

**THE IMPACT OF FOREIGN WITHHOLDING TAXES ON REIT
INVESTORS AND MANAGERS**

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ABSTRACT

Exploiting a 2004 reduction in a unique capital gains withholding tax for foreign investors in U.S. REITs, this paper explores both the sensitivity of real estate investors to changes in their own taxes and the reaction of real estate managers to changes in their investors' taxes. We find that both foreign investors and REIT managers responded to the tax change. This is consistent with taxes both restricting the flow of foreign capital into U.S. REITs and affecting the management of their real estate properties. To our knowledge, this is the first paper documenting that U.S. managers change their U.S. operations in response to the tax positions of foreign investors. This work should spur further study of the interplay between real estate and income taxes, the role of taxes on foreign portfolio investment, and the role of taxes on real managerial choices. It also should aid policymakers who are considering further relaxing the discriminatory tax treatment for foreign investors in U.S. real estate.

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1. Introduction

This paper analyzes the impact of a unique tax on foreign investors in U.S. real estate investment trusts (REITs). Similar to mutual funds, REIT profits are exempt from entity-level U.S. taxes. Instead, each form of profit retains its character (e.g., capital gain, rent, etc.) and is taxed on the investor's tax return. Consequently, the portion of U.S. REIT taxable income attributable to foreign investors normally would escape U.S. taxation because foreigners are not required to file U.S. tax returns. However, since 1980, special taxes arising from the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA) have applied to REITs.

We analyze one type of REIT profit, gains from the sale of appreciated real estate property, that are subject to unusually harsh FIRPTA taxes. From 1980 to 2004, the U.S. levied a 35% withholding tax on all capital gains distributions to foreign investors. Since then, if certain conditions are met, the U.S. taxes the foreigners' portion of the capital gains at the dividend withholding tax rate, which varies by country and ranges up to 30%. For example, in 2005 the REIT capital gains withholding tax rate for Canadian investors dropped to 30%, for British investors to 15%, and for Japanese investors to 10%.

We exploit this 2005 change in the U.S. withholding tax on REIT capital gains to test for the responsiveness of both foreign investors and REIT managers to changes in the U.S. tax rates. We predict that the largest increases in foreign investment in U.S. REITs in 2005 were from countries where the withholding tax rate fell the most (e.g., more increases in investment from Japan, where rates fell to 10%, than from Canada, where rates only declined to 30%).

Similarly, we expect that the tax change affected capital gains realizations. Specifically, we predict that REITs with disproportionate investments from countries that enjoyed the large

withholding tax rate reductions realized larger increases in capital gains in 2005 than did REITs whose investors were less affected by the tax cuts. In other words, we expect REIT managers considered the reduction in their foreign investors' U.S. withholding taxes when they rebalanced their portfolios.

To our knowledge, no one has addressed the responsiveness of foreign investors or managers to REIT tax changes. In fact, few studies have studied the reaction of foreign investors to any domestic tax changes. An exception is Amiram and Frank (2012) who report that relatively favorable tax policies on dividend income earned by foreign investors are associated with larger amounts of foreign portfolio investment. Similarly, we are unaware of any research documenting that domestic managers alter their operations in response to the changing tax incentives of foreign investors. Blouin et al. (2011) have related work on the domestic front. They report that managers adjusted their mix of dividends and share repurchases after dividend and capital gains tax rates were changed in 2003 for U.S. individual investors, although changes were concentrated in those companies where insiders held disproportionate interests. However, they are examining domestic investors and we are investigating foreign ones. Also, they are exploring payout policies, as opposed to "real" decisions, such as the sale of apartments, office buildings and other properties. Thus, to our knowledge, this is the first study of managers' willingness to alter their real choices to attract foreign tax clienteles.

In our empirical tests, we estimate the amount of investment in each publicly-traded U.S. REIT from asset managers in 16 major foreign countries in both 2004 and 2005. For example, we find that asset managers in the United Kingdom held 1.65% of ProLogis shares at the end of 2004. Any capital gain distributions for these British investors in 2004 would have been subject to a 35% withholding tax. However, in 2005, any capital gains for these investors would have

been subject to only a 15% withholding rate. We expect that the reduction in the withholding rate from 35% to 15% attracted British investors to ProLogis (and other American REITs) and also increased the likelihood that the managers of ProLogis (and other American REITs held by foreigners who were now taxed more favorably) would unload appreciated properties.

To test for the sensitivity of foreign investors to changes in the withholding rates applied to REIT capital gains, we compare the change in aggregate investment from 2004 to 2005 from a particular country to a specific U.S. REIT with the reduction in the U.S. withholding tax rate levied on capital gains that those foreign investors might enjoy. We examine changes in 374 flows from countries to specific U.S. REITS. As predicted, we find that investments increased more from 2004 to 2005 from those countries where the withholding rate fell the most. Since investments surged when the withholding rate was reduced, we infer that the special U.S. withholdings on REIT capital gains constrain foreign investment in U.S. REITs.

Next, we test for the responsiveness of REIT managers to changes in the withholding rates by comparing the change from 2004 to 2005 in each REIT's aggregate capital gains distributions with the withholding tax rate reduction for that REIT's foreign investors. As expected, we find that 2005 capital gains distributions at the REIT level moved inversely with the change in tax rates. In other words, REITs whose foreign investors in 2005 were disproportionately in countries where withholding rates fell substantially realized more capital gains than other REITs, *ceteris paribus*. We infer from these tests that the managers of U.S. REITs consider their foreign investors' U.S. tax liabilities when they decide to sell properties.

This paper makes three major contributions. First, it expands our understanding of how taxes affect foreign portfolio investment and the extent to which managers consider those taxes in making operational decisions. Second, it is one of the first papers to explore the impact of

taxes on foreign investment in U.S. commercial real estate, a largely unexplored topic. Third, it should aid ongoing Congressional deliberations about proposals to further reduce the FIRPTA withholding taxes levied on foreign investments in real estate. Advocates contend that U.S. tax policy continues to hold back the recovery of U.S. commercial real estate by discouraging foreign capital. The evidence in this paper is consistent with the 2005 rate reduction on inbound portfolio investment increasing foreign investment in U.S. REITs and affecting managers' portfolio decisions.

That said, our finding that FIRPTA constrains foreign investments in U.S. REITs does not mean that the foreign holdings in U.S. commercial real estate increased after 2004 or would increase further if tax relief were expanded. Foreigners may have simply shifted some of their U.S. real estate holdings from organizational forms or tax structures that avoided FIRPTA treatment before 2005 to REITs after 2005. If so, the net effect of tax relief on the U.S. commercial real estate market could have been marginal. In other words, the findings in the paper are consistent with FIRPTA withholding taxes dampening foreign investment in U.S. REITs; however, it is beyond the scope of this paper to quantify the change in total inbound foreign investment in U.S. real estate following the 2004 rate reduction.

The remainder of the paper is organized as follows: Section 2 provides background. Section 3 develops the testable hypothesis. Section 4 details the empirical design. Section 5 presents the findings. Closing remarks follow.

2. REIT and FIRPTA Background

REITs are corporate entities (corporation, trust, or association) that invest in real estate.¹ The investments may be equity (ownership and operation) or debt (direct lending or investment in mortgage backed securities). As with mutual funds, investors buy shares in REITs, which can be publicly-traded or privately-traded. By pooling the investors' capital and investing in real estate assets, REITs enable individuals and entities to invest in liquid, diversified, professionally managed, income-producing real estate.

REITs are exempt from corporate-level U.S. taxes (and thus avoid double taxation), if they meet certain conditions.² The exemption arises because REITs can deduct ordinary dividend and capital gains distributions paid to shareholders from taxable income, leaving the sole taxation at the shareholder-level.³ This paper focuses solely on capital gains distributions because the 2004 law change only affected them. Capital gains distributions arise when REITs sell appreciated property. For U.S. investors, capital gains distributions from U.S. REITs are taxed at their personal capital gains tax rate (capped at 15% in 2004).

Generally speaking, foreign investors are not taxed on capital gains from the sale of U.S. assets. However, xenophobic fears in the 1970s about foreign purchases of prime U.S. real

¹ REITs are a major source of capital for the U.S. commercial real estate market and a popular means for foreigners to invest in U.S. real estate. According to the National Association of Real Estate Investment Trusts, at the end of 2013, public REITs (listed and non-listed) owned \$1 trillion of commercial real state assets. There were 203 listed REITs, 177 of which were traded on the New York Stock Exchange with a market capitalization of \$653 billion. Over 900 REITs are privately held.

² To qualify as a REIT, a company must meet ownership, income, and distribution tests. First, REITs must have at least 100 different shareholders (the "100 Shareholder Test") and more than 50% of the value of the REIT's stock (the "5/50 Test") cannot be owned by five or fewer investors. To ensure compliance, most REITs limit ownership, e.g., provisions may limit a single shareholder from owning more than a certain percentage of outstanding shares. Second, at least 75% of a REIT's annual gross income must be real estate related (rents from real estate, interest on mortgages, gain on sale), and 95% of its gross income must be either real estate related or from some limited passive investments. Quarterly, at least 75% of a REITs' assets must be in real estate. Third, REITs must distribute at least 90% of its annual ordinary taxable income to shareholders; else the REIT must pay tax on its income, i.e., double taxation is restored. Consequently, external capital is needed to fund a REIT's growth.

³ Publicly traded REITs distributed \$29 billion to investors in 2013. Although the distribution mix varied by REIT, on average, investors received 68% as ordinary dividend income, 19% as capital gains, and 13% as nontaxable return of capital.

estate led Congress to enact the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA), which imposes a special 35% capital gains withholding tax on foreign investors selling appreciated U.S. real estate.⁴ Furthermore, receipt of capital gains distributions from U.S. REITs make foreign investors subject to various IRS filing requirements. Specifically, capital gains distributions from a U.S. REIT are treated as income that is “effectively connected with” (“ECI”) the conduct of a U.S. trade or business. Foreign investors that receive ECI have an obligation to file a US federal tax return and become subject to the subpoena powers of the IRS with respect to all of their US investments. Moreover, if a foreign investor is a corporation and receives ECI, a second 30% entity-level tax, called the branch profits tax, applies. Consequently, a U.S. REIT capital gain distribution to a foreign investor can carry an effective tax rate as high as 54.5%.⁵

In 2004, responding to claims that FIRPTA was depressing the value of U.S. commercial real estate by constraining the supply of foreign capital to U.S. REITs, Congress carved out an exception to the FIRPTA treatment of capital gains distributions. The American Jobs Creation Act of 2004 (AJCA) treats a REIT capital gain distribution as ordinary dividend income if (1) the REIT is traded on an established securities market in the U.S., and (2) the foreign shareholder owns 5% or less of the REIT (at any time during the previous one year). If it meets these conditions, the REIT capital gains distribution is taxed as though it was an ordinary dividend. The general rule is that when foreigners receive ordinary dividends, 30% of issue is withheld and forwarded to the U.S. government as a tax. However, the U.S. has tax treaties with many

⁴ Specifically, a foreign investor is subject to U.S. income tax on income from disposition of U.S. real estate property interests (USRPI). USRPI includes both a direct investment in real estate and an indirect investment through the stock of a U.S. real property holding corporation (i.e., a USRPHC, a corporation whose assets are primarily made up of USRPIs). A foreign investor who sells stock of a U.S. REIT is considered selling stock of a USRPHC and is therefore subject to FIRPTA. In addition, FIRPTA applies if foreign investors receive a capital gains distribution from a U.S. REIT, as a result of its selling real property. REITs making distributions to a foreign investor must collect the withholding tax and remit it to the U.S. FIRPTA takes precedence over existing tax treaties that might provide otherwise.

⁵ 35% capital gains tax + (30% branch profits tax * 65% after-tax proceeds) = 54.5%

countries that lower the ordinary dividend withholding tax rate. As a result, the median dividend withholding tax rate in our sample is only 15%.⁶

Figure 1 shows total foreign investment in U.S. REITs during the first decade of this century. These aggregated data are consistent with an increase in foreign investment following the loosening of the FIRPTA rules, but hardly compelling. Although foreign investment in U.S. REITs was climbing from 2001 through 2004, there was an upward kink from 2004 to 2005, followed by a larger jump from 2005 to 2006. Thereafter, investment fell and then rebounded sharply. Of course, many nontax factors affect foreign investment in U.S. REITs. Consequently, we conduct more powerful firm-level tests below to determine whether changes in the withholding tax rates affected foreign investment.

In recent years, legislation has been repeatedly introduced to expand the FIRPTA exception by increasing the foreign shareholder percentage from 5% to 10% but has yet to pass both houses of Congress.⁷ One of the possible contributions of this paper is to provide some insights into the responsiveness of investors and managers to the adoption of the 5% exemption and thus shed some light on the likely impact of expanding to 10%.

3. Hypothesis Development

As noted above, as long as a REIT distributes 90% of its profits to its investors, it can avoid entity-level income taxes on these distributed profits. One source of profits is gains on the sale of appreciated real estate. From 1980-2004, when REITs distributed these gains to foreign

⁶ For example, with the U.S./German income tax treaty, the 30% withholding is reduced to 15% if the foreign investor owns less than 10% of the REIT. With the U.S./Netherlands income tax treaty, the 30% withholding is reduced to 15% if paid to Dutch “beleggingsinstelling” or to an individual owning under 25% of REIT. Meanwhile, Dutch pension funds are completely exempt.

⁷ For example, see the proposed Real Estate Investment and Jobs Act of 2013 (House Bill 280 and Senate Bill 1181); also the proposed, but not enacted, Real Estate Jobs and Investment Act of 2011 and Real Estate Jobs and Investment Act of 2010.

investors, they were required to withhold 35% of the profits and remit them to the federal government. Responding to assertions that the 35% withholding tax was depressing the value of U.S. commercial real estate by constraining the supply of foreign capital in U.S. REITs, Congress reset the capital gains withholding tax equal to the dividend withholding rate under certain conditions. Specifically, the post-2004 capital gains withholding rate equals the one levied on distributions arising from rents and other sources of ordinary income *if* the REIT is publicly-traded *and* the foreign investor owns no more than 5% of the REIT. The effect was to lower the withholding tax for qualifying foreign investors from 35% to no more than 30%, the maximum dividend withholding rate. This leads to the paper's first hypothesis, which concerns the investors' reaction to the withholding rate reduction:

H1: 2005 foreign investments in U.S. REITs moved inversely with the withholding tax rate on REIT capital gains, *ceteris paribus*.

Besides the usual lack of power that thwarts empirical research, we may fail to find a positive correlation between tax rate reductions and increased foreign investment in U.S. REITs after 2004 for at least four reasons. First, withholding taxes on REIT sales of real estate may have little impact on foreign portfolio investments. Instead, fundamentals, such as rental income, price appreciation, inflation, currency exchange rates, liquidity, and other non-tax considerations, may dominate withholding taxes when foreign investor make decisions. Second, home country taxes may absorb any reduction in U.S. taxes, e.g., the home country may provide a credit for the U.S. REIT withholding taxes. If so, the reduction in U.S. withholding taxes will not affect the total global taxes of foreign investors. Third, anecdotal evidence suggests that foreign investors can easily structure their REIT investments to avoid negative tax implications. Fourth, the tax return filing requirements under FIRPTA may be far more onerous than the actual cash taxes paid. If so, the 2004 relief from FIRPTA may have increased foreigners' incentives to

invest in U.S. REITs. However, the change in incentives would have been constant across REITs regardless of the change in withholding rates. Thus, we may find that foreign investment increased overall, but that the increases from countries where withholding rates tumbled the most were no different than the increases from those countries where rates fell little. Thus, it is an empirical question whether the 2004 change in withholding rates affected foreign investments in U.S. REITs.

We now turn to the implications of the 2004 legislation on REIT managers. Before relaxation of the FIRPTA rules, REITs likely limited their sales of appreciated property to protect their foreign investors from the onerous 35% withholding tax rate and U.S. filing requirements. After rates fell, we would expect to see capital gains distributions rise.

Figure 2 shows the total capital gains distributions by U.S. REITs, and the pattern appears consistent with withholding tax reductions leading to more capital gains distributions. After an increase in capital gains distributions from 2002 to 2003, we see a drop from 2003 to 2004 (potentially indicating that sellers were delaying sales of appreciated property in anticipation of lower taxes), followed by large annual increases in distributions through 2007. Of course, it is possible that the capital gains distribution pattern is simply reflecting a strengthening a real estate market. Thus, for comparison, we also graph the Moody's/RCA real estate index, which tracks commercial real estate activity over the same time period. Although the distributions generally follow the index, there is no dip in the index in 2004 and the rise in the index through 2007 is less pronounced than the increase in distributions during that time. In short, the aggregate data suggest that the 2005 reduction in withholding tax rates may have contributed to a subsequent boost in capital gains distributions. However, to provide more compelling evidence, we turn to firm-level tests.

Specifically, we expect that after the rate reduction those REITs whose foreign investors benefitted the most from the legislation likely sold off more appreciated properties than other REITs did. This potential relaxing of the FIRPTA “lock-in effect” leads to the second hypothesis:

H2: A REIT’s change in realized capital gains from 2004 to 2005 moved inversely with the capital gains withholding tax rates of its foreign investors, *ceteris paribus*.

That said, we may detect no managerial response to the liberalization of FIRPTA rules if attracting and retaining a foreign investor (whose ownership must be less than 5% of the REIT) is less important to REIT managers than other goals, such as holding an efficient portfolio of real estate properties. If few REITs are sufficiently desirous of foreign investors, we may fail to have enough power to detect any managerial response to FIRPTA. Furthermore, we may fail to reject the null hypothesis because the foreign investors are too few in number to influence the REIT managers or the REIT managers are not incentivized to act in the after-personal tax interests of REIT investors.

4. Research Design

4.1. Regression Equation

To test the first hypothesis about the responsiveness of investors to tax changes, we start by expressing the investment from all investors in a foreign country into a single U.S. REIT (Y) as a function of the REIT ($REIT_i$), the country ($COUNTRY_j$), and the capital gains withholding tax rate the U.S. applies to investors from that country (τ_{jt}):

$$Y_{ijt} = f (REIT_i, COUNTRY_j, \tau_{jt}) \quad (1)$$

We then take the first differences. Employing a changes model is advantageous because it enables us to rule out a host of alternative explanations. Since the REIT and the country are the

same in both years for any pair and the 2004 capital gains withholding tax rate is a constant 35% for all observations, multiple terms drop out of the equation. This leaves the following expression to estimate:

$$\ln Y_{ij\ 2005} = \beta_0 + \beta_1 \ln Y_{ij\ 2004} + \beta_2 \ln \tau_j\ 2005 + \varepsilon_{ij} \quad (2)$$

We will interpret a negative coefficient on β_2 as consistent with the capital gains withholding taxes under FIRPTA constraining foreign investment in the U.S. REITs.

The second hypothesis concerns the sensitivity of REIT managers to changes in the withholding taxes for foreign investors. We begin by stating the capital gains distributions for any U.S. REIT (CG) as a function of the characteristics of that REIT ($REIT$) and the aggregate tax incentives of its foreign investors. We estimate the latter using a measure we term the “weighted, mean tax rate” ($wm\tau$):

$$CG_{it} = f(REIT_i, wm\tau_t) \quad (3)$$

The $wm\tau$ is intended to provide a single statistic that captures the aggregate tax position of the foreign investors in a particular REIT. To compute $wm\tau$, we compute a weighted tax rate for all foreign investors in a particular REIT. For example, suppose 2% of the REIT’s investors are Japanese facing a 10% withholding tax rate; 1% are Canadian with a 30% withholding tax rate; and the remainder are Americans not subject to any withholding. Then, that REIT’s weighted average tax rate ($wm\tau$) would be 0.5%.⁸ We would expect capital gains to be decreasing in the weighted average tax rate because REIT managers can mitigate withholding taxes for their foreign investors by minimizing their sales of appreciated property. The greater a REIT’s $wm\tau$, the greater its incentives to avoid liquidating real estate that will generate capital gains.

⁸ $(10\% * 2\%) + (30\% * 1\%) = 0.5\%$.

Taking first differences between 2005 and 2004 eliminates the constant element of the individual REIT and leaves the following expression to estimate:

$$\ln CG_{ij\ 2005} = \beta_0 + \beta_1 \ln CG_{ij\ 2004} + \beta_2 \ln wm\tau_{i\ 2005} + \beta_3 \ln wm\tau_{i\ 2004} + \varepsilon_{ij} \quad (4)$$

We will interpret a finding that $\beta_2 < \beta_3$ as evidence that REIT managers incorporate U.S. withholding taxes of their foreign investors into their portfolio management decisions. A negative β_2 is consistent with avoiding capital gains when aggregate withholding taxes are relatively high. A positive β_3 is consistent with realizing capital gains in 2005 after a year of relatively high withholding taxes (2004) has elapsed, a withholding tax version of the well known capital gains tax “lock-in” effect (for further discussion, see Burman, 1999, and Dai et al., 2008, among many others). By comparing the coefficients on the two weighted mean tax measures, we can assess whether capital gains realizations are consistent with foreign investors’ tax incentives mattering to REIT managers.

4.2. Data

To conduct these tests, we use data from SNL Financial, the National Association of Real Estate Investment Trusts (NAREIT), Compustat, and the Center for Research in Security Prices (CRSP). SNL Financial provides institutional shareholder records, including country of residence and investor position (number of shares held), for all U.S. REITs in 2004 and 2005. The shareholders identified are primarily based on 13F filings with the Securities and Exchange Commission (SEC), and include institutional investment managers with over \$100 million of equity investments that bought REIT stock for either their own account or as an investment manager with discretion over which securities are bought and sold for the accounts of others.⁹

⁹ Ideally, we would like to have the names and countries of all shareholders of record. Tracking individual investors is problematic since they tend to hold securities in “street name” meaning that the name of the beneficial owner of

They include investment funds, banks, insurance companies, broker-dealers, pension funds, and corporations.¹⁰ For each year, we determine the percentage of shares held by all non-pension, non-governmental, foreign institutional investors for each REIT as well as the percentage of shares held by specific country institutional investors for all REITs.

Our sample comprises investments from 16 foreign countries into 90 U.S. REITs for which we have complete information for both 2004 and 2005. Table 1, Panel A indicates that the typical REIT in our sample is large with sales of nearly \$800 million and assets of \$4.1 billion but has little foreign ownership (1.5%). The relatively few shares owned by investors from abroad is consistent with both home bias and FIRPTA's dampening foreign interest in U.S. REITs. It also raises doubts about whether the tax considerations for such a small set of investors matters to REIT managers and, even if they do, whether the standard crude instruments available to an empiricist will be capable of detecting their importance.

Table 1, Panel B shows that the sample REITs come from all forms of real estate, led by multi-family (13%), office (12%), shopping center (11%), and health care (10%). In short, the sample is not concentrated in any particular property type. Table 1, Panel C shows that foreign investors in these U.S. REITs are similarly dispersed across the 16 countries. In 2005, 21% of the investors are Canadian; 20% are British; 14% are Japanese; 13% are Belgian. In untabulated results, we find that of the sample's 90 REITs, six have investors in 2005 from ten or more

the stock does not appear on the REIT shareholder record file; instead, the stock is registered in the beneficial owner's broker's name. However, the SEC 13F filing requirements allow us to have access to specific information about the holdings of large institutional investment managers regardless of holdings in street name rather than beneficial ownership. This is in keeping with the data used by Chan, Leung, and Wang (1998), when they examined the strategies of institutional investors investing in REITs, and is reasonable given that institutions tend to dominate trading in REITs.

¹⁰ For more on SEC 13F filing information, see <http://www.sec.gov/answers/form13f.htm>. Foreign institutional investment managers are required to file Form 13F if they: (1) use any means or instrumentality of United States interstate commerce in the course of their business; and (2) exercise investment discretion over \$100 million or more in Section 13(f) securities. See Section 13(f)(1) of the Securities Exchange Act and SEC Release No. 34-14852 (June 15, 1978). For our analyses we focus on the non-pension/non-governmental investors since pensions and governmental entities may be subject to different tax rates here. We visited the website of each listed investor to determine whether the investor was a pension or governmental entity.

countries with Weyerhaeuser having investors from all countries, except Singapore. Eleven REITs have foreign investors from only one country.

5. Results

5.1. H1: Responsiveness of Foreign Investors

Table 2, Panel A shows that the dependent variable in equation (2), i.e., investment from investors in a specific country to a particular U.S. REIT, soared from 2004 to 2005. Specifically, the mean (median) dependent variable jumped from \$8.8 million (\$1.3) in 2004 to \$12.2 (\$2.2) million in 2005. Although this is consistent with the liberalization of the FIRPTA rules beginning a boost in foreign investment in U.S. REITs, a mere increase in investment is insufficient to establish causality because changes in macroeconomic factors or overall heightened interest by foreigners in U.S. real estate could account for this increase. To establish a link between the 2004 legislation and the increase in foreign investment, we need evidence that the increase in investment varied with the differential change in tax treatment. To test such a proposition, we next estimate equation (2).

Table 2, Panel B provides summary statistics from estimating equation (2). As predicted, the coefficient on the capital gains withholding tax rate (τ) is negative and significant at the 0.001 level, indicating that 2005 inbound investments in U.S. REITs moved inversely with each country's withholding rate, conditional on 2004 investments. The tax coefficient implies that the impact of the 2004 legislation was economically significant. Evaluated at the mean of the dependent variable, an interquartile reduction in τ (i.e., from 30% to 15%) boosted foreign investment from \$2.7 million to \$4.8 million.¹¹ In other words, if the 2004 legislation resulted in

¹¹ The mean dependent variable is 14.8 or \$2.7 million. 14.8 less -0.573 (the product of the τ coefficient and the interquartile shift in the natural logarithm of τ) is 15.4 or \$4.8 million.

a country's capital gains withholding rate dropping from 35% to 15%, the residents from that country invested 78% more in 2005 in a particular U.S. REIT than they did if the rate only fell to 30%, *ceteris paribus*. In short, the evidence suggests that when the FIRPTA taxes were cut, investment rose, and the increases varied across countries depending on the amount of the rate reductions. Not surprisingly, the other regression coefficient, the one on lagged investment, is positive and highly significant, consistent with investment being sticky.

The parsimony of the research design might suggest that the model lacks adequate controls. However, it is difficult to conjecture alternative explanations for these findings. By using a "changes" model, we have allowed each country-REIT combination to control for itself. Any alternative explanation must explain how the relationship between the investors from 16 countries and 90 U.S. REITs changed between 2004 and 2005 in a way that was correlated with the pre-existing dividend withholding rates that became effective for capital gains when the 2004 legislation was enacted. Unable to think of any such explanations, we conclude that these findings are consistent with FIRPTA taxes constraining foreign investment in U.S. REITs.

The theory supporting our prediction for the relation between changes in investment and withholding rates from 2004 to 2005 should hold for all years. While we would have expected the most dramatic shift to have occurred with the initial relaxing of the FIRPTA rules in 2004 for all countries, some dividend withholding rates (and consequently the applicable capital gains withholding rates for REITs) change every year. Thus, we would expect to find the same negative relation between investment and withholding rates in other years. When we expand equation (2) beyond the 2004-2005 pair, we need to add a new lagged tax term, thus the expanded model is:¹²

¹² Recall that all capital gains withholding tax rates were 35% in 2004. Thus, no lagged tax rate was needed in the regression equation.

$$\ln Y_{ijt} = \beta_0 + \beta_1 \ln Y_{ijt-1} + \beta_2 \ln \tau_{jt} + \beta_3 \ln \tau_{jt-1} + \varepsilon_{ij} \quad (2)$$

We now predict that $\beta_2 < \beta_3$. As before, a negative β_2 is consistent with investment coming from (withdrawing from) countries when withholding tax rates have fallen (risen). A positive β_3 is consistent with investment having been deferred into the current year from a relatively high tax rate in the past. By comparing the two tax coefficients, we can assess whether foreign investment into U.S. REITs is sensitive to U.S. capital gains withholding taxes.

The second column in Table 2, Panel B reveals a negative and significant β_2 and a positive, though not significant, β_3 . When we compare the two coefficients, as predicted, we find $\beta_2 < \beta_3$ and significant at the 0.01 level. This is consistent with capital gains withholding taxes adversely affecting foreign investment in U.S. REITs from 2005-2010, i.e., more than just the year of the initial legislative change.

H2: Responsiveness of REIT Managers

Table 3, Panel A shows that mean realized capital gains tripled from \$13 million in 2004 to \$39 million in 2005. Furthermore, in 2004, only 11% of the REITs in our sample made capital gains distributions; in 2005, 76% did. These figures suggest that the relaxation in FIRPTA withholding taxes contributed to a surge in capital gains realizations. In fact, it seems undeniable that something extraordinary occurred between 2004 and 2005 and that macroeconomic factors, such as an improving real estate market, could be the sole explanation. However, once again, to identify whether the boost in capital gains has a tax motivation, we search for a link between the increase in the capital gains by a specific REIT and the change in the withholding taxes faced by the foreign investors in that REIT. We find evidence consistent

with REIT managers considering their foreign investors' U.S. withholding taxes when they make portfolio management decisions.

Specifically, the first column of Table 3, Panel B shows summary statistics from estimating equation (4). As predicted, the coefficient on the weighted average tax rate for 2004 (β_3) is positive, consistent with current year capital gains realizations increasing for those REITs whose foreign investors faced disproportionately high withholding taxes in the prior year, 2004. However, the coefficient on the weighted average tax rate for the current year, 2005, (β_2) is insignificant. Of primary importance to us, β_2 is significantly less than β_3 , though only at the 0.11 level.

One reason that regression equation (4) may be insufficiently powerful to reject the null is that the tax measures ($wm\tau$) include both the effect of changes in the tax rates *and* the effect of changes in the mix of foreign ownership. For example, recall that $wm\tau$ is 0.5% if 2% of the REIT's investors are Japanese with a 10% withholding tax rate and 1% are Canadian with a 30% withholding tax rate. However, suppose that the rates are unchanged, but Canadian investors purchase all of the Japanese shares. Then, the $wm\tau$ would jump to 0.9%, implying that the U.S. increased its withholding tax rates when actually the mix of foreign investors was the only change. Therefore, to tease out the effect related to rate changes, we need a refined tax measure that controls for ownership changes.

We start by recognizing that $wm\tau_t$ is the foreign ownership at the beginning of t times the applicable withholding tax rates for t . Taking differences between two years:

$$\begin{aligned} wm\tau_{2005} - wm\tau_{2004} &= rate_{2005} * own_{2005} - rate_{2004} * own_{2004} \\ &= (rate_{2005} - rate_{2004}) * own_{2004} \\ &\quad + (own_{2005} - own_{2004}) * rate_{2005} \end{aligned}$$

The first term, $(rate_{2005} - rate_{2004}) * own_{2004}$, becomes the primary variable of interest. It captures the change in tax rates, holding constant foreign ownership. The second term, $(own_{2005} - own_{2004}) * rate_{2005}$, captures the impact of changes arising from a new mix of foreign investors, holding constant the tax rate. We now substitute these two terms for $wm\tau_{2005}$ and $wm\tau_{2004}$ and reestimate equation (4).¹³ We predict a negative sign on the first term, the change in tax rates, consistent with REIT managers realizing more capital gains as tax rates fall for their foreign investors. We have no prediction for the second term, the change in ownership. It serves solely as a control.

We find results consistent with REIT managers realizing more capital gains as U.S. withholding taxes fell for their foreign investors. The second column of Table 3, Panel B shows that the coefficient on the change in rates is negative, as predicted, and significant at the 0.10 level. It is also economically meaningful. An interquartile range decrease in the rate change results in a \$20.3 million increase in realized capital gains for the typical REIT.

The third column of Table 3, Panel B shows that the results hold and actually become more significant when we expand the analysis to include all observations through 2009, adjusting the other regression variables and adding annual categorical variables:¹⁴

$$\ln CG_{ijt} = \beta_{0t} + \beta_1 \ln CG_{ijt-1} + \beta_2 ratechange_{it} - \beta_3 ownchange_{it} + \varepsilon_{ijt} \quad (5)$$

When we estimate equation (5), we find that β_2 remains negative and is now significant at 0.01.

The coefficient on the change in ownership is not significantly different from zero in either the second or third column. Together these results suggest that the separation of rate and ownership effects is necessary to understand the tax impact on portfolio management decisions.

¹³ Unlike the weighted mean tax variables, we cannot take natural logarithms of these new two terms because they are sometimes negative.

¹⁴ We do not extend our sample to 2010 here because there were no withholding rate changes in our sample from 2009 to 2010.

We close our empirical tests by revisiting Figure 2. Realized capital gains for REITs dipped in 2004, although the broader real estate market was improving. One possible explanation for the decrease is that REIT managers foresaw the 2005 reduction in withholding tax rates and undertook a seller's strike, i.e., chose to wait until the rates fell in 2005 before disposing of appreciated properties (at the margin). If so, those REITs whose foreign investors were set to enjoy the largest tax rate reductions in 2005 should have been the ones striking the most. In untabulated results, we test for such a relation and find none. Thus, we infer that the 2004 dip in Figure 2 is not attributable to REIT managers' foresight of the coming legislation.

6. Closing Remarks

Although tax policy plays an important role in the real estate industry, remarkably little empirical research has been conducted about the impact of taxes on real estate at the investor and manager level. This paper exploits a change in the taxation of REIT capital gains for foreign investors to explore both the responsiveness of real estate investors to changes in their own taxes and the sensitivity of real estate managers to changes in their investors' taxes. We find evidence consistent with foreign investors responding to the 2004 reduction in capital gains withholding taxes, as well as evidence that REIT managers altered their sales of appreciated real property in response to the rate reduction. We interpret these results as evidence that FIRPTA restricts the flow of foreign capital into U.S. REITs and affects the management of REITs.

Prior research has concluded individual taxes of investors—unless they are very large shareholders or insiders—rarely affect managers' decisions and typically even those decisions are financial, such as payout policy, not operational (see Chetty and Saez, 2005 and Brown et al. 2007, among others). In contrast, we find that REIT managers alter the sales of their real estate

portfolio in deference to the personal tax positions of a small group of shareholders who are limited to holdings under 5%. Thus, these results are particularly surprising. Further work is warranted to determine the unique factors in the REIT setting and/or the other considerations that explain this divergence from prior work.

More generally, this paper should encourage further study about the role of taxes in real estate investment and management. Few industries are so large, so influenced by tax policy, and so understudied by tax researchers. Second, more generally, the findings in this paper should expand our understanding of the role of taxes in foreign portfolio investment, which is increasingly important in a global capital market. Finally, the inferences from this paper should be useful to Congress and other policymakers as they continue to consider additional liberalization of the FIRPTA rules. The results from this investigation would imply that further changes, e.g., increasing the ownership cap from 5% to 10%, would increase the flow of foreign capital to U.S. REITS. This does not necessarily mean that it would substantially increase foreign investment in U.S. real estate. Perhaps foreign investors are already employing tax plans that enable them to avoid the deleterious effects of FIRPTA. If so, the results from the 2004 change would suggest that U.S. REITs may be a more efficient means for at least some of them to invest in U.S. real estate.

REFERENCES

Amiram, Dan and Mary Margaret Frank, 2012. The Effect of Investor-Level Dividend Taxes on the Allocation of Foreign Portfolio Investment around the World. Darden Business School Working Paper No. 1539422.

Blouin, Jennifer L., Jana S. Raedy, and Douglas A. Shackelford, 2011. Dividends, Share Repurchases, and Tax Clienteles: Evidence from the 2003 Reductions in Shareholder Taxes, *The Accounting Review* 86(3), 887-914.

Brown, Jeffrey R., Nellie Liang, and Scott Weisbenner, 2007. Executive Financial Incentives and Payout Policy: Firm Responses to the 2003 Dividend Tax Cut, *The Journal of Finance* 62(4), 1935-1965.

Burman, Leonard E., 1999. *Labyrinth of Capital Gains Tax Policy: A Guide for the Perplexed*. Washington: Brookings Institution Press.

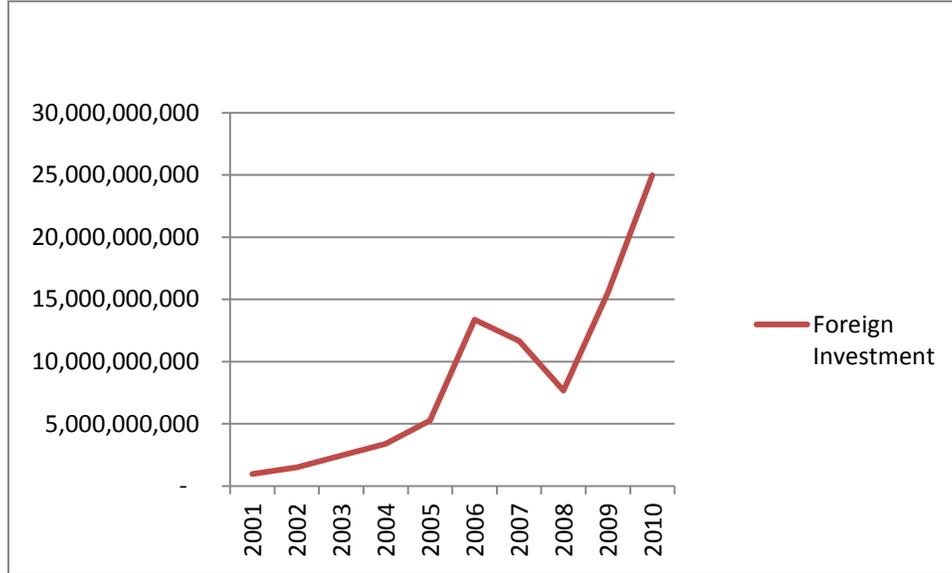
Chan, Su Han, Wai Kin Leung, and Ko Wang, 1998. Institutional Investment in REITs: Evidence and Implications, *Journal of Real Estate Research* 16, 357-374.

Chetty, Raj and Emmanuel Saez, 2005. Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut, *The Quarterly Journal of Economics* CXX 3:791-833.

Dai, Zhonglan, Edward Maydew, Douglas Shackelford, and Harold Zhang, 2008. "Capital Gains Taxes and Asset Prices: Capitalization or Lock-in?" *The Journal of Finance* LXIII 2: 709-742.

Figure 1

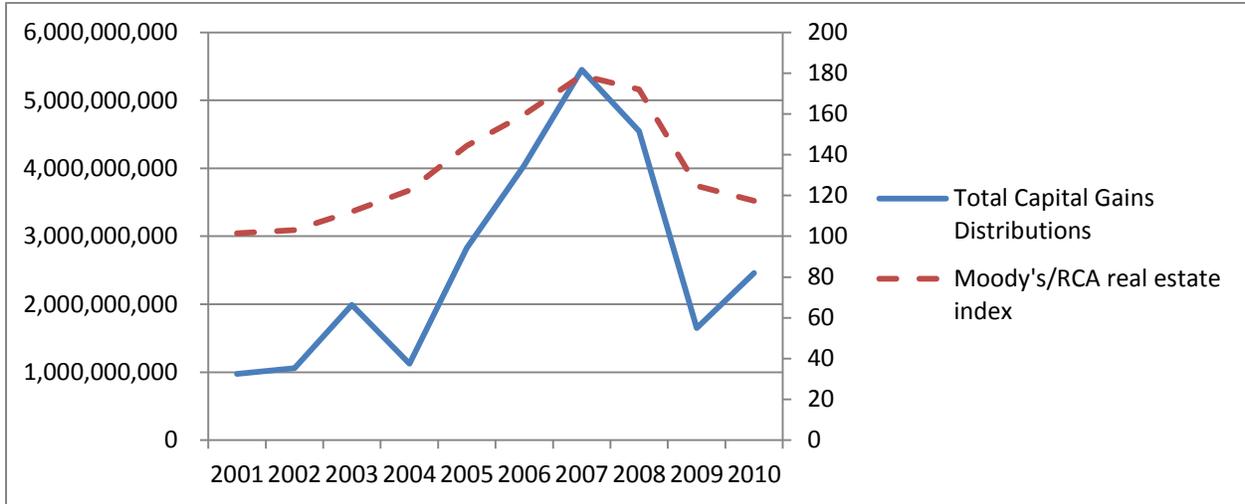
Foreign Investment in U.S. REITs



Investment in U.S. REITs from countries in our sample. Amounts in U.S. dollars. Foreign investment each year is calculated as *Position* (number of shares held by the investor, SNL) multiplied by *Price* for December (CRSP monthly stock files) of that year for that U.S. REIT, summed over all foreign owners across all U.S. REITs for that year.

Figure 2

Capital Gains Distributions from U.S. REITs



Left-hand axis: Capital gains distributions paid by U.S. REITs in our sample. Calculated as capital gains distribution per share (NAREIT) multiplied by number of common shares outstanding (Compustat). Figures in U.S. dollars. Right-hand axis: Moody's/RCA CPPI (Commercial Property Price Indices).

Table 1
Descriptive Statistics

Panel A

	Mean	Std Dev	Min	25%	Median	75%	Max
Sales (millions of dollars)	798	2,411	38	187	334	678	22,629
Total Assets (millions of dollars)	4,143	5,128	197	1,414	2,244	4,499	28,229
Foreign Investment (thousands of dollars)	50,786	96,020	64	2,807	18,370	50,054	702,867
Foreign Ownership (percent)	1.45%	1.35%	0.01%	0.23%	1.05%	2.28%	4.95%
Capital Gains (thousands of dollars)	33,627	62,874	0	0	1,895	35,063	243,954

N = 90 for all variables except *Capital Gains*, where N=69. *Sales* is the REIT's annual net sales (Compustat). *Total Assets* is the REIT's year-end total assets (Compustat). *Foreign Investment* is calculated as *Position* (number of shares held by the owner, SNL) multiplied by *Price* for December (CRSP monthly stock files) of the corresponding year, summed over all foreign owners for that REIT in a given year. *Foreign Ownership* is calculated as *Position* divided by *Common Shares Outstanding* (Compustat), summed over all foreign owners for that REIT in a given year. *Capital Gains* is calculated as total capital gains distribution per share (NAREIT) multiplied by *Common Shares Outstanding*.

Table 1
Descriptive Statistics

Panel B – REIT Property Type (SNL)

Property Type	Number of REITs – 2005 sample	Number of REITs – 2005-2010 sample
Diversified	7	11
Health Care	9	10
Hotel	6	12
Industrial	3	4
Manufactured Home	2	3
Multi-family	12	12
Office	11	16
Regional Mall	8	8
Retail: Other	4	6
Self-Storage	3	3
Shopping Center	10	14
Specialty	6	9
Undisclosed	9	25
Total	90	133

Table 1
Sample Descriptives

Panel C – Country Frequency (SNL)

Country	2005	2005-2010
Australia	N/A	227
Austria	3	89
Belgium	50	310
Bermuda	N/A	89
Canada	78	604
Denmark	3	119
France	1	371
Germany	4	253
Ireland	13	117
Italy	1	89
Japan	53	557
Luxembourg	9	113
Netherlands	25	228
Norway	N/A	2
Singapore	30	221
Spain	8	78
Sweden	16	192
Switzerland	7	351
United Kingdom	73	605
Total	374	4,615

Table 2
Foreign Investment

Panel A
Descriptive Statistics – 2005 sample

Variable	Mean	Std Dev	Min	25%	Median	75%	Max
$\ln Y_{2005}$	14.80	1.85	9.71	13.48	14.62	16.24	19.47
$\ln Y_{2004}$	14.20	1.89	7.57	12.86	14.06	15.41	19.87
$\ln \tau$	2.97	0.42	2.30	2.71	2.71	3.40	3.40
Y_{2005} (in millions)	12.2	26.9	0.02	0.7	2.2	11.2	286.2
Y_{2004} (in millions)	8.8	29.9	0.002	0.4	1.3	4.9	427.1
τ	21.2%	8.3%	10.0%	15.0%	15.0%	30.0%	30.0%

Panel B
Regression Results

$$2005: \ln Y_{ij 2005} = \beta_0 + \beta_1 \ln Y_{ij 2004} + \beta_2 \ln \tau_{j 2005} + \varepsilon_{ij 2005}$$

$$2005 - 2010: \ln Y_{ij t} = \beta_0 + \beta_1 \ln Y_{ij t-1} + \beta_2 \ln \tau_{jt} + \beta_3 \ln \tau_{j t-1} + \varepsilon_{ijt}$$

Variable	2005	2005-2010
Intercept	7.53 *** (<0.0001)	5.29 *** (<0.0001)
$\ln Y_{t-1}$	0.69 *** (<0.0001)	0.73 *** (<0.0001)
$\ln \tau_t$	-0.83 *** (<0.0001)	-0.44 *** (<0.0001)
$\ln \tau_{t-1}$		0.12 (0.2570)

For the 2005 and 2005-2010 samples, N=374 and N= 4,615, respectively. Y is *Foreign Ownership*, as described in Table 1, summed for each REIT-country pair. $\ln Y$ is the natural log of Y . τ is the relevant withholding tax rate for each country. $\ln \tau$ is the natural log of τ . The 2005-2010 regression also includes year indicator variables, but coefficients are not shown. P-values in parentheses.

Table 3
Capital Gains Distributions

Panel A
Descriptive Statistics - 2005

Variable	Mean	Std Dev	Min	25%	Median	75%	Max
$\ln CG_{2005}$	12.62	7.28	0	11.71	15.60	17.65	19.31
$\ln CG_{2004}$	1.98	5.72	0	0	0	0	19.81
$\ln wmt_{2005}$	-2.25	1.15	-5.40	-3.17	-1.81	-1.37	-0.50
$\ln wmt_{2004}$	-2.01	1.68	-5.65	-3.71	-1.42	-0.67	0.15
CG_{2005} (in millions)	39.9	66.3	0	0.12	5.9	46.1	244.0
CG_{2004} (in millions)	13.9	59.8	0	0	0	0	400.7

Table 3
Capital Gains Distributions

Panel B
Regression Results

Column 1: $\ln CG_{ij\ 2005} = \beta_0 + \beta_1 \ln CG_{ij\ 2004} + \beta_2 \ln wmt_{i\ 2005} + \beta_3 \ln wmt_{i\ 2004} + \varepsilon_{ij}$
 Columns 2 and 3: $\ln CG_{ijt} = \beta_{0t} + \beta_1 \ln CG_{ijt-1} + \beta_2 \text{ratechange}_{it} - \beta_3 \text{ownchange}_{it} + \varepsilon_{ijt}$

Variable	2005	2005-2009	2005-2009
Intercept	14.53 *** (<0.0001)	10.14 *** (<0.0001)	2.99 *** (0.0036)
$\ln CG_{t-1}$	0.25 (0.1318)	0.28 * (0.0940)	0.49 *** (<0.0001)
$\ln wmt_{2005}$	-0.35 (0.7356)		
$\ln wmt_{2004}$	1.59 ** (0.0305)		
ratechange		-20.90 * (0.0670)	-23.01 *** (0.0060)
ownchange		-2.31 (0.6579)	2.03 (0.1112)

For the 2005 and 2005-2009 samples N=55 and N=336, respectively. $\ln CG$ is the natural log of *Capital Gains* (as described in Table 1, Panel A). $\ln wmt$ is the natural log of the weighted mean tax rate as described on Section 4.1. *Ratechange* is calculated as $(\tau_t - \tau_{t-1}) * \text{CountryPercentOwn}_{t-1}$. τ is the relevant withholding tax rate for each country. *CountryPercentOwn* is the percentage of foreign ownership, summed for each REIT-country-year. *Ownchange* is calculated as $(\text{CountryPercentOwn}_t - \text{CountryPercentOwn}_{t-1}) * \tau_t$. The 2005-2009 regression also includes year indicator variables, but coefficients are not shown. P-values in parentheses.