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SCHOOL OF LAW

"Trade-offs in the Repatriation of Foreign Earnings"

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March 6, 2017
Vanderbilt Hall – 208
Time: 4:10 – 6:00 p.m.
Week 7

SCHEDULE FOR 2017 NYU TAX POLICY COLLOQUIUM
(All sessions meet from 4:10-6:00 pm in Vanderbilt 208, NYU Law School)

1. Monday, January 23 – Lily Batchelder, NYU Law School. “Accounting for Behavioral Biases in Business Tax Reform: The Case of Expensing.”

2. Monday, January 30 – Mark Gergen, Berkeley Law School. “How to Tax Global Capital.”

3. Monday, February 6 – Alan Auerbach, Berkeley Economics Department. “U.S. Inequality, Fiscal Progressivity, and Work Disincentives: An Intragenerational Accounting.”

4. Monday, February 13 – Allison Christians, McGill Law School. “Human Rights at the Borders of Tax Sovereignty”

5. Tuesday, February 21 – Jason Oh, UCLA Law School. "Are the Rich Responsible for Progressive Marginal Rates?"

6. Monday, February 27 – Stephen Shay, Harvard Law School. “’A Better Way’ Tax Reform: Theory and Practice.”

7. **Monday, March 6 – Scott Dyreng, Duke Business School. “Trade-offs in the Repatriation of Foreign Earnings.”**

8. Monday, March 20 – Daniel Hemel, University of Chicago Law School. "Federalism as a Safeguard of Progressive Taxation."

9. Monday, March 27 – Leonard Burman, Urban Institute. “Is U.S. Corporate Income Double-Taxed?”

10. Monday, April 3 – Kathleen Delaney Thomas, University of North Carolina Law School. “Taxing the Gig Economy.”

11. Monday, April 10 – Julie Cullen, UC San Diego Department of Economics. “Political Alignment and Tax Evasion.”

12. Monday, April 17 – Miranda Perry Fleischer, University of San Diego Law School. “The Libertarian Case for a Universal Basic Income.”

13. Monday, April 24 – Joel Slemrod, University of Michigan Business School. “Taxing Hidden Wealth: The Consequences of U.S. Enforcement Initiatives on Evasive Foreign Accounts.”

14. Monday, May 1 – Richard Vann, University of Sydney Law School. "International tax post-BEPS: Is the corporate tax really all that bad?”

Trade-offs in the Repatriation of Foreign Earnings

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Abstract

A U.S. multinational can repatriate foreign earnings without an immediate tax cost when it has a domestic loss, which frees the earnings to be used domestically. But using the domestic loss to offset repatriation taxes reduces financial accounting income, and removes the real option of tax deferral. We show that firms are more likely to repatriate indefinitely reinvested foreign earnings in domestic loss years, but that they trade off the cash benefits with the financial reporting benefits of not repatriating. We also show that the factors that affect repatriation have changed relative to studies that examined repatriations prior to and during the repatriation tax holiday of 2004-2005.

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1. Introduction

Estimates of the aggregate balance of unremitted foreign earnings of U.S. multinational corporations are well over $2 trillion, and growing by more than $200 billion each year. The ability to defer the U.S. tax on foreign earnings until repatriation is believed by many to be the primary driver of this growth. Evidence suggests that these tax rules lead firms to engage in behaviors that are inefficient and possibly detrimental to economic growth because they create frictions in internal capital markets. For example, in April, 2013, Apple Inc. needed over $100 billion in the U.S. to pay dividends to its shareholders (Burne and Cherney 2013). Although Apple had sufficient internal capital for the payouts, it opted to raise the capital in the external bond market because the internal capital was in foreign jurisdictions and subject to a large tax cost if repatriated. More systematic evidence suggests that trapped foreign earnings are invested sub-optimally (Edwards, Kravet, and Wilson 2016; Hanlon, Lester, and Verdi 2015). Indeed, the evidence of inefficient corporate behavior has led many to call for corporate tax reform to address the problem of trapped foreign earnings, with proposals that range from exempting foreign earnings from U.S. tax to one-time tax holidays on the repatriation of foreign earnings.

Despite the attention on the growing balance of the foreign earnings that firms choose not to repatriate, our data suggest that repatriations are relatively common, and that the amounts repatriated are quite large: just over 20% of our firm-year observations have repatriations of foreign earnings, representing a total value of over $334 billion.[1] However, little attention has

[1] In our study, we examine indefinitely reinvested foreign earnings (IRFE) (the accounting number), as opposed to unremitted foreign earnings (the tax number), because the balance of IRFE is more commonly disclosed in publicly available financial reports. IRFE represents the subset of unremitted foreign earnings that have been designated as indefinitely reinvested for financial reporting purposes. The Indefinite Reversal Exception in U.S. Generally Accepted Accounting Principles (GAAP) defers the recognition of tax expense on such earnings until they are repatriated to the U.S. parent as a dividend. Some firms and researchers refer to these earnings as Permanently Reinvested Earnings (PRE). We refer to them as IRFE throughout the paper because this label is more descriptive of the intent of the accounting standard (APB 23) that governs their treatment. Unremitted foreign earnings, in

been devoted to repatriations of foreign earnings, except those that were made during the one-time repatriation tax holiday that was part of the American Jobs Creation Act of 2004 (AJCA). In this study, we examine the repatriation choices of U.S. multinationals before and after the AJCA, and the economic and financial accounting trade-offs that firms face in making them.

One possible explanation for non-holiday repatriations is that firms choose to repatriate foreign earnings when the cost of doing so is reduced. When a U.S. multinational earns foreign profits, it creates a latent U.S. tax liability that will be paid when the profits are repatriated as a dividend. The amount of the U.S. tax liability depends on the firm's U.S. tax situation in the year of repatriation because the repatriated profits are added to the firm's taxable income in that year. If the firm is profitable in the U.S., it will owe tax on the repatriated foreign earnings at its marginal U.S. tax rate and will receive a credit for the foreign taxes paid on the foreign earnings. If the U.S. multinational has a domestic loss, however, it has the opportunity to repatriate foreign earnings without incurring an immediate tax cost because the domestic loss can be used to offset the incremental income from the dividend paid by the foreign subsidiary to the U.S. multinational parent.

Despite the immediate cash tax savings, there are additional cash and financial reporting consequences of the choice to repatriate during a domestic loss year. First, if the firm repatriates and uses the loss to lower domestic taxes owed on foreign earnings, it forgoes the opportunity to use the loss to lower taxes owed on future domestic income.[2] Under reasonable assumptions, there is an expected benefit to repatriating in the year of a loss, but the benefit is a function of the

contrast, are those earnings which have not been repatriated, regardless of whether the firm has recognized a financial statement liability associated with the future tax that will be paid when they are repatriated.

[2] This assumes that the firm is not able to carry the loss back and that the firm will have domestic profit in the future.

cost of capital, expectations about the timing of future domestic profits, the timing of future repatriations, and future tax rates.[3]

Second, the repatriation decision directly affects the availability of foreign earnings for use in internal capital markets. A firm with domestic profits can only use its foreign profits for domestic needs if it repatriates them and pays the residual U.S. tax. A U.S. multinational with a domestic loss, however, has the opportunity to use its foreign profits for domestic needs because the loss will eliminate the residual U.S. tax.

Third, the repatriation decision affects financial accounting income reported to shareholders. When a firm incurs a loss that it cannot immediately use to offset past taxable earnings, it records a deferred tax asset, which increases reported income. However, if the firm repatriates in a domestic loss year, it uses the domestic loss to offset taxes due on repatriated foreign income, and no deferred tax asset is recorded. If no deferred tax asset is generated, nothing will be recorded on the financial statements, and financial accounting income will be lower than if the firm had not repatriated earnings. Therefore, by using the domestic loss instead of carrying it forward, the firm forgoes the opportunity to record higher income on its financial statements.

Fourth, repatriation removes the real option associated with deferral. Because there is a possibility that future U.S. tax rates on repatriated foreign earnings will decrease, firms can derive benefit by deferring the decision to repatriate. The precise value of waiting to make the repatriation decision is impossible to observe, but is likely to be increasing in the uncertainty associated with future tax rate changes and future profitability.

[3] See Appendix A for algebra associated with the costs and benefits of repatriation.

The firm, therefore, faces trade-offs in its repatriation decision when it has a domestic loss. While the firm can remove the tax constraints on accessing foreign capital without any immediate cash tax payment, to do so, the firm must reduce its financial reporting earnings and give up the real option of waiting to repatriate. We empirically study these trade-offs in this paper.

Using a sample of U.S. multinationals reporting indefinitely reinvested foreign earnings (IRFE) from 2008 to 2014, we find that firms repatriate more foreign earnings when they have domestic losses. We also find that firms repatriate less foreign earnings when they have stronger financial reporting incentives. Thus, our results suggest that firms trade off access to foreign earnings and financial reporting benefits when deciding whether and how much to repatriate. We also estimate our tests on hand-collected data from 1993-2003 to see if the results are different before and after the AJCA.[4] We find that our main results hold in both time periods, but that the effect of domestic losses is stronger after the AJCA.

Our study makes multiple contributions to the literature. First, determining whether firms sacrifice cash tax savings and access to internal capital for financial reporting benefit is important because it helps policymakers, practitioners, and researchers understand the frictions and inefficiencies created by the interplay of tax laws and financial accounting rules. To the extent that financial reporting consequences prevent or delay repatriations, they represent a real cost that is borne by the firm and the U.S. economy, particularly when it is possible that "trapped" foreign earnings are invested sub-optimally (Edwards, Kravet, and Wilson 2016; Hanlon, Lester, and Verdi 2015).

[4] In this draft of the study, we exclude the years 2004-2007 because collection of data for those years is not yet complete.

Second, prior literature has shown that firms trade off cash tax savings and financial reporting consequences in the choice of inventory method (see Jenkins and Pincus (1998) for a review), LIFO liquidations (Dhaliwal, Frankel, and Trezevant 1994), and stock-based compensation (Matsunaga, Shevlin, and Shores 1992). Erickson, Hanlon, and Maydew (2004) document that, in the extreme, firms are even willing to pay tax on fraudulent earnings. A separate stream of research examines the repatriation choices of firms and finds both cash tax costs and financial reporting effects deter repatriations (Blouin, Krull, and Robinson 2012). Our study extends this literature by examining the complex trade-offs firms face when repatriating foreign earnings.

Third, to our knowledge, ours is this first examination of the repatriation choices of U.S. multinationals since the one-time tax "holiday" of the 2004 American Jobs Creation Act (AJCA). To the extent that the AJCA changed expectations about future tax holidays and/or reforms (Brennan 2010), empirical findings from before and during the AJCA may no longer be valid. To this end, we document that the association between repatriations and domestic losses became stronger in the post-AJCA period.

Finally, we examine the tax planning and financial reporting behavior of firms with losses, a population that is often excluded from empirical studies. Learning how losses affect firm behavior is necessary for a comprehensive understanding of the choices that firms make.

2. Background

2.1 Basic taxation and financial reporting of foreign earnings of U.S. multinationals

The United States uses a worldwide (or credit) tax system: the U.S. imposes tax on all earnings of U.S. corporations, regardless of the location of those earnings, but grants credit for taxes paid to foreign governments. The payment of taxes owed to the U.S. occurs when firms repatriate the earnings from the host country to the U.S. in the form of a dividend. Because firms can defer the dividend payment from the foreign affiliate to the U.S., they can defer the payment of the U.S. tax on foreign earnings. Hence, the tax system is best characterized as a worldwide system with deferral.

Accounting rules in the U.S. generally require tax liabilities to be recorded when they are incurred, not when the obligation is satisfied. Thus, firms are required to record deferred tax liabilities for taxes they expect to pay to the U.S. when they repatriate earnings, even if they do not plan to repatriate for many years in the future. However, firms can avoid recording deferred tax liabilities for the U.S. tax on foreign earnings by designating those earnings as indefinitely reinvested (IRFE). Because no deferred tax liability is recorded in the year the earnings are generated and designated as IRFE, the firm both records a tax expense and pays the cash tax liability in the year of eventual repatriation. In contrast, when a firm repatriates earnings that have not been designated as indefinitely reinvested (i.e., a deferred tax liability was accrued when the earnings were recorded), the cash tax liability is paid, but there is no new tax expense recorded in the year of repatriation. Thus, under normal circumstances, remitting IRFE results in both a tax cost and a financial accounting expense whereas remitting foreign earnings that are not indefinitely reinvested results only in a tax cost.[5]

[5] The combination of tax and accounting rules we describe above creates three distinct, often conflated balances, as illustrated in Figure 2. First, unremitted foreign earnings constitute the total balance of foreign earnings that have not been paid by foreign subsidiaries to the U.S. parent. Second, the fraction of unremitted foreign earnings that the firm designates as indefinitely reinvested is called indefinitely reinvested earnings. Finally, many firms report the foreign cash balance in their financial reports. It is important to note that unremitted foreign earnings and IRFE might be part of the foreign cash balance, but foreign cash can also arise from other sources.

2.2 *Net operating losses*

Under U.S. tax law, when a corporation has a domestic net operating loss (NOL) in year t, it can carry that loss back to year $t-1$ or $t-2$ to recover taxes paid in those years, or it can carry the loss forward up to 20 years to shelter future income from U.S. tax. In order to carry the loss back, the firm must have reported taxable income and paid U.S. tax in either or both of the two previous years. If that condition is met, the firm will receive a refund in year $t+1$ equal to $NOL* MTR$ (the firm's marginal tax rate).[6] If the firm is either unable to carry the NOL back or chooses not to do so, it will carry the NOL forward to be claimed (i.e., reduce taxable income) in any of the subsequent 20 years and save tax equal to $NOL * MTR$.

In nominal dollars, the benefits of carrying a year t loss back and forward are $NOL * \tau_{t-k}, k \in [1, 2]$, and $NOL * \tau_{t+n}, n \in [1, 20]$, respectively, where τ_j is the firm's marginal tax rate in year j. When we consider the time value of money and compare values in year $t+1$, the values are:

$$Carryback\ Benefit_{t+1} = NOL * \tau_{t-k}, \text{ and}$$

$$Carryforward\ Benefit_{t+1} = \frac{NOL*\tau_{t+n}}{(1+r)^{n-1}},$$

where r is the firm's after-tax discount rate, assumed to be constant across years. If tax rates are constant (i.e., $\tau_{t-k} = \tau_{t+n}, \forall\ k, n$) and r is positive, then $Carryback\ Benefit_{t+1} > Carryforward\ Benefit_{t+1}$. Whether the loss is carried back or forward, the cash tax implications of the loss in year t are a reduction in the taxes paid in a year other than t. If the

[6] In reality, the amount of refund received when a net operating loss is carried back could be affected by various credits that were claimed when the return was originally filed.

loss is carried back, the firm will receive a refund of taxes previously paid. If the loss is carried forward, the firm will pay less tax on its taxable income in the future year in which the loss is used.

Accounting for NOLs is also relatively straightforward. If the loss is carried back, the firm will record a current tax benefit (a negative tax expense). If the loss is carried forward, the firm will record a deferred tax benefit (a negative tax expense). Thus, an NOL will increase after-tax reported net income by approximately the magnitude of the loss multiplied by the statutory tax rate.

2.3 Repatriation of IRFE when the firm has a domestic loss

In the absence of a domestic loss, repatriation of IRFE triggers a U.S. cash tax bill and increases the firm's reported tax expense. In contrast, if the firm has a domestic loss, the firm can offset the repatriated income with the domestic loss and not pay any tax on the repatriated earnings. However, because the firm will not have a domestic loss to carry forward (because it will be used to offset the repatriated income), it will not record the tax benefit normally associated with domestic losses. Thus, the firm chooses between repatriating without incurring a cash tax bill but forgoing the financial statement benefit and not repatriating, recording the financial statement benefit, but forgoing the opportunity to use the foreign earnings for domestic purposes.

2.4 Foreign tax credits

When the firm originally earned the foreign income that is now being repatriated, it paid foreign tax on that income. This foreign tax generates a foreign tax credit (FTC) for U.S. tax purposes. If the earnings are repatriated and offset by a domestic loss (i.e., no U.S. tax is owing on the repatriated income), the FTC will be carried forward to be used against future U.S. tax liabilities on foreign earnings. As such, the firm is also choosing between having an FTC carryforward (if it repatriates and uses the loss) and having an NOL carryforward (if it does not repatriate). Because the carryforward periods for the two are different (NOLs can be carried forward for 20 years while FTCs expire after 10 years), firms would have a marginal preference for NOLs over FTCs.

3. Prior literature and hypothesis development

Prior theoretical and empirical work in Accounting and Economics has sought to understand the effect of repatriation taxes on the investment decisions of multinational firms. The two main channels through which firms' decisions are affected are the cash taxes to be paid and the financial reporting consequences (i.e., what is reported on the firm's financial statements). We look first at the studies examining the cash tax effects.

3.1 Cash taxes and the repatriation choice

Hartman (1985) models the choice of a mature subsidiary of a multinational firm earning foreign profits and shows that the residual home-country tax due on repatriation should be irrelevant to the choice between repatriating the foreign earnings as a dividend and reinvesting them in the foreign jurisdiction. The model assumes that the home-country tax rate is constant over time and supports the conclusion that it is the relative pretax rates of return in domestic and foreign jurisdictions, and not the repatriation tax, that drives the choice to repatriate or not.[7]

[7] Hartman (1985) acknowledges that, "the results hold unless the home country tax could somehow be avoided eventually, which would tend to cause the firm to invest more abroad. This situation could arise if the firm anticipated a tax-favored liquidation of foreign operations at some future time or if a future elimination (or reduction) of the home country tax were expected."

Subsequent theoretical studies (e.g., Altshuler, Newlon, and Randolph (1995), Sansing (1996), and de Waegenaere and Sansing (2008)) extend Hartman (1985) and determine conditions under which repatriation taxes may affect firms' choices. Foley et al. (2007), Bryant-Kutcher, Eiler, and Guenther (2008), and Blouin, Krull, and Robinson (2012), among others, show empirically that the repatriation behavior of U.S. multinationals is affected by cash tax effects. Desai, Foley, and Hines (2001) estimate that repatriation taxes reduce aggregate dividend repatriations by 12.8%. Further support is provided by Graham, Hanlon, and Shevlin (2011), who survey tax executives and find that repatriation taxes have a first-order effect on repatriation choices.

3.2 Financial reporting and the repatriation choice

The tax executives surveyed by Graham, Hanlon, and Shevlin (2011) also revealed that the financial reporting consequences are as important as the cash tax consequences in choosing when and how to repatriate foreign earnings. Blouin, Krull, and Robinson (2012) find empirical evidence consistent with this in the sample period 1999-2004; they estimate that financial reporting incentives reduce repatriations by 17 – 20% annually, compared to what they would be if only cash tax consequences were considered.

3.3 The American Jobs Creation Act of 2004

In 2004, U.S. lawmakers provided a natural experiment in which these theories could be empirically tested when, as part of the American Jobs Creation Act (AJCA), a temporary dividends received deduction was allowed that effectively reduced the tax rate on qualifying dividends to 5.25%.[8] The deduction could be claimed in either 2004 or 2005 and could be applied to "extraordinary" dividends only, to a maximum of $500 million or the amount of IRFE

[8] The Act allowed a repatriating firm to claim an 85% dividends received deduction (DRD). For $1 of repatriated income, $0.15 would be included in taxable income. At a 35% federal statutory tax rate, 35% * $0.15 = $0.525.

disclosed on the firm's most recent financial statements, whichever was greater.[9] Several studies use the setting to examine the determinants of the decision to repatriate qualifying dividends and find that less financially constrained firms (Albring, Mills, and Newberry 2011), firms with lower investment opportunities and higher free cash flows (Blouin and Krull 2009), and firms with strong financial reporting incentives (Morrow and Ricketts 2013) were more likely to repatriate during the holiday.[10]

While the AJCA provides a setting for examining repatriation behavior, the holiday was temporary, and many firms were unable to take advantage of it because the amounts repatriated were restricted based on numbers that were not easily manipulated. As such, it is unclear whether the empirical findings from the setting generalize to non-holiday conditions.

3.4 Domestic losses and repatriation

Our research question is whether firms trade off cash tax savings for financial reporting benefits when choosing between repatriating and reinvesting foreign earnings when there is a domestic loss. Graham, Hanlon, and Shevlin (2010) survey tax executives about their repatriation behavior under the AJCA and find that the frequency and size of loss carryforwards are greater for repatriating firms than for non-repatriating firms (i.e., firms with domestic losses had not repatriated foreign income that would have been sheltered from U.S. tax prior to the AJCA). The authors speculate that this is explained by the fact that repatriating when there is a domestic loss results in the exchange of a loss carryforward with a 20-year life for a foreign tax

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[9] A dividend qualified as extraordinary if it exceeded the average dividend over the five previous years. See Redmiles (2008) for further details.

[10] A related stream of research examines the uses of the funds repatriated under the AJCA. Blouin and Krull (2009) and Dharmapala, Foley, and Forbes (2011) find that the funds were largely returned to shareholders through increased share repurchases (i.e., in violation of the conditions of the Act), while Faulkender and Petersen (2012) and Brennan (2014) conclude that repatriated funds were largely used for approved purposes.

credit carryforward with a 5-year life. They support this assertion with a response to a follow-up question to one executive, but are unable to test the assertion in their full sample.

Two studies set before the AJCA have addressed the question indirectly by including a domestic loss variable as a control in tests of the determinants of repatriations. Altshuler and Newlon (1991), using a sample of U.S. multinationals in 1986, find the "puzzling" result that foreign subsidiaries were less likely to repatriate when the parent had a domestic loss. Consistent with Graham, Hanlon, and Shevlin (2010), the authors speculate, but do not directly test, that this is explained by a preference for loss carryforwards over foreign tax credit carryovers.[11] However, Altshuler and Newlon (1991) find no explanation for their "particularly puzzling" finding that low-tax CFCs (for whom tax savings would be higher and FTCs would be lower) paid out less than high-tax CFCs when the parent had losses.

Following Altshuler and Newlon (1991), Blouin, Krull, and Robinson (2012) include an indicator variable for firm-years with domestic losses in their empirical tests of the determinants of repatriations in their sample of U.S. multinationals from 1999 to 2004. The estimate of the coefficient is positive (i.e., opposite what would be predicted based on the findings of Graham, Hanlon, and Shevlin (2010) and Altshuler and Newlon (1991)) and statistically significant in the subsample of public firms classified as having low capital market incentives to manage earnings. In all other tabulated results, the coefficient estimate is statistically insignificant, indicating that domestic losses have no incremental effect on repatriations.

To our knowledge, the only paper to directly study the effect of losses on repatriation is Power and Silverstein (2007). Using a balanced panel of tax return data of U.S. multinationals

[11] In their sample period, the carryforward periods were 15 and 5 years for losses and foreign tax credits, respectively.

from 1998 to 2002, they find that, on average, firms are less likely to repatriate in loss years, and that loss year repatriations are smaller in amount than profit year repatriations. Like Altshuler and Newlon (1991), Power and Silverstein (2007) speculate that this signals a preference for loss carryforwards over foreign tax credit carryforwards, and speculate further that the preference is driven by the fact that NOLs can be used against both domestic and foreign income, while foreign tax credits can only be used to offset taxes payable on foreign income.

3.5 Hypotheses

The findings in the extant literature largely support the prediction that having a domestic loss should reduce the likelihood of repatriation of foreign earnings because U.S. multinationals prefer loss carryforwards to foreign tax credit carryforwards.[12] However, the differences between the two were substantially reduced by provisions in the 2004 AJCA which changed the treatment of FTCs. For tax years beginning after December 31, 2006, U.S. corporations are able to recharacterize domestic income as foreign income for the purpose of calculating the tax otherwise payable to be offset by the FTC. This change, codified as S. 904(g) of the Internal Revenue Code, removes the largest difference between the value of NOL and FTC carryforwards to which prior research had attributed the tendency of firms not to repatriate in domestic loss years. In addition, the AJCA doubled the carryforward period for FTCs to ten years (S. 904(c)), increasing the relative value of FTCs.[13]

[12] Our hypotheses implicitly assume that firms are either unable to carry losses back or choose not to. Anecdotal and empirical evidence (Mahon and Zwick 2014) suggest that this is a reasonable assumption.
[13] The AJCA also reduced the number of "baskets" for FTCs and removed a limit on the amount of Alternative Minimum Tax that could be offset by FTCs. Both changes are generally regarded as making FTCs more valuable.

Given the findings in prior research and the reduction in the wedge between the values of NOLs and FTCs, it is an empirical question whether the effect of a domestic loss on a firm's repatriation behavior is different in our sample period. We state our first hypothesis in the null:

Hypothesis 1: *Having a domestic loss does not affect the repatriation behavior of U.S. multinational corporations.*

Our second hypothesis derives from the findings in the extant literature that financial reporting incentives materially affect repatriation choices (Graham, Hanlon, and Shevlin 2011). Blouin, Krull, and Robinson (2012) show that financial reporting incentives increase the negative effect on repatriations of cash tax consequences. Consistent with this result, Morrow and Ricketts (2013) find that, in the unique setting of the AJCA tax holiday, financial reporting incentives explained repatriations better than cash tax consequences. In both of these studies, the cash tax and financial reporting effects are predicted to have the same negative effect on repatriations. As such, a comparison of the two effects supports inferences about the relative importance of the effects, but does not support inferences about trade-offs between the two. In contrast, we predict opposite signs for the two effects and state our second hypothesis:

Hypothesis 2: *A U.S. multinational corporation trades off financial reporting incentives and cash tax savings when choosing whether to repatriate foreign earnings under a domestic loss*.

4. Research design and data

To test our hypotheses, we estimate variations of the following empirical model:

$$REPATRIATE_{it} = \beta_0 + \beta_1 USLOSS_{it} + \beta_2 LOG\ ANALYSTS_{it} + \sum_c \beta_c C_{it} + \varepsilon_{it}, \qquad (1)$$

where the variables of interest are defined as follows:

$REPATRIATE_{it}$ is an indicator variable = 1 if firm i reports a reduction in indefinitely reinvested foreign earnings (IRFE) in year t, 0 otherwise;

$USLOSS_{it}$	is an indicator variable = 1 if firm i reports a U.S. loss in year t, 0 otherwise
$LOG\ ANALYSTS_{it}$	is the natural log of [1 + the number of analysts following firm i in year] (ln{1+NUMEST}).

$REPATRIATE$ captures the repatriation of IRFE with error because it is possible for a reduction in IRFE to result from a reclassification of foreign earnings as no longer indefinitely reinvested (for GAAP purposes) without an actual repatriation (for tax purposes). However, Graham, Hanlon, and Shevlin (2011) find that IRFE represents 76% (100%) of unremitted foreign earnings for the mean (median) firm in their study, indicating that the difference between the IRFE and unremitted foreign earnings is not large for the average firm. In addition, we are particularly interested in the repatriation of earnings that have been designated as indefinitely reinvested because firms must record a financial statement expense in the period those earnings are repatriated, whereas repatriating unremitted earnings that are not indefinitely reinvested does not require an income tax expense to be recorded.[14]

To supplement the existing survey evidence on the link between changes in IRFE and actual repatriations, we empirically examine the association between changes in IRFE and changes in net operating loss (NOL) carryforwards. If firms with NOL carryforwards actually repatriate earnings, there will be a negative association between repatriation and the change in NOLs. We exploit this association by regressing the change in NOL carryforward on our proxy for repatriations, the change in IRFE, pretax domestic income, and pretax foreign income. In untabulated results, we find that the change in IRFE has statistically and economically significant association with the change in NOL carryforward.

[14] Another source of potential error in the measurement of repatriations using IRFE is the effect of foreign currency translation. Future drafts of the paper will seek to address this empirically.

Our main independent variable of interest, $USLOSS$, is also measured with error. Ideally, we would use tax return data to identify years in which the firm has domestic losses. However, because U.S. taxable income is not publicly available, we use financial accounting data as a proxy. One advantage of doing so is that financial accounting income is not affected by repatriations, while U.S. taxable income would be (i.e., if a firm were to repatriate income exactly equal to the available loss, taxable income for the year would be zero, while financial accounting would still report the loss).

We use $LOG\ ANALYSTS$ as our proxy for financial reporting incentives. Prior research has shown that the importance of what firms report publicly varies in the cross section for a variety of reasons, including the number and sophistication of financial statement users (Cheng and Warfield 2005).

We include the following control variables to capture time-varying firm characteristics that may affect the repatriation decision:

$SIZE$	is the natural log of the market value of equity in year t ln(CSHO*PRCC_F)
$PRETAX\ FOREIGN\ INCOME$	is pretax foreign income scaled by beginning assets in year t (PIFO/AT)
$CAPITAL\ EXPENDITURES$	is capital expenditures scaled by beginning assets in year t (CAPX/AT)
$LONG\ TERM\ DEBT$	is long-term debt scaled by beginning assets in year t ({DLTT+DLC}/AT)
$PROPERTY\ PLANT\ \&\ EQUIP$	is net property, plant, and equipment scaled by beginning assets in year t (PPENT/AT)
$ADVERTISING\ EXPENSE$	is advertising expense scaled by beginning assets in year t (XAD/AT)
$R\&D\ EXPENSE$	is research and development expense scaled by beginning assets in year t (XRD/AT)

$CHANGE\ IN\ NOL\ CARRYFORWARD$	is the change in the tax loss carry-forward from year t-1 to year t scaled by beginning assets in year t (ΔTLCF/AT)
$NOL\ CARRYFORWARD\ at\ BEG\ OF\ YEAR$	is an indicator variable = 1 if firm i reports a tax loss carry-forward at the beginning of year t, 0 otherwise.

We include $SIZE$ because analyst coverage is known to be correlated with size and because larger firms may have more experience in tax planning or better foreign investment opportunities. We include $PRETAX\ FOREIGN\ INCOME$ because firms are less likely to report a decrease in indefinitely reinvested earnings when $PRETAX\ FOREIGN\ INCOME$ is positive, and because it acts as a proxy for the scope of foreign operations. We control for the firm's need to access internal cash by including $CAPITAL\ EXPENDITURES$ and $PROPERTY\ PLANT\ \&\ EQUIP$. We control for the firm's need for access to foreign earnings to meet creditor's demands by including $LONG\ TERM\ DEBT$. We include $ADVERTISING\ EXPENSE$ to control for the firm's sensitivity to public opinion, which may affect repatriation behavior. We include $R\&D\ EXPENSE$ as a proxy for a firm's intangibility; more intangible firms may be able to shift income more easily for tax purposes, which could affect the need to repatriate foreign earnings. We include $NOL\ CARRYFORWARD\ at\ BEG\ OF\ YEAR$ because firms with net operating losses at the beginning of the year may have different repatriation incentives and opportunities.

4.1 Empirical identification of a trade-off

The empirical identification of a trade-off is a topic of ongoing debate in the literature. Shackelford and Shevlin (2001) argue that an interaction of the tax variable and the non-tax variable is necessary to support inferences about a trade-off between the two. In contrast, Maydew (2001) suggests that the existence of interaction effects is not a necessary condition for identifying trade-offs as the existence of a trade-off depends on whether nature requires the firm to sacrifice tax benefit in order to have financial reporting benefit, or vice versa.

Burks, Randolph, and Seida (2015) contribute to the debate by using empirical simulations to identify precisely what is captured by the interaction term and whether it is necessary to identify a trade-off. The authors conclude that Maydew (2001) is correct: an interaction term is not necessary to identify a trade-off. The interaction term is necessary if one wishes to determine whether the trade-off varies systematically across firms. Following Burks, Randolph, and Seida (2015), we test our hypothesis that firms trade off cash tax savings and financial reporting benefit using Equation (1), i.e., excluding an interaction term.

4.2 Data

Table 1 describes the construction of the sample used in the empirical tests in the paper. Our sample consists of two parts, 1993 – 2003 (prior to the AJCA), and 2008 – 2014 (after the AJCA).[15] For the later period, we begin by selecting all U.S.-incorporated, non-utilities, non-financial firms in the Audit Analytics database with at least two consecutive years of non-missing Indefinitely Reinvested Foreign Earnings (IRFE). Because Audit Analytics did not begin collecting IRFE until 2007, we collect these data for the earlier period by searching firms' 10K filings and manually extracting the numbers disclosed.[16] When merging the firm-years for which we have IRFE with Compustat, we drop observations with missing values of pretax domestic

[15] As mentioned previously, this draft excludes the years 2004-2007 because collection of data for those years is not yet complete. However, because repatriation behavior in those years was likely anomalous due to the AJCA, excluding them is unlikely to affect inferences.

[16] There is significant variation in disclosure practices across firms that makes manual review of the disclosures necessary. A full description of the process used to collect these data is provided in Appendix B.

earnings (PIDOM), pretax foreign earnings (PIFO), net property plant and equipment (PPENT), or lagged total assets (AT).

Table 2, Panel A reports descriptive statistics for our sample. 21.8% of firm-years have a reduction in IRFE ($REPATRIATE = 1$) and 28% of firm-years have a domestic loss ($USLOSS = 1$), indicating that there is sufficient variation in both our independent and dependent variables. The mean of $LOG\ ANALYSTS$ is 1.381, which translates to about 3 analysts. About 34% of the sample is not followed by any analysts.

Table 2, Panel B reports the Spearman (below the diagonal) and Pearson correlations between the variables used in our tests. The correlation between $REPATRIATE$ and $US\ LOSS$ is positive and significant, while the correlation between $REPATRIATE$ and $LOG\ ANALYSTS$ (our proxy for financial reporting incentive) is negative and significant. These correlations suggest that firms are more likely to repatriate funds during domestic loss years and less likely to repatriate when they face financial reporting pressures. However, multivariate regression is necessary to disentangle their effects and confirm that other factors do not drive the correlations.

Figure 1 provides a graphical description of the aggregate IRFE in our sample firms across our sample period. In the period leading up to the AJCA, the balance increased at a steady rate of approximately $25 billion each year. After the AJCA, the balance was monotonically increasing, but at a much higher rate (approximately $150 billion per year).

5. Results

5.1 Preliminary evidence

Hypothesis 1 predicts that having a domestic loss increases the likelihood of repatriation. We begin our analysis with multiple graphical examinations of the data. Figure 4 plots the distributions of changes in IRFE for loss years ($USLOSS = 1$) and non-loss years. Loss firm-years appear to be more likely to have negative changes in IRFE (i.e., repatriations) than do non-loss firm-years. Figure 5 plots the average IRFE, scaled by assets, of repatriating firms by lining all repatriations up in event time with the year of repatriation as Year 0. The trend is relatively flat with the exception of the repatriation year, which exhibits a drop by construction. Figure 6 shows the trend of aggregate IRFE in event time for repatriation firm-years. It demonstrates that firms, in aggregate, increase IRFE in the years surrounding the repatriation event. We interpret these figures as providing evidence that repatriations are transitory in nature. We urge caution when interpreting these figures. Given that we require 2 years of data both before and after the repatriation event, 8 years of the sample are excluded from the figures. However, we expect that they represent the broader cross-section of firms.

5.2 Tests of Hypotheses

We conduct the main tests of our hypotheses by estimating variations of Equation (1) on the post-AJCA sample (2008-2014). Results are presented in Table 3. In Column 1, when we exclude $LOG\ ANALYSTS$ from the model, the estimate of the coefficient on $US\ LOSS$ is 0.102 ($p<0.01$). This provides strong support for rejecting the null of our Hypothesis 1 and suggests that the average firm is 10.2% more likely to repatriate in a year with a domestic loss. In Column 2, with $US\ LOSS$ excluded, the estimate of the coefficient on $LOG\ ANALYSTS$ is -0.012 ($p<0.01$), suggesting that the average firm is 1.2% less likely to repatriate with each unit increase in $LOG\ ANALYSTS$. In Column 3, we estimate the full Equation (1) to test whether firms trade off the two incentives (Hypothesis 2). The coefficients on both $USLOSS$ and $LOG\ ANALYSTS$ remain unchanged in the presence of the other, indicating strong support for our hypothesis that firms trade off cash tax savings and financial reporting costs when deciding whether to repatriate in loss years.

Among the control variables, $PRETAX\ FOREIGN\ INCOME$, and $R\&D\ EXPENSE$ are negatively associated with repatriations and statistically significant. Intuitively, these coefficients make sense. Greater foreign income relative to assets will increase IRFE as long as some portion of foreign earnings is indefinitely reinvested, ceteris paribus. Thus, an increase in this variable implies a lower chance of detecting a negative change. Similarly, as $R\&D\ EXPENSE$ is a proxy for intangibility of assets, we expect that firms with greater concentrations of intangible assets leave more earnings abroad.

Because our dependent variable is dichotomous, we repeat the analysis using a logistic model to ensure that our results are not sensitive to econometric choices. Results, presented in Table 4, are consistent with those in Table 3. The variables of interest, $USLOSS$ and $LOG\ ANALYSTS$, are strongly positive and negative, respectively, supporting the inference that both are important determinants of the decision to repatriate foreign earnings.

5.3 Different time periods

To investigate whether inferences obtained using our main sample hold in earlier time periods, we add the pre-AJCA sample and conduct our tests again. Results are presented in Table 5. Column 1 presents results of estimating Equation (1) on the full sample, where we find that the coefficients on $USLOSS$ (0.088) and $LOG\ ANALYSTS$ (-0.014) are similar in magnitude to those reported in Table 3, Column 3, and strongly significant.

Column 2 reports results from estimating Equation (1) on the pre-AJCA sample. We include the estimation on the post-AJCA sample from Table 3 in Column 3 for ease of comparison. The estimates of the coefficient on $USLOSS$ (0.059) is smaller than that in the post-AJCA sample, but remains statistically significant. The estimate of the coefficient on $LOG\ ANALYSTS$ (-0.020) in the pre-AJCA remains significant and is slightly larger in magnitude than the post-AJCA estimate.

In Column 4, we include an interaction term, $POST\ AJCA$ = 1 for firm-years in the post-AJCA sample, to test if differences observed in Columns 2 and 3 are significant. We find that the estimated coefficient on $US\ LOSS * POST\ AJCA$ is 0.044 (p<.05), indicating that the likelihood of repatriation in loss years increased in the post-AJCA period.

We again repeat these tests using a logit specification and report results in Table 6. The variables of interest, including the interaction term, $US\ LOSS * POST\ AJCA$, all load consistently with those reported in Table 5, indicating that our results are not sensitive to econometric choices. Taken as a whole, the results reported in Tables 5 and 6 support our conjecture that the determinants of repatriation have changed in the post-AJCA period.

6. Additional tests

In Table 7, we return to a linear probability model and augment the model by adding the interaction of tax and financial incentives, $USLOSS * LOG\ ANALYSTS$. If the trade-off between financial accounting incentives and tax incentives becomes more binding as the two variables move in opposition to one another, we expect to find a negative coefficient on the interaction. In the pre-AJCA period (Column 2), we find a positive and significant coefficient estimate on $USLOSS * LOG\ ANALYSTS$. In the post-AJCA period (Column 3), the interaction is negative, but statistically insignificant. To determine if the interactive effect is statistically different in the two time periods, we add a $POST\ AJCA$ indicator and its interactions and estimate the model on the full sample (Column 4). The coefficient on $USLOSS * LOG\ ANALYSTS * POST\ AJCA$ is negative and significant, indicating that the effect of financial reporting incentives on repatriation choices increased after the AJCA.

We further explore the effect of financial reporting incentives on repatriations in loss years by estimating Equation (1) without the $USLOSS$ indicator on the subsample of firm-years with domestic losses. Results are reported in Table 8 and are consistent with those in Table 7. The estimate of the coefficient on $LOG\ ANALYSTS$ is negative but insignificant in the post-AJCA period (Column 3). When we use the full sample and include a $POST\ AJCA$ indicator, the estimate of the coefficient on $LOG\ ANALYSTS * POST\ AJCA$ is negative and marginally significant. Taken together, the results reported in Tables 7 and 8 suggest that the financial reporting incentives of U.S. multinationals have caused them to forgo more of the cash tax savings available by repatriating foreign earnings during loss years since the AJCA.

7. Conclusion

The aggregate balance of indefinitely reinvested foreign earnings grew substantially during our sample period. Despite this growth, over $334 billion was repatriated by our sample firms during this same period as firms sought to use the internal capital generated by foreign earnings for domestic purposes. Controlling for factors expected either to determine repatriations or to confound our measurement of them, we find that firms with U.S. losses are more likely to repatriate foreign earnings, but that they trade off the tax savings and financial reporting costs of doing so. Our results should be of interest to policymakers as they indicate that financial reporting incentives represent a friction in the internal capital markets of U.S. multinational corporations.

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Appendix A – Cash Tax Benefit of Repatriation

This appendix calculates the cash tax effects of repatriating and not repatriating in the year of a domestic loss.

We assume:

1. The firm requires $\$X$ in the U.S. in year 0.
2. The firm has a U.S. loss of $\$L$ in year 0 and is unable to carry the loss back.
3. The firm has $\$F$ of indefinitely reinvested foreign earnings in year 0.
4. The firm earns $\$D$ in domestic U.S. income in year k.
5. The foreign tax rate is 0% for all years.
6. The domestic tax rate, $\tau > 0$, is constant across years.
7. Earnings invested and earn an equivalent pretax rate return, $R > 0$.
8. All foreign earnings are repatriated in year n, where $n \geq k$.
9. Domestic earnings or repatriated foreign earnings are invested in the U.S. and returns are taxed annually.

The future value in period n if the firm repatriates in year 0:

$$(F - (F - L)\tau)(1 + R(1 - \tau))^n + D(1 - \tau)\big(1 + R(1 - \tau)\big)^{n-k} \tag{1}$$

where the first term is the future value of $\$F$ and the second term is the future value of $\$D$.

The future value in period n if the firm does not repatriate in year 0, borrows $X, carries loss forward and uses it in year k:

$$(F(1 + R)^n(1 - \tau) + (D - (D - L)\tau)\big(1 + R(1 - \tau)\big)^{n-k} - (X\big(1 + R(1 - \tau)\big)^k - X) \tag{2}$$

where the first term is the future value of $\$F$, the second term is the future value of $\$D$, and the third term is the future value of $\$X$ borrowed in year 0.

Subtracting Eq. (2) from Eq. (1) gives the net benefit of repatriating in year 0 relative to repatriating in year *n*. The net benefit is increasing in *k* and decreasing in *n*.

For example, setting F, D, L, and X equal to 1, R = 0.10, τ = 0.35, n = 1, and k = 1 gives a net benefit of $0.065. Changing n = 2 reduces the benefit to $0.039.

Appendix B – Collection of Indefinitely Reinvested Foreign Earnings data

This appendix describes the process used to collect data not available in machine-readable form.

Step 1 Search of 10Ks to identify firms with IRFE

Using a PERL script, we searched the 10Ks of all firms on EDGAR using the following rules:

The letters "permanent" or "indefinite" within 20 words of the letters "invest"

The letters "undistributed" within 5 words of the letters "foreign"

If either of these rules were met, PERL extracted the surrounding text and exported it.

Step 2 Each extraction was reviewed to determine if a dollar amount of IRFE was disclosed, either in the extraction or in the 10K. Disclosed amounts were collected.

Step 3 The collected observations with IRFE were matched to Compustat records on CIK and datadate.

Figure 1 – Aggregate IRFE over time

This figure describes the aggregate reported indefinitely reinvested foreign earnings (IRFE) in our sample firms. Data prior to 2004 are manually collected from firms' 10K disclosures. Data after 2007 are obtained from the Audit Analytics database.

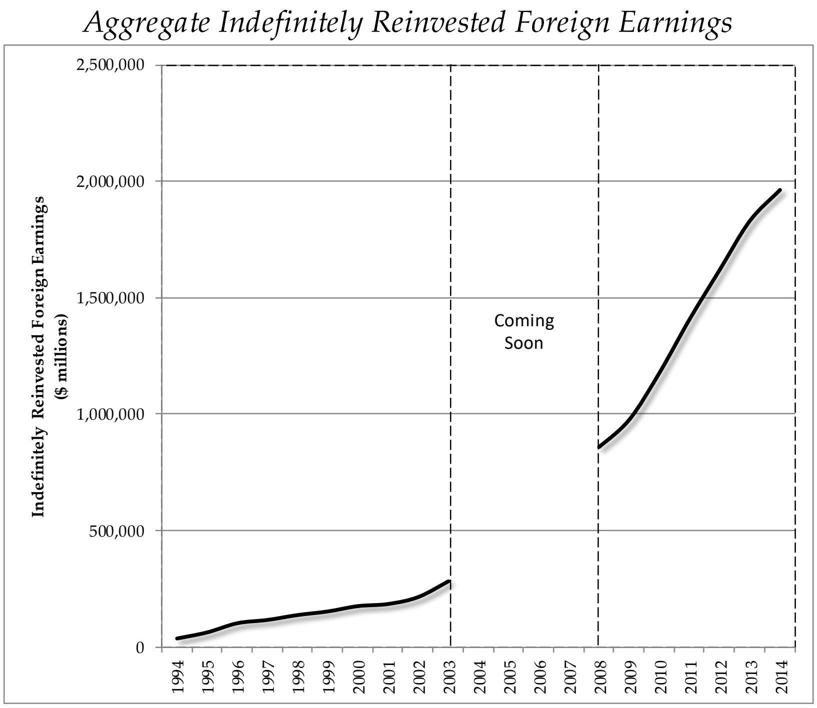

Figure 2 – Tax and U.S. GAAP treatments of foreign income

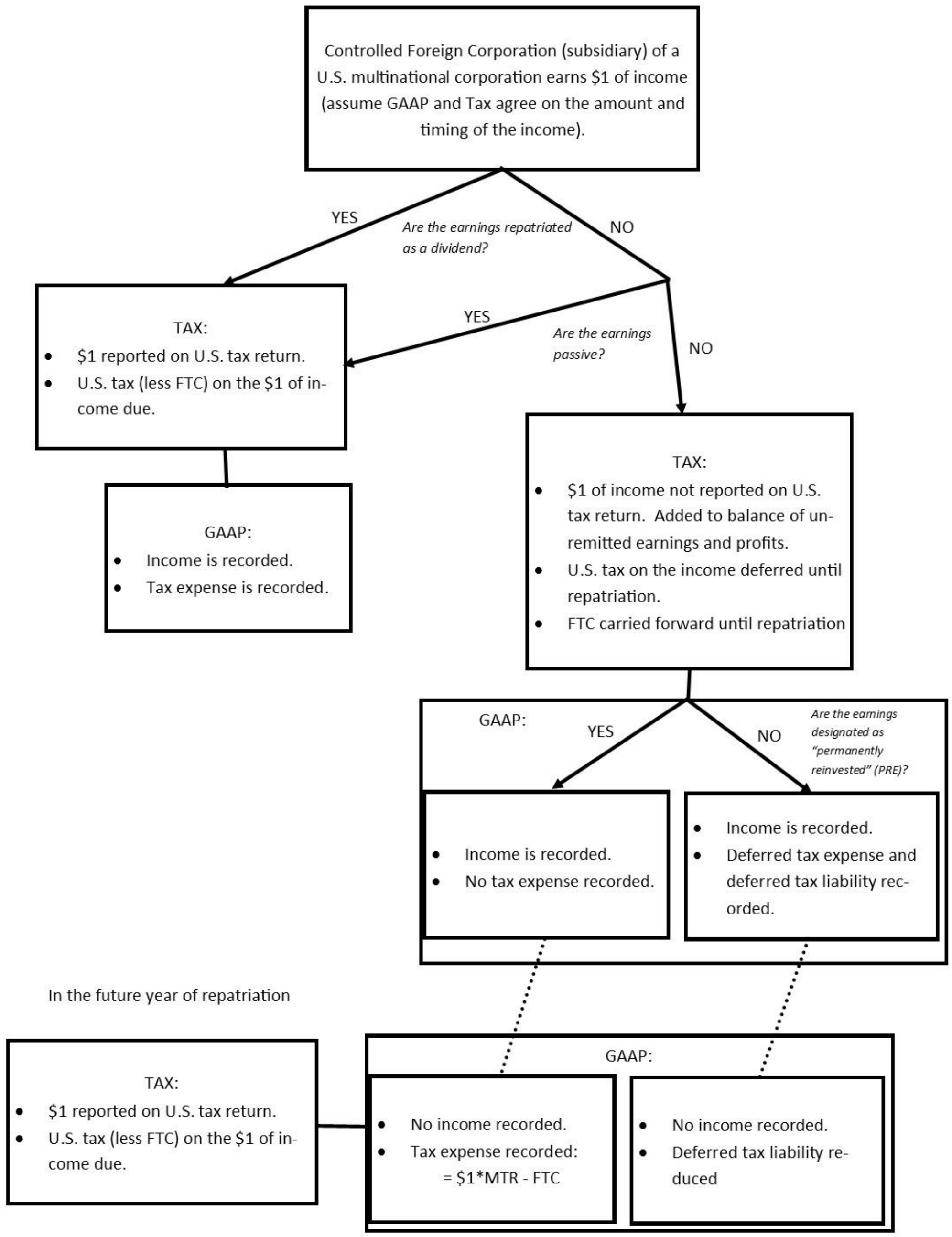

Figure 2 describes the treatment foreign earnings of multinational corporations under current U.S. GAAP and current U.S. tax rules.

Figure 3 – Foreign earnings of U.S. multinational corporations

This figure depicts the breakdown of the foreign earnings of a typical U.S. multinational corporation. Unremitted Foreign Earnings are the tax-basis foreign earnings that have not yet been reported as taxable income on the tax return of the U.S. parent. Indefinitely Reinvested Foreign Earnings (IRFE) are the unremitted foreign earnings that have been designated, for financial accounting (GAAP) purposes as indefinitely reinvested in foreign jurisdictions. IRFE have been recorded as income on the U.S. parent's consolidated financial statements, but no tax expense and corresponding liability related to the U.S. tax that will be payable on repatriation has been recorded. For simplicity, the diagram assumes no differences in the definitions of earnings under tax laws and accounting principles (i.e., book-tax conformity). The diagram is not intended to reflect relative differences in scale.

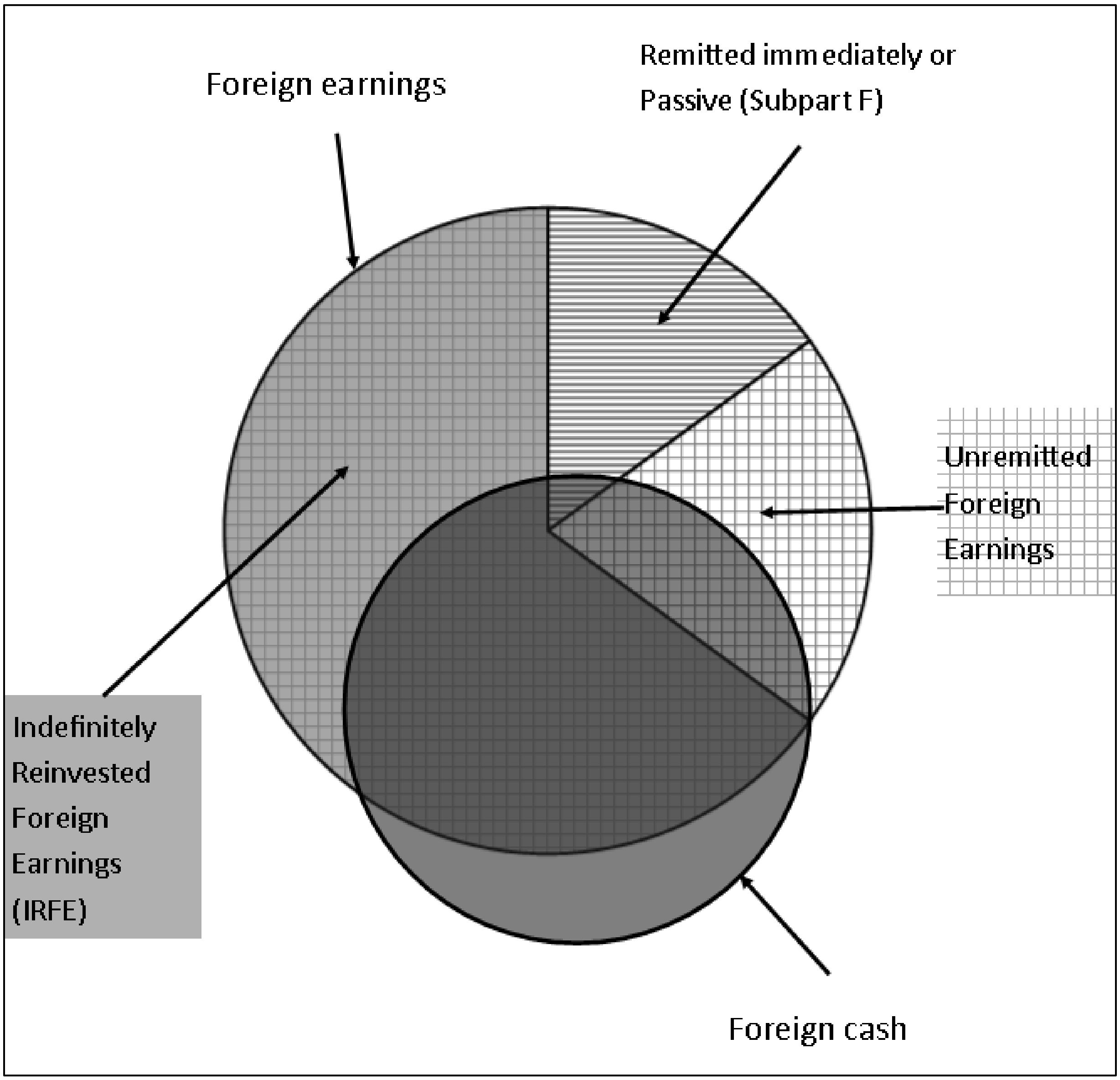

Figure 4 – Distributions of change in IRFE

This figure plots the distributions of the proportional change in IRFE/Assets for firm-years without a domestic loss and firm-years with a domestic loss.

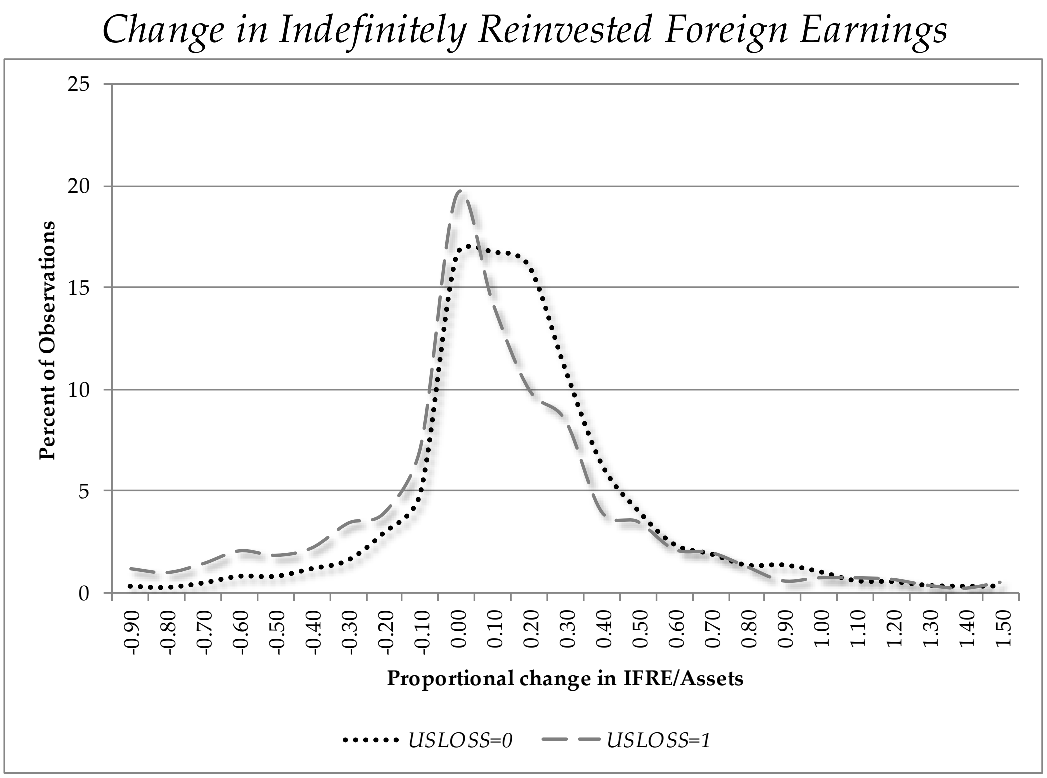

Figure 5 – Mean IRFE around repatriation

This figure shows the trend of the average level of IRFE for firm-years around the event of repatriation, which we define as a negative change in IRFE.

Mean Indefinitely Reinvested Foreign Earnings Scaled by Lagged Assets

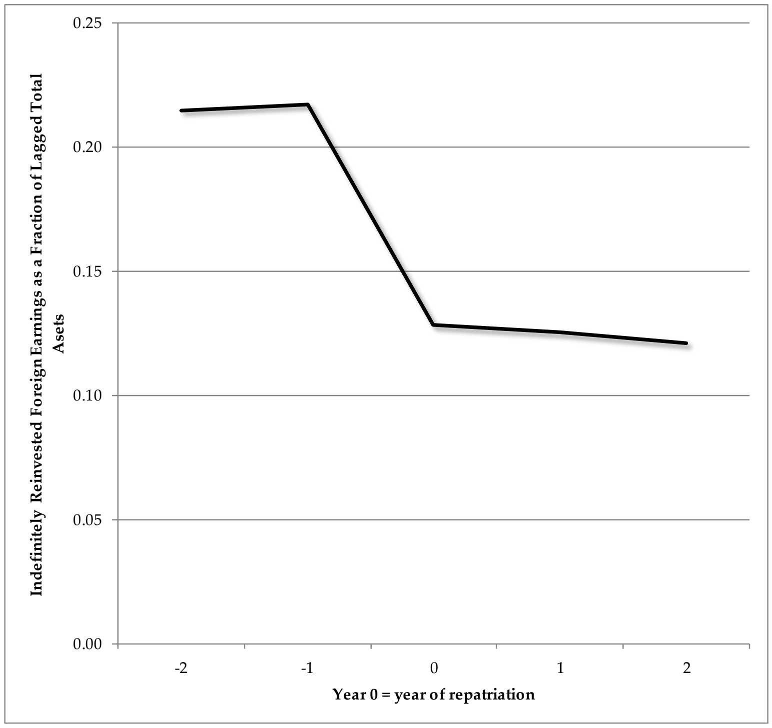

Figure 6 – Aggregate IRFE around repatriation

This figure shows the trend in the aggregate level of IRFE for firm-years around the event of repatriation.

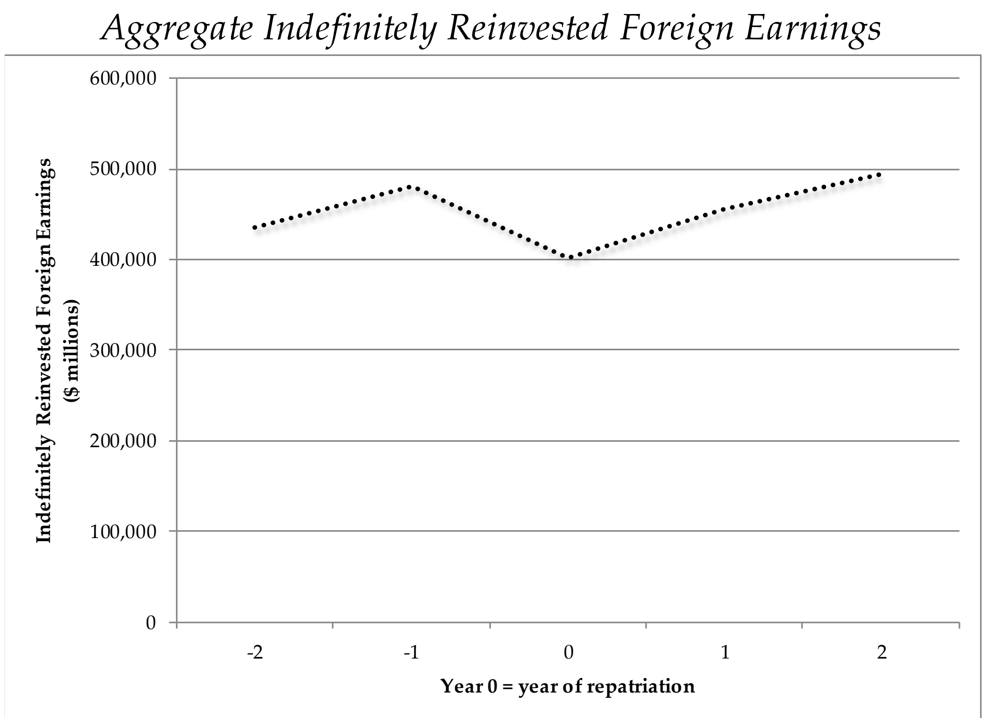

Table 1 – Sample selection

Our sample starts with firm-years from Audit Analytics from 2006-2015 with non-missing values of indefinitely reinvested foreign earnings (IRFE). In addition, we manually collect IRFE disclosed in the tax footnote of firms' 10-K for the years 1993-2003. Financial statement data are from Compustat. As our tests require domestic pretax income, foreign pretax income, property, plant, and equipment, market value of equity, and lagged assets, we drop all observations missing these items.

Criteria	**N Obs**
Observations from U.S. incorporated firms operating in industries other than utilities and financials with non-missing values of *IRFE* and *IRFE_lag1,* 1993-2014.	11,653
Drop observations with missing values of PIDOM, PIFO, PPENT, MVE, and lagged AT.	10,044
Drop observations from years 2007, 2015*	9,708

**These years excluded due to having only partial years of data*

Table 2 – Sample description

This table reports descriptive statistics and correlations for our sample (1993-2003 (pre-AJCA) and 2008-2014 (post-AJCA)). All continuous variables are winsorized at 1% and 99%. Panel A reports descriptive statistics. *REPATRIATE* is an indicator variable = 1 if firm i reports a reduction in the indefinitely reinvested foreign earnings in year t, 0 otherwise. *USLOSS* is an indicator variable = 1 if firm i reports a U.S. loss in year t, 0 otherwise, *LOG ANALYSTS* is the natural log of [1 + the number of analysts following firm i in year t] (ln{1+NUMEST}), *SIZE* is the natural log of the market value of equity at the end of year t, *PRETAX FOREIGN INCOME* is pretax foreign income scaled by beginning assets in year t (PIFO/AT), *CAPITAL EXPENDITURES* is capital expenditures scaled by beginning assets in year t (CAPX/AT), *LONG TERM DEBT* is long-term debt scaled by beginning assets in year t ({DLTT+DLC}/AT), *PROPERTY PLANT AND EQUIP* is net property, plant, and equipment scaled by beginning assets in year t (PPENT/AT), *ADVERTISING EXPENSE* is advertising expense scaled by beginning assets in year t (XAD/AT), *R&D EXPENSE* is research and development expense scaled by beginning assets in year t (XRD/AT), *CHANGE IN NOL CARRYFORWARD* is the change in the tax loss carry-forward from year $t-1$ to year t scaled by beginning assets in year t (ΔTLCF/AT), and *NOL CARRYFORWARD at BEG OF YEAR* is an indicator variable = 1 if firm i reports a tax loss carry-forward at the beginning of year t, 0 otherwise.

Panel A – Descriptive statistics

Variable	N	Mean	Std	P1	P25	P50	P75	P99
REPATRIATE	9,708	0.218	0.413	0.000	0.000	0.000	0.000	1.000
CHANGE IN IRFE	9,708	0.019	0.046	- 0.136	0.000	0.009	0.032	0.213
LAG CHANGE IN IFRE	7,533	0.017	0.041	- 0.143	0.000	0.009	0.031	0.173
US LOSS	9,708	0.280	0.449	0.000	0.000	0.000	1.000	1.000
SIZE	9,708	7.193	2.078	1.884	5.958	7.230	8.516	11.928
FOLLOWED BY ANALYST	9,708	0.659	0.474	0.000	0.000	1.000	1.000	1.000
LOG N ANALYSTS FOLLOWING	9,708	1.381	1.163	0.000	0.000	1.609	2.398	3.466
PRETAX FOREIGN INCOME	9,708	0.034	0.050	- 0.100	0.005	0.024	0.054	0.220
CAPITAL EXPENDITURES	9,708	0.049	0.045	0.003	0.020	0.036	0.062	0.258
LONG TERM DEBT	9,708	0.232	0.202	0.000	0.060	0.208	0.340	0.986
PROPERTY PLANT & EQUIP	9,708	0.242	0.192	0.017	0.101	0.189	0.324	0.930
ADVERTISING EXPENSE	9,708	0.012	0.031	0.000	0.000	0.000	0.007	0.181
R&D EXPENSE	9,708	0.044	0.061	0.000	0.000	0.017	0.066	0.290
CHANGE IN NOL CARRYFORWARD	9,708	0.014	0.073	- 0.187	0.000	0.000	0.006	0.444
NOL CARRYFORWARD at BEG OF YEAR	9,708	0.534	0.499	0.000	0.000	1.000	1.000	1.000

Table 2 – Sample description (continued)

Panel B – Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 *REPATRIATE*		-0.51*	-0.08*	0.13*	-0.13*	-0.04*	-0.07*	-0.22*	-0.07*	0.00	-0.03*	-0.02	-0.02	0.02	0.01*
2 *CHANGE IN IRFE*	-0.71*		0.26*	-0.10*	0.15*	0.05*	0.10*	0.48*	0.07*	-0.05*	-0.01	0.04	0.08*	-0.03*	0.00*
3 *LAG CHANGE IN IFRE*	-0.11*	0.36*		-0.04*	0.17*	0.05*	0.10*	0.35*	0.03*	-0.06*	-0.04*	0.04	0.06*	-0.01	0.01*
4 *US LOSS*	0.13*	-0.13*	-0.06*		-0.32*	0.02	-0.05*	-0.15*	-0.09*	0.03	-0.07*	-0.06*	0.17*	0.24*	0.06*
5 *SIZE*	-0.13*	0.20*	0.20*	-0.32*		0.08*	0.33*	0.32*	0.08*	0.05*	0.10*	0.11*	-0.02	-0.09*	0.05*
6 *FOLLOWED BY ANALYST*	-0.04*	0.06*	0.05*	0.02	0.04*		0.85*	0.01	-0.02	-0.08*	-0.10*	-0.01	0.14*	0.03	0.11*
7 *LOG N ANALYSTS FOLLOWING*	-0.07*	0.12*	0.11*	-0.06*	0.35*	0.84*		0.08*	0.02	-0.07*	-0.08*	0.01	0.16*	0.02	0.13*
8 *PRETAX FOREIGN INCOME*	-0.26*	0.52*	0.42*	-0.18*	0.33*	0.01	0.08*		0.14*	-0.07*	0.05*	0.11	0.04*	-0.12*	-0.04*
9 *CAPITAL EXPENDITURES*	-0.06*	0.07*	0.05*	-0.13*	0.11*	-0.03	0.01	0.15*		0.12*	0.71*	-0.02	-0.04*	-0.01	-0.10*
10 *LONG TERM DEBT*	0.00	-0.05*	-0.07*	0.00	0.12*	-0.12*	-0.08*	-0.05*	0.12*		0.31*	0.01	-0.26*	0.04*	-0.00*
11 *PROPERTY PLANT & EQUIP*	-0.02*	-0.01	-0.04*	-0.09*	0.09*	-0.13*	-0.11*	0.05*	0.73*	0.32*		-0.08*	-0.25*	-0.03	-0.12*
12 *ADVERTISING EXPENSE*	-0.02	0.02	0.01	-0.03*	0.13*	0.02	0.06	0.02	-0.07	-0.05	-0.16*		-0.05*	-0.02	-0.01*
13 *R&D EXPENSE*	-0.02*	0.10*	0.10*	0.11*	0.02	0.06*	0.08*	0.10*	-0.07*	-0.28*	-0.24*	0.05*		0.16	0.05*
14 *CHANGE IN NOL CARRYFORWARD*	0.02	-0.03*	0.00	0.21*	-0.05*	0.00	-0.00	-0.11*	-0.03	0.05*	-0.01	0.01	0.01		0.03*
15 *NOL CARRYFORWARD at BEG OF YEAR*	0.01	0.02	0.03	0.06*	0.06*	0.11*	0.13*	-0.02	-0.11*	-0.00	-0.14*	0.03	0.04*	-0.01	

Table 3 – Determinants of repatriation – 2008-2014

	USLOSS (1)	ANALYST FOLLOWING (2)	BOTH (3)
INTERCEPT	0.232**	0.282**	0.216**
	(2.49)	(2.58)	(2.44)
USLOSS	0.102***		0.102***
	(7.05)		(7.05)
LOG ANALYSTS		-0.012**	-0.012**
		(-2.22)	(-2.23)
SIZE	-0.011***	-0.017***	-0.008**
	(-3.02)	(-4.62)	(-2.28)
PRETAX FOREIGN INCOME	-1.689***	-1.686***	-1.705***
	(-14.41)	(-13.99)	(-14.49)
CAPITAL EXPENDITURES	-0.316	-0.406**	-0.286
	(-1.59)	(-2.00)	(-1.44)
LONG TERM DEBT	-0.037	-0.015	-0.036
	(-1.09)	(-0.45)	(-1.06)
PROPERTY PLANT & EQUIP	0.043	0.059	0.036
	(0.80)	(1.04)	(0.66)
ADVERTISING EXPENSE	0.243	0.258	0.258
	(1.07)	(1.14)	(1.14)
R&D EXPENSE	-0.253**	-0.100	-0.224**
	(-2.29)	(-0.89)	(-2.00)
CHANGE IN NOL CARRYFORWARD	-0.157**	-0.058	-0.157**
	(-2.09)	(-0.79)	(-2.08)
NOL CARRYFORWARD at BEG OF YEAR	0.001	0.005	0.002
	(0.07)	(0.36)	(0.15)
INDUSTRY FIXED EFFECTS	YES	YES	YES
N	5,903	5,903	5,903
ADJRSQ	0.074	0.065	0.075

This table reports the results of our estimation of various linear probability models of the choice to repatriate. Model (1) examines the relationship of domestic losses with repatriations. Model (2) examines the relationship of financial reporting incentives with repatriations. Model (3) examines both concurrently.

The dependent variable, *REPATRIATE*, is an indicator variable = 1 if firm i reports a reduction in the indefinitely reinvested foreign earnings in year t, 0 otherwise. *USLOSS* is an indicator variable = 1 if firm i reports a U.S. loss in year t, 0 otherwise, *LOG ANALYSTS* is the natural log of [1 + the number of analysts following firm i in year t] (ln{1+NUMEST}), *SIZE* is the natural log of the market value of equity at the end of year t, *PRETAX FOREIGN INCOME* is pretax foreign income scaled by beginning assets in year t (PIFO/AT), *CAPITAL EXPENDITURES* is capital expenditures scaled by beginning assets in year t (CAPX/AT), *LONG TERM DEBT* is long-term debt scaled by beginning assets in year t ({DLTT+DLC}/AT), *PROPERTY PLANT AND EQUIP* is net property, plant, and equipment scaled by beginning assets in year t (PPENT/AT), *ADVERTISING EXPENSE* is advertising expense scaled by beginning assets in year t (XAD/AT), *R&D EXPENSE* is research and development expense scaled by beginning assets in year t (XRD/AT), *CHANGE IN NOL CARRYFORWARD* is the change in the tax loss carry-forward from year $t-1$ to year t scaled by beginning assets in year t (ΔTLCF/AT), and *NOL CARRYFORWARD at BEG OF YEAR* is an indicator variable = 1 if firm i reports a tax loss carry-forward at the beginning of year t, 0 otherwise.

***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively, using standard errors clustered at the firm level.

Table 4 – Determinants of repatriation – 2008-2014 - LOGIT

	USLOSS	ANALYST FOLLOWING	BOTH
	(1)	(2)	(3)
INTERCEPT	-0.504***	-0.078	-0.521***
	(8.53)	(0.22)	(9.16)
USLOSS	0.577***		0.582***
	(51.83)		(52.51)
LOG ANALYSTS		-0.068*	-0.073**
		(3.74)	(4.43)
SIZE	-0.069***	-0.099***	-0.052**
	(9.29)	(17.96)	(4.90)
PRETAX FOREIGN INCOME	-12.635***	-12.880***	-12.781***
	(146.10)	(142.38)	(147.83)
CAPITAL EXPENDITURES	-1.332	-1.738	-1.094
	(1.17)	(1.86)	(0.77)
LONG TERM DEBT	-0.242	-0.140	-0.248
	(1.23)	(0.42)	(1.30)
PROPERTY PLANT & EQUIP	0.252	0.353	0.208
	(0.65)	(1.18)	(0.43)
ADVERTISING EXPENSE	0.222	0.342	0.369
	(0.02)	(0.05)	(0.06)
R&D EXPENSE	-2.066***	-1.171*	-1.905***
	(9.04)	(2.85)	(7.50)
CHANGE IN NOL CARRYFORWARD	-1.069**	-0.470	-1.056**
	(5.29)	(1.09)	(5.18)
NOL CARRYFORWARD at BEG OF YEAR	0.031	0.051	0.037
	(0.15)	(0.41)	(0.23)
N	5,903	5,903	5,903
AREA Under ROC	0.696	0.690	0.697
PSEUDO RSQ	0.119	0.107	0.121

The table reports the results of our estimation of various logit models of the choice to repatriate. Model (1) examines the relationship of domestic losses with repatriations. Model (2) examines the relationship of financial reporting incentives with repatriations. Model (3) examines both concurrently.

The dependent variable, *REPATRIATE*, is an indicator variable = 1 if firm *i* reports a reduction in the indefinitely reinvested foreign earnings in year *t*, 0 otherwise. *USLOSS* is an indicator variable = 1 if firm *i* reports a U.S. loss in year *t*, 0 otherwise, *LOG ANALYSTS* is the natural log of [1 + the number of analysts following firm *i* in year *t*] (ln{1+NUMEST}), *SIZE* is the natural log of the market value of equity at the end of year *t*, *PRETAX FOREIGN INCOME* is pretax foreign income scaled by beginning assets in year *t* (PIFO/AT), *CAPITAL EXPENDITURES* is capital expenditures scaled by beginning assets in year *t* (CAPX/AT), *LONG TERM DEBT* is long-term debt scaled by beginning assets in year *t* ({DLTT+DLC}/AT), *PROPERTY PLANT AND EQUIP* is net property, plant, and equipment scaled by beginning assets in year *t* (PPENT/AT), *ADVERTISING EXPENSE* is advertising expense scaled by beginning assets in year *t* (XAD/AT), *R&D EXPENSE* is research and development expense scaled by beginning assets in year *t* (XRD/AT), *CHANGE IN NOL CARRYFORWARD* is the change in the tax loss carry-forward from year *t-1* to year *t* scaled by beginning assets in year *t* (ΔTLCF/AT), and *NOL CARRYFORWARD at BEG OF YEAR* is an indicator variable = 1 if firm *i* reports a tax loss carry-forward at the beginning of year *t*, 0 otherwise.

***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively, using standard errors clustered at the firm level.

Table 5 – Determinants of repatriation before and after AJCA

	Full Sample (1)	PRE AJCA (2)	POST AJCA (3)	Full With Interaction (4)
INTERCEPT	0.164**	0.113***	0.216**	0.171**
	(2.34)	(2.84)	(2.44)	(2.42)
USLOSS	0.088***	0.059***	0.102***	0.061***
	(7.93)	(3.20)	(7.05)	(3.55)
LOG ANALYSTS	-0.014***	-0.020***	-0.012**	-0.014***
	(-3.32)	(-2.78)	(-2.23)	(-3.35)
POST AJCA				-0.007
				(-0.64)
*USLOSS*POST AJCA*				0.044**
				(2.04)
SIZE	-0.005*	-0.001	-0.008**	-0.005*
	(-1.79)	(-0.13)	(-2.28)	(-1.83)
PRETAX FOREIGN INCOME	-1.646***	-1.592***	-1.705***	-1.655***
	(-15.87)	(-8.29)	(-14.49)	(-15.91)
CAPITAL EXPENDITURES	-0.261*	-0.257	-0.286	-0.261*
	(-1.93)	(-1.44)	(-1.44)	(-1.94)
LONG TERM DEBT	-0.040	-0.008	-0.036	-0.037
	(-1.57)	(-0.22)	(-1.06)	(-1.45)
PROPERTY PLANT & EQUIP	-0.014	-0.107*	0.036	-0.016
	(-0.35)	(-1.85)	(0.66)	(-0.40)
ADVERTISING EXPENSE	0.153	-0.073	0.258	0.150
	(0.81)	(-0.27)	(1.14)	(0.80)
R&D EXPENSE	-0.175**	-0.022	-0.224**	-0.176**
	(-2.02)	(-0.16)	(-2.00)	(-2.02)
CHANGE IN NOL CARRYFORWARD	-0.119*	-0.042	-0.157**	-0.126*
	(-1.81)	(-0.29)	(-2.08)	(-1.91)
NOL CARRYFORWARD at BEG OF YEAR	0.005	0.009	0.002	0.004
	(0.57)	(0.61)	(0.15)	(0.46)
INDUSTRY FIXED EFFECTS	YES	YES	YES	YES
N	9,708	3,805	5,903	9,708
ADJRSQ	0.055	0.054	0.075	0.063

This table reports the results of our estimation of various linear probability models of the choice to repatriate. Model (1) is the estimation of Equation 1. Model (2) adds industry fixed effects. Models (3) and (4) are estimated using subsamples in the pre-AJCA and post-AJCA periods, respectively. Model (5) is estimated on the full sample.

The dependent variable, *REPATRIATE*, is an indicator variable = 1 if firm *i* reports a reduction in the indefinitely reinvested foreign earnings in year *t*, 0 otherwise. *USLOSS* is an indicator variable = 1 if firm *i* reports a U.S. loss in year *t*, 0 otherwise, *LOG ANALYSTS* is the natural log of [1 + the number of analysts following firm *i* in year *t*] (ln{1+NUMEST}), *SIZE* is the natural log of the market value of equity at the end of year *t*, *PRETAX FOREIGN INCOME* is pretax foreign income scaled by beginning assets in year *t* (PIFO/AT), *CAPITAL EXPENDITURES* is capital expenditures scaled by beginning assets in year *t* (CAPX/AT), *LONG TERM DEBT* is long-term debt scaled by beginning assets in year *t* ({DLTT+DLC}/AT), *PROPERTY PLANT AND EQUIP* is net property, plant, and equipment scaled by beginning assets in year *t* (PPENT/AT), *ADVERTISING EXPENSE* is advertising expense scaled by beginning assets in year *t* (XAD/AT), *R&D EXPENSE* is research and development expense scaled by beginning assets in year *t* (XRD/AT), *CHANGE IN NOL CARRYFORWARD* is the change in the tax loss carry-forward from year *t-1* to year *t* scaled by beginning assets in year *t* (ΔTLCF/AT), and *NOL CARRYFORWARD at BEG OF YEAR* is an indicator variable = 1 if firm *i* reports a tax loss carry-forward at the beginning of year *t*, 0 otherwise.

***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively, using standard errors clustered at the firm level.

Table 6 – Determinants of repatriation before and after AJCA - LOGIT

	Full Sample (1)	PRE AJCA (2)	POST AJCA (3)	With POST Interaction (4)
INTERCEPT	-0.648***	-0.720***	-0.521***	-0.599***
	(27.36)	(15.54)	(9.16)	(21.86)
USLOSS	0.484***	0.305***	0.582***	0.310***
	(59.97)	(8.75)	(52.51)	(10.39)
LOG ANALYSTS	-0.023	-0.147***	-0.073**	-0.099***
	(1.85)	(10.08)	(4.43)	(13.01)
POST AJCA				-0.065
				(0.73)
*USLOSS*POST AJCA*				0.287**
				(5.80)
SIZE	-0.023	0.010	-0.052**	-0.024
	(1.85)	(0.19)	(4.90)	(2.00)
PRETAX FOREIGN INCOME	-12.303***	-11.431***	-12.781***	-12.386***
	(181.73)	(48.17)	(147.83)	(183.25)
CAPITAL EXPENDITURES	-1.943**	-3.239**	-1.094	-1.944**
	(4.75)	(6.52)	(0.77)	(4.78)
LONG TERM DEBT	-0.241	-0.099	-0.248	-0.221
	(2.22)	(0.19)	(1.30)	(1.84)
PROPERTY PLANT & EQUIP	0.050	-0.256	0.208	0.040
	(0.05)	(0.56)	(0.43)	(0.03)
ADVERTISING EXPENSE	0.279	-0.214	0.369	0.270
	(0.05)	(0.02)	(0.06)	(0.05)
R&D EXPENSE	-1.387**	-0.367	-1.905***	-1.412**
	(6.33)	(0.17)	(7.50)	(6.45)
CHANGE IN NOL CARRYFORWARD	-0.877**	-0.553	-1.056**	-0.925**
	(4.91)	(0.46)	(5.18)	(5.47)
NOL CARRYFORWARD at BEG OF YEAR	0.049	0.066	0.037	0.047
	(0.73)	(0.51)	(0.23)	(0.61)
INDUSTRY FIXED EFFECTS	NO	NO	NO	NO
N	9,708	3,805	5,903	9,708
AREA Under ROC	0.685	0.677	0.697	0.681
PSEUDO RSQ	0.103	0.090	0.121	0.095

The table reports the results of our estimation of various logit models of the choice to repatriate. Models (1) and (4) are estimated using the entire sample. Models (2) and (3) are estimated using subsamples in the pre-AJCA and post-AJCA periods, respectively.

The dependent variable, *REPATRIATE*, is an indicator variable = 1 if firm i reports a reduction in the indefinitely reinvested foreign earnings in year t, 0 otherwise. *USLOSS* is an indicator variable = 1 if firm i reports a U.S. loss in year t, 0 otherwise, *LOG ANALYSTS* is the natural log of [1 + the number of analysts following firm i in year t] (ln{1+NUMEST}), *SIZE* is the natural log of the market value of equity at the end of year t, *PRETAX FOREIGN INCOME* is pretax foreign income scaled by beginning assets in year t (PIFO/AT), *CAPITAL EXPENDITURES* is capital expenditures scaled by beginning assets in year t (CAPX/AT), *LONG TERM DEBT* is long-term debt scaled by beginning assets in year t ({DLTT+DLC}/AT), *PROPERTY PLANT AND EQUIP* is net property, plant, and equipment scaled by beginning assets in year t (PPENT/AT), *ADVERTISING EXPENSE* is advertising expense scaled by beginning assets in year t (XAD/AT), *R&D EXPENSE* is research and development expense scaled by beginning assets in year t (XRD/AT), *CHANGE IN NOL CARRYFORWARD* is the change in the tax loss carry-forward from year $t-1$ to year t scaled by beginning assets in year t (ΔTLCF/AT), and *NOL CARRYFORWARD at BEG OF YEAR* is an indicator variable = 1 if firm i reports a tax loss carry-forward at the beginning of year t, 0 otherwise.

***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively, using standard errors clustered at the firm level.

Table 7 – Repatriations and the interactive effects of tax and financial reporting incentives.

	Full Sample (1)	PRE AJCA (2)	POST AJCA (3)	With POST Interaction (4)
INTERCEPT	0.170**	0.128***	0.208**	0.186**
	(2.40)	(3.20)	(2.39)	(2.53)
USLOSS	0.075***	0.022	0.121***	0.023
	(4.34)	(0.86)	(4.95)	(0.94)
LOG ANALYSTS	-0.016***	-0.029***	-0.009	-0.026***
	(-3.69)	(-3.80)	(-1.64)	(-3.57)
*USLOSS*LOG ANALYSTS*	0.010	0.035**	-0.013	0.037**
	(1.06)	(2.25)	(-1.06)	(2.37)
POST AJCA				-0.027
				(-1.53)
*USLOSS*POST AJCA*				0.101***
				(2.99)
*LOG ANALYSTS*POST AJCA*				0.016*
				(1.84)
*USLOSS*LOG ANALYSTS*POST AJCA*				-0.049**
				(-2.50)
SIZE	-0.005*	-0.002	-0.008**	-0.005*
	(-1.89)	(-0.41)	(-2.17)	(-1.94)
PRETAX FOREIGN INCOME	-1.641***	-1.571***	-1.711***	-1.649***
	(-15.85)	(-8.24)	(-14.49)	(-15.94)
CAPITAL EXPENDITURES	-0.263*	-0.248	-0.280	-0.253*
	(-1.95)	(-1.39)	(-1.40)	(-1.87)
LONG TERM DEBT	-0.039	-0.003	-0.036	-0.034
	(-1.53)	(-0.07)	(-1.07)	(-1.33)
PROPERTY PLANT & EQUIP	-0.016	-0.114*	0.038	-0.019
	(-0.40)	(-1.95)	(0.69)	(-0.48)
ADVERTISING EXPENSE	0.151	-0.072	0.260	0.142
	(0.81)	(-0.27)	(1.14)	(0.75)
R&D EXPENSE	-0.180**	-0.032	-0.216*	-0.175**
	(-2.08)	(-0.24)	(-1.93)	(-2.01)
CHANGE IN NOL CARRYFORWARD	-0.122*	-0.051	-0.154**	-0.127*
	(-1.85)	(-0.35)	(-2.04)	(-1.92)
NOL CARRYFORWARD at BEG OF YEAR	0.005	0.008	0.002	0.004
	(0.55)	(0.55)	(0.18)	(0.46)
INDUSTRY FIXED EFFECTS	YES	YES	YES	YES
N	9,708	3,805	5,903	9,708
ADJRSQ	0.064	0.055	0.075	0.065

The table reports the results of our estimation of various logit models of the choice to repatriate. Models (1) and (4) are estimated using the entire sample. Models (2) and (3) are estimated using subsamples in the pre-AJCA and post-AJCA periods, respectively.

The dependent variable, *REPATRIATE*, is an indicator variable = 1 if firm i reports a reduction in the indefinitely reinvested foreign earnings in year t, 0 otherwise. *USLOSS* is an indicator variable = 1 if firm i reports a U.S. loss in year t, 0 otherwise, *LOG ANALYSTS* is the natural log of [1 + the number of analysts following firm i in year t] (ln{1+NUMEST}), *SIZE* is the natural log of the market value of equity at the end of year t, *PRETAX FOREIGN INCOME* is pretax foreign income scaled by beginning assets in year t (PIFO/AT), *CAPITAL EXPENDITURES* is capital expenditures scaled by beginning assets in year t (CAPX/AT), *LONG TERM DEBT* is long-term debt scaled by beginning assets in year t ({DLTT+DLC}/AT), *PROPERTY PLANT AND EQUIP* is net property, plant, and equipment scaled by beginning assets in year t (PPENT/AT), *ADVERTISING EXPENSE* is advertising expense scaled by beginning assets in year t (XAD/AT), *R&D EXPENSE* is research and development expense scaled by beginning assets in year t (XRD/AT), *CHANGE IN NOL CARRYFORWARD* is the change in the tax loss carry-forward from year t-1 to year t scaled by beginning assets in year t (ΔTLCF/AT), and *NOL CARRYFORWARD at BEG OF YEAR* is an indicator variable = 1 if firm i reports a tax loss carry-forward at the beginning of year t, 0 otherwise.

***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively, using standard errors clustered at the firm level.

Table 8 – Repatriations and the effect of financial reporting incentives in loss years.

	Full Sample (1)	PRE AJCA (2)	POST AJCA (3)	With POST Interaction (4)
INTERCEPT	0.123**	0.148**	0.203**	0.078
	(2.29)	(2.40)	(2.22)	(1.62)
LOG ANALYSTS	0.001	0.009	-0.008	0.021
	(0.06)	(0.52)	(-0.59)	(1.35)
POST AJCA				0.079**
				(2.47)
*LOG ANALYSTS*POST AJCA*				-0.036*
				(-1.93)
SIZE	-0.007	0.001	-0.017**	-0.009
	(-1.30)	(0.14)	(-2.22)	(-1.63)
PRETAX FOREIGN INCOME	-1.736***	-1.920***	-1.668***	-1.761***
	(-10.14)	(-5.57)	(-8.26)	(-10.18)
CAPITAL EXPENDITURES	-0.516**	-0.386	-0.717**	-0.496**
	(-2.12)	(-1.05)	(-2.07)	(-2.04)
LONG TERM DEBT	-0.026	0.033	-0.018	-0.009
	(-0.58)	(0.49)	(-0.29)	(-0.21)
PROPERTY PLANT & EQUIP	-0.028	-0.162	0.073	-0.023
	(-0.37)	(-1.41)	(0.68)	(-0.30)
ADVERTISING EXPENSE	-0.080	-0.817	0.266	-0.069
	(-0.22)	(-1.38)	(0.60)	(-0.19)
R&D EXPENSE	-0.391***	-0.056	-0.472**	-0.374**
	(-2.63)	(-0.24)	(-2.51)	(-2.52)
CHANGE IN NOL CARRYFORWARD	-0.065	-0.027	-0.090	-0.073
	(-0.74)	(-0.15)	(-0.88)	(-0.83)
NOL CARRYFORWARD at BEG OF YEAR	-0.002	0.010	-0.021	-0.009
	(-0.10)	(0.35)	(-0.83)	(-0.47)
INDUSTRY FIXED EFFECTS	YES	YES	YES	YES
N	2,718	1,042	1,676	2,718
ADJRSQ	0.056	0.046	0.063	0.058

This table reports the results of our estimation of various linear probability models of the choice to repatriate on a subsample of loss firms. Models (1) and (4) are estimated using the entire sample. Models (2) and (3) are estimated using subsamples in the pre-AJCA and post-AJCA periods, respectively.

The dependent variable, *REPATRIATE*, is an indicator variable = 1 if firm i reports a reduction in the indefinitely reinvested foreign earnings in year t, 0 otherwise. *USLOSS* is an indicator variable = 1 if firm i reports a U.S. loss in year t, 0 otherwise, *LOG ANALYSTS* is the natural log of [1 + the number of analysts following firm i in year t] (ln{1+NUMEST}), *SIZE* is the natural log of the market value of equity at the end of year t, *PRETAX FOREIGN INCOME* is pretax foreign income scaled by beginning assets in year t (PIFO/AT), *CAPITAL EXPENDITURES* is capital expenditures scaled by beginning assets in year t (CAPX/AT), *LONG TERM DEBT* is long-term debt scaled by beginning assets in year t ({DLTT+DLC}/AT), *PROPERTY PLANT AND EQUIP* is net property, plant, and equipment scaled by beginning assets in year t (PPENT/AT), *ADVERTISING EXPENSE* is advertising expense scaled by beginning assets in year t (XAD/AT), *R&D EXPENSE* is research and development expense scaled by beginning assets in year t (XRD/AT), *CHANGE IN NOL CARRYFORWARD* is the change in the tax loss carry-forward from year $t-1$ to year t scaled by beginning assets in year t (ΔTLCF/AT), and *NOL CARRYFORWARD at BEG OF YEAR* is an indicator variable = 1 if firm i reports a tax loss carry-forward at the beginning of year t, 0 otherwise.

***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively, using standard errors clustered at the firm level.