

What is the cost of the indefinitely reinvested foreign earnings (APB 23) assertion?

Jane Z. Song
J.M. Tull School of Accounting
University of Georgia
jane.song@uga.edu

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Abstract

In December 2017, Congress enacted the Tax Cut and Jobs Act (TCJA), which attempted to reduce incentives for U.S. multinational firms to invest overseas. I investigate the effect of financial reporting incentives to designate foreign earnings as indefinitely reinvested (IRFE) under APB 23 on foreign investment. Using a sample of U.S. multinational firms from 2007-2015, I find that indefinitely reinvested foreign earnings in excess of what is supported by investment and tax incentives (excess IRFE) are positively correlated with financial reporting incentives, including a history of benchmark-beating and CEO equity incentives. I find that excess IRFE are significantly negatively associated with future foreign pretax ROA, especially relative to estimated benchmarks of ROA. Moreover, excess IRFE are more positively associated with cash holdings and foreign short-term investments than predicted IRFE, and more negatively associated with post-acquisition performance. Excess IRFE is also associated with incrementally greater profitability for privately owned firms, which face lower reporting incentives, than for public firms, and lower profitability for firms more likely to have used the IRFE assertion opportunistically. These results suggest that financial reporting incentives play a significant role in the accumulation of foreign earnings abroad and have negative profitability consequences.

Keywords: Indefinitely reinvested foreign earnings, APB 23, repatriation tax, financial reporting incentives, earnings management, investment, profitability

JEL Classification: F23, G10, H25, M41

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I. INTRODUCTION

I investigate how financial reporting incentives influence the foreign investment decisions of U.S. multinational firms. Recent studies find that firms with significant foreign cash due to the tax costs of repatriation make poorly-performing foreign investments and underinvest in domestic opportunities (Hanlon, Lester, and Verdi 2015; Edwards, Kravet, and Wilson 2015; Harford, Wang, and Zhang 2017). Although these studies find that the U.S. repatriation tax distorts investment behavior, they do not differentiate between investment outcomes attributable to tax deferral and financial reporting motives. In addition to cash tax savings, firms receive a considerable financial reporting benefit if they designate foreign earnings as indefinitely reinvested abroad. Financial reporting motives to keep earnings reinvested overseas can lead to overinvestment in foreign assets, leading to lower foreign profitability. I examine the extent to which financial reporting incentives to avoid *reporting* tax on the repatriation of foreign earnings influence managers to invest in lower yield foreign projects.

Understanding how financial reporting motives affect foreign investment by U.S. firms is important for policymakers and standard-setters. Current policy has consistently focused on the use of tax law reform to discourage U.S. firms from amassing earnings offshore. In December 2017, Congress enacted the Tax Cuts and Jobs Act (TCJA), which imposed a one-time mandated transition tax on accumulated foreign earnings and effectively eliminated U.S. tax on the repatriation of future foreign earnings. An ostensible goal of the TCJA is to entice U.S. multinationals to reinvest domestically by ending the tax deferral benefits from reinvesting foreign earnings. However, enforcing the accounting standard that permits firms to defer repatriation tax

expense can also disincentivize firms from accumulating earnings overseas.¹ I shed light on the significance of these reporting standards by documenting the real consequences of foreign investment undertaken for financial reporting reasons.

The Indefinite Reversal Exception (ASC 740-30-25-17, formerly APB Opinion 23) under U.S. GAAP allows a firm to avoid current financial statement recognition of the expected tax on repatriation of foreign earnings by asserting that the foreign earnings are indefinitely reinvested abroad (henceforth, indefinitely reinvested foreign earnings, or “IRFE”).² The indefinite reinvestment assertion is intended to signal that certain foreign earnings have been earmarked for overseas investment and are not expected to be repatriated “in the foreseeable future” (ASC 740-30-25-18(a)). If no assertion is made, U.S. GAAP requires the firm to recognize the expected tax expense on the repatriation of foreign earnings in the current period, which reduces current period earnings. The APB 23 or IRFE assertion permits firms to avoid reporting the expected U.S. and other foreign withholding taxes on the repatriation of designated foreign earnings. Therefore, firms can invoke the IRFE assertion to reduce current period tax expense and enhance reported earnings.

To qualify for treatment under the Indefinite Reversal Exception, firms must present to their auditors specific plans to reinvest the foreign earnings and demonstrate sufficient liquidity to fund domestic operations without the use of foreign earnings. However, enforcement of these criteria has been inconsistent, leading to the empirical observation of firms with stockpiles of IRFE held in cash and short-term assets (Barthold 2016; Blouin et al. 2016). Recently, the SEC has actively challenged the legitimacy of firms’ use of the APB 23 assertion and IRFE continues to be

¹ One *Forbes* magazine contributor comments on the disproportionate attention on tax reform rather than accounting enforcement, saying “we’re letting multinationals argue that their abuse of the financial accounting rules should be rewarded with a tax cut” (Sheppard 2017).

² Also referred to as “permanently reinvested earnings” (PRE) in prior studies (e.g., Krull 2004; Blouin and Krull 2009; Blouin et al. 2012). I refer to unremitted foreign earnings eligible for the Indefinite Reversal Exception as “indefinitely reinvested foreign earnings” (IRFE) to maintain consistency with the language and intent of the standard.

among the top topics of income tax comment letters.³ Thus, whether the financial reporting benefits of using the IRFE assertion induce an economic trade-off is unclear.

Prior studies find financial reporting incentives to apply the IRFE assertion have a significant influence on the decision of whether to reinvest or repatriate foreign earnings (e.g., Blouin, Krull, and Robinson 2012). In a survey of nearly 600 tax executives, sixty percent of respondents reported they would reinvest less foreign earnings abroad (i.e., repatriate more) if the IRFE designation were not available (Graham, Hanlon, and Shevlin 2011). At a 2012 hearing of the Senate Permanent Subcommittee on Investigations, an executive witness called for the elimination of the IRFE designation, claiming that it creates “enormous potential to call up earnings as needed – or postpone them – in a large multinational operation” and provides “a malleable pool of earnings to be sliced as finely as needed to meet earnings estimates with pinpoint precision” (‘Accounting Tools...’ 2012; Fisher 2012).⁴ Empirical studies find evidence that managers use the IRFE assertion to manage earnings to meet or beat earnings expectations (Krull 2004; Dhaliwal, Gleason, and Mills 2004). However, prior studies do not examine whether foreign investments undertaken with financial reporting motives yield lower returns. I address this important question.

Financial reporting pressure to use the IRFE assertion to enhance reported earnings can lead to reduced foreign investment profitability in several ways. First, the desire to substantiate the

³ See PwC’s 2017 publication on SEC comment letter trends in income taxes (<https://www.pwc.com/us/en/tax-accounting-services/assets/pwc-sec-comment-letter-trends-income-taxes-2017.pdf>.) and Audit Analytics’ summary of the top SEC comment letter issues of 2016 (<https://www.auditanalytics.com/blog/sec-comment-letters-a-look-at-top-issues-in-2016/>)

⁴ In a statement to the Senate Permanent Subcommittee on Investigations, Senator Carl Levin also highlighted the importance of the accounting treatment of foreign earnings on firms’ incentives to reinvest abroad: “[W]hen corporations hold profits offshore, they are required to account on their financial statements for the future tax bill they would face if they repatriate those funds. Doing so would result in a big hit to earnings. But companies can avoid this requirement and claim an exemption if they assert that the offshore earnings are permanently or indefinitely reinvested offshore. Multinationals routinely make such an assertion [...]” (Weil 2014).

IRFE reporting assertion by meaningfully utilizing foreign earnings can lead firms to invest foreign earnings in value-destroying activities, such as accepting projects with returns below an internal hurdle rate or maintaining, rather than liquidating, poorly performing foreign ventures. Hanlon et al. (2015) and Edwards et al. (2015) find that firms with more foreign cash engage in more foreign acquisitions, which have comparatively lower announcement period returns than similar domestic acquisitions. Second, even if firms do not actively utilize IRFE, the desire to avoid reversing the assertion can induce managers to accumulate foreign earnings overseas in low-yield liquid assets, such as cash, rather than reinvesting in more profitable domestic opportunities. Finally, firms may accept operating risks by keeping assets in foreign jurisdictions, such as the risk of expropriation or other legal risks that they would otherwise avoid. Ultimately, whether firms are willing to accept lower investment returns to receive a favorable GAAP treatment remains an open question.

Using a sample of U.S. multinational firms over the 2007-2015 period, I investigate the association between future foreign profitability and the component of IRFE attributable to financial reporting incentives. To disentangle the portion of IRFE motivated by financial reporting, I decompose IRFE into two components: a component predicted by foreign investment opportunities and tax deferral incentives (“predicted IRFE”) on an industry-year basis, and a residual component unjustified by underlying economics. I find that positive residuals (“excess IRFE”) are positively associated with financial reporting incentives, including historical benchmark-beating behavior, analyst following, and CEO equity-based compensation, and negatively associated with institutional monitoring. In contrast, negative residuals are negatively associated with a history of just meeting-or-beating the analyst consensus forecast and CEO equity incentives, and positively associated with dedicated institutional holdings. Collectively, these

results are consistent with the use of excess IRFE to capture the portion of IRFE attributable to financial reporting incentives beyond what is supported by economic incentives.

In my main analysis, I examine whether excess IRFE is associated with lower future foreign investment profitability than predicted IRFE. I find that excess IRFE is negatively associated with overall foreign pretax ROA and the difference between an estimated benchmark foreign pretax ROA and actual foreign pretax ROA (foreign ROA gap) over the next two and three years. On average, an increase in excess IRFE of one percent of total assets corresponds to an annual reduction of approximately 23 to 26 basis points in foreign pretax ROA and 20 to 22 basis points in the foreign ROA gap over the next two to three years. These results are robust to alternate measures of expected profitability and excess IRFE, and to different time periods. I also find that, while predicted IRFE is positively associated with investments in foreign employees, capital expenditures, and fixed assets, excess IRFE is more strongly associated with foreign short-term assets and overall cash holdings. Additionally, excess IRFE is associated with significantly lower profitability and returns in the three years following an M&A than predicted IRFE. My results suggest that financial reporting incentives contribute to overinvestment in foreign activities and the accumulation of non-operating assets abroad, which lead to lower investment returns.

In additional analysis, I examine the profitability of firms more and less likely to have used the IRFE assertion for financial reporting purposes. First, I compare the investment profitability of excess IRFE for public firms and private firms that have public debt. While privately owned firms face similar incentives to defer cash taxes, they typically face lower financial reporting incentives than publicly traded firms (e.g., Katz 2009; Givoly, Hayn, and Katz 2010). Unlike other private firms, private firms with public debt must adhere to SEC filing guidelines and report IRFE on their 10-K, which allows me to make a meaningful comparison with public firms. I find that

excess IRFE is negatively associated with future foreign profitability for only public firms, but is not associated with future profitability for private firms with public debt. Moreover, the predicted portion of IRFE is significantly positively associated with future foreign profitability, consistent with IRFE reflecting primarily growth-driven foreign investments for private, but not necessarily public, firms. In other words, firms with plausibly lower financial reporting incentives yet similar tax incentives do not exhibit evidence of overinvesting in lower-yield foreign projects. Second, I use disclosures of changes or reversals of the IRFE assertion following the TCJA to identify firms that were more likely to have used the IRFE assertion for financial reporting purposes in the past. I find that the association between excess IRFE and future profitability is incrementally lower for firms that changed or plan to change their IRFE assertion after the TCJA.

This study contributes to the literature on the impact of reporting incentives on real economic decisions, and informs the policy debate surrounding the consequences of U.S. firms' accumulation of foreign profits abroad. Existing studies emphasize tax costs as the deterrent to repatriation (e.g., Blouin and Krull 2009; Dharmapala et al. 2011; Harford et al. 2017) and document the effect of U.S. tax laws on investment outcomes (Bryan-Kutcher et al. 2012; Hanlon et al. 2015; Edwards et al. 2015). This study extends this literature by identifying the effect of financial reporting incentives to reinvest abroad on investment profitability. Whether the poor profitability outcomes of foreign investment found in prior studies are attributable to tax or financial reporting motives remains an important distinction. Although Congress recently converted the U.S. to a quasi-territorial tax system to limit U.S. firms' accumulation of foreign earnings, my evidence suggests that limiting or enforcing the use of the IRFE assertion may have achieved a similar purpose. Therefore, understanding the investment consequences of financial reporting standards and incentives should be of interest to investors and policymakers alike.

II. BACKGROUND AND HYPOTHESIS DEVELOPMENT

In the absence of financial reporting incentives, managers should allocate capital investment based on the present value of expected after-tax returns from domestic and foreign investment (e.g., Hartman 1985; Altshuler and Grubert 2003; De Waegenaere and Sansing 2008; Klassen, Laplante, and Carnaghan 2014; Scholes, Wolfson, Erickson, Hanlon, Maydew, and Shevlin 2014). First and foremost, opportunities for foreign growth and expansion beyond what is available domestically stimulate overseas investment. The balance of IRFE that reflects promising growth prospects likely has a positive effect on future foreign profitability. Second, the desire to defer U.S. repatriation taxes can lead to lower profitability due to internal financing frictions, implicit taxes from operating in a low-tax jurisdiction, or expected tax savings from a future tax holiday. Whereas foreign growth and tax savings motivations to invest abroad should maximize net after-tax returns on investment, financial reporting incentives to increase current period earnings can result in the sacrifice of future economic value for current period gain.

2.1. Cash Tax Savings and Foreign Investment Profitability

Prior to the Tax Cuts and Jobs Act of 2017, the U.S. imposed a repatriation tax of up to the U.S. federal statutory rate of 35% on the earnings of foreign affiliates of U.S. firms, which is paid when the foreign earnings are repatriated.⁵ Firms operating in jurisdictions with tax rates lower than the U.S. tax rate can delay repatriation of foreign earnings to avoid paying the incremental U.S. tax. Delaying repatriation and reinvesting foreign profits abroad results in positive cost savings if the after-tax return on foreign investment exceeds what could have been earned on

⁵ The Tax Cuts and Jobs Act of 2017, enacted December 22, 2017, moved the U.S. to a quasi-territorial tax system, thereby eliminating repatriation taxes for fiscal years beginning 2018 (“H.R.1 - An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018.” *Congress.gov*, <https://www.congress.gov/bill/115th-congress/house-bill/1>). The Act also imposed a one-time transition tax of 15.5% for foreign cash assets and 8% for non-cash assets, to be paid over a period of eight years. The one-time repatriation tax is levied regardless of whether the foreign assets are repatriated.

domestic investment. Firms, therefore, trade off foreign reinvestment with tax deferral and repatriation with immediate U.S. taxation.

Recent studies find that the tax costs of repatriation can impose frictions on the internal capital market and distort real investment decisions. Harford, Wang, and Zhang (2017) find that firms with greater foreign cash holdings and high repatriation tax costs underinvest in domestic projects and overinvest overseas. Amberger, Markle, and Samuel (2018) find that subsidiary-level investments of firms in countries with repatriation taxes are less efficient than those of firms in countries without repatriation taxes. Using confidential data from the Bureau of Economic Analysis (BEA), Hanlon, Lester, and Verdi (2015) find that firms with greater foreign cash holdings induced by repatriation taxes are more likely to engage in foreign acquisitions. They also find a negative association between foreign cash holdings related to repatriation taxes and the market reaction to announcements of foreign M&A deals. Their results suggest that firms with high expected repatriation taxes used foreign cash to undertake foreign acquisitions, which are negatively perceived by the market.

In a similar vein, Edwards, Kravet and Wilson (2015) examine whether firms with more IRFE expected to be held in cash make less profitable foreign cash-based acquisitions. They find that firms with greater IRFE that have excessive cash holdings experience lower returns on the announcements of foreign cash deals, lower buy-and-hold returns, and lower future ROA. They also find that the negative association between foreign cash designated as IRFE and the profitability of foreign acquisitions was attenuated during the tax holiday provided by the American Jobs Creation Act (AJCA) of 2004.⁶ Their results suggest that incentives to avoid a repatriation tax compelled firms to utilize foreign cash for less profitable foreign acquisitions, a

⁶ The AJCA permitted a one-time tax holiday during 2004 and 2005 that significantly reduced the cost of repatriation from 35% to 5.25%.

behavior which diminished when the repatriation tax was reduced. They also acknowledge that a financial reporting incentive exists to assert APB 23 on foreign earnings, but do not test its effect.

While these studies find that firms with greater expected repatriation taxes engage in less profitable foreign investment, they do not distinguish between the consequences of tax-motivated and financial reporting-motivated investments. Differentiating between these motives is important for both policy purposes and because cash tax deferral incentives can result in lower observed foreign returns on economically rational investments. When home country (i.e., U.S.) tax rates exceed tax rates in foreign jurisdictions, required pretax foreign returns are predicted to be lower than domestic returns because implicit taxes equalize the after-tax returns in both jurisdictions (Hartman 1985).⁷ The prospect of a lower future repatriation tax, such as a tax holiday, further lowers the hurdle rate for foreign investment since the present value of expected future tax savings compensates for a lower pretax yield. In these cases, reinvesting in foreign assets can be preferable to repatriating and reinvesting in similar domestic assets (see Altshuler and Grubert 2003; De Waegenaere and Sansing 2008). On balance, it is not clear whether incentives to defer cash payment of repatriation taxes will prompt firms to undertake suboptimal investments.

2.2. Financial Reporting Incentives and Foreign Investment Profitability

In addition to cash deferral motives, financial reporting pressures also create an incentive to reinvest foreign earnings abroad as IRFE to avoid reporting the associated tax expense. Prior research finds that the financial reporting benefits of the IRFE assertion significantly influence the repatriation or reinvestment decision, but do not examine the consequences of that decision (Graham, Hanlon, and Shevlin 2011; Shackelfod, Slemrod, and Sallee 2011; Blouin, Krull, and

⁷ See Appendix B for a more thorough discussion of the trade-off between repatriation and reinvestment, including the effect of a reduction in the expected repatriation tax rate.

Robinson 2012). During the 2004 repatriation tax holiday, firms with greater financial reporting incentives repatriated significantly less than those with lower reporting incentives, particularly out of their foreign earnings designated as IRFE (Blouin, Krull, and Robinson 2012; Morrow and Ricketts 2014). Blouin, Krull, and Robinson (2012) estimate that public companies reinvested (rather than repatriated) 17-21% more foreign earnings than they would have were it not for financial reporting pressures. These studies suggest that financial reporting incentives are a significant determinant of foreign investment decisions.

Anecdotal and empirical evidence suggest that the IRFE designation is also directly used to manage earnings to meet analyst earnings benchmarks (Collins, Hand, and Shackelford 2000; Krull 2004; Fisher 2012; Harvey 2015). Krull (2004) finds that changes in IRFE are associated with the difference between analysts' forecasted earnings and actual earnings for firms with pre-managed earnings below analyst forecasts and a positive foreign tax differential (foreign effective tax rate below the U.S. statutory rate). Her results suggest that financial reporting incentives significantly increase firms' propensity to use the IRFE designation, which affects their overseas investment decisions. Thus, firms with greater earnings pressure are likely to designate more foreign earnings as indefinitely reinvested to obtain the current period reporting benefit.

Obtaining and substantiating an IRFE designation, however, can be economically costly. Because IRFE is an assertion based on facts and circumstances, firms must demonstrate an intent and ability to reinvest foreign funds abroad, which places a constraint on the use of foreign earnings. Supporting documentation can include specific plans for plant and market expansion, future acquisitions, or the firm's historical practices (see Appendix C for details about APB 23 criteria). Although it's unclear whether firms adhere to their intended plans, anecdotal evidence suggests that audit teams have increasingly required documentation supporting the intended use of

overseas funds.⁸ Failure to produce sufficient support or actions inconsistent with indefinite reinvestment abroad can result in auditors or the SEC contesting the assertion.⁹ Challenges to the assertion can result in reversal of all or part of the IRFE assertion, creating additional current period tax expense. Repatriation of foreign earnings designated as IRFE also potentially threatens the legitimacy of all designated historical earnings. As a result, firms face pressure to meaningfully employ foreign earnings, potentially in less-than-profitable foreign investments, to support their use of the IRFE assertion. Whether firms alter their investment behavior to maintain the IRFE assertion is an empirical question.

Financial reporting incentives to boost earnings by designating IRFE can also result in an accumulation of foreign profits beyond what can be profitably invested. Empirical evidence and surveys are consistent with the notion that managers are willing to sacrifice economic value to achieve short-term earnings targets (Erickson, Hanlon, and Maydew 2004; Graham, Harvey, and Rajgopal 2005; Bhojraj, Hribar, Picconi, and McInnis 2009; Duxbury 2016). To avoid reversing the IRFE assertion, firms can defer repatriation by accepting foreign projects with returns below the firm's internal hurdle rate or reinvesting foreign earnings in low-yield liquid assets. Blouin, Krull, and Robinson (2016) find that 54% of IRFE is invested in short-term assets, with roughly 14% of the cash assets located in tax havens. To the extent that alternative positive NPV opportunities exist, investing in cash entails significant opportunity costs. Firms can also sustain, rather than liquidate, unprofitable foreign investments to avoid reversing the IRFE reporting

⁸ Thanks in particular to a Deloitte tax director from the Chicago office for extensive helpful discussions.

⁹ For instance, in a letter to Google, Inc., on Nov. 13, 2013, the SEC requested additional information about the company's intended use for its foreign earnings: "Please describe in greater detail the specific plans for reinvesting your undistributed earnings indefinitely...[Y]ou do not cite specific plans of how you will reinvest the earnings in your foreign subsidiaries. [...] In addition, please explain how you considered the significant increases in the amount of undistributed earnings during the past three years when evaluating the indefinite reversal criteria in accordance with ASC 740-30-25-17 and 18." In response, Google cited plans for anticipated acquisitions, capital expenditures, and ongoing cost-sharing agreements as justification for maintaining its IRFE assertion.

assertion. Finally, keeping IRFE overseas can introduce operating risks associated with offshore holdings, such as the risk of expropriation, political instability, or exchange rate fluctuation.

On the other hand, financial reporting incentives to designate IRFE may not have a detectable incremental effect on foreign investment profitability. First, firms may under-designate IRFE following years in which they over-designate IRFE to meet earnings benchmarks. If this is the case, financial reporting incentives to designate IRFE would not result in an accumulation of foreign earnings and overinvestment. Krull (2004) does not, however, find evidence that the IRFE assertion was used to smooth earnings. Second, expectations of a future tax holiday reduce the expected future tax costs on repatriation, which lowers the required pretax foreign rate of return for all firms. At the extreme, if firms that reinvest foreign earnings for the primary purpose of tax deferral do so by investing only in low-yield assets (such as cash), the incremental effect of financial reporting pressures to do the same may not be noticeable. In other words, the financial reporting benefit may be merely an added bonus for firms that intend to defer repatriation primarily for cash tax savings. Finally, firms with significant income mobility and intangibles can use profit-shifting to deploy resources where needed rather than invest in low-yield investments (De Simone, Mills, and Stomberg 2014; Markle, Mills, and Williams 2016). In these cases, firms with financial reporting incentives to designate IRFE may not exhibit lower investment profitability.

If financial reporting incentives induce overinvestment in foreign activities, then I expect financial reporting-motivated IRFE to be associated with incrementally lower future profitability than IRFE that reflect investment and tax deferral incentives. I investigate the extent to which financial reporting incentives contribute to foreign investment profitability:

Hypothesis: Indefinitely reinvested foreign earnings (IRFE) related to financial reporting incentives are associated with *lower* future foreign investment profitability than IRFE due to investment and tax incentives.

III. RESEARCH DESIGN AND DATA

3.1. Research Design and Methodology

A particular challenge in identifying financial reporting-motivated IRFE is that firms receiving a reporting benefit from designating foreign earnings as IRFE also receive a tax deferral benefit. Reinvesting foreign earnings not designated as IRFE increases deferred tax expense without affecting taxes paid, resulting in only a tax, but not reporting, benefit. Ideally, I could hold constant the tax deferral benefits of total unremitted foreign earnings and attribute variation in the IRFE designation to reporting incentives. However, directly estimating changes in the financial reporting benefit independent from the tax benefit presents an empirical difficulty. Total unremitted foreign earnings are unobservable and firms do not commonly disclose the deferred tax expense related to unremitted foreign earnings that is not designated as IRFE.¹⁰ Furthermore, inferring the tax effect from changes in IRFE is problematic because changes in IRFE can reflect repatriations (which have a cash tax effect), or assertions on current year foreign earnings, reversals of prior year assertions, and other valuation changes (which have no cash tax effect). As a result, I employ an empirical strategy that controls for the expected tax benefit related to unremitted foreign earnings, and examine whether additional IRFE vary with financial reporting incentives.

Following prior studies, I use IRFE as a percentage of total assets to approximate a U.S. firm's accumulated foreign earnings that are not expected to be repatriated (e.g., Blouin et al. 2016; Harford et al. 2017). Although not all unremitted foreign earnings are considered IRFE, significant overlap exists between IRFE and total unremitted foreign earnings.¹¹ Importantly, I use IRFE to capture *relevant* foreign investments because the financial reporting benefit from deferring income

¹⁰ Apple, Inc. being one notable exception.

¹¹ Surveyed tax executives in Graham, Hanlon, and Shevlin (2011) report that, on average, 76% of unremitted foreign earnings are designated as IRFE. Consistent with their report, I find the average IRFE as a percentage of identifiable foreign assets ranges from 79% to 88% during my sample period (Figure 2a).

tax recognition only applies to foreign earnings designated as IRFE. In other words, IRFE represents the upper bound of foreign investments that provide a financial reporting benefit.

Measurement of Components of Indefinitely Reinvested Foreign Earnings (IRFE)

To disentangle financial reporting incentives from economic reasons to reinvest foreign earnings, I decompose IRFE into a component explained by investment- and tax-related incentives to invest overseas and a component unjustified by these incentives (see Figure 1). I do not directly estimate the portion of IRFE attributable to financial reporting incentives for two reasons. First, financial reporting motivations are difficult (if not impossible) to directly measure or adequately proxy. Second, existing proxies for financial reporting incentives to increase earnings are also correlated with economic incentives to reinvest overseas, such as growth objectives. Therefore, I focus on the portion of IRFE that reflect reporting incentives in addition to what is explained by purely economic considerations.

I estimate the following model of the determinants of IRFE predicted by investment and tax incentives to invest in foreign jurisdictions.

$$IRFE_{i,t} = \beta_0 + \beta_1 ROA_diff_{i,t} + \beta_2 For_growth_{i,t} + \beta_3 MTB_{i,t} + \beta_4 Dom_growth_{i,t} + \beta_5 \%Foreign_sales_{i,t} + \beta_6 R\&D_{i,t} + \beta_7 Haven_intensity_{i,t} + \beta_8 Foreign_taxdiff_{i,t} + \sum \beta_p Controls_{p,i,t} + \varepsilon_{i,t} \quad (1)$$

IRFE is the amount of indefinitely reinvested foreign earnings reported in the 10-K, scaled by worldwide assets.¹² Following Krull (2004), I include variables that capture favorable economic conditions that promote foreign reinvestment. Because foreign reinvestment is preferable when the expected foreign after-tax ROA exceeds domestic after-tax ROA, I include the difference

¹² Unlike Krull (2004), I estimate the level of IRFE rather than current year changes because I cannot pinpoint the specific investment effects of current-year changes to IRFE, but can only observe the future investment profitability of the entire pool of IRFE. Also, it is unlikely that single year increases in IRFE will have a significant long-run investment impact. While the goal in Krull (2004) was to determine whether changes in IRFE are indicative of earnings management, I am interested in the long-run investment outcomes of the IRFE resulting from earnings management practices.

between the overall after-tax foreign and domestic ROA in year $t-1$ (ROA_diff) (Krull 2004). To capture the extent of foreign operations and foreign growth opportunities, I also include foreign sales growth (For_growth), foreign sales as a percentage of total sales ($\%Foreign_sales$), and market-to-book (MTB) (Krull 2004; Blouin et al. 2012). The percentage of foreign sales reflects the relative importance and extent of foreign operations to the firm and is likely positively associated with IRFE. I expect foreign sales growth and market-to-book to positively affect IRFE if they represent expected foreign growth. I also control for domestic sales growth (Dom_growth). To the extent that existing domestic growth reflects expected future domestic growth, I expect domestic sales growth to be negatively associated with IRFE because it increases the opportunity cost of foreign reinvestment.

To capture tax incentives to reinvest foreign earnings, I use the foreign tax rate differential, tax haven intensity, and the level of R&D. The foreign tax differential ($Foreign_taxdiff$) is the difference between the U.S. statutory rate (35%) and the firm's average foreign tax rate over the past three years. Firms only receive a reporting (and tax savings) benefit from IRFE if the U.S. tax rate is higher than the applicable foreign tax rate. Thus, a higher foreign tax differential results in greater tax savings from not repatriating. Similarly, firms with a higher proportion of subsidiaries in tax haven countries ($Haven_intensity$) likely possess stronger tax avoidance incentives to locate abroad. Firms with more R&D expenses ($R\&D$) have greater opportunity to shift income by locating intangibles in low-tax jurisdictions.

Finally, I control for characteristics related to firms' ability to designate foreign earnings as IRFE ($\Sigma Controls$). Specifically, I control for size ($Size$), dividend yield (Div_yld), leverage (Lev), and net operating loss carryforwards (NOL) (Krull 2004). Because firms must demonstrate

sufficient liquidity to take advantage of the IRFE assertion, I control for operating cash flows (*CFO*). All variables are described in greater detail in Appendix A.

Because firms in the same industry have similar ability and opportunity to designate IRFE, I estimate the model of expected IRFE for each industry-year, where industry is based on 2-digit SIC. To minimize the effect of outliers, I winsorize all continuous variables at the 1st and 99th percentiles before estimating the industry-year regressions. I define the fitted values from the regression of IRFE on investment incentives, tax incentives, and control variables as “predicted IRFE” (*Pred_IRFE*). *Pred_IRFE* represents foreign earnings designated as IRFE that are justified by tax and investment benefits. I define the greater of zero or the residual from the regression of predicted IRFE as “excess IRFE” (*Excess_IRFE*), which represents designations of IRFE in excess of what is supported by economic opportunities. I expect positive deviations from predicted IRFE to most closely reflect over-designation of IRFE to receive a financial reporting benefit.

Measures of Financial Reporting Incentives

To provide evidence about whether *Excess_IRFE* is associated with financial reporting-driven investment, I examine the correlation between *Excess_IRFE* and the following variables:

- (1) *%Just_beat* = percentage of quarters that the firm appears in I/B/E/S for which it beat the median analyst EPS forecast by two cents or less ($\text{Actual} - \text{Forecast} \leq .02$), beginning in the first year the firm appears in I/B/E/S and ending in the current year;¹³
- (2) *%Beat_IRFE* = percentage of firm-years in which a firm beats the median analyst consensus EPS forecast but would have missed the forecast if the estimated current tax benefit of IRFE (*IRFETax_pershare*) were removed from actual EPS ($\text{Actual} - \text{IRFETax_pershare} - \text{Forecast} < 0$). The tax benefit of IRFE is computed as the change in IRFE from *t-1* to *t* times the average foreign tax differential (*Foreign_taxdiff*), scaled by common shares outstanding in *t*;

¹³ I consider beating the forecast by up to two cents rather than one cent because Keung, Lin, and Shih (2010) find that, after 2001, investors anticipate benchmark-beating earnings management and reward firms more for beating by two cents rather than one.

- (3) *CEO_equity* = percent of the firm's CEO's compensation that is equity-based, which captures managers' short-term earnings focus; and
- (4) *IO_short_term* = percent of the firm's equity that is owned by institutional investors classified as "transient" or "quasi-indexer," who are more likely focused on short-term earnings goals, following Bushee (1998).

I use two measures that capture a firm's history of beating the analyst consensus EPS forecast as proxies for firms with a heightened focus on financial reporting earnings, and two measures of general earnings pressure. *%Just_beat* is the proportion of firm-quarters in which a firm marginally beats the consensus forecast; *%Beat_IRFE* is the percentage of times the firm meets the analyst consensus forecast but would have missed if the estimated current year repatriation tax expense were recorded (Krull 2004; Blouin et al. 2012). The greater *%Beat_IRFE*, the more likely that the IRFE designation was used to meet the earnings benchmark multiple times. To the extent that a firm's historical meet-or-beat behavior is indicative of its existing practices, *%Just_beat* and *%Beat_IRFE* should capture a firm's propensity to use IRFE to increase earnings.

Following Blouin et al. (2012), I focus on firm attributes rather than current period earnings management incentives because it is unlikely that opportunistic single-year changes to IRFE will have a meaningful impact on overall future investment. Therefore, my measures of financial reporting incentives capture firms' historical benchmark-beating behavior and the overall financial reporting environment in which each firm operates. To the extent that firms facing greater earnings pressure designate cumulatively more IRFE unjustified by investment and tax savings opportunities, I expect a positive correlation between *Excess_IRFE* and each of the financial reporting variables.

Indefinitely Reinvested Foreign Earnings and Investment Profitability

For the main test of my hypothesis, I examine the effect of predicted IRFE and IRFE related to financial reporting incentives on future investment profitability.

$$\begin{aligned}
Inv_prof_{i,t+k} = & \beta_0 + \beta_1 Pred_IRFE_{i,t} + \beta_2 Excess_IRFE_{i,t} + \beta_3 For_ptroa_{i,t} + \beta_4 ROA_diff_{i,t} \\
& + \beta_5 ROA_vol_{i,t} + \beta_6 Size_{i,t} + \beta_7 Lev_{i,t} + \beta_8 MTB_{i,t} + \beta_9 For_growth_{i,t} + \beta_{10} Dom_growth_{i,t} \\
& + \varepsilon_{i,t},
\end{aligned} \tag{2}$$

Inv_prof is foreign investment profitability over the next k periods, measured as following:

- (1) *For_ptroa* = cumulative foreign pretax ROA for $k=1, 2,$ and 3 years;
- (2) *ROA_gap* = cumulative difference between actual and estimated required foreign pretax ROA for $k=1, 2,$ and 3 years; and
- (3) *BHAR* = market-adjusted buy-and-hold returns (BHAR) for $k=12, 24,$ and 36 months;

The future profitability measures capture overall realized returns to foreign investment and realized returns relative to an estimated benchmark. Cumulative *For_ptroa* measures the overall pretax return to foreign investment over the next one to three years.¹⁴ To measure relative profitability, I use the difference between the realized foreign pretax ROA and an estimated required, or benchmark, foreign pretax ROA such that reinvesting abroad is economically preferable to incurring repatriation taxes and investing domestically (*ROA_gap*). The benchmark foreign ROA is computed as the realized domestic pretax ROA times the U.S. statutory rate, over the average foreign tax rate from the prior three years (*Req_ptroa*) (see Appendix B). In additional tests, I alter and relax some of these assumptions. In general, the greater the *ROA_gap*, the lower the realized foreign ROA is relative to the required foreign ROA. In addition to measures of profitability, I also examine future market-adjusted buy-and-hold returns to determine whether overall market performance is affected by firms' relative levels of predicted and excess IRFE.

Several caveats are in order. First, because expected returns are unobservable, the benchmark ROA measure is based on the assumption that returns over the prior three years are an appropriate proxy for expected returns. Second, realized returns deviate from expected returns for numerous reasons. To address these concerns, I control for current performance and operational

¹⁴ I examine pretax rather than after-tax returns on foreign assets because the financial statements do not provide sufficient data to identify deferred U.S. taxes on foreign earnings. Firms report current and deferred taxes owed in the local jurisdiction, but the expected repatriation tax is buried in deferred U.S. tax expense.

risk, and include industry and year fixed effects to account for macroeconomic events. Finally, an assumption underlying the measure of required foreign rate of return is that the current domestic statutory tax rate will be the same at the time of repatriation. Expectation of a future tax holiday or a lower domestic tax rate lowers the required current foreign return; however, expectation of a future tax holiday should similarly affect firms with higher and lower financial reporting incentives and should not change my inference about the effect of financial reporting incentives.

Pred_IRFE represents the expected level of IRFE due to investment and tax-related reasons to reinvest foreign earnings. Because IRFE can reflect growth opportunities in foreign operations, the relation between *Pred_IRFE* and investment profitability (β_1) can be positive (Foley et al. 2007). On the other hand, diminishing returns to foreign investment and holdouts for a future tax holiday can result in a negative β_1 . Therefore, I do not make a directional prediction for β_1 . *Excess_IRFE* captures positive deviations from the expected level of IRFE that is not explained by investment and tax-related incentives. Consistent with the expectation that financial reporting pressures lead to overinvestment, I expect the relation between *Excess_IRFE* and future investment profitability (β_2) to be negative (Jensen 2005; Hanlon et al. 2015).

I control for firm size, leverage, and market-to-book, which are associated with overall profitability. To mitigate concerns about mean reversion, I also control for current firm performance. The profitability of foreign investments is also influenced by risk differences across jurisdictions, which can diminish realized returns. Investments in certain countries may be subject to government expropriation, poor legal protection, and uncertain property rights (Bryant-Kutcher, Guenther, and Jackson 2012). Following Bryant-Kutcher et al. (2012), I control for risk in the foreign operating environment using the standard deviation of foreign ROA (*ROA_vol*). Finally,

because revenue growth contributes to return on investment, I control for foreign (*For_growth*) and domestic sale growth (*Dom_growth*).

3.2. *Sample and Data*

The sample begins with U.S. multinational firms from 2007-2015 with non-missing, non-negative total assets. I begin the sample in 2007 to avoid the confounding effect of repatriations during 2005-2006 in response to the AJCA tax holiday, and because the magnitude and impact of IRFE has grown significantly over the past decade. I obtain the amount of IRFE disclosed on the 10-K through hand collection and from Audit Analytics (see Appendix D for examples of IRFE disclosures). Financial statement data for the consolidated U.S. firm come from Compustat Annual files and foreign asset and sales data are obtained from Compustat Segment data.¹⁵ Monthly returns data used to compute buy-and-hold returns were obtained from CRSP. For firms that do not report foreign assets (i.e., firms with operating units not based on geography), I set foreign assets to the total of non-domestic property, plant, and equipment across all operating units. I retrieve foreign affiliate location and tax haven information from Exhibit 21 of the 10-K.¹⁶ Missing values of IRFE are set to zero when total reported foreign assets are zero. Observations with reported IRFE and financial statement data total 9,435. In estimating predicted IRFE, I eliminate firm-years that lack three lagged years of foreign income necessary to compute the average foreign tax differential and data needed to compute all determinants variables. These restrictions yield a sample of 5,076 firm-years for the IRFE determinants test.

¹⁵ Among the limitations of the segment data from Compustat is that they reflect the operations of key business units of the firm, which may not be segregated based on geography. For my sample of interest, firms with material amounts of foreign earnings, business units are likely formed based on geographic location. The segment data also does not permit more granular analysis of the jurisdictions in which foreign earnings were generated.

¹⁶ I am grateful to Scott Dyreng for providing Exhibit 21 data.

To compute the financial reporting incentive variables, I obtain analyst forecast and coverage data from I/B/E/S, institutional ownership data from Thomson 13f Institutional Holdings, and CEO salary data from Execucomp. For firms not covered by analysts, I set *%Just_beat* to zero because such firms do not face meet-or-beat pressure from analysts.¹⁷ For the tests of investment profitability, I require observations to have three years of leading data for returns and identifiable foreign assets, which is used to compute the ROA-based measures. I winsorize all continuous variables at the 1st and 99th percentiles to mitigate the influence of extreme observations. The initial sample with excess IRFE data for tests of future investment profitability is 3,837 firm-year observations (Table 1).

IV. EMPIRICAL RESULTS

4.1. Descriptive Statistics

Figures 2(a) and 2(b) illustrate the trend in overall IRFE and foreign pretax ROA over the sample period. Among all firms reporting IRFE, the average IRFE increases monotonically from 10% (79%) of total (foreign) assets to over 16% (88%) of total (foreign) assets from 2007-2015. At the same time, the pretax return on foreign assets decreases steadily from 23% in 2010 to 19% in 2015, following a significant dip during 2009 due to the global financial crisis. This trend suggests that firms continue to designate foreign earnings as indefinitely reinvested even though foreign investment opportunities have been diminishing over time.

Table 2, Panel A, presents descriptive statistics for the IRFE sample of U.S. multinationals with values for investment profitability. IRFE represents 16.6% (12.3%) of total assets for the average (median) firm and foreign sales are 50% (48.8%) of total sales for the average (median)

¹⁷ Firms not covered by analysts comprise a little over half of my sample of firms that are used for the IRFE determinants test. The extent to which firms not covered by analysts face financial reporting pressure biases against finding a significant effect of meet-or-beat pressure on IRFE.

firm. On average, foreign sales growth is nearly twice as high as domestic sales growth (10% vs. 5.2%), which suggests that economic growth opportunities provide a substantial incentive for foreign investment. Similarly, the average (median) foreign pretax ROA accumulated over three years is 51% (41.5%) of average foreign assets, which suggests the average firm experiences rapid foreign growth, possibly due to merger activity. The high pretax foreign ROA could also partly reflect outbound income-shifting that attributes domestic income to foreign sources and overstates foreign ROA. The average (median) difference between after-tax foreign and domestic ROA is 46% (12%), which indicates that significant variation exists between foreign and domestic returns.

Table 2, Panels B and C, present the distribution of *IRFE* and *Excess_IRFE* by year and major industry, respectively. Panel B shows that observations are distributed fairly evenly from 2009 to 2014 and *Excess_IRFE* has substantially increased during my sample period. Firms in business services (2-digit SIC = 73), electronics and electrical products (2-digit SIC = 36), and machinery and computer equipment industries (2-digit SIC = 35) collectively represent over half of my sample (Panel C). Firms in the chemicals (2-digit SIC = 28) and electronics and electrical products industries have the highest average IRFE as a percent of assets, consistent with tech-driven firms having significant foreign operations. In univariate correlations (Table 2, Panel D), *Excess_IRFE* is significantly correlated with the foreign tax differential and R&D, consistent with tax savings objectives driving IRFE designations.

4.2. Determinants of Indefinitely Reinvested Foreign Earnings

To decompose IRFE into predicted and residual portions, I first document factors that contribute to the level and changes in IRFE, consistent with prior studies (e.g., Krull 2004; Blouin

and Krull 2009).¹⁸ Table 3 provides the results of determinants of the level of IRFE (Panel A) and current year changes in IRFE (Panel B).¹⁹ As expected, the percentage of total sales originating from foreign sources is strongly positively associated with both IRFE and changes in IRFE, consistent with IRFE capturing the extent of foreign operations. The rate of foreign sales growth is negatively associated with the level of IRFE, suggesting that IRFE is increasing in foreign growth but at a diminishing rate. When the dependent variable is *changes* in IRFE (Panel B), I find that the foreign growth rate is significantly associated with current year increases in IRFE, indicating that IRFE grows alongside foreign sales. As expected, IRFE is significantly increasing with the foreign tax rate differential (*Foreign_taxdiff*) in both levels and changes models, indicating that the lower the foreign tax rate is relative to the U.S. tax rate, the more foreign earnings are designated IRFE. Consistent with Blouin et al. (2016), *Haven_intensity* is not consistently related to IRFE, which suggests that IRFE is not primarily concentrated in tax havens. Surprisingly, R&D intensity is negatively associated with IRFE in Panel A, but it is possible that high-R&D firms do not designate foreign earnings as IRFE to maintain capital flexibility. In addition to the control variables used in the IRFE prediction model (Eqn. 1), I also control for the cost of external capital using the average 1-year LIBOR (*LIBOR*) in columns 2-4 of Panels A and B. Because lack of domestic liquidity constrains firms' ability to designate IRFE, I expect and find that average borrowing costs are negatively associated with IRFE.

To supplement prior evidence that financial reporting incentives contribute to the IRFE designation, I include measures of meet-or-beat behavior in columns 3 and 4 of Panels A and B.

¹⁸ Krull (2004) uses a hand-collected sample of firms reporting IRFE from 1993-1999. In a replication of Krull (2004) in my sample, I find results consistent with her predictions that changes in IRFE are associated with foreign growth and tax incentives, as well as the distance between reported earnings and the analyst consensus forecast.

¹⁹ Changes in my measure of IRFE can also occur because of changes to the multinational entity due to mergers and acquisitions. Foreign acquisitions are relevant to my study because they constitute major economic activities that can be undertaken due to financial reporting motives. The extent to which these acquisitions underperform supports my hypothesis that financial reporting-related IRFE are associated with poorer performance.

In Panel A, column 3, I find that firms with a higher percentage of quarters in which they marginally beat the analyst forecast (*%Just_beat*) report higher levels of IRFE (t-stat = 2.45). Including *%Just_beat* as a determinant also significantly increases the explanatory power of the model from 24.5% to 29.2%. More strikingly, IRFE is significantly associated with the historical percentage of firm-years in which a firm meets the consensus forecast but *would have missed* were it not for the tax reporting benefit of IRFE (*%Beat_IRFE*) (t-stat = 5.27) (Panel A, col. 4).

In addition to being associated with the total level of IRFE, *%Beat_IRFE* is significantly positively associated with current year changes in IRFE (Panel B, col. 3) (t-stat = 5.83), consistent with Krull (2004). Panel B, column 4, replaces *%Beat_IRFE* with an indicator for whether a firm beat the consensus forecast in the current year but would have missed were it not for the current year reporting benefit of IRFE (*Beat_IRFE_dum*). I find that *Beat_IRFE_dum* is also strongly associated with current period increases in IRFE (t-stat = 10.08). Interestingly, when *%Beat_IRFE* or *Beat_IRFE_dum* are included as a determinant of changes in IRFE (Panel B, col. 3 and 4), the effect of *Foreign_taxdiff* becomes insignificant, suggesting that the reporting benefit of the tax differential is as important as the tax savings. These results provide evidence that, in addition to investment and tax-related incentives, financial reporting incentives significantly contribute to the amount of foreign earnings designated as IRFE.

The model I use to estimate *Pred_IRFE* uses the same determinants as Panel A, col. 2, with one exception. Although LIBOR is among the determinants of IRFE, it is not included in the model of predicted IRFE because LIBOR is computed on an annual basis. Since the prediction model is estimated on an industry-year basis, the time-varying effect of LIBOR is effectively eliminated.

4.3. Indefinitely Reinvested Foreign Earnings and Financial Reporting Incentives

Table 4 presents the relation between my financial reporting incentive variables and the residual of the model of predicted IRFE (Eqn. 1), conditioned on the sign of the residual. Positive residuals represent observations with IRFE in excess of what is explained by investment and tax savings incentives for each industry-year. Negative residuals capture IRFE below industry-year average foreign investment that is predicted by tax and investment variables. Panel A presents the difference in the means of each financial reporting variable between positive and negative residuals. On average, benchmark-beating incentives (*%Just_beat*, *%Beat_IRFE*) are significantly greater among firm-years with positive deviations from predicted IRFE than firm-years with negative deviations (Panel A). Firm-years with positive residual IRFE are also covered by more analysts (*Following*) than firm-years with negative residual IRFE (t-stat = 2.15).

Panel B presents the univariate correlation between each financial reporting variable and the residual, partitioned by sign. To the extent that financial reporting motivates managers to over-designate IRFE relative to the predicted industry average, I expect *positive* residuals to be associated with financial reporting incentives. If unusual reversals in the IRFE assertion are evidence of earnings smoothing, I expect a negative relation between financial reporting incentives and negative residuals.

I find that positive residuals are significantly positively associated with *%Just_beat* (p-value < 0.0001) and analyst following (*Following*) (p-value = 0.003), whereas negative residuals are negatively associated with both. Additionally, positive deviations from predicted IRFE are positively associated with the CEO's percentage of equity-based compensation (*CEO_equity*) (p-value = 0.063), which captures managerial earnings pressure, and negatively associated with the

percentage of owners that are dedicated institutions (*IO_dedicated*) (p-value = 0.000), which likely exert a monitoring influence.

In contrast, negative deviations are negatively associated with CEO equity and short-term institutional investor ownership (*IO_short_term*), and positively associated with dedicated institutional ownership (p-value = 0.004). These results are consistent with institutional monitoring constraining over- and under-investment in foreign assets that is reflected by IRFE (e.g., Armstrong, Blouin, Jagolinzer, and Larcker 2015). Because I focus on the accumulation of *excessive* designations intended to increase earnings as an explanation for offshore profits hoarding, my interest is in positive deviations from predicted IRFE. This evidence suggests that *Excess_IRFE* captures potentially suboptimal overinvestment that is related to a history of benchmark-beating behavior and managerial equity incentives.

4.4. Indefinitely Reinvested Foreign Earnings and Future Investment Profitability

Table 5 explores the relation between predicted and excess IRFE and future investment profitability. If IRFE primarily reflects foreign investment and growth potential, I expect *Pred_IRFE* to be positively associated with future profitability. If IRFE is more reflective of foreign investments undertaken to defer repatriation taxes, future profitability may be negative. Panel A shows the association between both components of IRFE and future foreign pretax ROA (*For_ptroa*), the foreign ROA gap (*ROA_gap*), and market-adjusted buy-and-hold returns (*BHAR*). I observe an insignificant association between *Pred_IRFE* and each of the performance measures across all horizons. The insignificant relation is consistent with foreign growth and investment opportunities or income mobility offsetting any implicit tax effect on pretax returns (Markle, Mills, and Williams 2016).

I find that *Excess_IRFE* is significantly negatively associated with future accounting profitability but not with returns. In economic terms, an increase in *Excess_IRFE* of one percent of total assets is associated with an annualized decline in foreign pretax ROA of approximately 26 basis points over the next three years.²⁰ A one percent increase in *Excess_IRFE* is also associated with a decrease of 22 basis points in the foreign ROA gap over the following three years; in other words, excess IRFE is associated with lower performance relative to the expected benchmark than predicted IRFE. *Excess_IRFE* is also associated with a slight decrease in cumulative market-adjusted returns over the next three years but the association is not significant, suggesting that the negative profitability consequences are not impounded in market returns.

In Table 5, Panel B, I vary the definition of the benchmark foreign ROA used to estimate future profitability. First, I redefine the expected benchmark foreign pretax ROA assuming an extreme foreign tax rate of 0%, that is, if the firms' foreign operations were exclusively located in tax havens. Under this definition, *ROA_gap* effectively measures the difference between actual foreign and domestic after-tax ROA, further lowering the hurdle rate for foreign investment. I continue to find that *Excess_IRFE* is significantly negatively associated with the ROA gap over three years (t-stat = -2.411) while *Pred_IRFE* is not significantly associated (t-stat = 0.268). Second, I recompute the required foreign pretax ROA based on the expectation of a tax holiday by assuming a domestic tax rate of 8.75%, which was proposed as a repatriation tax holiday rate during my sample period.²¹ *Excess_IRFE* is negatively associated with the ROA gap over 3 years (t-stat = -2.073) while *Pred_IRFE* is not, which suggests that excess IRFE continues to result in

²⁰ Annualized returns, r , as a percentage of foreign assets, are computed as follows: $(1\% \times -.463 \text{ coefficient est.}) = (1+r)^2 - 1$ for 2-year ahead, and $(1\% \times -.789 \text{ coefficient est.}) = (1+r)^3 - 1$ for 3-year ahead ROAs.

²¹ Senators John McCain and Kay Hagan proposed a bill on October 6, 2011, that would lower the repatriation tax from 35% to 8.75% (<https://www.forbes.com/sites/ericsavitz/2011/10/06/sens-mccain-hagan-bill-would-cut-taxes-on-repatriated-cash/#48f077f37cbd>).

lower profitability than predicted IRFE even when the required foreign return is significantly reduced. Third, I replace *ROA_gap* with an indicator for firm-years that exhibit a negative ROA gap, that is, foreign profitability that falls below what is expected based on *ex ante* information about domestic performance and the average foreign tax rate. I find that predicted IRFE is significantly negatively associated with the likelihood of having a negative ROA gap over the next three years (t-stat = -4.426). In other words, predicted IRFE is very unlikely to be associated with performance below the expected threshold. On the other hand, excess IRFE shows a less negative association with the likelihood of a negative foreign ROA gap, which becomes insignificant over a 3-year horizon (t-stat = -1.534). These results indicate that excess IRFE is much more likely than predicted IRFE to result in foreign performance below what is expected.

4.5. Indefinitely Reinvested Foreign Earnings and Foreign Investment Composition

To shed more light on the source of the reduced profitability, I examine the *types* of foreign investments associated with excess IRFE. Table 6, Panel A, shows the relation between predicted and excess IRFE and foreign capital expenditures, foreign employees, foreign property, plant, and equipment (PP&E), foreign non-fixed assets (such as short-term and liquid assets), total cash and cash equivalents, and the likelihood of engaging in mergers and acquisitions (M&A). If financially-motivated designation of IRFE results in underutilization of foreign earnings, I expect excess IRFE to be more concentrated in low yield, possibly short-term, foreign assets.

Blouin, Krull, and Robinson (2016) estimate that 54% of total IRFE is held in cash assets, with 39% of IRFE being located in high growth affiliates. Consistent with their estimates, I find that both predicted and excess IRFE are significantly associated with foreign non-fixed assets and total cash holdings. Consistent with economic opportunities abroad, the predicted portion of IRFE is also strongly associated with foreign capital expenditures, the number of foreign employees, and

foreign fixed assets. Excess IRFE is not associated with foreign capital expenditures or foreign employees, but is strongly positively associated with foreign non-fixed assets (t-stat = 12.252) and total cash holdings (t-stat = 3.62), and to a lesser extent, foreign PP&E (t-stat = 1.86). In fact, excess IRFE contributes economically more to total cash holdings and foreign short-term assets than predicted IRFE. Interestingly, firms with excess IRFE are also less likely to engage in M&A. These results suggest that IRFE related to financial reporting incentives are less actively utilized than IRFE due to economically-motivated reasons, and contribute significantly to an accumulation of cash and short-term investments abroad.

In Table 6, Panel B, I further explore the relation between forms of investment and foreign profitability. Because M&A is arguably the most prominent and significant form of investment, I interact both predicted and excess IRFE with an M&A indicator and examine the joint effect on 3-year foreign pretax ROA, foreign ROA gap, and buy-and-hold returns. Hanlon et al. (2015) and Edwards et al. (2015) find that firms with more cash held abroad engage in more foreign acquisitions, which underperform domestic acquisitions. Consistent with their results, I find that firms with greater *Excess_IRFE* exhibit significantly lower returns across all three measures of profitability over the three years following M&A, compared to years without M&A. In contrast, the interaction of *Pred_IRFE* and the M&A indicator is significantly positive across the ROA-based measures of profitability. Collectively, these results are consistent *Pred_IRFE* being much more efficiently used for M&A than *Excess_IRFE*.

V. ADDITIONAL ANALYSIS

5.1. *Privately Owned Firms with Public Debt*

To triangulate the effect of financial reporting incentives, I examine the future profitability consequences of excess IRFE for firms that are likely to be privately owned. Privately owned firms

experience less financial reporting pressure to produce higher earnings but receive the same tax benefit as public firms from reinvesting rather than repatriating foreign earnings. However, because most privately held firms are not required to disclose IRFE, I utilize a sample of privately owned firms that have public debt. Because their debt is public, these firms are required to fulfill SEC requirements and publicly file 10-Ks with IRFE disclosed.

Private firms with public debt experience lower agency costs than publicly traded firms because they have more concentrated ownership and stronger monitoring. Prior research finds that private firms, particularly with large private equity sponsors, exhibit more timely loss recognition, higher accruals quality, and are less likely to manage earnings than public firms (Katz 2009; Givoly, Hayn, and Katz 2010). Because private firms do not face the same incentives or ability as public firms to over-designate IRFE for reporting purposes, it is less likely that IRFE beyond the predicted level is indicative of agency-driven overinvestment.²² Therefore, I do not expect the *Excess_IRFE* of private firms to be negatively associated with future performance.

Following Badertscher, Katz, and Rego (2013), I identify private firms with public debt as firms (1) with missing end-of-year stock price on Compustat, (2) with at least \$1 million in total revenue and total debt, and (3) that are not wholly owned by a public entity. Starting with these criteria, I manually eliminate firms that have public equity, resulting in 268 firm-year observations (94 distinct firms) that disclose IRFE and are privately owned during my sample period. I re-estimate the industry-year regressions of predicted IRFE omitting market-to-book and dividend

²² A limitation of this sample is that private firms with public debt are typically larger, better performing, and have higher earnings quality than other private firms (Katz 2009). As such, private firms with public debt may face greater financial reporting pressure than other private firms; however, they likely experience lower reporting pressure than publicly traded firms. Some of the privately owned firms in my sample eventually go public as well. The extent to which pre-IPO private firms experience incentives to enhance reported earnings should bias against finding a different effect of excess IRFE between public and private firms.

yield as determinants because they are not applicable for privately owned firms. The sample of privately owned firms with data to estimate predicted and excess IRFE totals 67 observations.

Table 7 compares key firm characteristics of the public and private firm samples. Compared with public firms, private firms have significantly lower average IRFE (5.5% vs. 16.8% for public firms) and excess IRFE (0.8% vs. 3.9% for public firms). The private firms are also larger than the public firms on average, and have significantly more leverage (57.8% vs. 20.6%) due to extensive funding through public debt. Fortunately, the public and private samples do not differ on key attributes related to foreign investment and tax incentives, including the extent of foreign operations (*%Foreign_sales*), and the foreign tax differential (*Foreign_taxdiff*). This provides initial assurance that the two samples are comparable with respect to their economic incentives to designate foreign earnings as IRFE. To ensure greater comparability, I entropy-balance the public and private firm sample on the first moment of all control variables (Hainmueller and Xu 2013). Entropy balancing reweights observations within the treatment and control groups to achieve a similar covariate distribution between the two samples.

I conduct two analyses to determine whether the effect of excessive IRFE on foreign investment profitability differs for privately held firms. First, using an indicator for suspected private firms (*Private*), I expect a positive relation between the interaction of *Private* and *Excess_IRFE* on future foreign pretax ROA and ROA gap (Table 8, Panel A). I find that, although the main effect of *Excess_IRFE* continues to be negative, the interaction of *Excess_IRFE* and *Private* is significantly positive in most cases (t-stat = 2.21 for 3-year ahead foreign ROA). F-tests reveal that the overall effect of *Excess_IRFE* (sum of coefficients on *Excess_IRFE* and *Excess_IRFE x Private*) on future foreign pretax ROA and the foreign ROA gap is marginally positive for private firms across all time horizons.

Second, I separately examine the association between excess IRFE and future foreign pretax ROA for public and private firms (Table 8, Panel B). Partitioning the sample in this way allows for the effect of the control variables to vary across groups. The results for the public firm sample remains largely the same as the full sample. In the sample of suspected private firms, I find that *Pred_IRFE* is positively associated with future profitability, suggesting that foreign investments for privately owned firms are, on average, profitable and motivated by investment and tax savings opportunities. Within the private firm sample, *Excess_IRFE* is not associated with future foreign profitability, which is consistent with excess IRFE capturing noise rather than additional investment due to financial reporting incentives. These results support the notion that excess IRFE driven by financial reporting incentives result in poorer future performance.

5.2. Change in IRFE Assertion after Tax Cuts and Jobs Act

The Tax Cuts and Jobs Act of 2017 significantly diminished the financial reporting benefits of the IRFE assertion by eliminating future U.S. tax on the repatriation of foreign earnings. Although firms can still avoid reporting foreign withholding taxes by indefinitely reinvesting foreign earnings, they no longer receive a financial reporting benefit from the deferral of U.S. taxes. As a result, numerous firms announced anticipated repatriations of their foreign earnings and changes to their IRFE assertion following enactment of the TCJA.²³ I use announcements of changes and planned changes to the IRFE assertion in the 2018 quarterly filings of firms in my sample to identify cases where IRFE is more likely to reflect past financial reporting objectives.²⁴ Firms that consider altering their existing or future IRFE assertions following the TCJA are

²³ The Federal Reserve estimates that U.S. firms repatriated over \$300 billion during the first quarter of 2018, compared with \$312 billion repatriated in 2005 following the tax holiday enacted by the American Jobs Creation Act (<https://www.federalreserve.gov/econres/notes/feds-notes/us-corporations-repatriation-of-offshore-profits-20180904.htm>)

²⁴ See Appendix D for examples of disclosed changes to the IRFE assertion in 2018 10-Q filings.

unlikely to be currently invested in valuable, productive foreign assets and more likely to have utilized the IRFE assertion in the past for financial reporting benefits. To the extent that the assertion reflects financial reporting-driven IRFE, I expect firms that have disclosed a change or planned change to their assertion to exhibit lower profitability than those that have not during my sample period.

Table 9 shows the interactive effect of total IRFE (Panel A) or the components of IRFE (Panel B) for firms that change their assertion. Consistent with expectations, the relation between IRFE and 3-year foreign pretax ROA and the foreign ROA gap is incrementally more negative for firms that disclosed a change in assertion after the enactment of the TCJA (*Chg_IRFE*). As shown in Panel B, the negative interactive effect is attributable to excess IRFE. Interestingly, firms that disclosed an IRFE change also experience significantly higher 36-mos returns than firms that didn't disclose; however, the positive relation between IRFE and future returns are attributable to predicted, not excess, IRFE. These results suggest that the foreign investments of firms that likely used the IRFE assertion for financial reporting purposes underperformed those of other firms.

As a comparison, I conduct the same tests for firms which have announced a repatriation of foreign earnings in the current period or an intent to repatriate (*Repatri*). As shown, firms that announce repatriations do not exhibit the same pattern; in fact, firms that announce repatriations and those that announce a change to their IRFE assertion do not significantly overlap in my sample.²⁵ This provides assurance that my results are not driven by firms that have accumulated foreign earnings abroad for tax-motivated reasons.

²⁵ The correlation between *Chg_IRFE* and *Repatri* is 27%. Among the firms that disclosed a change or planned change to their IRFE assertion, 34% also disclosed that they repatriated or intended to repatriate foreign earnings.

5.3. Robustness Tests

Because the global financial crisis falls within my sample period, I check that my investment profitability results are not driven by the economic downturn. In untabulated tests, I partition the sample into two periods: 2007-2010 (which encompasses the effects of the financial crisis) and 2011-2015. I find a significant, even more pronounced, negative association between *Excess_IRFE* and 3-year foreign pretax ROA and the 3-year foreign ROA gap in the 2011-2015 period. I also find a negative association between *Excess_IRFE* and 36-month (12-month) buy-and-hold returns in the 2007-2010 (2011-2015) period. These results provide some assurance that the lower accounting profitability I document is not explained by the negative economic shock from the financial crisis, although the global spillover may have contributed to lower market returns for firms with more foreign operations. Moreover, the stronger negative association in the later period is consistent with anecdotal statements that recent audit scrutiny has increased firm pressure to substantiate the IRFE assertion.

In additional untabulated tests, I ensure my results are robust to an alternate definition of *Excess_IRFE*. Replacing *Excess_IRFE* with all signed residuals (including negative residuals) yields an even more significant negative association with 3-year foreign pretax ROA and the foreign ROA gap, but a muted association with those measures on shorter horizons. Negative residuals have a confounding influence because they may represent foreign underinvestment but are unlikely to capture a history of financial reporting-driven IRFE assertions intended to boost earnings. Thus, I limit my main analysis to positive residuals.

VII. CONCLUSION

Prior studies find that the joint effects of tax deferral incentives and financial reporting incentives influence U.S. firms' decision to indefinitely reinvest foreign earnings abroad.

However, they do not distinguish between the profitability outcomes of tax-motivated and financial reporting-motivated foreign investments. I examine the profitability consequences of firms that designate IRFE *in excess* of what is justified by investment and tax savings motives. First, I add to the evidence in prior studies that financial reporting incentives generated by the IRFE assertion are a significant determinant of foreign investment. I find that IRFE in excess of what is predicted by investment and tax incentives is positively correlated with meet-or-beat behavior, analyst following, and CEO equity incentives, and negatively correlated with institutional monitoring. These results suggest that my measure of excess IRFE captures foreign investment resulting at least partly from agency-driven reporting incentives.

I find that excess IRFE is associated with progressively lower foreign pretax ROA and foreign ROA gap over the next two to three years. Excess IRFE is also associated with greater investment in non-fixed foreign assets and total holdings in cash and cash equivalents, consistent with financial reporting incentives contributing to the accumulation of foreign cash. I find that excess IRFE in M&A years are associated with lower future profitability and returns. However, among privately owned firms, which have arguably fewer financial reporting incentives, I do not find a significant association between excess IRFE and future profitability.

I acknowledge several limitations of this study. First, I derive an estimate of predicted IRFE based on firm characteristics for each industry-year. To the extent that my prediction model is not well-specified, it introduces measurement error in *Excess_IRFE*. However, the finding that financial reporting incentives are associated with the propensity to designate more IRFE, and the results of my subsample analysis of private firms, provides support that *Excess_IRFE*, at least in part, reflects reporting-driven investment. Future work can further refine the IRFE determinants model. Second, I document lower foreign profitability for firms with excess IRFE using realized

rather than expected returns. As such, I include controls for unexpected performance and test the periods during and after the financial crisis to mitigate concerns about measurement error.

Notwithstanding these limitations, this study should be of interest to investors and policymakers. As of 2016, U.S. multinationals have collectively amassed over \$2.6 trillion of profits offshore, an amount that has doubled since 2008 (Barthold 2016). Although Congress has enacted a comprehensive tax reform to discourage firms from accumulating earnings abroad, my findings suggest that financial reporting incentives should not be ignored. Not only do reporting incentives contribute to the designation of foreign earnings as IRFE, my results suggest that foreign investment undertaken because of reporting motives is associated with lower foreign profitability. Although the Tax Cuts and Jobs Act of 2017 eliminated future repatriation taxes, U.S. multinationals continue to have incentives to utilize the indefinite reinvestment assertion under APB 23. The IRFE assertion allows firms to defer recognition of foreign withholding taxes on future repatriation, which can be significant.²⁶ In addition to the cash tax deferral benefit, the accounting benefit from reinvesting abroad encourages firms to engage in potentially value-destroying activities. Limiting the use of the IRFE assertion may not only reduce the propensity of U.S. firms to reinvest abroad, but enhance the quality of foreign investments when they do.

²⁶ Over 120 countries impose a withholding tax on dividends. Dividend withholding tax rates for U.S. multinationals are often 10-15%, but can be up to 35%, depending on treaty status between the foreign jurisdiction and the U.S. (<https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-withholding-tax-rates.pdf>)

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APPENDIX A. VARIABLE DEFINITIONS

This appendix describes the measurement procedure for each variable in the empirical analyses. Primary data sources include the Compustat Fundamentals Annual File, Compustat Segment File, Audit Analytics, I/B/E/S, CRSP Monthly Stock File, and Execucomp. Variables in brackets are obtained from Compustat unless otherwise noted.

| Variables | Description |
|---|--|
| Indefinitely reinvested foreign earnings variables | |
| <i>IRFE</i> | Reported amounts of indefinitely reinvested foreign earnings (from Audit Analytics), scaled by worldwide assets [AT]. |
| <i>Pred_IRFE</i> | Predicted IRFE from regression of IRFE on investment, tax, and control variables (Eqn. 1): $IRFE_{i,t} = \beta_0 + \Sigma\beta_m Inv + \Sigma\beta_o tax_{o,i,t} + \Sigma\beta_p Controls_{p,i,t} + \varepsilon_{i,t}$, estimated for each industry-year, where industry is based on 2-digit SIC. See below for definitions of investment, tax, and control variables. |
| <i>Excess_IRFE</i> | Greater of zero or the industry-year residual from the model of predicted IRFE. |
| <i>IRFEtax_pershare</i> | Estimated tax benefit of current year changes in IRFE, computed as the change in IRFE from $t-1$ to t times the average foreign tax differential (<i>Foreign_taxdiff</i>) in $t-1$, scaled by common shares outstanding [<i>CSHO</i>] in time t . |
| Investment and profitability variables | |
| <i>Inv_prof</i> | Investment profitability, measured as one of the following: (1) foreign pretax ROA (<i>For_ptfroa</i>), (2) difference between actual and required foreign pretax ROA (<i>ROA_gap</i>), or (3) market-adjusted buy-and-hold returns (<i>BHAR</i>), accumulated over the next one, two, and three years. |
| <i>For_ptroa</i> | Pretax foreign income [PIFO], scaled by average foreign assets (<i>For_assets</i>). |
| <i>Req_ptfroa</i> | Required, or benchmark, foreign pretax ROA, R_f , calculated as $R_f = \frac{(1-t_d)R_d}{1-t_f}$, where t_d = the U.S. statutory rate of 35%; t_f = average foreign tax rate ([TXFO]/[PIFO]) over the past 3 years; R_d = average pretax domestic ROA ([PIDOM], scaled by lagged assets [AT] less lagged foreign assets (<i>For_assets</i>)) over the past 3 years. |

| | |
|---|--|
| <i>ROA_gap</i> | Foreign ROA gap, computed as the difference between actual foreign pretax ROA (<i>For_ptroa</i>) and the required pretax foreign ROA (<i>Req_ptfroa</i>). A lower value for <i>ROA_gap</i> indicates lower realized foreign ROA relative to the benchmark. |
| <i>BHAR</i> | Market-adjusted buy-and-hold returns over the next 12, 24, and 36 months, starting 3 months after the current fiscal year-end. |
| <i>For_assets</i> | Foreign assets = the greater of foreign identifiable assets from Compustat Segment data (total of [IAS] across all foreign geographic regions), OR foreign property, plant, and equipment from Compustat Segment data (total of [PPENTS] across all foreign geographic regions). |
| <i>For_capex</i> | Total foreign capital expenditures [CAPXS] across all geographic segments reported in Compustat segment disclosures, scaled by total worldwide assets [AT]. |
| <i>For_emp</i> | Log of total foreign employees [EMPS] across all geographic segments. |
| <i>For_PP&E</i> | Total foreign property, plant, and equipment [PPENTS], scaled by total worldwide assets [AT]. |
| <i>For_R&D</i> | Total foreign R&D expenditures [RDS] across all geographic segments, scaled by total worldwide assets [AT]. |
| <i>For_STassets</i> | Foreign non-fixed assets, computed as total foreign assets [IAS] less foreign PP&E, scaled by total worldwide assets [AT]. |
| <i>Cash_holdings</i> | Total cash holdings include cash [CH] and cash equivalents [CHE], scaled by total worldwide assets [AT]. |
| <i>M&A</i> | =1 for firm-years that contain at least one M&A deal. |
| Growth and tax incentive variables | |
| <i>For_growth</i> | Percentage change in foreign sales revenue from year $t-1$ to t , obtained from Compustat Segment data (where foreign sales are the total of [SALES] across all foreign geographic regions). |
| <i>Dom_growth</i> | Percentage change in domestic sales revenue from year $t-1$ to t , where domestic sales are computed as total sales [REVT] less foreign sales (computed above). |

| | |
|------------------------|--|
| <i>MTB</i> | Market value of equity ($[\text{PRCC_F}] * [\text{CSHO}]$) over book value of equity $[\text{CEQ}]$. |
| <i>%Foreign_sales</i> | Foreign sales (the total of $[\text{SALES}]$ across all foreign geographic regions) as a percentage of total sales $[\text{REVT}]$. |
| <i>ROA_diff</i> | Foreign after-tax ROA in $t-1$ less domestic after-tax ROA in $t-1$. Foreign after-tax ROA is computed as $([\text{PIFO}] - [\text{TXFO}]) / \text{lagged foreign assets (For_assets)}$ and domestic after-tax ROA is $([\text{PIDOM}] - ([\text{TXT}] - [\text{TXFO}])) / (\text{lagged total assets [AT]} \text{ less lagged foreign assets})$. |
| <i>Foreign_taxdiff</i> | Foreign tax differential, computed as the difference between the U.S. statutory tax rate (35%) and the average foreign tax rate $([\text{TXFO}] / [\text{PIFO}])$ over the prior 3 years (Krull 2004). |
| <i>R&D</i> | Research and development costs $[\text{XRD}]$, scaled by lagged assets $[\text{AT}]$. |
| <i>Haven_intensity</i> | Percentage of countries in which affiliates are located that are considered tax havens (from Exhibit 21). |

Financial reporting incentive variables

| | |
|-------------------------------------|---|
| <i>%Just_Beat</i> | Percentage of quarters that the firm appears in I/B/E/S for which it beat the median analyst consensus EPS forecast by two cents or less ($\text{Actual} - \text{Forecast} \leq .02$), beginning in the first year the firm appears in I/B/E/S and ending in the current year. If I/B/E/S information is not available, <i>%Just_beat</i> is set to zero. |
| <i>%Beat_IRFE</i> | Percentage of years in which a firm beats the median analyst consensus EPS forecast, but would have missed the forecast if the estimated current tax benefit of IRFE (<i>IRFEtax_pershare</i>) were removed from actual EPS ($\text{Actual} - \text{IRFEtax_persshare} - \text{Forecast} < 0$). |
| <i>Beat_IRFE_dum</i> | =1 if the firm beats the median analyst consensus EPS forecast in the current year, but would have missed the forecast if the estimated current tax benefit of IRFE (<i>IRFEtax_pershare</i>) were removed from actual EPS ($\text{Actual} - \text{IRFEtax_persshare} - \text{Forecast} < 0$). |
| <i>Following</i> | Log of number of analysts following the firm (from I/B/E/S). If I/B/E/S information is not available, <i>Following</i> is set to zero. |
| <i>IO_short_term (IO_dedicated)</i> | Percent of the firm's equity that is held by institutional investors classified as "transient" or "quasi-indexer" (<i>IO_short_term</i>) or "dedicated" (<i>IO_ded</i>) based on Bushee (1998). |

| | |
|------------------------------------|--|
| <i>CEO_equity</i> | Percent of total CEO compensation that is equity-based, calculated as $([\text{STOCK_AWARDS}] + [\text{OPTION_AWARDS}]) / [\text{TOTAL_SEC}]$ from Execucomp. |
| Control and other variables | |
| <i>Size</i> | Log of lagged total assets [AT]. |
| <i>Lev</i> | Leverage, measured as the sum of long-term debt and its current maturity, scaled by total assets $([\text{DLTT}] + [\text{DLC}]) / [\text{AT}]$. |
| <i>Div_yld</i> | Total dividends [DVT] scaled by end of year market value of equity $([\text{PRCC_F}] * [\text{CSHO}])$. |
| <i>CFO</i> | Cash flows from operations [OANCF], scaled by lagged assets [AT]. |
| <i>LIBOR</i> | Average 1-year LIBOR (London Interbank Offered Rate), measured as the average of monthly 1-year rates over each calendar year. |
| <i>NOL</i> | The net operating loss carryforward at the beginning of the year [TLCF], scaled by lagged total assets [AT]. |
| <i>ROA_vol</i> | Standard deviation of foreign after-tax ROA over the preceding 3 years. |
| <i>Private</i> | = 1 for private firms with public debt, identified following Badertscher et al. (2013) and then manually verified: (1) firms with missing closing stock price [PRCC_F], and (2) total revenue and total debt over \$1 million, and (3) not a wholly owned subsidiary of a public entity. |
| <i>Disclosure</i> | =1 for firms that disclosed in any of their 2018 10-Qs (1) changing or an intent to change their IRFE assertion (<i>Chg_IRFE</i>) or (2) repatriating or intending to repatriate foreign earnings (<i>Repat</i>) following the TCJA. |

APPENDIX B. CALCULATION OF REQUIRED FOREIGN RATE OF RETURN

To estimate the required foreign rate of return, I consider the decision of a U.S. multinational firm whether to repatriate and reinvest foreign earnings domestically or to reinvest foreign earnings abroad. Under the Hartman (1985) model, the net after-tax returns from repatriating accumulated foreign earnings (F) and reinvesting domestically for n periods at a domestic pretax rate of return R_d yields the following, where t_d is the domestic corporate tax rate and t_f is the foreign corporate tax rate at the time of repatriation (Hartman 1985; Scholes et al. 2015 p. 305):

$$\left[\frac{F(1-t_d)}{1-t_f} \right] [1 + R_d(1 - t_d)]^n \quad (\text{B1})$$

In other words, the net investment returns to investing repatriated foreign earnings domestically equals the foreign earnings, net of repatriation tax, times the after-tax domestic rate of return, $R_d(1 - t_d)$, compounded over n periods.

In contrast, if the firm reinvested the foreign earnings abroad for n periods, earning a foreign pretax rate of return R_f , and repatriated the accumulated foreign earnings at time n , the net after-tax accumulation when repatriated is:

$$\underbrace{F[1 + R_f(1 - t_f)]^n}_{\text{Total after-local tax foreign earnings}} - \underbrace{\frac{F[1 + R_f(1 - t_f)]^n}{1 - t_f}(t_d - t_f)}_{\text{Repatriation tax}} \quad (\text{B2})$$

The first term, $F[1 + R_f(1 - t_f)]^n$, is the accumulation of after-tax foreign earnings abroad. The second term is the amount of tax due upon repatriation, and captures the fact that both the original foreign earnings F and its accumulated earnings are eventually taxed at the domestic

tax rate. Assuming that all accumulated investment returns are eventually subject to domestic taxation, the expression reduces to:

$$\left[\frac{F(1-t_d)}{1-t_f} \right] [1 + R_f(1 - t_f)]^n \quad (\text{B3})$$

All else constant, the firm is indifferent between investing foreign earnings domestically and investing abroad if the after-tax accumulation were equal:

$$\left[\frac{F(1-t_d)}{1-t_f} \right] [1 + R_d(1 - t_d)]^n = \left[\frac{F(1-t_d)}{1-t_f} \right] [1 + R_f(1 - t_f)]^n \quad (\text{B4})$$

Regardless of investment horizon, foreign reinvestment is preferred to repatriation as long as the expected after-tax foreign rate of return is greater than the after-tax domestic rate of return, i.e., $R_d(1 - t_d) \leq R_f(1 - t_f)$. The required foreign rate of return (R_f) on a dollar of foreign income for reinvestment to be preferred to repatriation is:

$$R_f \geq \frac{(1-t_d)R_d}{(1-t_f)} \quad (\text{B5})$$

This provides a simplified theoretical lower bound on required foreign investment returns on operating assets for foreign reinvestment to be value-maximizing. According to the Hartman (1985) model, the required foreign pretax rate of return (R_f) will be lower than the required domestic pretax return (R_d) when the foreign tax rate is below the U.S. tax rate as long as certain assumptions are maintained: 1) the same risk-adjusted investment returns can be earned in both foreign and domestic jurisdictions, 2) the foreign and domestic tax rates are constant over time, and 3) all earnings will eventually be distributed and subject to domestic tax.

Extensions of the Hartman (1985) model alter these assumptions and show that the preference for reinvestment or repatriation varies with whether the foreign investment is in passive or operating assets, and with expectations of intertemporal changes in the tax rates (Altshuler and Grubert 2003; De Waegenare and Sansing 2008; Blouin and Krull 2009; Klassen et al. 2014).

Unlike investments in operating assets, foreign earnings reinvested in passive investments generate Subpart F income, which is taxed at the U.S. rate when earned (ineligible for deferral treatment).²⁷

The expectation of a decline in the domestic tax rate, t_d , in the future (such as a repatriation tax holiday) also increases the expected after-tax accumulation from reinvesting abroad (Eqn. B2), which can lead firms to delay current period repatriation (De Waegenare and Sansing 2008; Blouin and Krull 2009). The change in the net after-tax accumulation from reinvesting abroad as a function of an expected change in t_d can be represented as:

$$\begin{aligned} \frac{d}{dt_d} \left[F[1 + R_f(1 - t_f)]^n - \frac{F[1 + R_f(1 - t_f)]^n}{1 - t_f} (t_d - t_f) \right] \\ = \frac{F[1 + R_f(1 - t_f)]^n}{t_f - 1} \end{aligned} \quad (\text{B6})$$

Because the first derivative with respect to the expected domestic tax rate is negative, the expected benefit from reinvesting increases as t_d (the expected future domestic tax rate) declines. These models demonstrate that, in the absence of financial accounting incentives, foreign reinvestment, even in low-yield assets, can be economically preferable to repatriation.

²⁷ In this case, reinvesting foreign earnings abroad would be preferred to repatriation if: $\left[\frac{F(1 - t_d)}{1 - t_f} \right] [1 + R_d(1 - t_d)]^n < F[1 + R_f(1 - t_d)]^n - \frac{F(t_d - t_f)}{1 - t_f}$. The term $[1 + R_f(1 - t_d)]^n$ represents the aftertax accumulation of a dollar of Subpart F income generated by foreign passive assets, which are taxed at the domestic rate of t_d every year (e.g., Altshuler and Grubert 2003, Scholes et al. 2014). Only the repatriation tax on the original amount of foreign earnings, $\frac{F(t_d - t_f)}{1 - t_f}$, is deferred until time n . Reinvesting a dollar of foreign income is preferable to repatriating when $R_f \geq \left(\frac{1}{1 - t_d} \right) \left[\frac{(1 - t_d)(1 + R_d(1 - t_d))^n}{1 - t_f} - \frac{t_d - t_f}{1 - t_f} \right]^{\frac{1}{n}} - \frac{1}{1 - t_d}$. All else equal, as the foreign tax rate t_f decreases (or n increases), the expected foreign rate of return R_f decreases as well.

APPENDIX C. U.S. GAAP TREATMENT OF THE TAXATION OF FOREIGN EARNINGS

Prior to the enactment of the Tax Cuts and Jobs Act of 2017, the U.S. imposed a federal corporate tax rate of 35% on the earnings of foreign affiliates. The difference between the U.S. corporate tax rate and the applicable tax rate in the affiliate's jurisdiction (repatriation tax) is paid when the foreign earnings are remitted to the U.S. parent as a dividend.²⁸ Under U.S. GAAP, U.S. firms are required to accrue a current or deferred expense for the expected tax on the remittance of the earnings of its foreign affiliates, regardless of whether the affiliate earnings are repatriated (ASC 740-30). The underlying presumption is that all undistributed affiliate earnings will be subject to the repatriation tax when it is eventually transferred to the U.S. parent.²⁹ Other taxes that must be accrued in the current period include future state income taxes and foreign withholding taxes, which are levied by foreign jurisdictions on dividend payments from the foreign affiliate to the U.S. parent.

An exception to this treatment, the Indefinite Reversal Exception, is permitted under FASB codification ASC 740-30-25-17 (formerly APB Opinion No. 23). The exception allows firms to delay recognition of deferred taxes on foreign unremitted earnings from a foreign subsidiary or foreign venture that they designate permanently or indefinitely reinvested (IRFE).³⁰ Specifically,

²⁸ The Tax Cuts and Jobs Act of 2017, enacted December 22, 2017, converted the U.S. from a worldwide to a quasi-territorial tax system starting in 2018, effectively eliminating future U.S. repatriation taxes. It also imposed a one-time transition tax on the deemed repatriation of accumulated foreign earnings at a tax rate of 15.5% for cash assets and 8% for non-cash assets.

²⁹ Technically, the "repatriation" tax expense is recognized on all foreign earnings that will not be remitted in a tax-free liquidation (e.g., branch income, passive income, interest income, etc.).

³⁰ APB Opinion No. 23, par. 12, states: "The presumption that all undistributed earnings will be transferred to the parent company may be overcome, and no income taxes should be accrued by the parent company, if sufficient evidence shows that the subsidiary has invested or will invest the undistributed earnings indefinitely or that the earnings will be remitted in a tax-free liquidation. A parent company should have evidence of specific plans for reinvestment of undistributed earnings of a subsidiary, which demonstrate that remittance of the earnings will be postponed indefinitely. Experience of the companies and definite future programs of operations and remittances are examples of the types of evidence required to substantiate the parent company's representation of indefinite postponement of remittances from a subsidiary."

‘indefinitely reinvested’ means that the foreign earnings are not expected to be repatriated “in the foreseeable future” (ASC 740-30-25-18(a)), where the “foreseeable future” is sometimes understood to be within the next two years (Corum 2012). Rather than recognizing deferred tax expense on all unremitted foreign earnings in the current period, firms only recognize the associated tax expense if and when the foreign earnings designated as IRFE are repatriated or the designation is reversed.³¹

To support the assertion that foreign earnings are indefinitely reinvested, firms must demonstrate (1) the intent to reinvest abroad indefinitely, and (2) the ability to fund domestic operations without use of the foreign earnings. To establish intent, the foreign subsidiary must present evidence of specific plans for reinvestment, such as plans for plant and market expansion or future acquisitions. To demonstrate ability, the U.S. parent must have sufficient liquidity to satisfy domestic working capital needs, fund debt and pension obligations, and fulfill other capital requirements without the need to repatriate foreign earnings. Changes in circumstances that no longer satisfy these criteria will result in current period tax expense recognition for part or all of the unremitted earnings (ASC 740-30-25-15). This can happen when the earnings are physically repatriated (and the incremental U.S. tax is paid), or when the earnings are no longer considered indefinitely reinvested.

Firms are required to disclose the amount of IRFE in their financial statements and estimate the associated deferred tax liability, or state that the tax estimate is not practicable (ASC 740-30-

³¹ All other sources of foreign income such as passive income or branch earnings are subject to immediate taxation (and financial statement recognition) under Subpart F of the IRC.

50-2).³² Oftentimes, the indefinite reinvestment assertion is disclosed in the income tax footnote or in discussions of liquidity and capital resources.

Because the IRFE assertion is a financial reporting concept, it does not necessarily represent the balance of unremitted foreign earnings, or foreign assets, offshore (see Figure 1). IRFE are the difference between foreign book retained earnings and the outside basis of foreign investment. Outside basis differences can arise from undistributed foreign earnings, accumulated subsidiary losses, foreign currency translation gains and losses included in equity, business combinations, and gains recognized on the subsidiary's issuance of stock (Corum 2012). In practice, many firms approximate IRFE using accumulated foreign earnings and profits, a quasi-book amount. As such, IRFE can comprise both liquid assets and physical assets that cannot be easily liquidated and repatriated. In turn, foreign unremitted earnings, whether held in liquid or operating assets, may not all be designated as IRFE. Unremitted foreign earnings not designated as IRFE (on which a deferred tax liability is accrued) also do not necessarily represent foreign earnings that are intended to be repatriated, just unremitted foreign earnings that do not fulfil the Indefinite Reversal criteria.³³

³² Ayers, Schwab, and Utke (2015) find that not all firms comply with the mandate to disclose the amount of IRFE and the associated tax on IRFE, even though the disclosure is mandatory. However, the noncompliance is related to disclosure of the amount, not the incidence, of IRFE.

³³ To illustrate, the SEC challenged Apple Inc. CEO Tim Cook about Apple's decision to accrue repatriation tax expense on foreign earnings that the company did not intend to *repatriate* (SEC Comment Letter, June 2013). In response, Cook indicated that, while Apple had no intention of repatriating the foreign earnings, the firm also had no plans to indefinitely *reinvest* it. Hence, following the letter of the standard, Apple recorded repatriation tax expense on earnings it did not intend to repatriate.

APPENDIX D. EXAMPLES OF IRFE (APB 23) ASSERTION DISCLOSURES

Abbott Laboratories (ABT) 2012 Form 10-K, Note 5—Taxes on Earnings:

“[...] U.S. income taxes are provided on those earnings of foreign subsidiaries which are intended to be remitted to the parent company. Abbott does not record deferred income taxes on earnings reinvested indefinitely in foreign subsidiaries. *Undistributed earnings reinvested indefinitely in foreign subsidiaries as working capital and plant and equipment aggregated \$40.0 billion at December 31, 2012.* It is not practicable to determine the amount of deferred income taxes not provided on these earnings. [...]” [italics mine]

Amazon.com, Inc. (AMZN) 2014 Form 10-K, Liquidity and Capital Resources:

“[...] Except as required under U.S. tax laws, we do not provide for U.S. taxes on our undistributed earnings of foreign subsidiaries that have not been previously taxed since we intend to invest such undistributed earnings indefinitely outside of the U.S. If our intent changes or if these funds are needed for our U.S. operations, we would be required to accrue or pay U.S. taxes on some or all of these undistributed earnings and our effective tax rate would be adversely affected. As of December 31, 2014, cash, cash equivalents, and marketable securities held by foreign subsidiaries were \$4.6 billion, which included *undistributed earnings of foreign subsidiaries indefinitely invested outside of the U.S. of \$2.5 billion.*[...]” [italics mine]

Faro Technologies, Inc., (FARO) 2013 Form 10-K, Note. 12 Income Taxes:

“[...] The Company has not recognized any U.S. tax expense on undistributed international earnings, as it intends to reinvest the earnings outside the U.S. for the foreseeable future. *The Company’s net undistributed international earnings were approximately \$78.2 million and \$67.1 million at December 31, 2013 and 2012, respectively.*[...]” [italics mine]

Examples of changes to IRFE assertion following the Tax Cuts and Jobs Act:

Benchmark Electronics, Inc. (BHE) 2018 Q1 Form 10-Q, Note 11. Income Taxes:

“[...] As of December 31, 2017, the Company had approximately \$928 million in cumulative undistributed foreign earnings outside the U.S. Substantially all of these undistributed earnings are subject to the U.S. mandatory repatriation tax and are eligible to be repatriated to the U.S. without additional U.S. tax under the U.S. Tax Reform. *The Company has historically asserted its intention to indefinitely reinvest undistributed foreign earnings. The Company no longer consider these earnings to be indefinitely reinvested in its foreign subsidiaries.* As a result of this change in assertion for undistributed earnings prior to December 31, 2017, the Company has recorded \$30.7 million of deferred tax expense for foreign withholding tax from Asia and \$9.4 million of deferred U.S. state income tax expense in the first quarter of 2018.[...]” [italics mine]

The Clorox Company (CLX) 2018 Q3 Form 10-Q, Note 7. Income Taxes:

“[...] The Company regularly reviews and assesses whether there are any changes to its indefinite reinvestment assertion. Through the second quarter of fiscal year 2018, the Company had determined that the undistributed earnings of a number of its foreign subsidiaries were indefinitely reinvested. In the third quarter of fiscal year 2018, the *Company made the determination that none of the undistributed earnings of its foreign subsidiaries were indefinitely reinvested due to the passage of the Tax Act,* which significantly reduced the cost of U.S. repatriation. As a result, the Company is providing foreign withholding taxes on the undistributed earnings of all foreign subsidiaries where applicable, which has no significant impact on the Company’s consolidated results.[...]” [italics mine]

Figure 1. Composition of Unremitted Foreign Earnings

This figure illustrates the relation between indefinitely reinvested foreign earnings predicted by investment and tax savings opportunities (*Pred_IRFE*), an excess portion unjustified by investment and tax motives and that is related to financial reporting incentives (*Excess_IRFE*), and total unremitted foreign earnings. The U.S. repatriation tax (difference between U.S. and foreign tax rate) is accrued on non-IRFE foreign earnings in the year it is earned (even if it is not paid in the current year), but not on *Pred_IRFE* or *Excess_IRFE*. Figure is not drawn to scale.

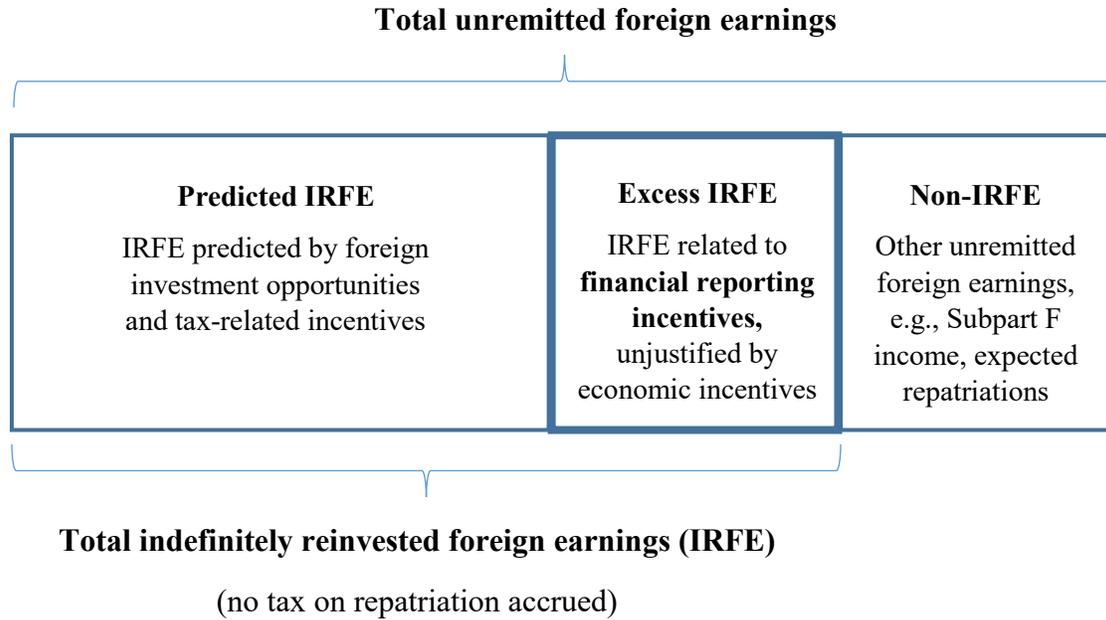


Figure 2a. IRFE Over Time – All Firms

Figure 2a displays the average reported IRFE each year as a percentage of total worldwide assets and as a percentage of foreign assets. From 2007 to 2015, the average IRFE increased steadily from nearly 10% of total assets to over 16% of total assets, suggesting that foreign operations have grown relative to domestic operations over time. Over the same period, the average IRFE has increased from around 79% of foreign assets to 88% of foreign assets. This suggests that a greater proportion of foreign earnings are reinvested rather than repatriated over time.

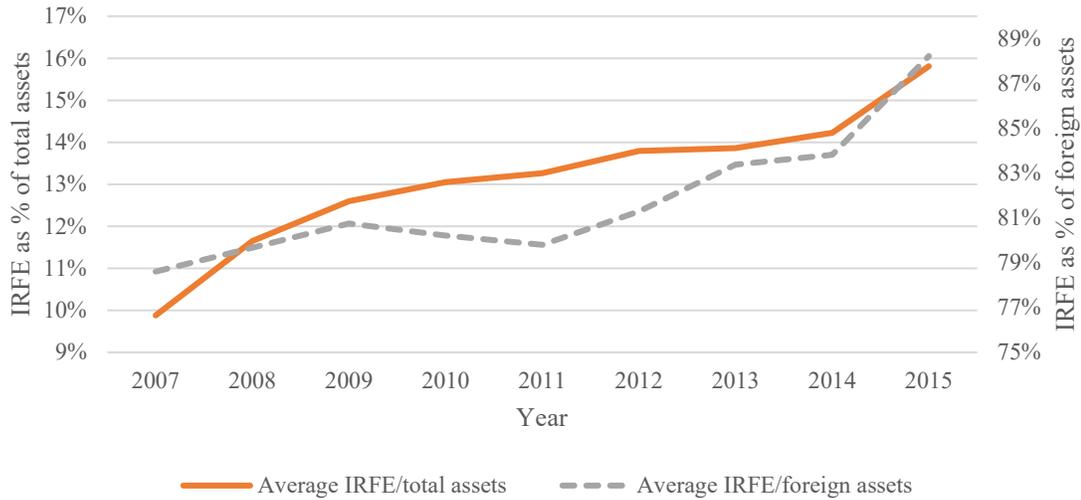


Figure 2b. IRFE and Foreign Pretax ROA Over Time – All Firms

Figure 2b plots the median annual foreign pretax ROA over time alongside the average reported IRFE each year as a percentage of total worldwide assets. Although IRFE has increased each year, the median pretax ROA of foreign investments has been in steady decline since 2010, from nearly 23% pretax return on foreign assets in 2010 to just below 19% in 2015.

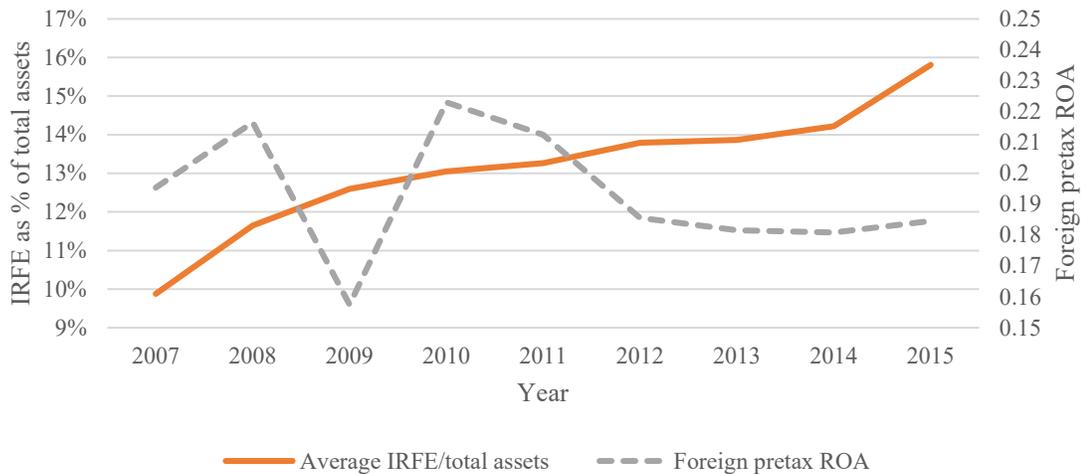


Table 1. Sample and Data

This table summarizes the sample selection procedure for this study. All variables are defined in Appendix A. Additional sample restrictions apply to each analysis depending on the required data variables.

| Sample selection procedure | N |
|--|----------------|
| U.S. multinational firm-year observations in Compustat NA from 2007 to 2015 with non-missing, non-negative total assets [AT] | 43,383 |
| Less: firm-years with missing IRFE amounts from the 10-K (from Audit Analytics) or zero identifiable foreign assets [IAS] (from Compustat Segment) | (33,948) |
| Less: firm-years without identifiable foreign assets, foreign property, plant, and equipment, or foreign sales [SALES] (from Compustat Segment) | (679) |
| Less: firm-years without data to compute determinants of IRFE (e.g., 3-year average foreign tax rate) | <u>(3,680)</u> |
| Sample for IRFE determinants model | 5,076 |
| <i>Investment profitability test</i> IRFE sample with non-missing tax and investment-related variables | 5,076 |
| Less: firm-years dropped when deriving predicted IRFE (e.g, firms in industries with fewer than 10 obs.) | <u>(1,239)</u> |
| Sample with Excess IRFE | 3,837 |

Table 2. Sample Statistics

This table presents descriptive statistics for main variables. *IRFE* is the amount of indefinitely reinvested foreign earnings reported on the 10-K, scaled by worldwide assets [AT]. *Pred_IRFE* is the component of IRFE predicted from a regression of IRFE on investment, tax, and control variables (Eqn. 1). *Excess_IRFE* is the greater of zero or the residual portion of IRFE. *ROA_diff* is the difference between the after-tax foreign ROA and after-tax domestic ROA in *t-1*. *For_growth* is foreign sales growth from *t-1* to *t*. *Dom_growth* is the domestic sales growth from *t-1* to *t*, where domestic sales is computed as total sales [REVT] less foreign sales. *%Foreign_sales* is the percentage of total sales [REVT] that is foreign. *MTB* is the market-to-book ratio. *Foreign_taxdiff* is the difference between the U.S. statutory rate (35%) and the average foreign tax rate over the prior 3 years. *R&D* is research and development expense [XRD], scaled by lagged total assets. *Haven_intensity* is the percentage of countries in which affiliates are located that are considered tax havens based on the OECD classification. *Size* is the log of total assets. *Lev* is long-term debt and the current maturity of long-term debt, scaled by total assets. *Div_yld* is total dividends, scaled by year-end market value of equity. *NOL* is the NOL carryforward at the beginning of the year, scaled by lagged assets. *CFO* are operating cash flows, scaled by lagged assets. *%Just_beat* is the percentage of quarters up to period *t* in which a firm beats the median analyst consensus forecast by 2 cents or less. *%Beat_IRFE* is the percentage of firm-years up to period *t* in which a firm beats the median analyst consensus forecast, but would have missed if the estimated current tax benefit of IRFE were removed from actual EPS. *Following* is the log of number of analysts covering a firm. *IO_short_term* is the percent of the firm's equity that is held by institutional investors classified as "transient" or "quasi-indexer" based on Bushee (1998). *CEO_equity* is the percent of total CEO compensation that is equity-based. *For_ptroa - 3 year* is the cumulative pretax foreign income, scaled by average foreign assets over the next 3 years. *ROA_gap - 3 year* is the cumulative difference between actual and benchmark pretax foreign ROA over the next 3 years, where the benchmark foreign pretax ROA is computed as the average after-tax domestic ROA, scaled by one minus the average foreign tax rate over the previous 3 years. *BHAR - 36* is the market-adjusted buy-and-hold returns over the next 36 months, starting 3 months after the current fiscal year-end. See Appendix A for more detailed variable descriptions. All continuous measures are winsorized at the 1st and 99th percentiles.

| Panel A. Descriptive statistics | | | | | | |
|---------------------------------|------|--------|--------|----------|---------|--------|
| Variable | N | Mean | Median | Std. Dev | Q25 | Q75 |
| IRFE variables | | | | | | |
| <i>IRFE</i> | 3837 | 0.1663 | 0.1234 | 0.1487 | 0.0427 | 0.2524 |
| <i>Pred_IRFE</i> | 3837 | 0.1663 | 0.1632 | 0.1093 | 0.0862 | 0.2321 |
| <i>Excess_IRFE</i> | 3837 | 0.0356 | 0.0000 | 0.0692 | 0.0000 | 0.0415 |
| Investment and tax variables | | | | | | |
| <i>ROA_diff</i> | 3751 | 0.4633 | 0.1203 | 20.910 | 0.0026 | 0.2802 |
| <i>For_growth</i> | 3837 | 0.0997 | 0.0608 | 0.3053 | -0.0346 | 0.1791 |
| <i>Dom_growth</i> | 3837 | 0.0522 | 0.0457 | 0.3690 | -0.0586 | 0.1477 |
| <i>%Foreign_sales</i> | 3837 | 0.5004 | 0.4877 | 0.2560 | 0.3073 | 0.6706 |
| <i>MTB</i> | 3837 | 2.9656 | 2.3057 | 3.3006 | 1.4558 | 3.6564 |
| <i>Foreign_taxdiff</i> | 3837 | 0.0873 | 0.1132 | 0.2289 | 0.0190 | 0.2325 |
| <i>R&D</i> | 3837 | 0.0503 | 0.0237 | 0.0638 | 0.0011 | 0.0788 |
| <i>Haven_intensity</i> | 3837 | 0.5325 | 0.2000 | 1.1172 | 0.1111 | 0.3333 |
| Control variables | | | | | | |
| <i>Size</i> | 3837 | 7.5060 | 7.4626 | 1.6733 | 6.3629 | 8.5545 |
| <i>Lev</i> | 3837 | 0.2937 | 0.1369 | 0.7288 | 0.0196 | 0.3121 |

Table 2—continued

| | | | | | | |
|--|------|--------|---------|--------|---------|--------|
| <i>Div_yld</i> | 3837 | 0.0098 | 0.0000 | 0.0160 | 0.0000 | 0.0165 |
| <i>NOL</i> | 3837 | 0.1862 | 0.0311 | 0.6274 | 0.0000 | 0.1306 |
| <i>CFO</i> | 3837 | 0.1071 | 0.1036 | 0.0823 | 0.0628 | 0.1500 |
| Financial reporting incentives variables | | | | | | |
| <i>%Just_beat</i> | 3837 | 0.1198 | 0.0000 | 0.1825 | 0.0000 | 0.2000 |
| <i>%Beat_IRFE</i> | 1517 | 0.2447 | 0.2000 | 0.2408 | 0.0000 | 0.4115 |
| <i>Following</i> | 3837 | 0.5649 | 0.0000 | 0.9178 | 0.0000 | 1.0986 |
| <i>IO_short_term</i> | 3001 | 0.6729 | 0.7047 | 0.2072 | 0.5758 | 0.5087 |
| <i>CEO_equity</i> | 2962 | 0.5124 | 0.5437 | 0.2198 | 0.4013 | 0.6723 |
| Investment profitability variables | | | | | | |
| <i>For_ptroa – 3 year</i> | 3569 | 0.5098 | 0.4153 | 1.4336 | 0.1443 | 0.7779 |
| <i>ROA_gap – 3 year</i> | 3567 | 0.4350 | 0.3301 | 1.5293 | 0.0518 | 0.6992 |
| <i>BHAR – 36 mos</i> | 2181 | 0.1191 | -0.0080 | 1.1145 | -0.3890 | 0.3874 |

Table 2—continued

| Panel B. Average IRFE and excess IRFE over time | | | |
|---|-----------------|-------------|--------------------|
| Year | No. Obs. | IRFE | Excess IRFE |
| 2007 | 118 | 0.133 | 0.023 |
| 2008 | 190 | 0.161 | 0.031 |
| 2009 | 429 | 0.160 | 0.034 |
| 2010 | 526 | 0.159 | 0.033 |
| 2011 | 548 | 0.167 | 0.037 |
| 2012 | 602 | 0.170 | 0.037 |
| 2013 | 649 | 0.170 | 0.038 |
| 2014 | 582 | 0.174 | 0.038 |
| 2015 | 193 | 0.197 | 0.032 |
| | 3,837 | | |

This panel shows the distribution of average IRFE and excess IRFE (as a percentage of total assets) by year.

| Panel C. Average IRFE and excess IRFE by industry | | | |
|---|--------------------|-------------|--------------------|
| Industry | % of Sample | IRFE | Excess IRFE |
| Oil and Gas | 3.6% | 0.139 | 0.017 |
| Food Products | 3.1% | 0.122 | 0.012 |
| Chemicals | 12.0% | 0.214 | 0.038 |
| Primary Metals | 1.6% | 0.109 | 0.002 |
| Fabricated Metal | 3.0% | 0.132 | 0.013 |
| Machinery and Computer Equipment | 15.0% | 0.159 | 0.038 |
| Electronic and Electrical | 16.1% | 0.201 | 0.044 |
| Transportation Equipment | 4.2% | 0.166 | 0.024 |
| Measuring Instruments, etc. | 9.9% | 0.181 | 0.042 |
| Wholesale Durable Goods | 3.2% | 0.095 | 0.012 |
| Business Services | 19.2% | 0.137 | 0.037 |
| Engineering, Accounting, etc. | 2.4% | 0.097 | 0.009 |
| Other industries | 6.8% | 0.138 | 0.000 |

This panel displays the average IRFE and excess IRFE (as a percentage of total assets) by major industry, where industry is based on the 2-digit SIC code. The percent of observations that are represented by each industry are also shown.

Table 2—continued

This table presents Pearson (above diagonal) and Spearman (below diagonal) correlations for main variables. **Bold** typeface indicates significance at the 5% level. All continuous measures are winsorized at the 1st and 99th percentiles. *IRFE* is the amount of indefinitely reinvested foreign earnings reported on the 10-K, scaled by worldwide assets [AT]. *Pred_IRFE* is the component of IRFE predicted from a regression of IRFE on investment, tax, and control variables (Eqn. 1). *Excess_IRFE* is the greater of zero or the residual portion of IRFE. *ROA_diff* is the difference between the after-tax foreign ROA and after-tax domestic ROA in *t-1*. *For_growth* is foreign sales growth from *t-1* to *t*. *Dom_growth* is the domestic sales growth from *t-1* to *t*, where domestic sales is computed as total sales [REVT] less foreign sales. *%Foreign_sales* is the percentage of total sales [REVT] that is foreign. *MTB* is the market-to-book ratio. *Foreign_taxdiff* is the difference between the U.S. statutory rate (35%) and the average foreign tax rate over the prior 3 years. *R&D* is research and development expense [XRD], scaled by lagged total assets. *Haven_intensity* is the percentage of countries in which affiliates are located that are considered tax havens based on the OECD classification. *Size* is the log of total assets. *Lev* is long-term debt and the current maturity of long-term debt, scaled by total assets. *Div_yld* is total dividends, scaled by year-end market value of equity. *NOL* is the NOL carryforward at the beginning of the year, scaled by lagged assets. *CFO* are operating cash flows, scaled by lagged assets. See Appendix A for more detailed variable descriptions.

| Panel D. Univariate correlations | | | | | | | | | | | | | | | | | |
|----------------------------------|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| (1) | <i>IRFE</i> | | 0.735 | 0.696 | -0.014 | -0.080 | 0.006 | 0.368 | 0.024 | 0.083 | 0.155 | 0.032 | 0.198 | -0.070 | 0.103 | -0.053 | 0.191 |
| (2) | <i>Pred_IRFE</i> | 0.743 | | 0.147 | -0.011 | -0.109 | 0.008 | 0.501 | 0.032 | 0.112 | 0.210 | 0.044 | 0.270 | -0.096 | 0.140 | -0.071 | 0.260 |
| (3) | <i>Excess_IRFE</i> | 0.560 | 0.095 | | -0.008 | -0.029 | 0.000 | 0.091 | -0.021 | 0.004 | 0.063 | 0.083 | -0.023 | -0.051 | -0.038 | 0.012 | 0.027 |
| (4) | <i>ROA_diff</i> | 0.063 | 0.077 | 0.010 | | 0.004 | 0.010 | -0.016 | 0.030 | -0.006 | -0.013 | 0.011 | -0.013 | -0.007 | -0.009 | -0.012 | 0.026 |
| (5) | <i>For_growth</i> | -0.077 | -0.093 | -0.014 | 0.154 | | 0.077 | 0.005 | 0.054 | -0.027 | -0.016 | 0.049 | -0.059 | -0.058 | -0.085 | -0.020 | 0.168 |
| (6) | <i>Dom_growth</i> | -0.035 | -0.025 | -0.013 | 0.047 | 0.295 | | -0.143 | 0.063 | 0.006 | 0.008 | 0.066 | -0.048 | -0.035 | -0.051 | -0.029 | 0.139 |
| (7) | <i>%Foreign_sales</i> | 0.423 | 0.539 | 0.078 | 0.109 | -0.026 | -0.155 | | -0.027 | 0.060 | 0.044 | 0.215 | 0.092 | 0.019 | -0.016 | 0.118 | -0.039 |
| (8) | <i>MTB</i> | 0.090 | 0.119 | 0.010 | 0.131 | 0.163 | 0.196 | -0.054 | | 0.056 | 0.020 | 0.108 | 0.082 | -0.128 | 0.022 | 0.028 | 0.223 |
| (9) | <i>Haven_intensity</i> | 0.110 | 0.124 | 0.009 | 0.088 | 0.003 | 0.001 | 0.127 | 0.022 | | -0.019 | 0.027 | 0.106 | 0.000 | 0.005 | 0.024 | -0.018 |
| (10) | <i>Foreign_taxdiff</i> | 0.107 | 0.175 | 0.028 | 0.027 | -0.017 | -0.009 | 0.051 | -0.007 | 0.084 | | 0.136 | 0.037 | -0.057 | -0.021 | 0.025 | 0.047 |
| (11) | <i>R&D</i> | 0.087 | 0.176 | 0.076 | 0.103 | 0.033 | 0.066 | 0.262 | 0.186 | 0.077 | 0.195 | | -0.230 | -0.134 | -0.161 | 0.318 | 0.016 |
| (12) | <i>Size</i> | 0.228 | 0.265 | -0.007 | 0.040 | -0.048 | -0.052 | 0.086 | 0.201 | 0.136 | 0.015 | -0.165 | | 0.078 | 0.233 | -0.191 | 0.183 |
| (13) | <i>Lev</i> | -0.057 | -0.106 | -0.061 | -0.101 | -0.106 | -0.108 | -0.035 | -0.207 | -0.008 | -0.082 | -0.356 | 0.373 | | 0.011 | 0.052 | -0.200 |
| (14) | <i>Div_yld</i> | 0.158 | 0.159 | 0.014 | -0.082 | -0.099 | -0.091 | -0.032 | 0.133 | -0.023 | -0.090 | -0.222 | 0.350 | 0.136 | | -0.045 | 0.045 |
| (15) | <i>NOL</i> | -0.027 | -0.014 | 0.018 | 0.004 | -0.040 | -0.029 | 0.144 | -0.079 | 0.063 | 0.103 | 0.175 | -0.174 | 0.031 | -0.226 | | -0.248 |
| (16) | <i>CFO</i> | 0.199 | 0.266 | 0.046 | 0.133 | 0.193 | 0.177 | -0.036 | 0.448 | 0.067 | 0.036 | 0.097 | 0.163 | -0.273 | 0.105 | -0.177 | |

Table 3. Determinants of IRFE

This table presents the determinants of IRFE estimated in the pooled cross-section. Panel A presents the determinants of levels of IRFE. Col. 2 is the basis for the first stage IRFE prediction model used to decompose IRFE into a predicted and residual portion. Panel B presents the determinants of changes in IRFE from year $t-1$ to t . Levels variables are measured in year $t-1$ and flow variables are measured from $t-1$ to t . *IRFE* is the amount of indefinitely reinvested foreign earnings reported on the 10-K, scaled by worldwide assets [AT]. *ROA_diff* is the difference between the after-tax foreign ROA and after-tax domestic ROA in $t-1$. *For_growth* is foreign sales growth from $t-1$ to t . *MTB* is the market-to-book ratio. *Dom_growth* is the domestic sales growth from $t-1$ to t , where domestic sales is computed as total sales [REVT] less foreign sales. *%Foreign_sales* is the percentage of total sales [REVT] that is foreign. *R&D* is research and development expense [XRD], scaled by lagged total assets. *Haven_intensity* is the percentage of countries in which affiliates are located that are considered tax havens based on the OECD classification. *Foreign_taxdiff* is the difference between the U.S. statutory rate (35%) and the average foreign tax rate over the prior 3 years. *%Just_beat* is the percentage of quarters up to period t in which a firm beats the median analyst consensus forecast by 2 cents or less. *%Beat_IRFE* is the percentage of firm-years up to period t in which a firm beats the median analyst consensus forecast, but would have missed if the estimated current tax benefit of IRFE (change in IRFE from $t-1$ to t times the average foreign tax differential, scaled by common shares outstanding) were removed from actual EPS. *Beat_IRFE_dum* is an indicator variable for whether a firm has beaten the analyst consensus forecast in period t but would have missed if the estimated current tax benefit of IRFE were removed from actual EPS. *Size* is the log of total assets. *Lev* is long-term debt and the current maturity of long-term debt, scaled by total assets. *Div_yld* is total dividends, scaled by year-end market value of equity. *NOL* is the NOL carryforward at the beginning of the year, scaled by lagged assets. *CFO* are operating cash flows, scaled by lagged assets. *LIBOR* is the average of monthly 1-year LIBOR rates over the calendar year. See Appendix A for more detailed variable descriptions. *, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. T-stats are shown in parentheses below coefficient estimates. All columns include industry and year fixed effects, and robust errors clustered at the firm level.

Panel A. Levels of IRFE

$$\text{Base model: } IRFE_{i,t} = \beta_0 + \beta_1 ROA_diff_{i,t} + \beta_2 For_growth_{i,t} + \beta_3 MTB_{i,t} + \beta_4 Dom_growth_{i,t} + \beta_5 \%Foreign_sales_{i,t} + \beta_6 R\&D_{i,t} + \beta_7 Haven_intensity_{i,t} + \beta_8 Foreign_taxdiff_{i,t} + \varepsilon_{i,t}$$

| VARIABLES | Pred. sign | (1) | (2) | (3) | (4) |
|------------------------|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <i>ROA_diff</i> | (+) | 0.003 (1.443) | 0.001 (0.312) | 0.001 (0.226) | -0.002 (-0.576) |
| <i>For_growth</i> | (?) | -0.034*** (-5.928) | -0.043*** (-7.876) | -0.043*** (-7.856) | -0.048*** (-4.608) |
| <i>MTB</i> | (+/?) | 0.001 (1.369) | -0.001* (-1.716) | -0.001** (-1.970) | -0.002 (-1.363) |
| <i>Dom_growth</i> | (-) | 0.015* (1.902) | 0.010 (1.233) | 0.009 (1.156) | 0.020* (1.867) |
| <i>%Foreign_sales</i> | (+) | 0.213*** (12.726) | 0.212*** (13.077) | 0.211*** (12.867) | 0.214*** (8.192) |
| <i>R&D</i> | (+) | -0.242*** (-3.326) | -0.165** (-2.209) | -0.186** (-2.503) | -0.188 (-1.636) |
| <i>Haven_intensity</i> | (+) | 0.006** (2.111) | 0.004 (1.437) | 0.004 (1.518) | 0.003 (1.029) |

| Panel A. Levels of IRFE (cont'd) | | (1) | (2) | (3) | (4) |
|----------------------------------|-----|---------------------|-----------------------|-----------------------|-----------------------|
| <i>Foreign_taxdiff</i> | (+) | 0.074*** (6.957) | 0.067*** (6.712) | 0.067*** (6.709) | 0.025 (1.281) |
| <i>%Just_beat</i> | (+) | | | 0.055** (2.449) | |
| <i>%Beat_IRFE</i> | (+) | | | | 0.142*** (5.267) |
| <i>Size</i> | (+) | | 0.006*** (2.589) | 0.005** (2.067) | 0.010** (2.507) |
| <i>Lev</i> | (-) | | -0.009 (-1.641) | -0.008 (-1.500) | -0.019** (-2.328) |
| <i>Div_yld</i> | (?) | | 0.539*** (2.827) | 0.513*** (2.703) | 0.760** (2.270) |
| <i>NOL</i> | (-) | | -0.002 (-0.299) | -0.002 (-0.242) | 0.001 (0.080) |
| <i>CFO</i> | (+) | | 0.323*** (7.968) | 0.306*** (7.536) | 0.340*** (5.193) |
| <i>LIBOR</i> | (-) | | -2.140*** (-3.637) | -2.471*** (-4.098) | -5.895*** (-6.318) |
| <i>Intercept</i> | | 0.019* (1.929) | 0.046 (1.251) | 0.069* (1.876) | 0.022 (0.487) |
| Observations | | 5,076 | 5,076 | 5,076 | 1,972 |
| Adjusted R-squared | | 0.219 | 0.245 | 0.292 | 0.296 |

Panel B. Changes in IRFE

$$\text{Base model: } \Delta IRFE_{i,t-1 \text{ to } t} = \beta_0 + \beta_1 ROA_diff_{i,t-1} + \beta_2 For_growth_{i,t} + \beta_3 MTB_{i,t-1} + \beta_4 Dom_growth_{i,t} \\ + \beta_5 \%Foreign_sales_{i,t-1} + \beta_6 R\&D_{i,t-1} + \beta_7 Haven_intensity_{i,t-1} + \beta_8 Foreign_taxdiff_{i,t-1} + \varepsilon_{i,t}$$

| VARIABLES | Pred. sign | (1) | (2) | (3) | (4) |
|-----------------------|------------|---------------------|---------------------|---------------------|---------------------|
| <i>ROA_diff</i> | (+) | 0.004*** (6.612) | 0.002*** (4.663) | 0.002*** (3.263) | 0.002*** (3.110) |
| <i>For_growth</i> | (+) | 0.014*** (4.898) | 0.009*** (3.676) | 0.011*** (2.740) | 0.009** (2.468) |
| <i>MTB</i> | (+) | 0.001*** (4.332) | 0.000 (0.574) | -0.000 (-0.422) | -0.000 (-0.130) |
| <i>Dom_growth</i> | (-) | 0.004* (1.799) | 0.003 (1.283) | 0.003 (0.809) | 0.004 (1.161) |
| <i>%Foreign_sales</i> | (+) | 0.024*** (7.322) | 0.028*** (9.408) | 0.027*** (5.051) | 0.030*** (6.302) |
| <i>R&D</i> | (+) | -0.019 (-1.098) | -0.019 (-1.155) | 0.004 (0.158) | -0.021 (-0.785) |

| Panel B. Changes in IRFE (cont'd) | | (1) | (2) | (3) | (4) |
|-----------------------------------|-----|-----------------------|-----------------------|-----------------------|-----------------------|
| <i>Haven_intensity</i> | (+) | -0.001 (-0.973) | -0.001 (-1.591) | -0.002** (-1.998) | -0.002 (-1.559) |
| <i>Foreign_taxdiff</i> | (+) | 0.019*** (7.007) | 0.016*** (6.262) | 0.007 (1.519) | 0.004 (1.014) |
| <i>%Beat_IRFE</i> | (+) | | | 0.032*** (5.829) | |
| <i>Beat_IRFE_dum</i> | (+) | | | | 0.022*** (10.083) |
| <i>Size</i> | (+) | | 0.001** (2.559) | 0.002** (2.060) | 0.001 (1.494) |
| <i>Lev</i> | (-) | | -0.003*** (-2.890) | -0.006*** (-3.341) | -0.006*** (-3.190) |
| <i>Div_yld</i> | (?) | | -0.017 (-0.396) | 0.017 (0.281) | 0.018 (0.339) |
| <i>NOL</i> | (-) | | 0.000 (0.309) | -0.000 (-0.195) | -0.002 (-0.975) |
| <i>CFO</i> | (+) | | 0.127*** (11.445) | 0.143*** (8.199) | 0.118*** (7.020) |
| <i>LIBOR</i> | (-) | | -0.010 (-0.101) | -0.748*** (-2.723) | -0.688** (-2.395) |
| <i>Intercept</i> | | -0.024*** (-5.759) | -0.055*** (-7.774) | -0.025* (-1.802) | -0.017 (-1.085) |
| Observations | | 4,518 | 4,518 | 1,957 | 1,970 |
| Adjusted R-squared | | 0.0962 | 0.180 | 0.237 | 0.276 |

Table 4. IRFE and Financial Reporting Incentives

This table presents the relation between financial reporting incentives and the residual from the model of predicted IRFE (Eqn. 1), partitioned by sign. Panel A displays the difference in the means of each financial reporting variable between groups, with test statistics using the Cochran approximation due to unequal variances between groups. Panel B displays the Pearson correlation between each financial reporting variable and the residual, divided by sign. IRFE (residual > 0) captures IRFE in excess of what is predicted by tax and investment incentives. IRFE (residual < 0) captures IRFE below what is predicted by tax and investment incentives. *%Just_beat* is the percentage of quarters up to period *t* in which a firm beats the median analyst consensus forecast by 2 cents or less. *%Beat_IRFE* is the percentage of firm-years up to period *t* in which a firm beats the median analyst consensus forecast, but would have missed if the estimated current tax benefit of IRFE (change in IRFE from *t-1* to *t* times the average foreign tax differential, scaled by common shares outstanding) were removed from actual EPS. *Following* is the log of number of analysts covering a firm. *IO_short_term* is the percent of the firm's equity that is held by institutional investors classified as "transient" or "quasi-indexer" based on Bushee (1998), which represent investors with a short-term earnings focus. *IO_dedicated* is the percent of the firm's equity that is held by institutional investors classified as "dedicated" based on Bushee (1998), which represent long-term investors and proxies for institutional monitoring. *CEO_equity* is the percent of total CEO compensation that is equity-based and captures short-term earnings pressure. See Appendix A for more detailed variable descriptions. *, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively.

| Panel A. Difference in means | | | | | | |
|------------------------------|---------------------|-------------|---------------------|-------------|-----------------------------|----------|
| VARIABLES | IRFE (residual > 0) | | IRFE (residual < 0) | | Diff. in means (1) - (2) | T-stat |
| | N | (1) Mean | N | (2) Mean | | |
| <i>%Just_beat</i> | 1,770 | 0.130 | 2,067 | 0.111 | 0.020 | 3.28*** |
| <i>%Beat_IRFE</i> | 730 | 0.309 | 787 | 0.185 | 0.124 | 10.28*** |
| <i>CEO_equity</i> | 1,353 | 0.515 | 1,612 | 0.511 | 0.004 | 0.53 |
| <i>IO_short_term</i> | 1,359 | 0.679 | 1,642 | 0.668 | 0.012 | 1.54 |
| <i>IO_dedicated</i> | 1,359 | 0.044 | 1,642 | 0.045 | -0.001 | 0.43 |
| <i>Following</i> | 1,770 | 0.600 | 2,067 | 0.535 | 0.064 | 2.15* |

| Panel B. Correlations | | | | | | |
|-----------------------|---------------------|-------------|-----------|---------------------|-------------|----------|
| VARIABLES | IRFE (residual > 0) | | | IRFE (residual < 0) | | |
| | N | coefficient | p-value | N | coefficient | p-value |
| <i>%Just_beat</i> | 1,770 | 0.132 | <.0001*** | 2,067 | -0.073 | 0.001*** |
| <i>%Beat_IRFE</i> | 730 | 0.260 | <.0001*** | 787 | 0.072 | 0.042** |
| <i>IO_short_term</i> | 1,359 | -0.002 | 0.941 | 1,642 | -0.041 | 0.098* |
| <i>CEO_equity</i> | 1,353 | 0.051 | 0.063* | 1,612 | -0.066 | 0.008*** |
| <i>Following</i> | 1,770 | 0.128 | 0.003*** | 2,067 | -0.040 | 0.067* |
| <i>IO_dedicated</i> | 1,359 | -0.101 | 0.000*** | 1,642 | 0.072 | 0.004*** |

Table 5. Excess IRFE and Future Performance

This table shows the relation between predicted and excess IRFE and future performance. In Panel A, future investment performance is computed as foreign pretax ROA, the foreign ROA gap, and market-adjusted returns. In Panel B, investment performance is based on alternate definitions of the foreign ROA gap (*ROA_gap*), in which the foreign tax rate is 0%, or the domestic tax rate is 8.75% (proposed tax holiday), and based on the probability of having a negative ROA gap (falling below estimated required rate of return). *Pred_IRFE* is predicted IRFE from the regression of IRFE on investment, tax, and control variables, estimated for each industry-year, where industry is based on 2-digit SIC. *Excess_IRFE* is the greater of zero or the industry-year residual from the model of predicted IRFE. *For_ptroa* is the current pretax foreign income, scaled by average foreign assets. *ROA_diff* is the difference between the after-tax foreign ROA and after-tax domestic ROA in *t-1*. *ROA_vol* is the standard deviation of foreign after-tax ROA over the preceding 3 years. *For_growth* is foreign sales growth from *t-1* to *t*. *Size* is the log of total assets. *Lev* is long-term debt and the current maturity of long-term debt, scaled by total assets. *MTB* is the market-to-book ratio. *Dom_growth* is the domestic sales growth from *t-1* to *t*, where domestic sales is computed as total sales [REVT] less foreign sales. See Appendix A for detailed variable descriptions. *, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. T-stats are shown in parentheses below coefficient estimates. All columns include industry and year fixed effects, and robust errors clustered at the firm level.

$$\text{Model: } Inv_prof_{i,t+k} = \beta_0 + \beta_1 Pred_IRFE_{i,t} + \beta_2 Excess_IRFE_{i,t} + \beta_3 For_ptroa_{i,t} + \beta_4 ROA_diff_{i,t} + \beta_5 ROA_vol_{i,t} + \beta_6 Size_{i,t} + \beta_7 Lev_{i,t} + \beta_8 MTB_{i,t} + \beta_9 For_growth_{i,t} + \beta_{10} Dom_growth_{i,t} + \varepsilon_{i,t}$$

| Panel A. Future foreign profitability | | | | | | | | | | |
|---------------------------------------|------------|---|----------------------|-----------------------|------------------------------------|---------------------|----------------------|--------------------------------------|--------------------|--------------------|
| Dependent variable = | | Foreign pretax ROA (<i>For_ptroa</i>) | | | Foreign ROA gap (<i>ROA_gap</i>) | | | Market-adjusted BHAR (<i>BHAR</i>) | | |
| VARIABLES | Pred. sign | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | (0,12 mos) | (0,24 mos) | (0,36 mos) |
| <i>Pred_IRFE</i> | (-/?) | -0.191 (-1.254) | -0.129 (-0.409) | -0.007 (-0.018) | -0.227 (-1.384) | -0.075 (-0.232) | -0.100 (-0.251) | 0.061 (0.619) | 0.079 (0.487) | 0.107 (0.506) |
| <i>Excess_IRFE</i> | (-) | -0.159 (-1.331) | -0.463** (-2.140) | -0.789*** (-2.757) | -0.193 (-1.194) | -0.414* (-1.769) | -0.661** (-2.071) | -0.051 (-0.374) | -0.204 (-0.979) | -0.168 (-0.632) |
| <i>For_ptroa</i> | (-/?) | 0.070 (1.610) | 0.003 (0.024) | 0.040 (0.524) | 0.040 (0.751) | -0.058 (-0.468) | -0.006 (-0.082) | -0.000 (-0.023) | -0.001 (-0.142) | 0.004 (0.339) |
| <i>ROA_diff</i> | (-/?) | -0.087* (-1.655) | 0.021 (0.122) | -0.039 (-0.475) | -0.047 (-0.680) | 0.097 (0.566) | 0.010 (0.123) | -0.000 (-0.010) | 0.003 (0.407) | -0.001 (-0.084) |
| <i>ROA_vol</i> | (?) | 0.011 (0.749) | 0.031 (0.915) | 0.048 (1.189) | 0.012 (0.785) | 0.037 (1.032) | 0.059 (1.357) | 0.002 (0.638) | -0.002 (-0.381) | -0.007 (-0.728) |

Table 5—continued

| Dependent variable = | | Foreign pretax ROA (<i>For_ptroa</i>) | | | Foreign ROA gap (<i>ROA_gap</i>) | | | Market-adjusted BHAR (<i>BHAR</i>) | | |
|---|------------|---|----------------------|----------------------|------------------------------------|--------------------|----------------------|--------------------------------------|-----------------------|-----------------------|
| | | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | (0,12 mos) | (0,24 mos) | (0,36 mos) |
| <i>Size</i> | (+) | 0.026*** (2.796) | 0.058*** (3.043) | 0.078*** (3.088) | 0.021* (1.811) | 0.039** (1.965) | 0.055** (2.102) | -0.004 (-0.595) | -0.002 (-0.181) | 0.017 (1.146) |
| <i>Lev</i> | (?) | -0.135* (-1.909) | -0.449** (-2.260) | -0.585** (-2.482) | -0.177 (-1.074) | -0.268 (-1.352) | -0.503** (-2.104) | 0.165*** (2.696) | 0.248** (2.549) | 0.093 (0.802) |
| <i>MTB</i> | (+) | 0.008 (1.237) | 0.013 (1.322) | 0.013 (0.880) | 0.001 (0.183) | 0.003 (0.323) | -0.001 (-0.054) | -0.005 (-1.385) | -0.009 (-1.580) | -0.005 (-0.816) |
| <i>For_growth</i> | (+) | 0.123** (2.523) | 0.163* (1.929) | 0.169 (1.638) | 0.089* (1.769) | 0.142 (1.618) | 0.191* (1.832) | -0.137*** (-4.418) | -0.193*** (-3.815) | -0.161*** (-2.893) |
| <i>Dom_growth</i> | (+) | 0.064* (1.661) | 0.134** (2.332) | 0.139** (2.233) | 0.028 (0.685) | 0.076 (1.289) | 0.077 (1.032) | 0.007 (0.229) | 0.062 (1.475) | 0.022 (0.509) |
| <i>Intercept</i> | | 0.037 (0.365) | -0.142 (-0.832) | -0.179 (-0.704) | 0.119 (1.093) | -0.019 (-0.105) | 0.035 (0.131) | -0.020 (-0.377) | 0.066 (0.737) | 0.154 (1.127) |
| Observations | | 3,454 | 3,454 | 3,454 | 3,453 | 3,453 | 3,453 | 2,085 | 2,085 | 2,085 |
| Adj. R-squared | | 0.0316 | 0.0339 | 0.0379 | 0.0161 | 0.0259 | 0.0267 | 0.0689 | 0.0796 | 0.0637 |
| Panel B. Alternative profitability measures | | | | | | | | | | |
| ROA gap if: | | Foreign tax rate = 0% | | | Domestic tax rate = 8.75% | | | Pr(ROA gap < 0) | | |
| VARIABLES | Pred. sign | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> |
| <i>Pred_IRFE</i> | (-/?) | -0.272* (-1.831) | -0.024 (-0.071) | 0.109 (0.268) | -0.120 (-0.634) | 0.100 (0.280) | 0.266 (0.617) | -0.445*** (-4.495) | -0.497*** (-4.469) | -0.478*** (-4.426) |
| <i>Excess_IRFE</i> | (-) | -0.173 (-1.277) | -0.400* (-1.713) | -0.720** (-2.411) | -0.352* (-1.727) | -0.439 (-1.569) | -0.758** (-2.073) | -0.319** (-2.267) | -0.306* (-1.947) | -0.277 (-1.534) |

Table 5—continued

| ROA gap if: | | Foreign tax rate = 0% | | | Domestic tax rate = 8.75% | | | Pr(ROA gap < 0) | | |
|-------------------|-------|-----------------------|--------------------|---------------------|---------------------------|--------------------|--------------------|-----------------------|-----------------------|-----------------------|
| | | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> |
| <i>For_ptroa</i> | (-/?) | 0.059 (1.304) | 0.049 (0.746) | 0.052 (0.748) | 0.030 (0.544) | 0.032 (0.557) | 0.034 (0.564) | -0.006 (-1.422) | -0.008 (-1.609) | -0.007 (-1.561) |
| <i>ROA_diff</i> | (-/?) | -0.074 (-1.326) | -0.047 (-0.742) | -0.055 (-0.800) | -0.037 (-0.494) | -0.032 (-0.578) | -0.038 (-0.639) | 0.004 (1.222) | 0.006 (1.579) | 0.006 (1.533) |
| <i>ROA_vol</i> | (?) | 0.013 (0.862) | 0.020 (0.544) | 0.036 (1.173) | 0.014 (0.866) | 0.025 (0.657) | 0.037 (1.197) | 0.004 (0.948) | 0.002 (0.625) | 0.002 (0.603) |
| <i>Size</i> | (+) | 0.014 (1.473) | 0.029* (1.730) | 0.041* (1.743) | 0.009 (0.835) | 0.020 (1.052) | 0.027 (1.096) | -0.024*** (-3.182) | -0.025*** (-3.033) | -0.024*** (-2.804) |
| <i>Lev</i> | (?) | -0.023 (-1.306) | -0.031 (-1.264) | -0.068* (-1.779) | -0.016 (-0.896) | -0.015 (-0.341) | -0.048 (-0.869) | 0.014 (1.066) | 0.003 (0.204) | -0.003 (-0.230) |
| <i>MTB</i> | (+) | 0.004 (0.658) | 0.004 (0.438) | 0.003 (0.218) | -0.003 (-0.399) | -0.002 (-0.223) | -0.009 (-0.569) | -0.001 (-0.300) | -0.001 (-0.313) | -0.001 (-0.331) |
| <i>For_growth</i> | (+) | 0.086* (1.820) | 0.113 (1.331) | 0.107 (1.080) | 0.054 (1.045) | 0.175* (1.802) | 0.109 (1.083) | -0.051* (-1.792) | -0.039 (-1.419) | -0.025 (-0.897) |
| <i>Dom_growth</i> | (+) | 0.048 (1.249) | 0.083 (1.416) | 0.091 (1.448) | 0.011 (0.260) | 0.039 (0.616) | 0.055 (0.820) | -0.017 (-0.739) | -0.034* (-1.705) | -0.048** (-2.524) |
| <i>Intercept</i> | | 0.128 (1.184) | 0.011 (0.064) | 0.013 (0.050) | 0.212* (1.680) | 0.093 (0.492) | 0.197 (0.697) | 0.515*** (7.932) | 0.575*** (8.189) | 0.501*** (7.202) |
| Observations | | 3,451 | 3,462 | 3,467 | 3,450 | 3,460 | 3,463 | 3,468 | 3,473 | 3,473 |
| Adj. R-squared | | 0.0240 | 0.0329 | 0.0307 | 0.0139 | 0.0318 | 0.0242 | 0.0432 | 0.0478 | 0.0492 |

Table 6. Excess IRFE and Investment Composition

Panel A shows the relation between predicted and excess IRFE and different forms of investment. Panel B shows the interactive effect of predicted and excess IRFE and M&A on future profitability. Foreign capex are total foreign capital expenditures [CAPXS] across all geographic segments reported in Compustat segment disclosures, scaled by total assets. Foreign employees are the log of total foreign employees [EMPS] across all geographic segments. Foreign PP&E are total foreign property, plant, and equipment [PPENTS], scaled by total assets. Foreign R&D are total foreign R&D expenditures [RDS] across all geographic segments, scaled by total assets. Foreign non-fixed assets are computed as total foreign assets [IAS] less foreign PP&E, scaled by total assets. Total cash holdings include cash [CH] and cash equivalents [CHE], scaled by total assets. *M&A* is an indicator for firm-years that contain at least one M&A deal. *Pred_IRFE* is predicted IRFE from regression of IRFE on investment, tax, and control variables, estimated for each industry-year, where industry is based on 2-digit SIC. *Excess_IRFE* is the greater of zero or the industry-year residual from the model of predicted IRFE. Control variables are the same as those in Table 5 and include the following: *ROA_diff*, *ROA_vol*, *Size*, *Lev*, *For_growth*, and *Dom_growth*. See Appendix A for variable descriptions. *, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. T-stats are shown in parentheses below coefficient estimates. All columns include industry and year fixed effects, and robust errors clustered by firm.

| Panel A. Types of foreign investment | | | | | | | |
|--|---|--------------------|--------------------------------------|--------------------|--|---------------------|-----------------------|
| Dependent variable = | Foreign capex | Foreign employees | Foreign PP&E | Foreign R&D | Foreign non-fixed assets | Total cash holdings | Pr(M&A) |
| <i>Pred_IRFE</i> | 0.052*** (3.850) | 1.787** (2.471) | 0.207*** (5.024) | 0.000 (1.295) | 0.701*** (9.329) | 0.246*** (4.694) | -0.076 (-1.166) |
| <i>Excess_IRFE</i> | 0.023 (1.150) | 1.753 (1.565) | 0.132* (1.860) | -0.000 (-0.720) | 1.036*** (12.252) | 0.315*** (3.620) | -0.298*** (-3.024) |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 952 | 875 | 1,397 | 264 | 1,411 | 4,869 | 5,008 |
| Adj. R-squared | 0.427 | 0.712 | 0.448 | 0.474 | 0.503 | 0.366 | 0.083 |
| Panel B. Foreign profitability and M&A | | | | | | | |
| Dependent variable = | Foreign pretax ROA (<i>t, t+3</i>) | | Foreign ROA gap (<i>t, t+3</i>) | | Market-adj. BHAR (<i>0, 36 mos</i>) | | |
| <i>Pred_IRFE</i> | -0.481 (-1.300) | | -0.354 (-0.899) | | 0.510 (1.137) | | |
| <i>Excess_IRFE</i> | -0.493* (-1.703) | | -0.061 (-0.132) | | 0.013 (0.037) | | |
| <i>Pred_IRFE</i> x <i>M&A</i> | 3.034*** (2.632) | | 2.911** (2.517) | | 0.318 (0.728) | | |
| <i>Excess_IRFE</i> x <i>M&A</i> | -2.051** (-2.033) | | -2.220** (-2.084) | | -1.497* (-1.708) | | |
| <i>M&A</i> | -0.591** (-2.546) | | -0.543** (-2.326) | | 0.038 (0.412) | | |
| Controls | Yes | | Yes | | Yes | | |
| Observations | 3,467 | | 3,465 | | 2,101 | | |
| Adj. R-squared | 0.0515 | | 0.0343 | | 0.166 | | |

Table 7. Private and Public Firms—Descriptive Statistics

This table presents difference in key firm characteristics between public firms (*Private*=0) and suspected private firms (*Private*=1). *Private* is an indicator for privately owned firms with public debt, identified following Badertscher, Katz, and Rego (2013). *IRFE* is the amount of indefinitely reinvested foreign earnings reported on the 10-K, scaled by worldwide assets [AT]. *Excess_IRFE* is the greater of zero or the residual portion of IRFE. *ROA_diff* is the difference between the after-tax foreign ROA and after-tax domestic ROA in *t-1*. *For_growth* is foreign sales growth from *t-1* to *t*. *Dom_growth* is the domestic sales growth from *t-1* to *t*, where domestic sales is computed as total sales [REVT] less foreign sales. *%Foreign_sales* is the percentage of total sales [REVT] that is foreign. *Foreign_taxdiff* is the difference between the U.S. statutory rate (35%) and the average foreign tax rate over the prior 3 years. *R&D* is research and development expense [XRD], scaled by lagged total assets. *Haven_intensity* is the percentage of countries in which affiliates are located that are considered tax havens. *Size* is the log of total assets. *Lev* is long-term debt and the current maturity of long-term debt, scaled by total assets. *NOL* is the NOL carryforward at the beginning of the year, scaled by lagged assets. *CFO* are operating cash flows, scaled by lagged assets. *For_ptroa - 3 year* is the cumulative pretax foreign income, scaled by average foreign assets over the next 3 years. *ROA_gap - 3 year* is the cumulative difference between actual and benchmark pretax foreign ROA over the next 3 years, where the benchmark foreign pretax ROA is computed as the average after-tax domestic ROA, scaled by one minus the average foreign tax rate over the previous 3 years. All continuous measures are winsorized at the 1st and 99th percentiles. *, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. See Appendix A for more detailed variable descriptions

| Difference in means—public versus private | | | | | | | |
|---|--|-------|--------|---|-------|--------|--|
| VARIABLES | Publicly owned (<i>Private</i> =0) | | | Privately owned (<i>Private</i> =1) | | | Diff. in means (Public- private) |
| | N | Mean | Median | N | Mean | Median | |
| <i>IRFE</i> | 3599 | 0.168 | 0.126 | 67 | 0.055 | 0.027 | 0.114 *** |
| <i>Excess_IRFE</i> | 3599 | 0.039 | 0.000 | 67 | 0.008 | 0.000 | 0.031 *** |
| <i>ROA_diff</i> | 3599 | 0.194 | 0.137 | 67 | 0.051 | 0.071 | 0.143 * |
| <i>For_growth</i> | 3599 | 0.098 | 0.062 | 67 | 0.030 | 0.026 | 0.068 *** |
| <i>Dom_growth</i> | 3599 | 0.051 | 0.046 | 67 | 0.064 | 0.013 | -0.014 |
| <i>%Foreign_sales</i> | 3599 | 0.500 | 0.488 | 67 | 0.458 | 0.448 | 0.041 |
| <i>Foreign_taxdiff</i> | 3599 | 0.085 | 0.111 | 67 | 0.030 | 0.055 | 0.056 |
| <i>R&D</i> | 3599 | 0.048 | 0.023 | 67 | 0.012 | 0.005 | 0.037 *** |
| <i>Haven_intensity</i> | 3599 | 0.498 | 0.196 | 67 | 0.501 | 0.172 | -0.003 |
| <i>Size</i> | 3599 | 7.565 | 7.527 | 67 | 8.131 | 8.113 | -0.566 *** |
| <i>Lev</i> | 3599 | 0.206 | 0.182 | 67 | 0.578 | 0.528 | -0.372 *** |
| <i>NOL</i> | 3599 | 0.178 | 0.030 | 67 | 0.203 | 0.137 | -0.025 |
| <i>CFO</i> | 3599 | 0.108 | 0.104 | 67 | 0.060 | 0.050 | 0.049 *** |
| <i>For_ptroa - 3 year</i> | 3598 | 0.512 | 0.415 | 67 | 0.117 | 0.068 | 0.396 *** |
| <i>ROA_gap - 3 year</i> | 3596 | 0.427 | 0.327 | 67 | 0.231 | 0.158 | 0.196 |

Table 8. Private and Public Firms—Excess IRFE and Future Performance

This table shows the relation between predicted and excess IRFE and future performance for private versus public firms. Panel A displays the relation between predicted and excess IRFE and future performance with an indicator for suspected private firms (*Private*). Panel B shows the relation between predicted and excess IRFE and future foreign pretax ROA separately for public and suspected private firms. *Pred_IRFE* is predicted IRFE from regression of IRFE on investment, tax, and control variables, estimated for each industry-year, where industry is based on 2-digit SIC. *Excess_IRFE* is the greater of zero or the industry-year residual from the model of predicted IRFE. *Private* is an indicator for privately owned firms with public debt, identified following Badertscher, Katz, and Rego (2013). Control variables are the following (same as those in Table 5, except for MTB, which is not applicable for private firms). *For_ptroa* is the current pretax foreign income, scaled by average foreign assets. *ROA_diff* is the difference between the after-tax foreign ROA and after-tax domestic ROA in *t-1*. *ROA_vol* is the standard deviation of foreign after-tax ROA over the preceding 3 years. *For_growth* is foreign sales growth from *t-1* to *t*. *Size* is the log of total assets. *Lev* is long-term debt and the current maturity of long-term debt, scaled by total assets. *MTB* is the market-to-book ratio. *Dom_growth* is the domestic sales growth from *t-1* to *t*, where domestic sales is computed as total sales [REVT] less foreign sales. *, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. T-stats are shown in parentheses below coefficient estimates. See Appendix A for more detailed variable descriptions. All columns include industry and year fixed effects, and robust errors clustered at the firm level.

Panel A. Effect of excess IRFE for private firms

$$\text{Model: } Inv_prof_{i,t+k} = \beta_0 + \beta_1 Pred_IRFE_{i,t} + \beta_2 Excess_IRFE_{i,t} + \beta_3 Private_{i,t} + \beta_4 Excess_IRFE_{i,t} \times Private_{i,t} + \beta_5 ROA_diff_{i,t} + \beta_6 ROA_vol_{i,t} + \beta_7 Size_{i,t} + \beta_8 Lev_{i,t} + \beta_9 For_growth_{i,t} + \beta_{10} Dom_growth_{i,t} + \varepsilon_{i,t}$$

| Dependent variable = | Pred. sign | Foreign pretax ROA | | | Foreign ROA gap | | |
|---|---------------------|---------------------|----------------------|-----------------------|----------------------|----------------------|---------------------|
| | | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> |
| <i>Pred_IRFE</i> | (-/?) | 0.037 (0.177) | 0.172 (0.434) | 0.671 (1.406) | 0.221 (0.815) | 0.299 (0.742) | 0.465 (0.904) |
| <i>Excess_IRFE</i> | (-) | -0.392 (-1.638) | -0.967** (-2.435) | -1.366*** (-2.650) | -0.808** (-2.407) | -0.997** (-2.425) | -1.086* (-1.957) |
| <i>Private</i> | (-) | -0.129* (-1.665) | -0.188 (-1.507) | -0.280* (-1.805) | -0.061 (-0.888) | -0.137 (-1.120) | -0.064 (-0.359) |
| <i>Excess_IRFE</i> x <i>Private</i> | (+) | 2.722** (2.235) | 3.864* (1.961) | 5.657** (2.210) | 2.727* (1.735) | 3.211 (1.273) | 5.033** (1.975) |
| F-test: $H_0: Excess_IRFE + Excess_IRFE \times Private = 0$ | F-stat: p-value: | 3.47 0.063 | 2.06 0.151 | 2.77 0.096 | 1.48 0.225 | 0.75 0.388 | 2.37 0.124 |
| Controls | | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | | 3,567 | 3,577 | 3,581 | 3,565 | 3,573 | 3,578 |
| Adj. R-squared | | 0.0901 | 0.310 | 0.237 | 0.436 | 0.302 | 0.200 |

Table 8—continued

| Panel B. Excess IRFE and foreign pretax ROA—public versus private | | | | | | | |
|---|------------|---|----------------------|-----------------------|----------------------|----------------------|----------------------|
| Dependent variable = | | Foreign pretax ROA (<i>For_ptroa</i>) | | | | | |
| VARIABLES | Pred. sign | <i>Private = 0</i> | | | <i>Private = 1</i> | | |
| | | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> | <i>t,t+1</i> | <i>t,t+2</i> | <i>t,t+3</i> |
| <i>Pred_IRFE</i> | (-/?) | -0.155 (-0.974) | -0.029 (-0.075) | 0.152 (0.332) | 0.711 (1.368) | 1.594** (2.307) | 2.535** (2.338) |
| <i>Excess_IRFE</i> | (-) | -0.186 (-1.596) | -0.482** (-2.268) | -0.809*** (-2.920) | 2.064 (0.940) | 3.470 (1.183) | 4.096 (1.079) |
| <i>For_ptroa</i> | (-/?) | 0.077* (1.704) | 0.009 (0.070) | 0.047 (0.603) | 0.189 (0.516) | 0.132 (0.178) | 0.683 (0.884) |
| <i>ROA_diff</i> | (-/?) | -0.093* (-1.730) | 0.016 (0.098) | -0.045 (-0.547) | -0.120 (-0.342) | -0.066 (-0.091) | -0.626 (-0.849) |
| <i>ROA_vol</i> | (?) | 0.005 (0.332) | 0.026 (0.762) | 0.042 (1.069) | -0.065 (-0.403) | -0.153 (-0.475) | -0.385 (-1.017) |
| <i>Size</i> | (+) | 0.025*** (2.833) | 0.056*** (3.142) | 0.072*** (2.977) | -0.379** (-2.645) | -0.612** (-2.110) | -0.723** (-2.174) |
| <i>Lev</i> | (?) | -0.128* (-1.785) | -0.404** (-2.168) | -0.509** (-2.259) | -0.503* (-1.878) | -0.751 (-1.410) | -0.749 (-1.236) |
| <i>For_growth</i> | (+) | 0.122** (2.463) | 0.165* (1.928) | 0.169 (1.608) | 0.473 (1.273) | 0.495 (0.818) | 0.406 (0.702) |
| <i>Dom_growth</i> | (+) | 0.061 (1.574) | 0.133** (2.327) | 0.137** (2.160) | 0.085 (1.003) | 0.152 (1.376) | 0.201 (1.497) |
| <i>Intercept</i> | | 0.055 (0.550) | -0.106 (-0.628) | -0.125 (-0.496) | 2.851** (2.207) | 4.782* (1.847) | 5.744* (1.958) |
| Observations | | 3,503 | 3,513 | 3,517 | 64 | 64 | 64 |
| Adj. R-squared | | 0.0286 | 0.0313 | 0.0354 | 0.200 | 0.124 | 0.129 |

Table 9. Change in IRFE Assertion after Tax Cuts and Jobs Act

This table shows the incremental difference in the relation between IRFE and future performance for firms that did and did not disclose changes to their IRFE assertion in their Q1-Q3 2018 10-Qs. Panel A displays the interactive effect between total IRFE and a disclosed change on future profitability. Panel B displays the interactive effect of both predicted and excess IRFE and the disclosure. *IRFE* is total IRFE reported on the 10-K, scaled by total assets. *Pred_IRFE* is IRFE predicted from the regression of IRFE on investment, tax, and control variables. *Excess_IRFE* is the greater of zero or the industry-year residual from the model of predicted IRFE. *Disclosure* is an indicator for whether the firm disclosed (1) changing or an intent to change their IRFE assertion (*Chg_IRFE*) or (2) repatriating or intending to repatriate foreign earnings (*Repat*) following the TCJA. Control variables are the same as those in Table 5 and include the following: *ROA_diff*, *ROA_vol*, *Size*, *Lev*, *For_growth*, and *Dom_growth*. See Appendix A for detailed variable descriptions. *, **, and *** represent statistical significance at the 10%, 5%, and 1% levels, respectively. T-stats are shown in parentheses below coefficient estimates. All columns include industry and year fixed effects, and robust errors clustered at the firm level.

| Panel A. Total IRFE | | | | | | |
|------------------------------------|---|--------------|--------------------------------------|--------------|---------------------------------|--------------|
| Dependent variable = | Foreign pretax ROA (<i>t, t+3</i>) | | Foreign ROA gap (<i>t, t+3</i>) | | Market-adj. BHAR (0, 36 mos) | |
| | <i>Chg_IRFE</i> | <i>Repat</i> | <i>Chg_IRFE</i> | <i>Repat</i> | <i>Chg_IRFE</i> | <i>Repat</i> |
| <i>Disclosure</i> | 0.496* | 0.312 | 0.536* | 0.298 | -0.343** | -0.071 |
| | (1.794) | (1.543) | (1.951) | (1.451) | (-2.315) | (-0.582) |
| <i>IRFE</i> | -0.519 | -0.635* | -0.215 | -0.333 | 0.095 | 0.275 |
| | (-1.625) | (-1.858) | (-0.548) | (-0.823) | (0.305) | (0.865) |
| <i>IRFE x Disclosure</i> | -1.518* | -0.800 | -1.913** | -1.129 | 1.318*** | 0.266 |
| | (-1.648) | (-1.193) | (-2.032) | (-1.579) | (2.590) | (0.576) |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 2,476 | 2,476 | 2,475 | 2,475 | 1,545 | 1,545 |
| Adj. R-squared | 0.060 | 0.056 | 0.039 | 0.034 | 0.148 | 0.143 |
| Panel B. Predicted vs. Excess IRFE | | | | | | |
| Dependent variable = | Foreign pretax ROA (<i>t, t+3</i>) | | Foreign ROA gap (<i>t, t+3</i>) | | Market-adj. BHAR (0, 36 mos) | |
| | <i>Chg_IRFE</i> | <i>Repat</i> | <i>Chg_IRFE</i> | <i>Repat</i> | <i>Chg_IRFE</i> | <i>Repat</i> |
| <i>Disclosure</i> | 0.411 | 0.122 | 0.444* | 0.089 | -0.568*** | -0.172 |
| | (1.640) | (0.702) | (1.755) | (0.508) | (-3.675) | (-1.006) |
| <i>Pred_IRFE</i> | -0.081 | -0.227 | -0.037 | -0.232 | 0.341 | 0.460 |
| | (-0.169) | (-0.461) | (-0.074) | (-0.454) | (0.663) | (0.909) |
| <i>Excess_IRFE</i> | -0.747* | -0.946** | 0.101 | 0.152 | 0.141 | 0.501 |
| | (-1.716) | (-2.019) | (0.122) | (0.176) | (0.348) | (1.042) |
| <i>Pred_IRFE x Disclosure</i> | -0.892 | 0.219 | -1.073 | 0.278 | 2.374*** | 0.958 |
| | (-1.103) | (0.332) | (-1.297) | (0.411) | (3.181) | (1.093) |
| <i>Excess_IRFE x Disclosure</i> | -1.801* | -0.709 | -2.672** | -2.112** | 0.735 | -0.529 |
| | (-1.714) | (-1.023) | (-2.061) | (-1.995) | (0.743) | (-0.760) |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 2,476 | 2,476 | 2,475 | 2,475 | 1,545 | 1,545 |
| Adj. R-squared | 0.054 | 0.052 | 0.034 | 0.032 | 0.151 | 0.145 |