Does Organizational Form Affect Firms' Foreign Operations? The Role of "Check-the-Box"

on Multinational Tax Planning

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Abstract: This study investigates the effect of the 1997 check-the-box tax legislation on the current effective income tax rates of U.S. multinational firms. Following the empirical methodology developed in Dyreng and Lindsey (2009), we measure the effect that the change in legislation has on the average worldwide, U.S., and foreign taxes paid on worldwide, federal and foreign pretax book income for a large sample of U.S. multinational firms. We find that on average U.S. multinational firms' worldwide tax rates declined by 4.3% in the post-1996 period. Further, we find that the effect of the legislation was greater on U.S. multinational firms' average foreign tax rates as compared to their average U.S. foreign tax rates. Our results also suggest that the effect is concentrated in the U.S. multinational firms that had a greater change in their ownership structures and a greater change in the balance of their intercompany payments in the post-1996 period. Although our results do suggest that the 1997 legislation served to reduce U.S. tax collections, our results imply that the 1997 legislation had a greater effect on firms' foreign tax burdens.

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1. Introduction

In recent years, effective tax rates of U.S. multinational corporations (MNCs) have garnered significant attention from policy makers, the media, and political activist groups. The general tenor of this coverage is that U.S. MNCs are effectively not paying their fair share to the U.S.[1] However, what seems to be lost in this debate is that, to the extent that the decrease in effective tax rates is attributable to foreign tax planning, the U.S. is not necessarily disadvantaged. The U.S. is only disadvantaged if the decreasing in effective tax rates also represents a decrease in U.S. tax revenue. Notably, the perception of the public appears to be that all reductions in effective tax rates stem from tax aggressive domestic tax planning and reduce U.S. tax revenue.

However, little is known about what is driving the decrease in MNC's foreign tax rates. One source of this decrease is the concurrent increase in globalization and decrease in foreign statutory tax rates. As the U.S. statutory rate climbs relative to that of foreign jurisdictions, U.S. MNCs' incentive to shift income abroad increases.[2] Another source is the "check-the-box" (hereafter CTB) regulations, which were introduced in 1997. These regulations allow firms to create "hybrid" entities that are treated as corporations by the foreign country in which the entity is located and as a branch by the U.S. A hybrid entity can deduct the payment of interest or royalties to another entity, but the income escapes U.S. tax because the U.S. views the payment as within one consolidated entity. The ability to disregard an entity in this way provides U.S. multinationals an opportunity to mitigate their Subpart F income as well as a plethora of inter-foreign-operations income shifting opportunities.

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[1] There is the work which calls attention to specific companies (http://abcnews.go.com/Business/report-26-us-companies-negative-average-federal-income/story?id=16111671#.T8ZwrlKvPG4, http://www.ctj.org/corporatetaxdodgers/CorporateTaxDodgersReport.pdf) and work that argues that U.S. corporations do not really face a high statutory tax rate (http://thinkprogress.org/economy/2012/03/30/456005/reminder-corporate-taxes-very-low/?mobile=nc)

[2] Klassen and LaPlante (2012) find evidence that U.S. MNCs' incentive to shift income out of the U.S. has increased over their 1996-2003 sample period.

This paper investigates how the CTB legislation affects multinational corporations' tax planning in an effort to gain an understanding of the effect of the regulations on U.S. tax revenue collections. We study the outcome of tax planning activities, including world-wide, U.S., and foreign effective tax rates, as well as the methods of tax planning, including inter-affiliate payments and ownership chains.

Existing research notes the importance of CTB legislation in foreign tax planning, but has not studied the relative effects of the legislation on U.S. versus foreign tax burdens. For example, Altshuler and Grubert (2005) study the evolution of MNCs tax liabilities from 1992 to 2002 and conclude that the decrease in average tax rates between 1992 and 1998 was primarily attributable to the reduction in foreign statutory tax rates. They argue that after 1997, the decline is largely driven by foreign tax avoidance behavior enabled by the "check-the-box" (CTB) legislation. However, they do not conduct a detailed examination of this conjecture.[3] Grubert (2012) finds that the existence of a hybrid entity is associated with a reduction in firms' foreign effective tax rates and that hybrid entities explain approximately 20% of the drop in foreign effective tax rates from 1996 to 2004. This research suggests that CTB legislation has had a significant impact on tax avoidance behavior, but provides little more than conjecture as to how this tax avoidance is accomplished and the extent to which it reduces U.S. versus foreign tax payments.

In the debate regarding the efficacy of MNC taxation, U.S. MNCs (in particular) are viewed as being quite aggressive in reducing their worldwide tax burdens. However, governments are complicit in this 'race to the bottom" by either enabling cross-border tax planning (as in the care of Ireland's quasi-Irish organization) or by failing to provide adequate backstops to avoidance activity (i.e., poor/weak CFC regimes). Governments could help stem the decline in income tax

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[3] These authors conjecture that there is more tax planning in the CTB period because the association between the change in MNCs average effective tax rates and changes in statutory tax rates declines relative to the pre-CTB period.

revenues by changing their rules but often not without potentially further increasing the complexity in an already unwieldy body of legislation. CTB appears to be a situation where the U.S. tax authority was aware of the cross-border planning opportunities generated by the rules but opted to enact the legislation anyways. Presumably this was because the U.S. government had knowledge that the tax planning benefits would be usurped by the costs of the incremental complexity of enforcing different rules for foreign and domestic entity classification.

It also isn't entirely clear how detrimental CTB is to U.S. tax revenues. Prior to 1997, MNCs' had incentives to shift income between high and low-tax jurisdictions. Many of the tax planning techniques serve to reduce foreign income (and withholding) tax obligations. As suggested by Grubert (2012), declining foreign tax rates over the past two decades likely incentivized U.S. firms to shift even more U.S. income abroad. But CTB doesn't necessarily facilitate the additional outbound earnings stripping. While CTB offers significant opportunities to reduce MNCs' subpart F income, it is uncertain as to whether the MNC would have reported subpart F income in the absence of CTB. Said another way, many of the intercompany tax-planning-related flows that are facilitated by CTB may have never happened had CTB not been enacted. Hence, whether CTB had a disparate impact on domestic tax liabilities as compared to foreign tax liabilities is an empirical question. To date, we are unaware of any work that investigates the role of CTB on MNCs' foreign versus domestic tax obligations.

To investigate this issue, we combine firms' reported worldwide, foreign and domestic current GAAP effective tax rates collected from SEC filings with detailed survey data compiled by the Bureau of Economic Analysis (BEA) on intercompany payments (both to/from the domestic parent and to/from other related foreign affiliates), statutory income tax rates, organizational structure and other controls to determine whether activity consistent with CTB tax

planning are related to changes in MNCs' current effective tax rates.[4] Using a methodology developed in Dyreng and Lindsey (2009), we investigate whether CTB reduced MNCs' aggregate tax rate on worldwide, domestic and foreign earnings. We also investigate whether MNCs' appear to have altered their organizational structures and intercompany payment flows to facilitate CTB-related tax planning. If CTB has an effect on MNCs' tax planning, then we would expect the MNCs' to increase their intercompany flows which, in turn, further reduces effective tax rates.

Our results suggest that CTB led to a 4.3% reduction in current effective tax rates incremental to the effect that declining foreign tax rates has on MNCs' worldwide effective tax rates. Further, when we partition our analysis by foreign and domestic activity, we find that estimated domestic tax rates declined by 2.5% whereas the estimated tax rate on foreign pre-tax income declined by 7.9%. We also find evidence that CTB did lead MNCs to alter their organizational structure to take advantage of CTB planning techniques. Specifically, we find an overall upward trend in the number of tax haven affiliates, the length of ownership chains, and the number of chains with four or more tiers that begins after enactment of CTB legislation. In addition, our results are consistent with greater intercompany flows yielding larger reductions in the estimated tax rate on foreign income.

This study makes several important contributions. First, our study can help policy makers understand whether the precipitous drop in effective tax rates was a significant detriment to the United States. If the drop in effective tax rates is primarily attributable to foreign tax planning, then our analysis provides evidence that the U.S. is not necessarily losing tax revenue. This is because income shifting out of the U.S. could be offset by incremental tax revenues on the eventual repatriation of the more lightly taxed foreign earnings. Second, we can contribute to the

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[4] See Altshuler and Grubert (2006) and Sullivan (2004).

debate about the efficacy of countries' CFC regimes. Note that CFC rules become arguably even more important for territorial jurisdictions. As countries adopt territorial regimes, they often have to grapple with the increase in MNC incentives to shift income to havens (see Markle 2012). Hence, our work informs foreign policy makers about the magnitude of the adverse revenue consequences of CTB. Finally, our work contributes to the U.S.'s repatriation debate. We hope to shed some light on why U.S. MNCs' trapped cash has been growing precipitously since 1998. If we show that CTB is the primary contributor to the reduction in corporate effective tax rates, then, perhaps, there is arguably more merit to reducing taxes on unremitted foreign earnings (either through another tax holiday or in the transition to a territorial regime).

Our paper is organized as follows. Section 2 provides some background of the CTB legislation. Section 3 describes our empirical methodology and Section 4 describes our data. In Section 5, we present our estimates of the tax rates on pre-tax income. In Section 6, we investigate whether CTB appears to influence the structure of MNCs. We then investigate whether these structural changes as well as changes in intercompany flows are associated with a more pronounced CTB-related reduction in foreign estimated tax rates. Section 7 concludes.

2. Check-the-Box Legislation

Check-the-Box refers to the ability of U.S. taxpayers to unambiguously have an organization classified as either a C corporation, a partnership, or an LLC for tax purposes by simply checking a box on Form 8832. Prior to enactment of the CTB regulation, taxpayers had to evaluate whether their entity was a partnership or corporation based on the existence of four corporate characteristics. At the time, there was some concern that limited liability companies (LLCs) were more difficult to classify as partnerships than limited partnerships (LP). Many states had

carefully worded legislation concerning LLCs and LPs to ensure that these entities would be able to qualify for pass-through taxation under the "four factor" test used in determining whether a business would receive corporate tax treatment or partnership tax treatment. The four factors include: (1) Limited liability, (2) Centralized management, (3) Continuity of life, and (4) Free transferability of interest.

If a business entity possessed two of the four characteristics, the entity would be taxed as a partnership. If three of the four characteristics applied, the entity would be taxed under the double taxation regime of corporations. After soliciting comments from the public regarding the proposed new CTB regime (see Notice 95-14), in May of 1996, the Internal Revenue Service issued proposed regulations which replaced the "four factor" with the "check-the-box" regime. In December of 1996, the regulations were finalized and became effective January 1, 1997.

CTB introduced numerous cross-border tax planning opportunities. Because CTB allows flow-through treatment for foreign subsidiaries, it is possible for the operations of two different companies to be effectively consolidated for U.S. tax purposes. Because the entities are consolidated for tax purposes, payments between them do not affect taxable income, and the flow-through entity is essentially "disregarded" for tax purposes. It appears that disregarded entities have been very useful in reducing MNCs' subpart F income. For example, by setting up a finance affiliate in a tax haven, the MNC can have its high-tax foreign affiliates borrow from its haven affiliates. The high-tax host country generally allows the foreign affiliate a deduction for the interest and the interest typically goes untaxed by the haven jurisdiction. Without CTB, as mentioned above, the U.S. would tax the interest income under subpart F rendering this strategy relatively ineffective. With CTB, the interest income is not taxed by the U.S. In addition, CTB enables several of the foreign tax credit splitting transactions which reduced (and even

eliminated) repatriation tax obligations.[5] From a foreign perspective, CTB effectively allows income to escape taxation.[6] In the absence of the look-thru rules, CTB also enables similar strategies for inter-foreign-affiliate royalty payments to avoid Subpart F.

Because the CTB regulations allow firms to deduct inter-affiliate payments in the calculation of foreign taxable income, but avoid recognizing the income for U.S. income tax purposes we investigate the effect of the regulations on MNCs' worldwide, U.S. and foreign effective tax rates. In particular, we estimate the change in worldwide tax rates after the CTB regulations became effective, and compare the change in U.S. and foreign effective tax rates over this same period.

3. Methodology

We follow Dyreng and Lindsey (2009) to estimate the tax rates on multinational firms' pre-tax profits. They define current worldwide tax expense (*WW_TXEXP*) as worldwide pre-tax income (*WW_PTI*) multiplied by the firm's average effective worldwide tax rate (τ^{WW}):

$$WW\_TXEXP = (\tau^{WW})WW\_PTI. \tag{1}$$

This equality can be further broken down to allow for different rates of taxation on domestic pre-tax income (*DOM_PTI*) and foreign pre-tax income (*FOR_PTI*):

$$WW\_TXEXP = (\tau^{DOM})DOM\_PTI + (\tau^{FOR})FOR\_PTI . \tag{2}$$

We are interested in testing whether legislative changes implemented in 1997 (i.e., check the box) affect the rates of taxation on *WW_PTI*, *FOR_PTI* and *DOM_PTI*.[7] To do so, we need to

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[5] For example, Guardian Industries
http://online.wsj.com/article/SB10001424052748704671904575194081229894678.html.
[6] See Kleinbard (2011)'s discussion of "stateless income."
[7] Note that the Active Financing Exception to subpart F (I.R.C. Section 954(h)) was also effective beginning in 1997.

control for other attributes that can influence the firms' current tax burden on pre-tax income.

Hence, we estimate:

$$\tau^{WW} = \beta_1 + \beta_2 Post\_CTB + \beta_3 Size + \beta_4 WW\_LEV + \beta_5 WW\_INV + \beta_6 \Delta WgtStatTaxRt \quad (3a)$$

$$\tau^{DOM} = \delta_1 + \delta_2 Post\_CTB + \delta_3 Size + \delta_4 WW\_LEV + \delta_5 WW\_INV + \delta_6 \Delta WgtStatTaxRt \quad (3b)$$

$$\tau^{FOR} = \gamma_1 + \gamma_2 Post\_CTB + \gamma_3 Size + \gamma_4 WW\_LEV + \gamma_5 WW\_INV + \gamma_6 \Delta WgtStatTaxRt \quad (3c)$$

Where *Post_CTB* equals 1 if the firm-year observation is 1997 or later and zero, otherwise; Size is the log of total assets; *WW_LEV* is total liabilities; *WW_INV* is total research and development expense and capital investment; and *ΔWgtStatTaxRt* is the firm's annual change in the weighted average statutory tax rates faced in its operations where the weighting is based on operating income.

Like Dyreng and Lindsey we substitute (3a) into (1) yielding the following equation:

$$WW\_TXEXP = \beta_1 WW\_PTI + \beta_2 WW\_PTI*Post\_CTB + \beta_3 WW\_PTI*Size$$
$$+ \beta_4 WW\_PTI*WW\_LEV + \beta_5 WW\_PTI*WW\_INV + \beta_6 WW\_PTI*\Delta WgtStatTaxRt + \varepsilon \quad (4)$$

We can also substitute (3b) and (3c) into equation (2) resulting in the following:

$$WW\_TXEXP = \delta_1 DOM\_PTI + \gamma_1 FOR\_PTI + \delta_2 DOM\_PTI * Post\_CTB$$

$$+ \gamma_2 FOR\_PTI * Post\_CTB + \delta_3 DOM\_PTI * Size + \gamma_3 FOR\_PTI * Size$$

$$+ \delta_4 DOM\_PTI * WW\_LEV + \gamma_4 FOR\_PTI * WW\_LEV + \delta_5 DOM\_PTI * WW\_INV$$

$$+ \gamma_5 FOR\_PTI * WW\_INV + \delta_6 DOM\_PTI * \Delta WgtStatTaxRt + \gamma_6 FOR\_PTI * \Delta WgtStatTaxRt$$

$$+ \varepsilon_{DOM} + \varepsilon_{FOR} \tag{5}$$

We include intercepts in both equations and use OLS to estimate the tax rates. Also, we scale all variables (except Size) by total assets. Our final equations are:

$$WW\_TXEXP = \beta_0 + \beta_1 WW\_PTI + \beta_2 WW\_PTI * Post\_CTB + \beta_3 WW\_PTI * Size +$$

$$\beta_4 WW\_PTI * WW\_LEV + \beta_5 WW\_PTI * WW\_INV + \beta_6 WW\_PTI * \Delta WgtStatTaxRt + \varepsilon \tag{6}$$

$$WW\_TXEXP = \alpha + \delta_1 DOM\_PTI + \gamma_1 FOR\_PTI + \delta_2 DOM\_PTI * Post\_CTB$$

$$+ \gamma_2 FOR\_PTI * Post\_CTB + \delta_3 DOM\_PTI * Size + \gamma_3 FOR\_PTI * Size$$

$$+ \delta_4 DOM\_PTI * WW\_LEV + \gamma_4 FOR\_PTI * WW\_LEV + \delta_5 DOM\_PTI * WW\_INV$$

$$+ \gamma_5 FOR\_PTI * WW\_INV + \delta_6 DOM\_PTI * \Delta WgtStatTaxRt + \gamma_6 FOR\_PTI * \Delta WgtStatTaxRt$$

$$+ \upsilon \tag{7}$$

While equationn (6) forces the same tax rate on domestic and foreign pre-tax income, equation (7) allows the two rates to vary. Hence, we can interpret the coefficient on *DOM_PTI* (δ_1) as the current tax rate on domestic income and coefficient on *FOR_PTI* (γ_1) as the current tax rate on foreign income.

The interaction term, *WW_PTI*Post_CTB*, from equation (6) captures the incremental effect on worldwide current effective tax rates of the 1997 legislation. Notice that this effect is incremental to declining statutory tax rates over the sample period (which is captured by β_6). Equation (7) also allows us to compare the effects of the 1997 legislation on the current tax rates on domestic and foreign pre-tax income. If the CTB disparately affected domestic income as compared to foreign income, then we expect that the coefficient on the interaction between *DOM_PTI*Post_CTB* (δ_2) to be significantly different from the interaction between *FOR_PTI*Post_CTB* (γ_2).

We can also change the dependent variable from current worldwide tax expense to current domestic (*DOM_TXEXP*) . When we replace *WW_TXEXP* with the domestic tax expense, the coefficient on *FOR_PTI* should conceptually capture the subpart F liability and/or repatriation tax implications attributable to foreign earnings. This is because our measure of *WW_PTI* is based on GAAP earnings rather than taxable income.

4.   Data

4.1 BEA Data

To obtain information on pre-tax income generated in specific foreign affiliates of U.S. MNCs, we use confidential data affiliate-level data from the Annual (Benchmark) Survey of U.S. Direct Investment Abroad compiled by the Bureau of Economic Analysis (BEA). Federal law obligates U.S. MNCs to report financial and operating data for both domestic and foreign operations to the BEA for the purposes of producing aggregate statistics on U.S. direct investment abroad. A U.S. MNC is the combination of a single U.S. entity, called the U.S. parent, and at least one foreign business enterprise, called a foreign affiliate. The BEA requires U.S.

MNCs to complete survey forms that cover both domestic and foreign operations.[8] The amount of data collected by the BEA varies by year and depends on whether the affiliate meets a reporting threshold; thresholds in benchmark years (i.e., 1982, 1989, 1999, 2004 and 2009) are lower so the information is more complete.[9]

To conduct our analyses, we aggregate foreign pre-tax income across an MNC's foreign affiliates. Domestic pre-tax income is reported separately.[10] MNCs report to the BEA on a fiscal year basis and follow U.S. Generally Accepted Accounting Principles (GAAP), with the exception of consolidation rules. Whereas GAAP required consolidation for equity investments of more than 50 percent, the BEA requires that the MNC use the equity method of accounting for all equity investments. This means that we can cleanly separate the earnings of a parent company from the earnings of its affiliates.[11]

In addition, some MNCs' foreign affiliates are owned by other foreign affiliates either instead of, or in conjunction with, the U.S. parent. When we observe these tiered ownership structures abroad, we focus on the financial position of the lower-tier entities (and do not attribute the financial positions of a lower-tier entity to its owner). For instance, when an affiliate is directly owned by another affiliate, the assets of the lower-tier entity are considered in our analysis and the proportion of the upper-tier entity's assets attributable to the lower-tier entity are

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[8] The BEA defines a U.S. MNC as the combination of a single U.S. entity, called the U.S. parent, and at least one foreign affiliate in which the U.S. parent holds, directly or indirectly, a ten percent interest.
[9] In order to reduce the reporting burden, the BEA requires the filing of a survey form for an affiliate if its assets, sales, or net income (loss) exceed $7 million in 1999, $30 million in 2000-2003, $10 million in 2004, and $40 million in 2005-2008. During 2000-2003, and 2005-2008 (i.e., non-benchmark years), some of the financial and operating data that we observe for small affiliates not required to participate in the survey is estimated by the BEA.
[10] Tax expense for the domestic reporter in only available on benchmark filings until 1995. Hence, our sample is 1982, 1989, 1994-2009.
[11] For example, under the equity method of accounting used for BEA reporting, the total assets of the domestic operation will include the 'net assets' or equity investment in all foreign affiliates. Thus, a measure of worldwide assets necessitates that we remove the investment in foreign affiliates from domestic assets, and instead include aggregate total assets of foreign affiliates with domestic assets. This mimics the result that would be achieved if the MNCs assets were consolidated under GAAP. Total assets computed using BEA data and total assets in Compustat are highly correlated ($p = 0.998$).

removed from the upper-tier. The BEA data provides information on ownership structures, as well as intercompany investment accounts, allowing us to make these adjustments.

4.2 Compustat Data

Our sample consists of all U.S. multinational firms that we can match between the BEA data and Compustat. Our sample begins in 1982, the first year of the BEA data, and ends in 2009 which is the last year of revised BEA data available. In addition, we require firms to have non-missing values of current worldwide tax expense (WW_TXEXP = TXT – TXDI), current domestic tax expense (DOM_TXEXP = TXFED+TXS), current state tax expense (TXS) and current foreign tax expense (FOR_TXEXP = TXFO). We rely on the tax data in Compustat because it represents a better estimate of the current tax obligations of the firm. Tax expense provided in the BEA data represents the aggregate accrued tax expense which includes the effects of timing differences (i.e., it is analogous to TXT in the Compustat data). We follow Dyreng and Lindsey's (2009) coding for the treatment of missing values of the Compustat tax data items.

4.3 Sample

Imposing the restrictions described in Sections 3.1 and 3.2 results in a final sample of 16, 415 multinational firm-year observations. These data represent 2,632 different multinational firms. Table 1 provides the summary statistics of the sample partitioned by whether the firm-year observation is in the pre (before 19967) versus post (post-1996) check the box period. Consistent with statutory tax rates declining over the sample period, WW_TXEXP is 3% of total assets in the pre-CTB period but 2.3% of assets in the post-CTB period. Also, $MedTaxRate$ has declined from 31.7% to 25.0% between the pre/post CTB samples.

Like Altshuler and Grubert (2005) and Grubert (2012), our univariates suggest that there has been a decline in the proportion of MNCs' domestic profits (72.9% in the pre period and 60.4% in the post period) and taxes (77.0% in the pre period to 69.5% in the post period) over the past 30 years. However, this comparison doesn't consider the any change in the location of MNCs' assets.

5. Results

In Table 2 we replicate the basic results found in Dyreng and Lindsey (2009) using BEA data. Like prior work, we estimate the model for firms with positive pre-tax income separately from those with zero or negative pre-tax income. In Panel A, we find that the coefficient on WW_PTI is 0.365. This result suggests that the average current worldwide tax rate on our sample of firms is 36.5%. This rate may seem high, but recall that our sample period spans 1982 to 2009 which includes periods of corporate statutory tax rates greater than 35%. In addition, we consider state income tax obligations. In the second column of Panel A, we estimate the model for firms with worldwide pre-tax income of zero or less. Notice that this model has poor explanatory power suggesting that loss firms pay little tax on their worldwide income.

In Panel B, we estimate the basic model where we partition pre-tax income by its domestic and foreign components. Similar to the results in Dyreng and Lindsey (2009), we find that there is no statistical difference in the tax rate facing domestic and foreign pre-tax income. The remaining columns of Panel B provide the estimates of the tax rate on the components of pre-tax income by varying levels of positive and negative profitability both domestically and abroad. Notice that the presence of losses results once again reduces the explanatory power of the model.

In Table 3, we present the results of estimating equation (6). Recall that equation (6) was developed to illustrate whether U.S. multinational firms' current tax rate on worldwide pre-tax earnings was affected by the check-the-box legislation. In column 1, we find that the coefficient on WW_PTI is 0.346. The interaction term, WW_PTI*Post_CTB, captures whether U.S. multinationals' worldwide current tax expense declined after the check-the-box rules were enacted. The coefficient of -0.0439 suggests that U.S. multinational firms paid $0.0439 less per dollar of taxable income in the post 1997 period. Notice that this effect is incremental to the declining statutory tax rates over the sample period captured by the coefficient on WW_PTI*ΔWgtStatTaxRt.

In Table 3, Panel B, we break worldwide pre-tax income into foreign and domestic pre-tax income. The tax rate on domestic income (34.1%) is greater that the tax rate on foreign income (31.9%) but the difference is not significant. However, check-the-box results in a decline of 7.86% on foreign income but only a 2.52% decline on domestic income. The effect of check-the-box is significantly different for foreign versus domestic income at the 5% level. These results suggest that U.S. multinationals' foreign tax obligations declined precipitously after CTB was enacted.

In Table 4, we estimate equation (7) replacing *WW_TXEXP* with *DOM_TXEXP*. Notice that this model effectively estimates the U.S. domestic tax rate on foreign earnings. This rate could be interpreted as the tax rate on subpart F income included in foreign pre-tax earnings and/or the taxes paid on earnings repatriated to the U.S. The trouble with inferring the domestic tax rate on foreign pre-tax earnings is that the incremental taxes would be net of any cross-crediting activity. Interestingly, our results suggest that there is little domestic tax being paid on foreign earnings.

6. Effects of Check-the-Box Legislation on U.S. MNC structures and flows

As discussed in Section 2, the check the box legislation provides MNCs flexibility in achieving a desired classification of certain foreign organizations. The key feature of CTB is to aid in the avoidance of subpart F income. Typically, transfers of passive income among foreign affiliates create subpart F income except when the passive income is received from a related party in the same country. Also, if there are sales from an affiliate in a low-tax country of goods to an affiliate in a high tax country, the sales profit could also be considered Subpart F.[12]

However, CTB facilitates the avoidance of subpart F income because transactions between two related parties may be disregarded even though the affiliates operate in separate countries. In the most basic example, assume that a CFC in a tax haven loans money to another CFC in a country with a high tax rate. Under subpart F, the interest received by the tax haven would be subject to immediate U.S. taxation potentially mitigating any tax benefits of the intercompany lending. However, after CTB, the CFC in the tax haven can elect to be treated as a single member LLC. Now, all activity between the two entities will be disregarded for U.S. tax purposes and the U.S. MNC can reduce its foreign tax burden.[13]

Many of the strategies referred to above require some change in a U.S. MNC's organizational structure in order to capitalize on the potential tax benefits.[14] If the reduction in worldwide current tax rates documented above truly stem from check-the-box activity, then we expect to see changes in the organizational structures AND we expect that benefits of the check-the-box tax savings to be concentrated in the U.S. multinationals where these structural changes took place.

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[12] An exception exists if the foreign affiliate is a manufacturer of the goods it sells.
[13] Check the box can also be used to mitigate subpart F income by netting profitable and unprofitable CFCs, by recharactizing the sale of a business as the sale of assets and by aggregating the earnings between CFCs to qualify for the de minimum exclusion from subpart F.
[14] The new check-the-box rules pertain to "new" affiliates.

Also, as check-the-box appears to facilitate earnings stripping activity abroad, we conjecture that intercompany flows may increase to facilitate tax planning. As with changes in structure, we partition our analysis of the effect of the check-the-box regulations by the change in U.S. MNCs' intercompany sales and payment activity.

6.1 Change in Structure

Lewellen and Robinson (2013) study ownership structures of U.S. MNCs. They find that tax rules in an affiliate's host country are but one of many properties that can influence a MNCs' structure. We argue that CTB actually led MNCs to alter their organizational structures to facilitate tax planning. In Figure 1, we provide some information about how the ownership structures of U.S. multinational firms have evolved over time. This figure presents structure information for a sample of approximately 560 (360) U.S. multinationals that are in our data for 1993-2009 (1982-2009).[15] In this figure, we present information regarding the mean number of havens as well as the number of different ownership chains and the number of chains with multiple tiers.

Using the haven definition developed in Dyreng and Lindsey (2009), panel A shows that the use of havens appears to have increased in the period following 1997.[16] The spikes in the figure represent benchmark year data for which the reporting thresholds are lowered (see footnote 9). This reduction in the reporting thresholds increases the number of foreign affiliates required to report. Yet, notice that these spikes and the annual data suggests a clear upward trend beginning in 1998.

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[15] Organizational structure information was not available on a contiguous annual basis until 1993.

[16] See Table 1 of Dyreng and Lindsey (2009) for a list of countries that we define as tax havens. They identify tax havens as those countries included on three of the following four sources: (1) Organization for Economic Cooperation and Development (OECD), (2) the U.S. Stop Tax Havens Abuse Act, (3) The International Monetary Fund (IMF), and (4) the Tax Research Organization.

In panel B, we report the average length of each bottom-tier subsidiary to ultimate foreign parent ownership chain. The bottom-tier subsidiary is an entity that doesn't hold another a subsidiary in the consolidated group. The ultimate foreign parent is a subsidiary who is owned by the U.S. parent group. So a company may have many "chains" of ultimate parent to bottom-tier subsidiaries. The average number of chains (untablulated) in the sample of U.S. multinationals in our Figure 1 is 16. Panel B of figure 1 shows that the average length of each of these chains has grown from 1.5 affiliates to 2.5 affiliates.

Panel C plots whether the maximum number of affiliates in these chains of ownership has increased over the sample period. If tax planning techniques under check-the-box require the introduction of additional affiliates, then we should see an uptick is the complexity of multinational organizations since 1997. Panel C seems to suggest that such an increase took place as there were effectively very few MNCs with chains of four our more entities in 1997 but that there is now an average of 4 chains in each of our sample firms comprised of four or more affiliates.

6.2 Partitioning the effects of check-the-box

Next, we estimate equation (6) where we partition our sample by changes in organizational attributes and related party flows in the pre/post check the box period. In Table 5, columns 1 and 2 we present our results where we partition our sample by the change in the number of tax havens between the pre and post check-the-box periods. Column 2 includes the results for the top quintile of our sample observations in terms of pre/post haven increases (i.e., MNCs that added at least two additional haven affiliates to their structures). Column 1 includes results for those MNCs who added fewer than two havens to their structures. Although the effect of check-the-box appears to be greater for the incremental haven sample (coefficient on FOR_PTI of -0.088 as

compared to -0.079), the difference does not appear to be significantly different. In addition, it appears that multinationals that added havens had a much higher current rate on their foreign earnings. These firms may have had fewer opportunities to tax plan in the absence of check-the-box. Further analysis into the industry classification on these two groups could shed light on this difference.

In columns 3 and 4, we partition on the increase in the number of chains with four or more subsidiaries.   Similar to the results in column 1 and 2, we see that firms with a greater change in structure appear to have had a greater decline on the current tax rate on foreign pre-tax income (-9.98%) as compared to those MNCs that didn't alter their structure as much (7.47%). However, the results aren't significantly different across the partition. We plan to pursue additional analyses investigating why these partitions appear to be capturing MNCs with such difference current tax burdens on the domestic and foreign pre-tax income.

In Table 6, we partition our analysis by measures of MNCs' intercompany activity. In Columns 2, we report the estimation of equation (7) for profitable firms for the sample that was in the top decile in the change of average intercompany sales between the pre and post CTB periods. Notice that the interaction terms between *FOR_PTI* and *Post_CTB* is roughly twice as large as the firms in the other 9 deciles (-0.133 versus -0.063). In columns 3 and 4, we evaluate the effect of non-sales intercompany flows. Once again, we partition our estimation of equation (7) by whether the MNC's change in intercompany flows between the pre and post CTB periods is in the top decile. As with our analysis partitioning analyses, it appears the effect of CTB was slightly larger for the firms with greater intercompany flows but that the difference isn't statistically significant. In future work, we would like to evaluate the specific types of

intercompany flows that could lead to the CTB tax rate reduction. In particular, we will separately analyze royalty and interest flows.

7. Conclusion

This study investigates the effect of the 1997 check-the-box tax legislation on the income tax rates of U.S. multinational firms using the empirical methodology developed in Dyreng and Lindsey (2009). We find that on average U.S. multinational firms' average worldwide tax rates declined by 4.3% in the post-1996 period. Further, we find that the effect of the legislation was greater on U.S. multinational firms' average foreign tax rates as compared to their average U.S. foreign tax rates. Our results also suggest that the effect is concentrated in the U.S. multinational firms that had a greater change in their ownership structures and a greater change in the balance of their intercompany payments in the post-1996 period. Although our results do suggest that the 1997 legislation have served to reduce U.S. tax collections, our results imply that the 1997 legislation had a greater effect on firms' foreign tax planning. In future versions of the paper, we plan to delve deeper into the structural attributes and the specific changes in intercompany flows to more precisely identify the source of the CTB tax savings.

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Figure 1
Attributes of MNC organizational structure over time

Panel A: Tax Havens

Panel B: Length of Chains

Panel C: Number of Chains with 4 or more Tiers

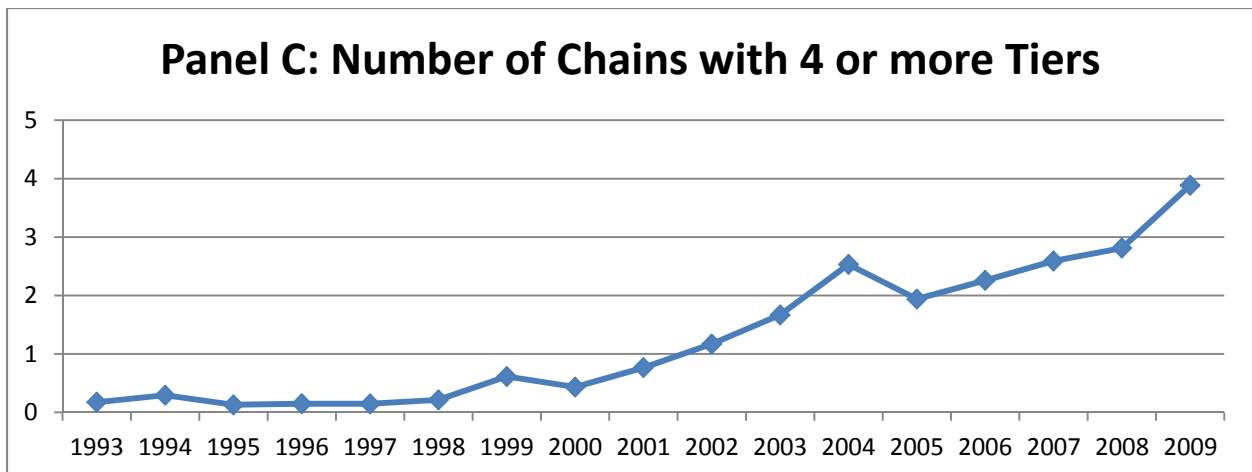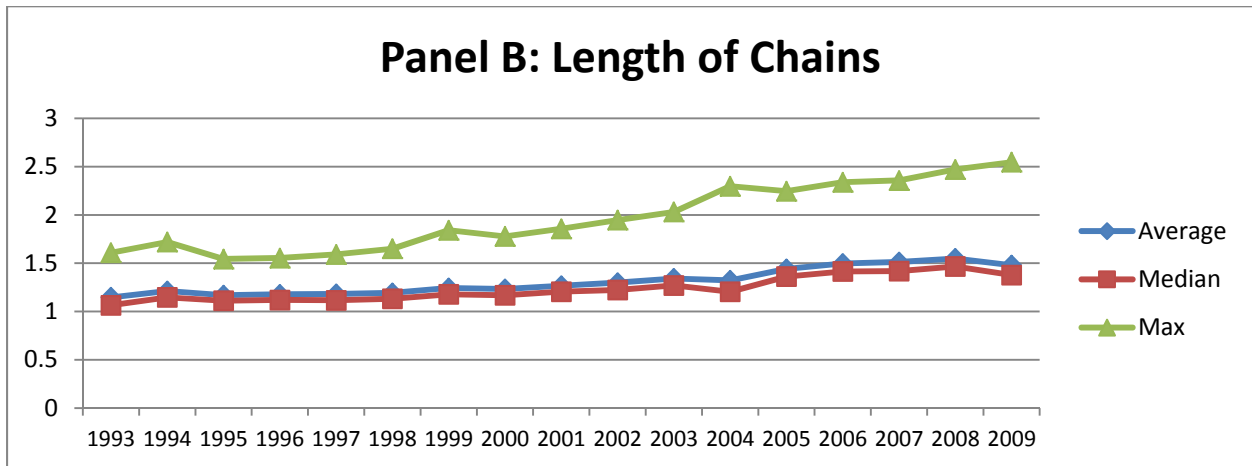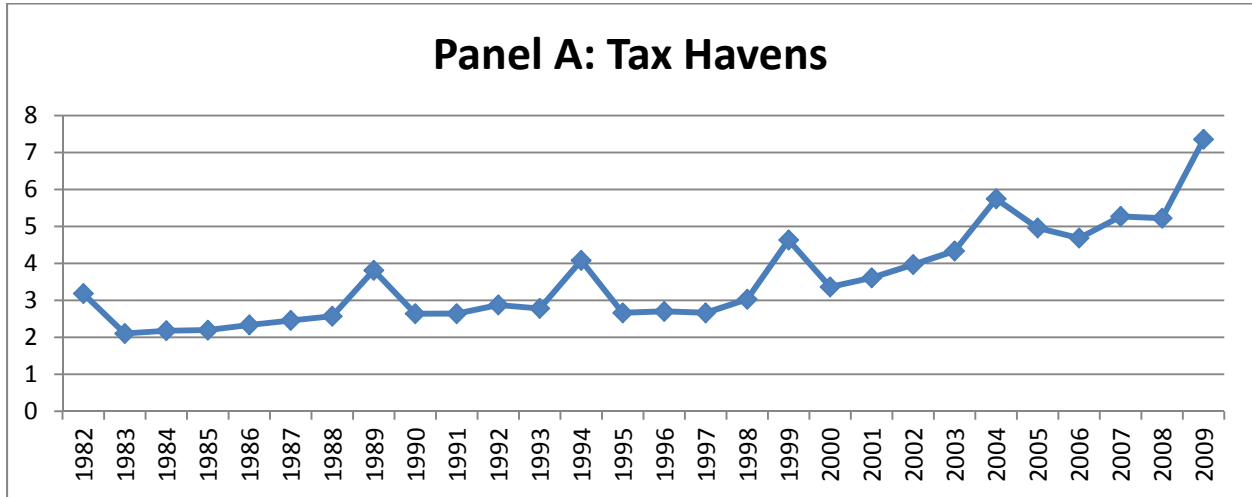**Figure 1** panel A plots the average number of havens for the sample of firms with data from 1982 to 2009. Panel B plots that average length of chains in the sample of firms with data available from 1993 to 2009. A chain represents an ultimate foreign parent to the bottom tier subsidiary. Panel C plots the average number of chains with four our more foreign affiliates in a chain over the 1993 to 2009 period.

TABLE 1
Descriptive Data

Panel A: Pre check-the-box firm-year observations

Variable	N	Mean	Median	Std Deviation
WW_TXEXP	4,905	0.030	0.022	0.029
DOM_TXEXP	4,905	0.023	0.014	0.026
FOR_TXEXP	4,905	0.007	0.003	0.010
WW_PTI	4,905	0.070	0.068	0.095
DOM_PTI	4,905	0.051	0.048	0.089
FOR_PTI	4,905	0.020	0.010	0.034
Size	4,905	13.639	13.482	1.854
WW_LEV	4,905	0.603	0.595	0.221
WW_INV	4,905	0.090	0.074	0.070
Med Tax Rate	4,905	0.317	0.331	0.094
ΔWgtStatTaxRt	4,905	0.001	0.000	0.008

Panel B: Post check-the-box firm-year observations

Variable	N	Mean	Median	Std Deviation
WW_TXEXP	11,432	0.023	0.016	0.025
DOM_TXEXP	11,432	0.016	0.007	0.022
FOR_TXEXP	11,432	0.007	0.004	0.009
WW_PTI	11,432	0.048	0.049	0.113
DOM_PTI	11,432	0.029	0.032	0.106
FOR_PTI	11,432	0.018	0.010	0.039
Size	11,432	14.714	14.588	1.727
WW_LEV	11,432	0.635	0.619	0.270
WW_INV	11,432	0.065	0.051	0.056
Med Tax Rate	11,432	0.250	0.255	0.080
ΔWgtStatTaxRt	11,432	-0.000	-0.000	0.012

Table 1 provides descriptive data for our sample selection and multivariate analysis. *WW_TXEXP* is current worldwide tax expense as reported in Compustat (data items TXT – TXDI); *DOM_TXEXP* is current domestic tax expense as reported in Compustat (data items TXFED + TXS); and *FOR_TXEXP* is current foreign tax expense as reported in Compustat (*WW_TXEXP – DOM_TXEXP*). We construct all other variables using BEA data. WW_PTI is worldwide pre-tax income. *DOM_PTI* is U.S. pre-tax income. *FOR_PTI* is foreign pre-tax income. Size is the natural log of total worldwide assets. *WW_LEV* is total worldwide liabilities. *WW_INV* is R&D plus capital expenditures. *MedTaxRate* is median effective tax rate for all U.S. affiliates operating in a country-year as described in Desai et al. (2001). *ΔWgtStatTaxRt* is the change in the U.S. consolidated firms' statutory tax rate where the weighting is based on operating income. All variables except *Size* and *MedTaxRate* are scaled by worldwide assets. Panel A (B) includes all observations pre (post) 1997. Note that median amounts reported in this table are actually the mean of the five median observations.

TABLE 2
Dyreng and Lindsey Regressions

Panel A: Estimated Worldwide Tax Rate on Worldwide Pre-Tax Income

VARIABLES	Dependent Variable = *WW_TXEXP*	
	WW_PTI > 0	WW_PTI <= 0
WW_PTI	0.365***	0.023
	(0.037)	(0.017)
*WW_PTI*Size*	-0.004	-0.001
	(0.002)	(0.001)
*WW_PTI*WW_LEV*	-0.114***	-0.006
	(0.015)	(0.004)
*WW_PTI*WW_INV*	0.089	0.006
	(0.059)	(0.023)
Constant	0.007***	0.008***
	(0.001)	(0.000)
Observations	13,209	3,206
R-squared	0.530	0.001

Panel B: Estimated Worldwide Tax Rates on Domestic and Foreign Pre-Tax Income

	Dependent Variable = WW_TXEXP			
	DOM_PTI > 0, FOR_PTI > 0	DOM_PTI > 0, FOR_PTI <= 0	DOM_PTI <= 0, FOR_PTI > 0	DOM_PTI <= 0, FOR_PTI <= 0
DOM_PTI	0.367***	0.389***	0.0682**	0.0435*
	(0.054)	(0.107)	(0.032)	(0.024)
FOR_PTI	0.357***	0.601***	0.205*	-0.100
	(0.097)	(0.225)	(0.116)	(0.073)
*DOM_PTI*Size*	-0.000980	-0.00716	-0.003*	-0.00289
	(0.0037)	(0.007)	(0.002)	(0.001)
*FOR_PTI*Size*	-0.0110*	-0.0254	0.005	0.004
	(0.006)	(0.016)	(0.007)	(0.005)
*DOM_PTI*WW_LEV*	-0.154***	-0.172***	-0.007	-0.006
	(0.024)	(0.037)	(0.012)	(0.004)
*FOR_PTI*WW_LEV*	0.0962**	-0.163**	-0.072*	0.026
	(0.046)	(0.074)	(0.038)	(0.021)
*DOM_PTI*WW_INV*	-0.00998	0.219	0.036	0.001
	(0.084)	(0.161)	(0.040)	(0.028)
*FOR_PTI*WW_INV*	0.198	0.297	0.103	0.105
	(0.175)	(0.439)	(0.191)	(0.106)
Constant	0.005***	0.008***	0.006***	0.005***
	(0.001)	(0.001)	(0.001)	(0.000)
Observations	10,087	2,020	3,205	1,114
R-squared	0.571	0.422	0.290	0.006

Table 2 provides the results of our replication of the Dyreng and Lindsey (2009) analysis. All variables are defined in Table 1. Standard errors are reported under the coefficients and are clustered by firm. *, **, *** designates significance at the 10%, 5% and 1% level.

TABLE 3
Estimated Tax Rates on Pre-Tax Income Pre/Post-1997

Panel A: Estimated Worldwide Tax Rate on Worldwide Pre-Tax Income

Dependent Variable = WW_TXEXP		
	WW_PTI > 0	WW_PTI <= 0
WW_PTI	0.346***	0.023
	(0.037)	(0.017)
WW_PTI*POST_CTB	-0.044***	-0.00591
	(0.007)	(0.005)
WW_PTI*Size	-0.000	-0.001
	(0.003)	(0.001)
WW_PTI*WW_LEV	-0.107***	-0.007
	(0.015)	(0.005)
WW_PTI*WW_INV	0.037	0.004
	(0.057)	(0.023)
WW_PTI*ΔWgtStatTaxRt	-0.631***	-0.024
	(0.230)	(0.072)
Constant	0.006***	0.008***
	(0.001)	(0.000)
Observations	13,209	3,206
R-squared	0.538	0.002

Panel B: Estimated Worldwide Tax Rates on Domestic and Foreign Pre-Tax Income

	Dependent Variable = WW_TXEXP			
	DOM_PTI > 0, FOR_PTI > 0	DOM_PTI > 0, FOR_PTI <= 0	DOM_PTI <= 0, FOR_PTI > 0	DOM_PTI <= 0, FOR_PTI <= 0
DOM_PTI	0.341***	0.376***	0.058*	0.0421*
	(0.058	(0.109)	(0.033)	(0.024)
FOR_PTI	0.319***	0.552**	0.210*	-0.089
	(0.096)	(0.214)	(0.116)	(0.071)
*DOM_PTI*Post_CTB*	-0.025**	-0.074***	-0.018**	0.006
	(0.012)	(0.019)	(0.009)	(0.007)
*FOR_PTI*Post_CTB*	-0.079***	-0.030	-0.055*	-0.031
	(0.020)	(0.066)	(0.030)	(0.024)
*DOM_PTI*Size*	0.002	-0.002	-0.002	-0.003
	(0.004)	(0.008)	(0.002)	(0.002)
*FOR_PTI*Size*	-0.009	-0.022	0.008	0.006
	(0.007)	(0.017)	(0.008)	(0.005)
*DOM_PTI*WW_LEV*	-0.145***	-0.148***	-0.006	-0.006
	(0.024)	(0.038)	(0.012)	(0.004)
*FOR_PTI*WW_LEV*	0.091**	-0.150**	-0.069*	0.034
	(0.045)	(0.073)	(0.039)	(0.022)
*DOM_PTI*WW_INV*	-0.032	0.069	0.021	-0.004
	(0.082)	(0.153)	(0.042)	(0.030)
*FOR_PTI*WW_INV*	0.074	0.131	0.070	0.103
	(0.171)	(0.410)	(0.192)	(0.110)
*DOM_PTI*ΔWgtStatTaxRt*	-0.978***	0.954	0.613	0.237
	(0.378)	(0.654)	(0.435)	(0.205)
*FOR_PTI*ΔWgtStatTaxRt*	-1.969***	0.873	0.458	-0.043
	(0.440)	(0.836)	(0.704)	(0.427)
Constant	0.004***	0.007***	0.006***	0.006***
	(0.001)	(0.001)	(0.001)	(0.001)
*Test of DOM_PTI*Post_CTB =FOR_PTI*Post_CTB*	0.049	0.499	0.178	0.185
Observations	10,087	2,020	3,205	1,114
R-squared	0.582	0.440	0.295	0.014

Table 3 provides the results of estimation of Equations (6) and (7). *Post_CTB* equals 0 (1) if the observation is before (after) 1997 (1996). All other variables are defined in Table 1. Standard errors are reported under the coefficients and are clustered by firm. *, **, *** designates significance at the 10%, 5% and 1% level.

TABLE 4

Estimated Domestic Tax Rates on Domestic and Foreign Pre-Tax Income

	Dependent Variable = DOM_TXEXP			
	DOM_PTI > 0, FOR_PTI > 0	DOM_PTI > 0, FOR_PTI <= 0	DOM_PTI <= 0, FOR_PTI > 0	DOM_PTI <= 0, FOR_PTI <= 0
DOM_PTI	0.311***	0.343***	0.061**	0.030**
	(0.055)	(0.109)	(0.026)	(0.014)
FOR_PTI	0.127	0.441**	0.084	-0.014
	(0.084)	(0.207)	(0.065)	(0.040)
*DOM_PTI*Post_CTB*	-0.044***	-0.092***	0.003	0.002
	(0.011)	(0.018)	(0.006)	(0.004)
*FOR_PTI*Post_CTB*	-0.012	-0.066	0.003	-0.001
	(0.017)	(0.062)	(0.019)	(0.019)
*DOM_PTI*Size*	0.003	0.001	-0.004**	-0.002**
	(0.004)	(0.008)	(0.002)	(0.001)
*FOR_PTI*Size*	-0.009	-0.009	-0.000	0.002
	(0.006)	(0.016)	(0.005)	(0.003)
*DOM_PTI*WW_LEV*	-0.120***	-0.155***	-0.017*	0.001
	(0.023)	(0.037)	(0.001)	(0.003)
*FOR_PTI*WW_LEV*	0.037	-0.144**	-0.066***	0.002
	(0.035)	(0.067)	(0.021)	(0.012)
*DOM_PTI*WW_INV*	-0.059	0.017	0.053**	0.008
	(0.079)	(0.147)	(0.025)	(0.024)
*FOR_PTI*WW_INV*	0.360***	-0.097	0.273**	0.020
	(0.136)	(0.372)	(0.122)	(0.063)
*DOM_PTI*ΔWgtStatTaxRt*	-0.745***	0.888	0.005	0.117
	(0.276)	(0.648)	(0.189)	(0.120)
*FOR_PTI*ΔWgtStatTaxRt*	-0.594*	1.052	-0.135	0.061
	(0.322)	(0.796)	(0.336)	(0.241)
Constant	0.003***	0.005***	0.003***	0.003***
	(0.000)	(0.001)	(0.000)	(0.000)
*Test of DOM_PTI*Post_CTB =FOR_PTI*Post_CTB*	0.057	0.677	0.933	0.887
Observations	10,087	2,020	3,205	1,114
R-squared	0.563	0.470	0.071	0.012

Table 4 provides the results of estimation of Equations (7) only except that the dependent variable is current domestic tax expense (*DOM_TXEXP*). *Post_CTB* equals 0 (1) if the observation is before (after) 1997 (1996). All other variables are defined in Table 1. Standard errors are reported under the coefficients and are clustered by firm. *, **, *** designates significance at the 10%, 5% and 1% level.

TABLE 5
Estimate of Worldwide Tax Rate on Domestic and Foreign Pre-Tax Income:
Partitions by change in Organizational Structure

	Dependent Variable = WW_TXEXP			
	Δhaven < 2	Δhaven >=2	Δ4-Tier Chain < 2	Δ4-Tier Chain >=2
	DOM_PTI > 0, FOR_PTI > 0	DOM_PTI > 0, FOR_PTI > 0	DOM_PTI > 0, FOR_PTI > 0	DOM_PTI > 0, FOR_PTI > 0
	(1)	(2)	(3)	(4)
DOM_PTI	0.447***	0.230**	0.417***	0.271***
	(0.0607)	(0.0918)	(0.055)	(0.103)
FOR_PTI	0.244*	0.393***	0.303***	0.395**
	(0.127)	(0.136)	(0.111)	(0.152)
*DOM_PTI*Post_CTB*	-0.021*	-0.019	-0.022**	-0.009
	(0.011)	(0.024)	(0.011)	(0.025)
*FOR_PTI*Post_CTB*	-0.079***	-0.088**	-0.074***	-0.099***
	(0.024)	(0.035)	(0.024)	(0.034)
*DOM_PTI*Size*	-0.005	0.009	-0.003	0.004
	(0.005)	(0.007)	(0.004)	(0.008)
*FOR_PTI*Size*	0.003	-0.014	-0.002	-0.014
	(0.009)	(0.010)	(0.008)	(0.012)
*DOM_PTI*WW_LEV*	-0.125***	-0.181***	-0.135***	-0.166***
	(0.026)	(0.052)	(0.026)	(0.051)
*FOR_PTI*WW_LEV*	0.095	0.091	0.115**	0.077
	(0.060)	(0.061)	(0.056)	(0.073)
*DOM_PTI*WW_INV*	-0.082	0.090	-0.071	0.047
	(0.092)	(0.158)	(0.092)	(0.162)
*FOR_PTI*WW_INV*	0.161	-0.037	0.124	0.067
	(0.206)	(0.268)	(0.207)	(0.277)
*DOM_PTI*ΔWgtStatTaxRt*	-1.561**	-0.565*	-1.395**	-0.665**
	(0.742)	(0.291)	(0.709)	(0.302)
*FOR_PTI*ΔWgtStatTaxRt*	-2.043**	-1.736***	-2.377***	-1.581***
	(0.893)	(0.355)	(0.870)	(0.381)
Constant	0.004***	0.005***	0.004***	0.006***
	(0.001)	(0.001)	(0.001)	(0.001)
*Test of DOM_PTI*Post_CTB =FOR_PTI*Post_CTB*	0.090	0.056	0.061	0.100
Observations	6,939	3,148	7,014	3,073
R-squared	0.609	0.533	0.621	0.499

Table 5 provides the results of estimation of Equations (7). *Δhaven* is the change in the average number of affiliates located in tax havens between the pre and post check-the-box enactment periods. *Δ4-Tier Chain* is the change in the average number of affiliate chains with four or more foreign affiliates between the pre and post check-the-box enactment periods. *Post_CTB* equals 0 (1) if the observation is before (after) 1997 (1996). All other variables are defined in Table 1. Standard errors are reported under the coefficients and are clustered by firm. *, **, *** designates significance at the 10%, 5% and 1% level.

TABLE 6
Estimate of Worldwide Tax Rate on Domestic and Foreign Pre-Tax Income:
Partition by Change in Intercompany Flows

	Dependent Variable = WW_TXEXP			
	Decile ΔRelated Party Sales < 10 DOM_PTI > 0, FOR_PTI > 0	Decile ΔRelated Party Sales = 10 DOM_PTI > 0, FOR_PTI > 0	Decile ΔIntercompany Payments < 10 DOM_PTI > 0, FOR_PTI > 0	Decile ΔIntercompany Payments = 10 DOM_PTI > 0, FOR_PTI > 0
	(1)	(2)	(3)	(4)
DOM_PTI	0.324***	0.431***	0.311***	0.443***
	(0.0620)	(0.133)	(0.071)	(0.072)
FOR_PTI	0.459***	0.302**	0.465***	0.288**
	(0.115)	(0.140)	(0.125)	(0.116)
*DOM_PTI*Post_CTB*	-0.029**	0.018	-0.032**	-0.016
	(0.012)	(0.028)	(0.014)	(0.016)
*FOR_PTI*Post_CTB*	-0.063***	-0.133***	-0.070**	-0.081***
	(0.024)	(0.032)	(0.0275)	(0.026)
*DOM_PTI*Size*	0.003	-0.010	0.00542	-0.010*
	(0.005)	(0.009)	(0.00530)	(0.005)
*FOR_PTI*Size*	-0.012	0.001	-0.0141	0.001
	(0.008)	(0.009)	(0.00970)	(0.008)
*DOM_PTI*WW_LEV*	-0.146***	-0.107**	-0.155***	-0.093**
	(0.026)	(0.0456)	(0.0282)	(0.036)
*FOR_PTI*WW_LEV*	0.076	0.0896	0.0904*	0.101
	(0.057)	(0.0749)	(0.0523)	(0.065)
*DOM_PTI*WW_INV*	-0.025	0.104	-0.0964	0.184
	(0.086)	(0.232)	(0.0940)	(0.133)
*FOR_PTI*WW_INV*	0.001	0.152	0.117	0.040
	(0.202)	(0.304)	(0.212)	(0.253)
*DOM_PTI*ΔWgtStatTaxRt*	-0.967**	-0.0907	-0.883**	-1.585**
	(0.406)	(1.491)	(0.388)	(0.777)
*FOR_PTI*ΔWgtStatTaxRt*	-2.339***	-1.050	-1.950***	-1.433
	(0.569)	(1.324)	(0.486)	(0.955)
Constant	0.004***	0.002*	0.004***	0.007***
	(0.001)	(0.001)	(0.001)	(0.001)
*Test of DOM_PTI*Post_CTB =FOR_PTI*Post_CTB*	0.226	0.009	0.259	0.064
Observations	9,029	1,058	9,097	990
R-squared	0.581	0.597	0.574	0.590

Table 6 provides the results of estimation of Equations (7). *ΔRelated Party Sales* is the top decile of the change in intercompany sales scaled by total assets between the pre and post check-the-box enactment periods. *ΔIntercompany Payments* is the top decile of the change in intercompany payments scaled by total assets between the pre and post check-the-box enactment periods. *Post_CTB* equals 0 (1) if the observation is before (after) 1997 (1996). All other variables are defined in Table 1.