taxes divided by pre-tax book income). The industry classifications are from Barth et al. (2005). In Panel A of Table 3 we present the data for all firms and in Panel B of Table 3 we present the data including only firms with positive pre-tax book income. Current effective tax rates (total effective tax rates) are calculated by dividing the

[31] Note we ignore state and other taxes for simplicity.

[32] Note that in our simulations we make no adjustments for stock option deductions. During the time period of our tests, firms were not required to expense stock options for financial accounting purposes under most cases. Following the strict book-tax conformity for which we can do computations, we use book income with no adjustments and thus do not adjust for stock option compensation. We note that the current tax expense amount we use to estimate actual taxes paid is overstated for firms that obtained deductions for stock options and as a result our tax rate estimates are likely overestimated for this time period. We note that the financial accounting rules have since changed to requiring expensing of the estimate of the value of the stock option over the vesting period. If we would do an as if calculation over our sample period based on these new rules it would lower book income and increase the rate required to maintain revenue neutrality.

[33] The capital market effects of the change in volatility and increase in net income should be considered. For a somewhat related study regarding tax rate changes and market implications see Chen and Schoderbek (2000).

sum of current tax expense (total tax expense) across time within an industry and dividing by the sum of pre-tax book income.

Note that under the conformed system there are no U.S. deferred taxes because there are no domestic book-tax differences.[34] However, there are still foreign deferred taxes because we are not assuming that other countries have changed their systems to one where book and taxable incomes are conformed. Thus, the foreign deferred tax amounts are the same under the conformed and unconformed systems in our simulation.

On average over the entire sample of firms, because we assume foreign taxes paid do not change and that this policy is revenue neutral in the U.S., there is no overall difference in the current effective tax rates between the conformed and unconformed systems.[35] However, if we look at the total effective tax rate (current plus deferred taxes divided by pre-tax book income) there is a decline on average over the sample: from 41.5% in the nonconformed system to 38.7% under the conformed system. In addition, for both the effective tax rates there are distributional effects meaning that some industries experience a tax increase and some a tax decrease If we look to Panel B where only firms with positive aggregate earnings are included, we see that retail firms, utilities, and services firms would experience the larges declines in effective tax rates indicating that these firms had fewer book-tax differences in the non-conformed system (their base was not broadened much by the new rules).

[34] Note that there would be deferred tax assets related to net operating losses, however, we do not incorporate these into our analyses for simplicity.

[35] Note that the current effective tax rate here is different than the current effective tax rate in Table 2. This difference is because Table 2 does not include foreign taxes in the current tax expense column and Table 3 does include foreign taxes.

7.5. ALLOWING SOME BOOK-TAX DIFFERENCES

In Table 4 we present the same data as in table 2 except that under this secondary simulation we assume that some book-tax differences are placed into the ‘conformed’ system. First, to provide for one likely book-tax difference that would be put back into the tax system is the non-deductibility (non-taxability) of Special Items (data #17). These items are generally accrual items and are often expenses such as restructuring charges, inventory write-downs if considered non-recurring, goodwill write-downs (impairments), or other non-recurring items. Many of these Special Items constitute book-tax differences under the current unconformed system because they are either permanent book-tax difference such as goodwill impairments or are a current year estimate of a future cash expense (a temporary book-tax difference).

The second adjustment we make in Table 4 is that we subtract the line item “Equity earnings in affiliates” (data item # 55) as discussed above.[36] There are other book-tax differences that could be added (and if the system were adopted would surely be lobbied for) but we stop here just to provide a relatively simple illustration of how the outcome could change if book-tax differences start to be re-introduced into the system. Using the same methods as described above with the addition of these adjustments, Table 4 estimates that the rate necessary to make U.S. tax collections revenue neutral under the book and tax conformed system would be 23.3%, which again is reasonable because the base would be even broader in this setting allowing for a lower rate.

[36] We also considered adding back depreciation, amortization and depletion expense and allowing firms an immediate write off of capital expenditures. Our thought here was that in a strict book-tax conformity system where under GAAP purchase accounting is the rule for acquisitions, the way we are conducting our analyses above (and below) essentially gives the purchasers a step up in asset bases because book values are stepped up to purchase price (market value) as of the date of acquisition for financial accounting. However, under such a system the sellers and target corporation would have to pay taxes on the gains implied by the step-up, which would result in additional taxes that we are currently unable to estimate. The problem using our data is that 1) pooling was allowed through July of 2001 and thus there is no step up in the accounting data for those transactions, 2) we do not have the data to make a transitional adjustment, meaning we have no way to give the acquirers a depreciation deduction for the remaining bases of the assets (if a taxable acquisition which we cannot determine either) at the time of the rule change, and 3) we do not know the portion of U.S. versus foreign assets and depreciation expense following the 1997 change in the reporting of segment data.

8. OTHER COUNTRIES' EXPERIENCES WITH BOOK-TAX CONFORMITY

There is a wide range of the degree to which book and taxable incomes are conformed when one looks around the globe. In addition, there seem to be both movements to and from the conformed type system. We are not aware of any country that has a system where there is perfect book-tax conformity – every country seems to make at least some adjustments. Below we discuss briefly the status and current movements in several other countries and the EU as a whole.

Germany is a country that historically has had a close linkage between financial and tax accounting. The income tax law refers to the profit and loss computed under "sound accounting practice." In addition, it is compulsory that the specific items shown in the balance sheet for the respective fiscal year have to be recognized for tax purposes and elections laid down in the accounting rules have to be exercised uniformly both for commercial and tax purposes (similar to the LIFO conformity rule in the U.S.). This type of dependence has been criticized by both German and international commentators as a major distortion of the information value of financial accounts (Schon, 2005).[37] However, the linkage reduced compliance costs and extended conservative accounting to the tax system (which tends to understate corporate profits) so the business community was happy with the linked system (Schon, 2005).

In recent years however there has been a move away from book-tax conformity in Germany. The number of adjustments has increased since the late 1990s because the conservatism principle was sometimes in conflict with tax principles like the ability to pay doctrine. The desire to move away from conformity has increased more following the introduction of the IFRS because of the information purposes of accounting standards, the private character of the IASB, and the fact that

[37] Indeed, the German financial analyst society, Deutsche Vereinigung fur Finanzanalyse und Anlageberatung (DVFA), developed a system in which analysts (and often companies) prepared adjusted earnings data for German companies based on information in the financial statements and company internal records in a effort to determine (permanent earnings) (Harris et al. (1994).

the IFRS will only apply to public companies (Schon, 2005). This movement from conformity has recently been evaluated in other countries as well including Austria, Belgium, and France. Indeed, in Spain, which adopted book-tax conformity in 1996, there have been recent studies opting for the separation of book and tax if IFRS becomes the basis of financial accounting in the future (Schon, 2005).

The U.K. has historically been a country where tax and book incomes were very separate. However, Britain has begun to consider conformity as a way to get at the "truth" about corporate income. Over time the courts have relied on British GAAP as a cornerstone of tax accounting and the British Parliament in the 1998 U.K Finance Act provided explicitly that profit and loss measurement under tax law should follow the "true and fair view principle" in accordance with financial accounting standards if the tax code does not say otherwise (Schon, 2005). In 2003 the government published a consultation document on "Reform of Corporate Tax," which asked the public to comment on a closer alignment of book and tax. In 2004, the British Parliament enacted a provision that refers the measurement of business profits under U.K. income tax law to the new established IFRS. One major concern in Britain is the extent to which assets should be marked to market.

The EU has proposed a common consolidated tax base for multinational companies operating within the EU and early proposals were based on IFRS. That the base is consolidated is important to the EC because it would like to eliminate intercompany transactions in addition to establishing a single set of rules for a multinational group. The EU also argues that a common consolidated base is a way of eliminating transfer pricing problems in the EU while avoiding double taxation and discrimination. The common consolidated base would permit cross border use of losses and cross border consolidation. On May 4, 2006, the Commission of the European Communities reported its progress on deliberating these issues to the EU and reported that they had decided that the IAS/IFRS should only be used as a tool in designing the tax base but that there would be no formal link to standards. The group felt that some provisions of the IAS/IFRS would not be appropriate for taxation and problems would arise because not all companies are required to use IAS/IFRS and because these standards are constantly changing (Commission of the European Communities, 2006).

9. CONCLUSIONS

While book-tax conformity has many pros and cons, the international implications of book-tax conformity are largely unexplored. We describe several possible approaches to implementing book-tax conformity for firms that have both domestic and foreign operations. These approaches include: 1) book-tax conformity while retaining worldwide taxation but with no deferral of foreign income, 2) book-tax conformity while retaining both worldwide taxation and deferral of foreign income, 3) book-tax conformity along with territorial taxation, 4) book-tax conformity with formulary apportionment, 5) book-tax conformity based on International Accounting Standards (IAS/IFRS). We discuss issues with implementing each system and conjecture at the behavioral responses to each.

Using financial statement data for the publicly traded U.S. firms, we simulate the tax consequences of book-tax conformity for the first approach. Specifically, we simulate the effects of book-tax conformity on the mean and variance of tax payments / collections and book earnings. Our simulations indicate that under book-tax conformity the tax base would be broadened, resulting in revenue neutral corporate tax rate that is lower than the current statutory rate. These simulations are necessarily imperfect as the data upon which they are built have many limitations.

The process of thinking through the implementation of book-tax conformity and simulating its effects reveals many of the complications that would arise if it were to be implemented, such as how to avoid double-taxing the income of entities that are accounted for under the equity method and whether to allow non-taxable acquisitions or strictly apply purchase accounting to the taxation of mergers and acquisitions. Of course, the current unconformed system of taxation is not without complications as well.

References

Ali, A. and L. Hwang. 2000. "Country-Specific Factors Related to Financial Reporting and the Relevance of Accounting Data." *Journal of Accounting Research*, (Spring): 1-21.

Altshuler, R. and H. Grubert. 2001. "Where Will They Go if We Go Territorial? Dividend Exemption and the Location Decisions of U.S. Multinational Corporations." National Tax Journal (December).

Ball, R. S.P. Kothari and A. Robin. 2000. "The Effect of Institutional Factors on Properties of Accounting Earnings." *Journal of Accounting and Economics*, (29): 1-51.

Ball, R., A. Robin, and J. Wu. 2003. "Incentives versus Standards: Properties of Accounting Income in Four East Asian Countries." *Journal of Accounting and Economics* 36 (1-3): 235-270.

Barth, M, W.H. Beaver, J. Hand, W. R. Landsman. 2005. "Accruals, Accounting-Based Valuation Models, and the Prediction of Equity Values." *Journal of Accounting, Auditing & Finance* (Fall): 311-345.

Bharat, A. and R. Sansing. 2000. "The Weighting Game: Formula Apportionment as an Instrument of Public Policy." *National Tax Journal* 53 (June): 183-199.

Commission of the European Communities. 2006. "Communication From the Commission to the Council, the European Parliament and the European Economic and Social Committee. Implementing the Community Lisbon Programme: Progress to Date and Next Steps Towards a Common Consolidated Corporate Tax Base (CCCTB)." Brussels.

Choi, W., J. Gramlich, and J. Thomas. 1998. "Potential Errors in Detection of Earnings Management: Reexamining the Studies of the Alternative Minimum Tax of 1986." Working paper, Columbia University.

Desai, M.. 2005. "The Degradation of Corporation Profits." *Journal of Economic Perspectives* 19 (Fall): 171-192.

Dhaliwal, D and S. Wang. 1992. "The Effect of the Book Income Adjustment in the 1986 Alternative Minimum Tax on Corporate Financial Reporting." *Journal of Accounting and Economics* 15 (1): 7-26.

Financial Accounting Standards Board. 1992. Statement of Financial Accounting Standards No. 109 Accounting for Income Taxes. Norwalk, Connecticut.

Gramlich, J. 1991. "The Effect of the Alternative Minimum Tax Book Income Adjustment on Accrual Decision." *Journal of the American Taxation Association*, (13): 36-56.

Guenther, D., E. Maydew and S. Nutter. 1997. "Financial Reporting, Tax Costs, and Book-Tax Conformity." *Journal of Accounting and Economics* 23 (3): 225-248.

Guenther, D. and D. Young, 2000. "The Association Between Financial Accounting Measures and Real Economic Activity: A Multinational Study." *Journal of Accounting and Economics* (February):53-72.

Hand, J. 1993. "Resolving LIFO Uncertainty: A Theoretical and Empirical Reexamination of 1974-75 LIFO Adoptions and Nonadoptions." *Journal of Accounting Research* 31 (1): 21-49.

Hanlon, M. and T. Shevlin. 2002. Accounting for Tax Benefits of Employee Stock Options and Implications for Research. *Accounting Horizons* 16 (1): 1-16.

Hanlon, M. 2003. What Can We Infer About a Firm's Taxable Income from its Financial Statements? *National Tax Journal* (December): 831-864

Hanlon, M., E. Maydew, and T. Shevlin. 2006. Book-Tax Conformity and the Information Content of Earnings. Working paper, University of Michigan.

Harris, T. M. Lang, and H.P. Moller. 1994. "The Value Relevance of German Accounting Measures: An Empirical Analysis." *Journal of Accounting Research* 32 (2): 187-209.

Haverals, J. 2005. "IAS/IFRS in Belgium: Quantitative Analysis of the Impact on the Tax Burden of Companies." Working paper, Solvay Business School, Centre Emile Bernheim.

Jacobs, O. H., C. Spengel, T. Stetter, and C. Wendt. 2005. "EU Company Taxation in Case of a Common Tax Base. A Computer-based Calculation and Comparison Using the Enhanced Model of the European Tax Analyzer." Discussion paper No. 05-37, Center for European Economic Research.

Kang, S. 1993. "A Conceptual Framework for the Stock Price Effects of LIFO Tax Benefits." *Journal of Accounting Research* 31(1): 50-61.

Merrill, P., O. Penn, H. Eckstein, D. Grosman, and M. van Kessel. 2006. "Restructuring Foreign-Source-Income Taxation: U.S. Territorial Tax Proposals and the International Experience." 2006 TNT 94-33.

McGill, G. and E. Outslay. 2002. "Did Enron Pay Taxes?: Using Accounting Information to Decipher Tax Status." Tax Notes, August 19.

Schon, W. 2005. "The David R. Tillinghast Lecture: The Odd Couple: A Common Future for Financial and Tax Accounting?" New York University School of Law Tax Law Review 58 Tax L. Rev. 111.

Sheppard, L. 2004. “Financial Accounting Conformity For European Corporate Taxation?” Tax Notes, June 21: p. 1461-1465.

Thorndike, J. 2006. “Two Cheers for Loopholes.” April 13. Full text published by Tax Analysts. http://www.taxhistory.org/thp/readings.nsf.

Young, D. and D. Guenther. 2003. “Financial Reporting Environments and International Capital Mobility.” *Journal of Accounting Research* 41 (3): 553-579.

Table 1

Sample Selection

	Firms	**Firm-years**
-- Compustat from 1995-2004 with Assets > 0, US Incorporated, SIC code other than 6000s and stock ownership code not equal to 1	10,912	68,143
-- Firms with ADR, LP, or TRUST in the company name or a cusip ending in 'Z' or 'Y'	(322)	(1,690)
-- Firms missing world-wide, federal or foreign pre-tax income, current tax expense, or deferred tax expense	(623)	(11,408)
-- Firm-years not part of the firm's longest consecutive annual data run	-	(2,234)
TOTAL SAMPLE	9,967	52,811

Notes: Before eliminating firms because of missing tax data items, we assume that the sum of the federal and foreign components of pre-tax book income and of current tax expense equals the world-wide component. If any one of the three components is missing, it is computed from the other two. If no delineation between U.S. and foreign is given we assume all is U.S. sourced.

Table 2

Simulated tax collections with current tax expense from Compustat as benchmark

		CURRENT TAX EXPENSE			**NET INCOME**	
YEAR	**PTBI**	**NON-CONFORM**	**CONFORM**	**tCONFORMED**	**NON-CONFORM**	**CONFORM**
1995	283,378	66,610	60,270	0.263	184,325	193,487
1996	328,521	77,019	72,214	0.263	211,527	221,404
1997	345,775	88,286	78,138	0.263	218,697	231,895
1998	306,444	85,401	80,417	0.263	186,893	196,195
1999	397,534	98,588	96,115	0.263	242,441	265,151
2000	329,727	101,245	95,048	0.263	175,455	193,088
2001	34,985	71,222	66,724	0.263	- 60,030	- 69,116
2002	115,184	53,712	71,778	0.263	6,692	6,505
2003	399,193	65,710	84,072	0.263	278,654	276,585
2004	453,430	85,494	88,468	0.263	307,039	319,035
ALL	2,994,171	793,287	793,243	0.263	1,751,692	1,834,228
MEAN	299,417	79,329	79,324		175,169	183,423
STDEV	129,696	15,206	11,866		115,357	121,553

Notes: YEAR is the Compustat fiscal year variable YEARA. PTBI is Compustat data #170, aggregated across all firms in the year. CURRENT TAX EXPENSE NON-CONFORM is the sum of current federal tax expense for all firms in the year. CURRENT TAX EXPENSE CONFORM is the simulated current tax expense, assuming rate tCONFORMED. tCONFORMED is the tax rate necessary to achieve revenue neutrality over the aggregate 10 year period, assuming the U.S. tax collections from the sample are equivalent to aggregated Compustat current tax expense. NET INCOME NON-CONFORM is pre-tax book income from Compustat less current and deferred taxes from both federal and foreign jurisdictions (data #170 – data #63 – data #64 – data #269 – data #270). NET INCOME CONFORM is pre-tax book income from Compustat (data #170) less CURRENT TAX EXPENSE CONFORM less total foreign tax expense (data #64 + data#270).

Table 3 -- Panel A

Industry ETRs -- all firms

		CURRENT ETR			TOTAL ETR		
		NON-			NON-		
INDUSTRY	NFIRMS	CONFORM	CONFORM	DIFF	CONFORM	CONFORM	DIFF
Not assigned	226	0.199	0.284	0.085	0.242	0.268	0.025
Mining/Construction	222	0.375	0.302	-0.072	0.358	0.294	-0.064
Food	233	0.303	0.289	-0.015	0.329	0.294	-0.034
Textiles/Print/Publish	456	0.357	0.323	-0.034	0.381	0.321	-0.060
Chemicals	233	0.317	0.326	0.008	0.320	0.319	-0.001
Pharmaceuticals	600	0.377	0.336	-0.040	0.341	0.324	-0.017
Extractive	386	0.307	0.367	0.060	0.347	0.372	0.025
Manf:Rubber/glass/etc	204	0.415	0.405	-0.010	0.407	0.402	-0.004
Manf:Metal	264	0.361	0.370	0.010	0.394	0.383	-0.011
Manf:Machinery	329	0.328	0.326	-0.003	0.343	0.323	-0.021
Manf:ElectricalEqpt	465	N/A	N/A	N/A	N/A	N/A	N/A
Manf:TransportEqpt	187	0.240	0.333	0.093	0.270	0.303	0.033
Manf:Instruments	688	0.341	0.346	0.006	0.357	0.342	-0.015
Manf:Misc.	128	0.357	0.321	-0.036	0.339	0.312	-0.028
Computers	1,942	0.558	0.524	-0.034	0.554	0.528	-0.026
Transportation	675	0.590	0.722	0.132	0.706	0.719	0.013
Utilities	193	0.354	0.323	-0.031	0.390	0.326	-0.064
Retail:Wholesale	446	0.354	0.324	-0.030	0.377	0.329	-0.048
Retail:Misc.	590	0.367	0.295	-0.072	0.397	0.296	-0.101
Retail:Restaurant	188	0.337	0.299	-0.038	0.333	0.294	-0.039
Services	1,312	N/A	N/A	N/A	N/A	N/A	N/A
All Firms	9,967	0.391	0.391	-0.000	0.415	0.387	0.028

Notes: Current ETR NON-CONFORM is sum of current federal and foreign tax expense (data#63 + data#64) divided by the sum of pre-tax book income (data #170), where the sums are within industry and across years. The numerator and denominator are summed separately before executing the division. CURRENT ETR CONFORM is the sum of (CURRENT TAX EXPENSE CONFORM + foreign current tax expense (data #64) divided by the sum of pre-tax book income. TOTAL ETR NON-CONFORM is the sum of foreign and federal current and deferred income tax expense (data#63 + data#64 + data#269 + data#270) divided by the sum of pre-tax book income (data #170). TOTAL ETR CONFORM is the sum of CURRENT TAX EXPENSE CONFORM + total foreign tax expense (data#64+data270) divided by pre-tax book income. Two industries are reported as N/A due to severe small denominator problems as a result of large losses in those industries.

Table 3 -- Panel B

Industry ETRs -- firms with positive aggregate pre-tax book income only

		CURRENT ETR			TOTAL ETR		
		NON-			NON-		
INDUSTRY	NFIRMS	CONFORM	CONFORM	DIFF	CONFORM	CONFORM	DIFF
Not assigned	41	0.194	0.276	0.082	0.236	0.259	0.024
Mining/Construction	109	0.346	0.276	-0.071	0.335	0.269	-0.066
Food	141	0.293	0.285	-0.009	0.322	0.290	-0.032
Textiles/Print/Publish	285	0.320	0.288	-0.032	0.349	0.287	-0.062
Chemicals	125	0.301	0.307	0.006	0.304	0.301	-0.003
Pharmaceuticals	100	0.307	0.275	-0.032	0.279	0.265	-0.014
Extractive	197	0.294	0.348	0.054	0.338	0.355	0.017
Manf:Rubber/glass/etc	131	0.339	0.325	-0.014	0.360	0.323	-0.036
Manf:Metal	179	0.286	0.294	0.009	0.317	0.304	-0.013
Manf:Machinery	185	0.303	0.300	-0.002	0.316	0.298	-0.019
Manf:ElectricalEqpt	196	0.390	0.358	-0.032	0.397	0.351	-0.047
Manf:TransportEqpt	125	0.235	0.326	0.091	0.264	0.296	0.032
Manf:Instruments	295	0.288	0.291	0.004	0.303	0.287	-0.016
Manf:Misc.	56	0.316	0.279	-0.037	0.303	0.270	-0.033
Computers	573	0.325	0.301	-0.024	0.323	0.303	-0.020
Transportation	270	0.256	0.288	0.031	0.333	0.287	-0.046
Utilities	120	0.317	0.283	-0.034	0.355	0.285	-0.070
Retail:Wholesale	259	0.312	0.285	-0.027	0.336	0.289	-0.047
Retail:Misc.	324	0.334	0.266	-0.067	0.359	0.267	-0.092
Retail:Restaurant	92	0.316	0.281	-0.035	0.314	0.277	-0.037
Services	589	0.320	0.283	-0.037	0.365	0.282	-0.084
All Firms	4,392	0.298	0.295	-0.003	0.321	0.293	0.028

Notes: All variables are defined in Table 3 – Panel A. This panel only uses firms whose aggregate pre-tax book income over the 10 year period is greater than zero.

Table 4

Simulated tax collections with current tax expense from Compustat as benchmark -- adjusting for special items and equity earnings

		CURRENT TAX EXPENSE			NET INCOME	
YEAR	**PTBI**	**NON-CONFORM**	**CONFORM**	**tCONFORMED**	**NON-CONFORM**	**CONFORM**
1995	283,378	66,610	60,482	0.233	184,325	193,275
1996	328,521	77,019	70,873	0.233	211,527	222,746
1997	345,775	88,286	80,706	0.233	218,697	229,328
1998	306,444	85,401	79,149	0.233	186,893	197,462
1999	397,534	98,588	89,629	0.233	242,441	271,638
2000	329,727	101,245	93,489	0.233	175,455	194,646
2001	34,985	71,222	70,406	0.233	- 60,030	- 72,799
2002	115,184	53,712	71,611	0.233	6,692	6,671
2003	399,193	65,710	83,216	0.233	278,654	277,441
2004	453,430	85,494	93,692	0.233	307,039	313,811
ALL	2,994,171	793,287	793,253	0.233	1,751,692	1,834,219
MEAN	299,417	79,329	79,325		175,169	183,422
STDEV	129,696	15,206	11,034		115,357	122,287

Notes: All variables are as defined in table 2 except that the tax base is adjusted by subtracting special items (data#17) and adding equity earnings (data #55) to PTBI. In other words in this table two book-tax differences are introduced into the system.