

# Permanently Reinvested Earnings and the Profitability of Foreign Cash Acquisitions

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## Abstract

Current U.S. tax laws create an incentive for some U.S. firms to avoid the repatriation of foreign earnings as the U.S. government charges additional corporate taxes upon repatriation of foreign earnings. Under ASC 740, the financial accounting treatment for taxes on foreign earnings exacerbates this effect. It increases the incentive to avoid repatriation by allowing firms to designate foreign earnings as permanently reinvested earnings (PRE) and delay recognition of the deferred tax liability associated with the U.S. repatriation tax resulting in higher after-tax income. Prior research suggests that the combined effect of these incentives leads some U.S. multinational corporations to delay the repatriation of foreign earnings and, as a result hold a significant amount of cash overseas. In this study, we investigate the effect of PRE held as cash on U.S. MNCs foreign acquisitions. Consistent with expectations, we observe firms with high levels of foreign earnings designated as PRE and held as cash make less profitable acquisitions of foreign target firms using cash consideration than firms without high levels of PRE held as cash. The AJCA of 2004 appears to have reduced this effect by allowing firms to repatriate foreign earnings held as cash abroad at a much lower tax cost.

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## I. INTRODUCTION

The United States (U.S.) taxes corporations on a worldwide basis. Yet, U.S. multinational corporations (MNC) are allowed to defer taxes on the earnings of foreign subsidiaries. Specifically, U.S. firms are only taxed on the earnings of foreign subsidiaries when those earnings are repatriated back to the U.S. parent company.<sup>1</sup> The taxes U.S. MNCs owe upon repatriation can be substantial as the U.S. has one of the highest corporate tax rates in the world.<sup>2</sup> Foley et al. (2007) find the potential tax costs associated with repatriating foreign income are related to the magnitude of U.S. multinational cash holdings. A recent study by Blouin et al. (2012a) examines the composition of earnings that U.S. MNCs have designated as permanently reinvested abroad. The study finds 94 percent is located in affiliates with lower tax rates than the U.S. and that a substantial portion of these permanently reinvested earnings (PRE) appears to be held in cash (42 percent). The results of these studies suggest that U.S. tax law creates an incentive for some U.S. MNCs to avoid the repatriation of foreign earnings and hold greater amounts of cash abroad.

The current financial accounting treatment for taxes on foreign earnings under Accounting Standard Codification section 740 (ASC 740) potentially exacerbates this issue and increases the incentive to avoid the repatriation of foreign earnings by allowing firms to designate foreign earnings as permanently reinvested (PRE). The designation of foreign earnings as PRE allows firms to defer the recognition of the U.S. tax expense related to foreign earnings. Graham et al. (2011) survey 600 tax executives and find the desire to avoid the financial accounting income tax expense is as important as avoiding cash taxes in making repatriation

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<sup>1</sup> There are some exceptions to the deferral of taxes on foreign earnings for the earnings from foreign branches and from investments in passive assets.

<sup>2</sup> As of 2012, the U.S. has the highest corporate tax rate among OECD countries (see Part C of the OECD Tax Database, available at [www.oecd.org/ctp/taxdatabase](http://www.oecd.org/ctp/taxdatabase)).

decisions. Blouin et al. (2012b) examine the effect of capital market incentives on the repatriation decision and also find evidence consistent with the deferred tax exception influencing firms' decision to repatriate earnings.

The combined effect of these tax and financial reporting incentives is likely to lead managers of U.S. MNCs to retain earnings abroad, and absent attractive investment opportunities to hold those earnings as cash (commonly referred to as "trapped cash"). In this study we investigate the effect of that trapped cash on U.S. MNCs foreign acquisitions. We test whether the potential repatriation tax leads firms with trapped cash to invest in lower net present value (NPV) acquisitions of foreign target firms than other U.S. MNCs who do not have high levels of trapped cash. Firms holding high amounts of cash in their foreign subsidiaries likely do so because they face declining investment opportunities abroad and because they desire to defer the tax and avoid the financial accounting expense that would result from repatriating those earnings to the U.S. Consequently, we expect these firms to use a lower benchmark in evaluating acquisitions than firms that are not constrained by the combination of declining investment opportunities and significant repatriation taxes. We test the association between firms' cash trapped overseas due to U.S. tax and financial reporting incentives and the profitability of their acquisitions of foreign target firms using cash consideration. We note that it is possible that agency costs arising from the tendency of management to use cash holdings for suboptimal investments could contribute to the lower returns associated with acquisitions made by U.S. MNCs with trapped cash abroad.

The popular press has presented anecdotal evidence consistent with the prediction that trapped cash is associated with lower NPV acquisitions. Bleeker (2011) suggests that a significant determinant of Microsoft's decision to acquire Skype for \$8.5 billion was that Skype

was a foreign company with headquarters in Luxemburg, enabling Microsoft to use foreign cash trapped overseas to make the acquisition. Bleeker (2011) went as far as to say “Microsoft made this bone-headed deal not because it was the best fit available for the company. They made the deal because it was a tax-efficient shot in the arm. If you're a Microsoft investor, this should scare you.”

We do not expect all firms with large amounts of PRE to make relatively lower NPV acquisitions. In fact, many U.S. MNCs likely leave earnings reinvested abroad in operating assets because they have attractive growth opportunities overseas and the PRE designation itself could be interpreted as a positive signal about their growth prospects abroad. For this reason, we focus our analysis on firms that exhibit higher levels of PRE held in cash and short-term investments (i.e., MNCs with “trapped cash”). We expect these firms to be holding earnings abroad primarily to avoid the cash tax and earnings consequences of repatriating the earnings. In addition, these firms could be subject to greater agency costs associated with their high levels of cash holdings abroad.

We measure the expected profitability of acquisitions using the stock price reaction to the bid announcement of foreign cash acquisitions. We also examine two ex post long-run performance measures, change in return on assets surrounding acquisitions and three-year post-acquisition abnormal buy and hold returns. We first examine the association between expected profitability of the cash acquisitions of foreign targets by U.S. MNCs and firms’ level of cash trapped overseas (i.e., substantial cash holdings and earnings designated as PRE). Consistent with expectations, we find that the announcement period returns are significantly lower for firms with cash trapped overseas compared with firms with lower cash holdings and earnings not designated as PRE. A decrease in cash trapped overseas of one standard deviation is associated

with a lower announcement period return of between 235 and 331 basis points indicating this effect is economically significant. We find similar results using the change in the accounting rate of return surrounding the acquisition and post-acquisition three-year buy and hold abnormal returns.

Next, we examine the impact of the 2004 repatriation tax holiday created as part of the American Jobs Creation Act (AJCA). In order to encourage firms to repatriate trapped cash, the AJCA allowed firms to repatriate earnings previously designated as PRE at a temporarily decreased tax rate of 5.25 percent (from 35 percent) through an 85 percent dividends received deduction on repatriated earnings in 2004 or 2005. U.S. MNCs with cash trapped overseas that did not have, or did not expect to have, profitable foreign investment opportunities had the opportunity to repatriate foreign earnings during the tax holiday. We find that the negative association between cash trapped overseas and announcement returns for foreign cash acquisitions is significantly attenuated following the AJCA repatriation tax holiday. We find generally consistent results using the ex post long-run performance measures. This finding suggests that once the potential repatriation tax burden is lifted firms are less likely to use trapped cash to make lower NPV acquisitions.

We also separately examine the financial crisis period of the late 2000's. During this time period firms began to hold record levels of cash primarily due to concerns regarding obtaining future financing (Casselman and Larhart 2011). Also, U.S. MNCs began rebuilding PRE balances at a rapid rate, possibly in expectation of a future repatriation tax holiday (Brennan 2010). Consistent with firms holding additional cash for non-tax and non-financial reporting reasons, we do not observe a significant negative relation between our proxy for trapped cash and acquisition announcement returns during this period. Using an alternative measure of cash

trapped overseas (PRE greater than the value of cash acquisitions), we observe a significantly negative association between cash trapped overseas and acquisition announcement returns.

Together, we interpret these results as mixed evidence of a return to the lower NPV acquisition activity that occurred prior to the AJCA.

Finally, as a robustness test we examine the association between firms' cash trapped overseas and both acquisition announcement returns of foreign stock-for-stock acquisitions and acquisitions of domestic target firms made contemporaneously with foreign target firms. Consistent with expectations, we do not observe a significant association between cash trapped overseas and announcement period returns for these acquisitions, as these acquisitions are unlikely to be affected by US repatriation tax policy and financial reporting rules related to PRE. However, the small sample size available for these tests limits our ability to draw any strong inferences.<sup>3</sup>

The findings in this study are of direct interest to policymakers and investors. We document a significant indirect cost of having both a tax and financial reporting system that encourage firms to retain cash from foreign earnings abroad. The issue of repatriation taxes and the relative merits of a territorial versus worldwide system of taxation have been at the forefront in recent years. Notably, prominent business leaders have recently lobbied President Obama for the creation of an additional repatriation tax holiday (Drucker 2010). However, support for the reduction of repatriation taxes is far from universal. For example, in an October 30, 2011 editorial, the Washington Post argues that a tax break on the repatriation of corporate taxes would be an "a demonstrably bad idea" as such a move would cost the U.S. billions in lost tax revenues and is not apt to create jobs (Washington Post 2011). Regardless of the claims in favor

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<sup>3</sup> Internal Revenue Bulletin 2006-7 allowed for foreign stock acquisitions to be treated as type "A" reorganization tax free transactions. It is possible our small sample size for foreign stock acquisitions is a result of the potential taxability of these transactions prior to the issuance of IRB 2006-7 in 2006.

and against the merits of repatriation taxes, the Committee on Ways and Means released a discussion draft on October 26, 2011, which would move the U.S. towards a territorial tax system by providing a deduction from income equal to 95 percent of foreign-source dividends received by U.S. parent companies (U.S. Government 2011). Our findings are informative in both the context of a decision to move to a territorial tax system and the creation of a new repatriation tax holiday. Either event should reduce the incentive for U.S. MNCs with trapped cash to make low NPV acquisitions.

The results of this study will also be of interest to current and potential investors in U.S. MNCs. Based on our findings, investors should be wary of the potential acquisition decisions of U.S. MNCs with large cash holdings trapped overseas as non-repatriated foreign earnings that have been designated as PRE. It is difficult to ascertain the extent to which the lower returns for acquisitions made by the trapped cash firms are attributable, if at all, to agency costs. De Waegenare and Sansing (2006) model the repatriation decision and show that it is optimal for some firms with foreign earnings to invest in financial assets rather than repatriate their cash under certain model assumptions. This finding suggests that making acquisitions that earn a rate of return that is at least greater than that for financial assets is potentially an optimal investment strategy. However, the agency costs of free cash flow (Jensen 1986) could result in managers of firms with trapped cash making suboptimal acquisitions. The lower long-run performance after these acquisitions is consistent with agency costs, at least in-part, driving the lower returns. If the lower returns to these acquisitions was simply a result of these firms being constrained by the repatriation tax and having limited investment opportunities we would not expect to observe a decline in performance following the acquisitions.

The remainder of this paper is organized as follows. Section 2 provides institutional background information on the U.S. taxation and financial accounting for foreign earnings and develops the hypotheses. Section 3 details the sample selection and describes the research design. Section 4 presents results and discusses the significance of our findings. Additional analyses are presented in Section 5. Finally, Section 6 concludes.

## **II. INSTITUTIONAL BACKGROUND AND HYPOTHESIS DEVELOPMENT**

### **U.S. Taxation of Foreign Earnings**

Generally, the U.S. operates under a worldwide tax system for earnings within a single legal entity. If foreign profits are earned in a separate legal entity, the deferral of taxation on those foreign earnings is possible. That is to say, profits earned in the U.S. are taxed immediately, but profits earned in a foreign subsidiary are generally not taxed until those profits are distributed to the U.S. parent company usually via a dividend. In order to calculate the U.S. taxes owed on repatriated foreign profits, the dividend distributed to the parent is grossed up to the amount of pretax earnings, and then a credit is given for the foreign taxes paid.<sup>4</sup> Income and foreign tax credits are pooled across jurisdictions when calculating the U.S. taxes due. The residual U.S. tax due upon repatriation is roughly equivalent to the difference between the U.S. statutory tax rate and the firms' average foreign tax rates. The deferral of U.S. taxes owed on the profits of a foreign subsidiary until repatriation potentially allows a U.S. multinational parent company to delay a significant amount of taxation. In the extreme case, if profits earned in a

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<sup>4</sup> For example, if a wholly owned foreign subsidiary earned profits of \$100 and was taxed in the foreign jurisdiction at 15% they would have after tax earnings of \$85 ( $100 \times (1 - 0.15)$ ) available to distribute to the parent. If the \$85 was paid as a dividend to the parent, the parent would include \$100 in taxable income but would receive a credit for the \$15 of foreign taxes paid.



foreign subsidiary are never repatriated to the U.S., then those profits will never face U.S. corporate taxation.<sup>5</sup>

### **Permanently Reinvested Earnings**

The current accounting treatment for the U.S. taxes associated with foreign profits requires that firms record a deferred tax expense, and a compensating deferred tax liability, for the expected U.S. taxes due on the eventual repatriation of foreign earnings. An exception to this general rule was created as part of the Accounting Principles Board (APB) Opinion 23 (APB 23) - now part of ASC 740 - which allows companies to avoid recording a deferred tax expense for repatriation taxes in certain circumstances. In order to qualify for this exception (called the Indefinite Reversal Exception) APB 23 Paragraph 12 requires that the parent company demonstrate that the subsidiary has or will invest its undistributed earnings indefinitely or that it will remit its undistributed earnings in a tax-free liquidation. Using the PRE designation, a company is able to avoid recognizing the deferred tax expense and deferred tax liability, as long as it does not intend to sell the subsidiary and intends to reinvest the foreign subsidiary's earnings indefinitely. Graham et al. (2011) document the PRE designation is important to managers because it can result in a reduced tax expense and therefore higher after-tax earnings.

### **The Repatriation Decision**

The decision by a U.S. MNC to repatriate earnings from a foreign subsidiary involves a number of factors. Hartman (1985) and Scholes et al. (2008) model this repatriation decision and show that the decision to repatriate comes down to a comparison between the after tax rate of return in the home country and the after tax rate of return in the foreign jurisdiction.

Interestingly, these models show that the decision does not depend on the level of repatriation

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<sup>5</sup> See Scholes, Wolfson, Erickson, Maydew, and Shevlin (2008) Chapter 10 for a more complete discussion of the taxation of foreign profits.

taxes or the investment horizon. But, the conclusions drawn from these models rely on two key assumptions. First, all foreign earnings will eventually be repatriated and will be taxed in the home jurisdiction upon repatriation. Second, the Hartman (1985) model assumes that the home country taxes on repatriations are constant over time. The repatriation tax holiday provided by the AJCA is an example of a situation where this second assumption does not hold.

Relaxing those assumptions necessitates a more complex set of criteria firms must consider for their repatriation decision.

De Waegenaere and Sansing (2006) model the repatriation decision where a subsidiary may have an infinite life, allowing for the possibility of infinite deferral of repatriation taxes. Further, De Waegenaere and Sansing (2006) separately account for the operating and financial assets in the foreign subsidiary, examine the issue in both mature and growth firms, and allow for variation in the tax rate on repatriations. After separating operating and financial asset investment opportunities, and varying repatriation tax rates, De Waegenaere and Sansing (2006) show that the repatriation decision can be more complex than the comparison of after tax rates of return. When faced with lower after tax rates of return on operating investment opportunities in the foreign jurisdiction, companies may choose to invest foreign earnings in financial assets instead of repatriating those earnings to the U.S. multinational parent.

### **PRE and Foreign Acquisitions**

The implications from De Waegenaere and Sansing's (2006) model are consistent with empirical results in prior research. Prior research documents that U.S. corporations hold a significant amount of cash (e.g., Opler et al. 1999; Foley et al. 2007; Bates et al. 2009). This is particularly true for multinational firms that hold some cash in foreign subsidiaries, due at least partially to the tax costs associated with repatriating foreign earnings to the U.S. (Foley et al.

2007; Blouin et al. 2012a). Because these firms cannot repatriate their foreign cash without triggering the repatriation tax their investment options for this cash are limited relative to cash held by a U.S. parent company. Consequently, we expect the firms with significant amounts of both PRE and cash held by foreign subsidiaries will be the firms with declining investment opportunities abroad. Consistent with this argument, Bryant-Kutcher et al. (2008) document that the valuation of PRE is lower for firms with positive U.S. tax associated with repatriation and that this lower value is concentrated in the subset of firms with high amounts of excess cash. As a result, we expect any acquisitions made by these firms to exhibit lower returns than acquisitions made by U.S. MNCs that are not constrained by the potential repatriation tax and declining investment opportunities abroad.

Although we expect that U.S. MNCs with trapped cash make less profitable acquisitions we do not necessarily expect these acquisitions to have a negative NPV acquisitions or be suboptimal investments. However, a related stream of research documents that agency costs can arise as a result of excess cash holdings which managers can use to increase their own wealth and/or power (Jensen 1986). Jensen (1986) argues that acquisitions enable managers to spend cash instead of paying it out to their shareholders. Managers' incentive to decrease their personal undiversified risk associated with the firm, to increase compensation, or to expand the scope of their authority could lead them to make investments that are not in the best interest of shareholders. Harford (1999) finds results consistent with these arguments. Managers of cash-rich firms are more likely to make acquisition bids and the acquisition bids are associated with negative stock price reactions. Opler et al. (1999) also finds that firms with excess cash make more acquisitions than other firms. Furthermore, prior literature finds evidence that increases in compensation are a strong incentive for managers to increase the size of the firm through

acquisitions, even if there is a resulting decrease in shareholder value (e.g., Datta et al. 2001; Grinstein and Hribar 2004; Harford and Li 2007).

Prior literature also finds some evidence that acquisitions of foreign targets by U.S. acquirers are less profitable than domestic targets.<sup>6</sup> However, studies of worldwide cross-border acquisition activity (including non-U.S. acquirers) find these transactions to be value-enhancing (e.g., Ellis et al. 2011; Erel et al. 2011). We extend this literature by examining how U.S. acquirers' tax-related incentives affect the profitability of managers' acquisition decisions. To the extent that the U.S. tax laws and financial reporting rules result in firms holding excessive cash in foreign subsidiaries, we expect that these firms are more likely to use that cash to make less profitable foreign acquisitions. Formally stated we hypothesize:

H1: Firms with greater amounts of PRE held as cash make less profitable foreign acquisitions using cash payments.

### **The American Jobs Creation Act of 2004 and PRE**

The American Jobs Creation Act (AJCA) was passed into law on October 22, 2004. A key feature of this law was the creation of a one-year window during which U.S. MNCs could repatriate earnings from foreign subsidiaries and receive an 85 percent deduction on qualifying dividends. The impact and consequences of this tax holiday on repatriations have been examined by numerous prior studies. For example, Blouin and Krull (2009) examine the determinants of firms that repatriated earnings under the AJCA and the uses of the funds that were repatriated. In their study they document that the AJCA resulted in a substantial amount of repatriations with over \$290 billion of foreign earnings repatriated. Oler et al. (2007) examine investor

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<sup>6</sup> Doukas and Travlos (1988), using a sample of 301 acquisitions from 1975 to 1983, do not find that acquisitions of foreign targets by U.S. acquirers are associated with negative abnormal acquisition announcement returns. However, more recent studies provide evidence of U.S. acquirers' foreign acquisitions having a negative effect on acquirers' market value (e.g., Dos Santos et al. 2008; Moeller and Schlingemann 2005; Black et al. 2007). Hope and Thomas (2008) find that poor disclosure quality decreases the profitability of foreign investment by U.S. MNCs because it reduces the ability of shareholders to monitor managers' decisions.

expectations of the tax savings related to the AJCA. As part of their analysis, Oler et al. (2007) show that it can be inferred that firms that did not repatriate earnings must have an after tax rate of return on investment opportunities in the U.S. lower than the after tax rate of return on investment opportunities in foreign jurisdictions. It follows that firms with greater investment opportunities in the U.S. would repatriate their foreign earnings during the tax holiday. Given this assumption, firms with excess cash trapped in foreign subsidiaries should have repatriated the earnings under the AJCA and following the AJCA the firms continuing to have foreign cash held as PRE are expected to have greater foreign than domestic investment opportunities. We make the following related hypothesis:

H2: The profitability of foreign acquisitions based on cash payments increases during and shortly after the tax repatriation holiday for firms with greater amounts of PRE held as cash.

### **The Financial Crisis of the Late 2000's**

During the late 2000's, the global economy experienced a credit crunch and economic slowdown. In this time period many firms experienced a reduction in the availability of financing and undertook drastic actions to obtain more cash. Casselman and Larhart (2011) in the *Wall Street Journal* report that corporations now hold more cash than at any point in the last 50 years totaling more than \$2 trillion for nonfinancial firms at the end of June 2011. Campello et al. (2010) survey American, Asian, and European Chief Financial Officers to assess whether their firms were credit constrained during the crisis. They find that constrained firms altered their behavior: they planned deeper spending cuts, used more cash, drew more heavily on lines of credit for fear banks would restrict access in the future, sold more assets, and bypassed attractive investment opportunities. In a related study, Ivashina and Scharfstein (2010) document that new loans to large borrowers drastically fell during the peak of the financial crisis and that there was

a simultaneous increase in borrowers drawing down credit lines, resulting in a drastic increase in commercial and industrial loans reported on bank balance sheets. These constraints in the ability of firms to obtain financing and the increased propensity to draw down lines of credits could result in a drastically different set of implications than holding cash prior to the late 2000's financial crisis. Specifically, if firms are holding high levels of PRE as cash because of concerns about the ability to obtain financing during the crisis then we would not expect to observe the same effects associated with acquisitions made prior to the crisis.

Further, during this financial crisis we also expect firms that repatriated PRE during the tax holiday to rebuild their PRE balances. A return to pre-tax holiday PRE levels suggests that the effects stemming from U.S. tax treatment of foreign earnings also exists in the financial crisis period. Yet, because of the confounding effects of the financial crisis on firms' cash holdings the interpretation of high PRE levels and cash holdings is less clear. Brennan (2010) suggests that during this period large U.S. MNCs are keeping more earnings permanently reinvested overseas, potentially in anticipation of an additional tax holiday similar to the AJCA. As a result, our hypothesis is non-directional as follows:

H3: The profitability of foreign acquisitions based on cash payments for firms with greater amounts of PRE held as cash changes from the period before the tax repatriation holiday to the financial crisis period.

### **III. SAMPLE AND RESEARCH DESIGN**

#### **Sample**

We use the Securities Data Company's (SDC) Mergers and Acquisitions database and begin with mergers and acquisitions by U.S. public companies of target firms outside the U.S. and U.S. territories. We include acquisitions with announcement dates between January 1, 1995 and December 31, 2010. We include all completed deals that are identified by SDC as mergers

(M), acquisitions of majority interest (AM), and acquisitions of assets (AA). This restriction excludes acquisitions classified as acquisitions of partial stakes, minority squeeze-outs, buybacks, recapitalizations, exchange offers, and acquisitions where the acquirer has a greater than 50 percent stake before the acquisition or seeks to acquire less than 50 percent of the target company.

To focus on acquisitions that are economically significant and are large enough to have an effect on the future performance of the acquirer, we require the ratio of the transaction value to the market value of the bidder at the end of the quarter prior to the announcement to be greater than 5 percent (Morck et al. 1990). Importantly, we only include in our main analysis acquisitions where acquirers use cash consideration, including payments with mixed consideration of cash and stock, as these acquisitions directly relate to our hypothesis that managers are using cash and short-term investments designated as PRE.<sup>7</sup> An assumption of our study is that firms with PRE making foreign cash acquisitions structure transactions such that the cash payment to the target firm does not constitute a repatriation of cash, thereby triggering repatriation taxes. To avoid repatriation the U.S. parent company must use a foreign subsidiary as the legal acquirer.<sup>8</sup> Our review of several acquisition agreements in 8-K filings is consistent with this transaction structure for firms with PRE.<sup>9</sup> We require observations to have the necessary data from Compustat and CRSP to calculate variables. In addition, we require data

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<sup>7</sup> The median percentage of cash consideration for acquisitions with mixed payments is 48.5%. We exclude these acquisitions in a sensitivity analysis below and the findings are similar.

<sup>8</sup> The foreign subsidiary from which the foreign earnings stem does not need to be the legal acquirer because foreign subsidiaries can make inter-company loans between foreign subsidiaries to avoid repatriation.

<sup>9</sup> For example, the 8-K filing announcing the acquisition of Rubicon Group PLC by Applied Power Inc. states “Applied Power Inc. (‘Applied Power’) announced that it had reached agreement with the Board of Directors of Rubicon PLC (‘Rubicon’) on the terms of a recommended cash tender offer (with a guaranteed loan note alternative) to be made by APW Enclosure Systems Limited, a United Kingdom subsidiary of Applied Power (the ‘Purchaser’).” We are unable to use the SDC database to confirm if a foreign subsidiary is the legal acquirer because SDC defines the acquirer, per correspondence with SDC, based on the company “making the offer.” For this example, the SDC database indicates the acquirer is Applied Power, Inc. a U.S. company (SDC variables AN and ANATC) even though the legal acquirer is a U.K. subsidiary of Applied Power, Inc.

from the RiskMetrics governance database to calculate the Bebchuk et al. (2009) entrenchment index. This results in a sample of 284 acquisitions by 238 unique firms.

We separate our sample into three periods based on the temporary tax holiday for dividend repatriations from foreign subsidiaries in the AJCA. Oler et al. (2007) identify October 27, 2003 as the first date in which it was indicated in the media that a tax holiday “was gaining momentum very quickly and that passage in the first quarter of 2004 is highly likely” (Corporate Financing Week 2003). Therefore, we first analyze 144 acquisitions that were announced before October 27, 2003 as these acquisition decisions were made without the expectation of a tax holiday on repatriated foreign earnings. The tax holiday allowed firms to repatriate foreign earnings during 2004 or 2005. We define the tax holiday period to include acquisitions announced through 2007. This is because in the period immediately following the tax holiday firms that repatriated foreign earnings held as cash will have depleted their PRE balance which could then take several years to increase.<sup>10</sup> The tax holiday period includes 94 acquisitions announced from October 27, 2003 to December 31, 2007. The financial crisis period (the period after the tax holiday which is characterized by severe liquidity and uncertainty concerns) includes 46 acquisitions announced from 2008 to 2010.

Panel A of Table 1 presents the frequency of acquisitions by announcement year. The number of foreign acquisitions per year varies from 8 to 25. There does not seem to be a particular pattern except for slight decreases in 2000 and 2009. These decreases are likely due to market crashes around those times.<sup>11</sup> Panel B presents the frequency of acquisitions by the country of the target firms. The countries with the most target firms in our sample are United

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<sup>10</sup> We find consistent results related to the effect of the tax holiday if we define the tax holiday period to end on December 31, 2006.

<sup>11</sup> We also reviewed the acquisitions by industry for each of the sample time periods (pre-Tax Holiday, Tax Holiday, and Financial Crises) and do not observe any considerable difference in the distribution of acquirer industries between periods.



Kingdom (81), Canada (59), Germany (23), France (17), and Australia (16). There are a total of 36 countries that have target firms acquired. We include country fixed effects in our analysis to ensure that are results are not driven by country-level factors.

To obtain firms' permanently reinvested earnings, hand collected from 10-K filings, we use values as of the end of the last fiscal year ending before the acquisition announcement. If firms do not state there are foreign earnings designated as permanently reinvested we consider these observations to have zero PRE. We then scale this amount by total assets to calculate our measure of permanently reinvested earnings (*PRE*).

### **Expected Acquisition Profitability Measures**

Following a substantial number of studies (e.g., Morck et al., 1990; Harford 1999; Datta et al. 2001; Malmendier and Tate 2008; Francis and Martin 2010), we use the acquirer's short-window stock price reaction to the initial acquisition bid announcement as a proxy for acquisition profitability. The stock price reaction is informative about what investors perceive the value of the acquisition to be. We measure the short-window announcement abnormal return as firm  $i$ 's three-day abnormal buy and hold return,  $RET_{i,t}$ , over day -1 to day 1, where day 0 is the date of the initial bid announcement in fiscal year  $t$ . Daily abnormal stock returns are computed using the market model and the value-weighted CRSP index where the estimation window is day -200 to day -60. As argued by Chen et al. (2007), acquisition announcement returns also capture information revealed about the acquirer from the act of bidding and the form of the bid. We include several control variables discussed below to control for this signaling argument.

We also examine acquirers' post-acquisition performance using two alternative measures of acquisition profitability,  $\Delta ROA$  and  $BHAR_{3Y}$ , from prior literature (e.g., Loughran and Vijh

1997; Chen et al. 2007; Savor and Lu 2009; Francis and Martin 2010).  $\Delta ROA$  is the change in the average return on assets surrounding the acquisition, calculated as the average of operating income after depreciation expense divided by lagged assets over the three fiscal years beginning in the first year after the acquisition completion year minus the average over the three fiscal years ending in the last year before the acquisition completion year.  $BHAR\_3Y$  is the post-acquisition three-year abnormal buy and hold stock return. We calculate buy and hold abnormal returns over the three-year period beginning in the first month after the acquisition is complete. Consistent with Chen et al. (2007), we control for size, book-to-market, and pre-acquisition returns in this measure following Lyon et al. (1999). Specifically, we sort the population of NYSE/NASDAQ/AMEX firms each month into NYSE size deciles and then further partition the bottom decile into quintiles, producing 14 total size groups. We independently sort these firms into book-to-market (B/M) deciles. After determining which of the 140 (14 size x 10 B/M) groups the acquirer is in at the month-end prior to the deal completion, we choose from that group the control firm that is closest match on the prior-year stock return over the period ending before the acquisition announcement. Firms involved in any significant acquisition activity in the prior three years are excluded as control firms. Three-year buy and hold abnormal returns are calculated as the difference between the acquirer's returns and the corresponding contemporaneous control firm returns.

### **Empirical Model**

To test the association between firms' cash trapped overseas and acquisition profitability, we use an OLS estimation of the following equation:

$$\begin{aligned}
 RET_{i,t} = & \beta_0 + \beta_1 PRE_{i,t-1} + \beta_2 PRE_{i,t-1} * CASH\_INV_{i,t-1} + \beta_3 CASH\_INV_{i,t-1} \\
 & + \beta_4 EINDEX_{i,t} + \beta_5 FOREIGN\_SALES_{i,t-1} + \beta_6 PUBLIC_{i,t} \\
 & + \beta_7 DIVERSIFYING_{i,t} + \beta_8 RELATIVE\_SIZE_{i,t} + \beta_9 \#BIDS_{i,t} \\
 & + \beta_{10} Ln(MV)_{i,t-1} + \beta_{11} LEVERAGE_{i,t-1} + \beta_{12} ROA_{i,t-1} + \beta_{13} MTB_{i,t-1} + \varepsilon_{i,t}
 \end{aligned} \tag{1}$$

where  $RET$  is the acquisition announcement abnormal stock return and  $PRE$  is firms' permanently reinvested earnings scaled by total assets, as defined above.  $CASH\_INV$  is firm  $i$ 's cash and short-term investments scaled by total assets at the end of the most recent fiscal year before the acquisition announcement.<sup>12</sup> Our primary focus is on the interaction of  $PRE$  and  $CASH\_INV$  because it captures the level of firms' PRE that is likely held as cash. The ideal measure is firms' PRE held as cash in foreign countries. However, this information is not publicly available. Therefore, we use the interaction of worldwide cash holdings (reported on the balance sheet) and PRE levels to proxy for PRE held as cash. We expect a negative association between  $RET$  and  $PRE * CASH\_INV$  indicating that firms with higher levels of PRE and cash holdings make less profitable acquisitions than firms with lower levels of PRE and cash holdings.

The coefficient on  $PRE$  reflects investors' reaction to acquisition announcements based on firms' level of PRE holding the interaction of  $PRE$  and  $CASH\_INV$  constant. A positive coefficient on  $PRE$  indicates firms with greater PRE and lower cash holdings make more profitable acquisitions, which is potentially because these firms have greater foreign growth opportunities on average. We also include  $CASH\_INV$  as a main effect in the model. Harford (1999) finds that firms with excess cash have lower acquisition announcement returns than firms with less than expected cash. Opler et al. (1999) also find consistent results that firms with higher excess cash spend more cash on acquisitions whether or not they have good investment opportunities. Opler et al. (1999) also find that firms with strong growth opportunities and riskier cash flows hold relatively more cash and short-term investments. Our variable differs from

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<sup>12</sup> We use the term "cash holdings" to refer to firms' level of cash and short-term investments.

Harford (1999) in that instead of a measure of excess cash we use firms' cash holdings because we are interested in firms with cash restricted by their designation of it as PRE.

We also control for corporate governance using the Bebchuck et al. (2009) entrenchment index, *EINDEX*.<sup>13</sup> Masulis et al. (2007) find that acquirers with more takeover provisions experience lower acquisition announcement returns than firms with fewer takeover provisions. *EINDEX* is the acquirer's entrenchment index in the year of the acquisition announcement, defined as the sum of six provisions of classified boards, limits to bylaw amendments, limits to charter amendments, supermajority requirements for mergers, poison pills, and golden parachutes. Higher values of the index represent more entrenched managers. If more entrenched managers are more likely to make poor acquisitions then we expect a negative coefficient on *EINDEX*.

We also include firms' foreign sales to control for their current level of foreign operations. It is possible that PRE captures the extent of foreign operations and firms with more experience are able to create greater synergies in their foreign acquisitions. *FOREIGN\_SALES* is the percentage of the acquirer's sales earned in foreign countries (*sale* from the Compustat segment database) for fiscal year  $t-1$ .

We also include control variables for characteristics of acquisitions following prior research (e.g., Fuller et al. 2002; Moeller et al. 2004). *PUBLIC* is an indicator variable equal to one if the target firm is a public company, and zero otherwise.<sup>14</sup> We control for whether an acquisition is diversifying because Morck et al. (1990) and Malmendier and Tate (2008) find that diversifying acquisitions are associated with lower announcement returns. *DIVERSIFYING* is an

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<sup>13</sup> The RiskMetric database used to calculate the entrenchment index does not provide values for each year. For missing values, we first use the prior year value if available, and if the prior year's value is also missing we then use the subsequent year's value if available.

<sup>14</sup> Target firms can either be private, public, subsidiaries, or government entities.

indicator variable equal to one if the primary two-digit SIC codes of the acquirer and target are not the same, and zero otherwise. We also control for the size of the transaction relative to acquirer size, *RELATIVE\_SIZE*, defined as transaction value (from SDC) divided by the market value of equity at the end of the fiscal quarter prior to the acquisition announcement date. *#BIDS* is the number of firms in total that placed bids to acquire the target firm.

We also include control variables for acquirer characteristics.  $\ln(MV)$  is the acquirer's natural logarithm of market value of equity at the end of fiscal year  $t-1$ . *LEVERAGE* is the acquirer's leverage at the end of fiscal year  $t-1$ , defined as total liabilities divided by total assets. *ROA* is the acquirer's return on assets in fiscal year  $t$ , defined as net income divided by lagged total assets. *MTB* is the acquirer's market-to-book value of assets at the end of fiscal year  $t-1$ , defined as market value plus total liabilities divided by book value of total assets.

We include year fixed effects to control for any time-varying market-level effects on firms' acquisitions. We also include country fixed effects to control for any country-specific factors that could affect acquisitions of target firms in those countries. Examples of these factors are legal systems, investor protection, growth opportunities, or accounting quality (e.g., Moeller and Schlingemann 2005; Hope et al. 2011; Ellis et al. 2011). For example, Moeller and Schlingemann (2005) find that both the restrictiveness of target country's legal system with respect to economic freedom and the existence of a law system based on French civil law origins are negatively associated with acquisition announcement returns. Indicator variables are only included for countries with at least 2 observations.<sup>15</sup> Continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentile, except for variables bounded between zero and one. Standard errors used to calculate t-statistics are White-adjusted and clustered by acquiring firm.

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<sup>15</sup> In untabulated analysis we repeat our tests using fixed effects for all countries and without country fixed effects. Inferences from both of these specifications are unchanged from those reported in the paper.

To test our second hypothesis that the tax holiday on repatriation of foreign earnings designated as *PRE* in the AJCA decreased the association between *RET* and *PRE\*CASH\_INV*, we include an additional interaction term, *PRE\* CASH\_INV\*TAX\_HOLIDAY*. *TAX\_HOLIDAY* is an indicator variable equal to one if the acquisition is announced during the tax holiday period, and zero otherwise. We expect a positive coefficient on this interaction consistent with the repatriation tax holiday temporarily eliminating the effect of U.S. tax laws and financial reporting rules on cash acquisitions by firms with greater levels of *PRE* and cash holdings.

To test our third hypothesis that the association between *RET* and *PRE\*CASH\_INV* changes from the period before the tax repatriation holiday to the financial crisis period we include an additional interaction term, *PRE\*CASH\_INV\*CRISIS*. *CRISIS* is an indicator variable equal to one if the acquisition is announced during the financial crisis period, and zero otherwise. As we do not make a prediction on the direction of the change during the financial crisis, we have no signed prediction for the coefficient on this interaction term.

## IV. RESULTS

### Foreign Cash Acquisitions and *PRE*

Panel A of Table 2 presents descriptive statistics for our sample of acquisitions with announcement dates between January 1, 1995 and December 31, 2010. The mean value of *PRE* is 0.048, which includes firms with *PRE* and those without. Among firms with positive values of *PRE* the mean value is 0.099, indicating these firms designate an economically significant amount of their assets as permanently reinvested in foreign countries. The mean (median) value of *CASH\_INV* is 0.159 (0.085), indicating that these firms also have a considerable amount of liquid assets over our sample period. The mean acquisition announcement stock return is near zero, 0.6%, while acquirers on average experience negative post-acquisition stock returns

of -6.5%. Negative post-acquisition long-run stock returns are consistent with prior literature (Savor and Lu 2009; Loughran and Vijh 1997). Panel B presents correlation coefficients for acquisitions with announcement dates before the repatriation tax holiday (1995-2003). The Pearson correlation coefficient for *RET* and *PRE\*CASH\_INV* is significantly negative indicating firms with higher levels of *PRE* and cash holdings are associated with lower acquisition announcement returns. Acquisition announcement returns are significantly negatively correlated with acquisitions of public targets, the number of competing bids for the target firm, and acquirer size.

Panel C of Table 2 presents a univariate analysis of our acquisition profitability measures. We separate the 144 acquisitions announced before the tax repatriation holiday (1995-2003) into two groups based on values of *PRE\*CASH\_INV*. Acquirers are classified as having trapped cash for this analysis if *PRE\*CASH\_INV* is in the upper quartile of the distribution (among firms with positive values of *PRE*) and all other observations are included in the other group. The average acquisition announcement stock return for firms with trapped cash is -2.4%, significant at the 10% level, and is significantly lower than the other announcement returns. Similarly, firms with trapped cash have significantly negative values of  $\Delta ROA$  and *BHAR\_3Y*, and  $\Delta ROA$  is significantly lower for firms with trapped cash than other observations.

Table 3 presents the result of estimating equation (1) using the 144 acquisitions announced before the repatriation tax holiday period. When we do not include the interaction of *PRE\*CASH\_INV* in the model (column 1) the coefficient on *PRE* is not significant at conventional levels ( $p$ -value = 0.43). In column 2, with the interaction of *PRE\*CASH\_INV* included in the model, the coefficient on *PRE* is 0.091 and is marginally significant at the 10% level. This result suggests that firms with *PRE* and lower cash holdings have profitable growth

opportunities in foreign countries. Most importantly, the coefficient on  $PRE * CASH\_INV$  is -1.753 and significant at the 5% level. This result indicates that firms with higher levels of PRE and greater amounts of cash holdings make foreign cash acquisitions that are less profitable. Overall, the results suggest that U.S. tax laws and financial reporting rules that incentivize managers to hold cash abroad result in the cash being used for less profitable acquisitions.

To examine the economic significance of these results, we calculate the effect of a one standard deviation change in firms' value of PRE and cash holdings on acquisition announcement returns. A one standard deviation change in  $PRE$  for firms with a positive value of  $PRE$  is 0.106 while a one standard deviation change in  $CASH\_INV$  is 0.178. Therefore, a one standard deviation increase in PRE and cash holdings incrementally decreases the acquisition announcement return by 331 ( $= -1.753 * 0.106 * 0.178$ ) basis points, holding other variables constant. Because the main effect of  $PRE$  is marginally significant in this specification we also calculate the combined affect for the main and interaction variable. A one-standard deviation increase in  $PRE$  and  $CASH\_INV$  has a combined main and interaction effect of 235 ( $= (0.091 * 0.106) + (-1.753 * 0.106 * 0.178)$ ) basis points. These calculations indicate that the interaction of PRE and cash holdings has an economically significant effect on the profitability of acquisitions.

Focusing on the results for control variables, we find that acquisitions of public target firms are associated with lower acquisition announcement returns in column 1.  $ROA$  is positively associated with acquisition announcement returns in column 2. The control variable results are not necessarily comparable to prior acquisition studies with samples including stock-for-stock acquisitions, non-U.S. acquirers, or domestic acquisitions by U.S. acquirers (e.g., Moeller and Schlingemann 2005; Ellis et al. 2011).



## The American Jobs Creation Act of 2004 and PRE

Next, we test the effect of the 2004 repatriation tax holiday on the relation between acquisition announcement returns and the interaction of PRE and cash holdings. We first expand the sample to include acquisitions announced through the end of the tax holiday period, resulting in a sample of 238 cash acquisitions from 1995 to 2007. The interaction term  $PRE*CASH\_INV*TAX\_HOLIDAY$  is included in the equation to test the effect of the tax holiday.  $TAX\_HOLIDAY$  is an indicator variable equal to one during the tax holiday period and zero otherwise. If the tax holiday attenuates a negative effect of higher PRE and cash holdings on acquisition announcement returns then we expect a positive coefficient on  $PRE*CASH\_INV*TAX\_HOLIDAY$ .

Table 4 presents the results. The coefficient on  $PRE*CASH\_INV$  is -1.437 and is significant at the 5% level. This result is consistent with the results in Table 3 and indicates that before the repatriation tax holiday firms with higher PRE and cash holdings made less profitable acquisitions. The coefficient on  $PRE*CASH\_INV*TAX\_HOLIDAY$  is 1.439 and is significant at the 5% level. The net effect of the tax holiday, the sum of the coefficients on  $PRE*CASH\_INV$  and  $PRE*CASH\_INV*TAX\_HOLIDAY$  (untabulated), is 0.002 ( $= -1.437 + 1.439$ ) and is not significantly different from zero. This result indicates that during and shortly after the 2004 repatriation tax holiday the negative association between  $PRE*CASH\_INV$  and  $RET$  is eliminated. The inference from these results is that U.S. tax laws and financial accounting rules that incentivize managers to hold cash abroad result in the cash being used for less profitable acquisitions, but the temporary suspension of those laws through the repatriation tax holiday removed this effect.

## The Financial Crisis of the Late 2000's and PRE

We preface our analysis of foreign acquisitions in the financial crisis period with the suggestion to use caution in interpreting and generalizing these results because there are only 46 acquisitions in our sample during this period. The period following the tax holiday is characterized by the financial crisis which potentially confounds the effect of PRE and cash holdings on foreign investment decisions. Therefore, it is not clear whether we should expect the association between  $PRE*CASH\_INV$  and  $RET$  that exists in the period before the tax holiday to develop again after the tax holiday in the financial crisis period. The sample is expanded to include the financial crisis period which includes acquisitions announced from 1998 to 2010.  $CRISIS$ , an indicator variable equal to one if an acquisition is announced during the financial crisis period and zero otherwise, is included in an interaction term,  $PRE*CASH\_INV*CRISIS$ , to compare the effect of  $PRE*CASH\_INV$  in the financial crisis period to the pre-tax holiday period. If the coefficient on  $PRE*CASH\_INV*CRISIS$  is not significantly different from zero or negative then this indicates the negative association between  $RET$  and  $PRE*CASH\_INV$  persists in the financial crisis period as it existed in the pre-tax holiday period. A positive coefficient on  $PRE*CASH\_INV*CRISIS$  indicates the negative association between  $RET$  and  $PRE*CASH\_INV$  in the pre-tax holiday period is attenuated in the financial crisis period similarly to in the tax holiday period.

Table 5 presents the results. Consistent with the results in Table 3 and Table 4, the coefficient on  $PRE*CASH\_INV$  is negative and significant at the 1% level and the coefficient on  $PRE*CASH\_INV*TAX\_HOLIDAY$  is positive and significant at the 1% level. The coefficient on  $PRE*CASH\_INV*CRISIS$  is 1.780 and is significant at the 1% level suggesting that firms with greater PRE and cash holdings do not make less profitable acquisitions in the financial crisis

period. While we expect firms in the financial crisis period have increased PRE to levels similar to those in the pre-tax holiday period most firms are also holding abnormally high levels of cash and short-term investments out of concern for uncertainty in future borrowing costs and investment opportunities (Campello et al. 2010). In our sample, the mean value of *CASH\_INV* before the tax holiday is 0.098 and increased to 0.224 in the financial crisis period. Therefore, higher cash holdings in the financial crisis period may have a different interpretation than in the pre-tax holiday period. Because most firms have high cash holdings in the financial crisis period our interpretation that firms with higher levels of PRE and cash holdings are expected to have poorer foreign investment opportunities than firms with higher levels of PRE and lower cash holdings likely does not hold.

If firms generally have high cash holdings in the financial crisis period then it is possible that firms' level of PRE - rather than the interaction of PRE and cash holdings - is the important factor for the effect of U.S. tax policy on investment in this period. Therefore, in Panel B of Table 5 we further examine the association between PRE and acquisition announcement returns in the financial crisis period by estimating equation (1) separately for each period. Column 1 reproduces the results from Table 3, for ease of comparison, finding that firms with greater levels of PRE and cash holdings make less profitable acquisitions. Column 2 presents the results over the tax holiday period where there is no association between *RET* and both *PRE* and *PRE\*CASH\_INV* consistent with the tax holiday eliminating the effect of U.S. tax laws on acquisitions. The results estimating the equation over the financial crisis period are presented in column 3. Interestingly, the coefficient on PRE is -0.339 and is significant at the 10% level.<sup>16</sup> This result suggests that during the financial crisis period firms with higher levels of PRE made

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<sup>16</sup> Because of the small number of observations we do not include country fixed effects in the model, however, the results are similar if these are included.

less profitable acquisitions. The coefficient on  $PRE*CASH\_INV$  is 1.066 and is significant at the 1% level. However, there is no clear interpretation of this result due to considerable hoarding of cash by firms in general that confound this period.

Therefore, we further examine the effect of PRE in the financial crisis period by replacing  $PRE$  with an indicator variable,  $PRE\_OVER$ , that is equal to one when a firm has a value of PRE greater than the cash paid for the acquisition and zero otherwise. We remove the interaction variable  $PRE*CASH\_INV$  from the equation. Panel C of Table 5 presents the results for this specification of the model. The coefficient on  $PRE\_OVER$  is -0.057 and is significant at the 5% level. This result suggests that firms with PRE levels sufficient to make a cash acquisition make less profitable acquisitions after the repatriation tax holiday. Overall, we interpret the findings reported in this subsection as mixed evidence of a return to the lower NPV acquisition activity that occurred prior to the AJCA.

## V. ADDITIONAL ANALYSES

### Alternative Acquisition Profitability Measures

We also use two alternative measures of acquisition profitability,  $\Delta ROA$  and  $BHAR\_3Y$  that focus on post-acquisition firm performance.<sup>17</sup> Panel A of Table 6 presents equation (1) using change in the return on assets surrounding the acquisition,  $\Delta ROA$ . We exclude  $ROA$  as a control variable to avoid a mechanical relation due to mean reversion. Using the sample of acquisitions before the repatriation tax holiday (column 1), the coefficient on  $PRE*CASH\_INV$  is -1.571 and significant at the 5% level consistent with the above results. In column 2, we test the effect of the repatriation tax holiday. The coefficient on  $PRE*CASH\_INV$  is -1.198 and significant at the 5%

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<sup>17</sup> For all sensitivity tests reported in this section of the paper, we end our sample period in 2007. This allows us to utilize three fiscal years of data after the acquisition completion to calculate  $\Delta ROA$  and  $BHAR\_3Y$  but means we are not able to analyze the financial crisis period for these tests.

level consistent with the results in column 1. The coefficient on  $PRE*CASH\_INV*TAX\_HOLIDAY$  is 1.649 and is significant at the 5% level.

Panel B of Table 6 presents the results using three-year post-acquisition abnormal buy and hold stock returns,  $BHAR\_3Y$ . When presenting the results for this test we divide the estimated coefficient on  $PRE*CASH\_INV$  by 100 for ease of interpretation. Using the sample of acquisitions before the repatriation tax holiday (column 1), the coefficient on  $PRE*CASH\_INV$  is -0.385 and significant at the 1% level consistent with the above results. In column 2, we test the effect of the repatriation tax holiday. The coefficient on  $PRE*CASH\_INV$  is -0.219 and significant at the 1% level consistent with the results in column 1. The coefficient on  $PRE*CASH\_INV*TAX\_HOLIDAY$  is 0.084 but is not significant at conventional levels. However, it is possible negative returns in the financial crisis period affect the interpretation of post-acquisition stock returns for acquisitions during the tax holiday period. To lessen the effect of the financial crisis period on the calculation of post-acquisition stock returns we also use only a two-year post-acquisition period to calculate returns ( $BHAR\_2Y$ ). With  $BHAR\_2Y$  as the dependent variable the coefficient on  $PRE*CASH\_INV$  is -0.165 and significant at the 1% level. The coefficient on  $PRE*CASH\_INV*TAX\_HOLIDAY$  is 0.146 and significant at the 1% level consistent with our predictions. Overall, these results provide further support that U.S. tax laws and financial reporting rules that incentivize managers to hold cash abroad result in the cash being used for less profitable acquisitions and the repatriation tax holiday attenuated this effect. Furthermore, these results suggest that foreign cash acquisitions by firms with trapped cash have a long-term effect on firms' performance and shareholder value.

## Stock-for-Stock and Domestic Acquisitions

In our main analyses we limit our sample to acquisitions with mixed payment forms of cash and stock or 100 percent cash payments because we expect managers with PRE and cash holdings will use that cash to make acquisitions. In 100 percent stock-financed acquisitions managers are not using cash restricted by the PRE designation and therefore are less likely to be influenced by U.S. tax laws and financial reporting rules. Yet, it is possible that managers with greater PRE and cash holdings make acquisitions using stock payments and then use cash to grow the acquired firm. Our sample requirements result in only 21 acquisitions in the pre-tax holiday period and only 5 of those firms have PRE.<sup>18</sup> The small number of stock-for-stock acquisitions by firms with PRE can be an indication that these firms are more likely to use cash for acquisitions than stock. When we analyze our sample of 165 acquisitions (144 involving cash and 21 using only stock), we find that of the 144 acquisitions involving at least some cash payments 38% of firms have PRE while of the 21 acquisition using only stock 24% of firms have PRE. This difference is only marginally significant based on a chi-squared test of the difference (p-value=0.100, one-tailed) possibly due to the low sample size.

We estimate equation (1) using the sample of stock-for-stock acquisitions to determine if there is an association between acquisition announcement returns and PRE for firms with higher cash holdings. We exclude country fixed effects and only include year indicator variables for years with more than 2 observations.<sup>19</sup> The results (untabulated) indicate the coefficient on *PRE\*CASH\_INV* is -0.155 and is not significant at conventional levels. This finding is consistent with our argument that firms with greater levels of PRE and cash holdings use cash and not stock

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<sup>18</sup> The infrequent occurrence of stock-for-stock acquisitions is likely due to restrictions on foreign acquisitions qualifying as tax free before the passage of IRB 2006-7. In the post- tax holiday period there are only 6 stock-for-stock acquisitions and none of the firms have PRE.

<sup>19</sup> The inferences are unchanged if we exclude country and year fixed effects.

to make less profitable acquisitions. However, the small number of observations in this test limits our ability to make strong inference from these results.

We also examine domestic acquisitions that acquirers in our sample make during the same year they make a foreign acquisition. If the incentive to avoid repatriation taxes results in firms with trapped cash making less profitable acquisitions, then the same firms' domestic acquisitions should not be less profitable because they are not purchased with trapped cash. For the 1995-2007 period before the financial crisis there are 46 domestic acquisitions.<sup>20</sup> We estimate equation (1) including the tax holiday interaction term (untabulated) and the coefficient on *PRE\*CASH\_INV* is 0.020 and not significant at conventional levels. The coefficient on *PRE\*CASH\_INV\*TAX\_HOLIDAY* is -0.016 and is also not significant at conventional levels. Therefore, we do not find evidence that the profitability of domestic acquisitions is associated with firms' trapped cash; however, the small number of observations in this test limits our ability to make strong inference from these results.

### **Other Sensitivity Analyses**

There are 85 firms in our full sample that make multiple acquisitions. Due to the potential that not all of these observations are independent we perform a sensitivity analysis including only firms' first acquisition resulting in a sample of 204 foreign cash acquisitions over the period from 1995 to 2007. When we estimate equation (1) including the tax holiday period interaction term (untabulated), the coefficient on *PRE\*CASH\_INV* is -1.803, significant at the 1% level, which is consistent with the above results. The coefficient on *PRE\*CASH\_INV\*TAX\_HOLIDAY* is 1.410 and significant at the 1% level which is also consistent with the above results.

As a sensitivity test we replaced *CASH\_INV* with an excess cash measure, *EXCESS\_CASH*. Following Harford (1999), excess cash is measured as the residual from

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<sup>20</sup> There are two domestic acquisitions in the financial crisis period which are not included in this analysis.

industry-level (based on 2-digit SIC codes) regressions of cash holdings on leading and current cash flow from operations, market to book ratio, volatility of operating cash flows, firm size, and a recession indicator variable. In the estimation (untabulated) of equation (1) using acquisitions from 1995 to 2007 and including the tax holiday period interaction term, the coefficient on  $PRE * EXCESS\_CASH$  is -0.263, significant at the 5% level, which is consistent with the above results indicating firms with PRE and higher levels of cash holdings are more likely to experience lower acquisition announcement returns. The coefficient on  $PRE * EXCESS\_CASH * TAX\_HOLIDAY$  is 0.424 and significant at the 5% level which is also consistent with the results above. We also replace our variable  $PRE$ , which is calculated using the amount of PRE for each firm, with  $PRE\_OVER$ , as defined above, which is an indicator variable that captures whether PRE is greater than the cash paid for the acquisition. In the estimation (untabulated) of equation (1) using acquisitions from 1995 to 2007 and including the tax holiday period interaction term, the coefficient on  $PRE\_OVER * CASH\_INV$  is -0.358, significant at the 1% level, which is consistent with the above results. The coefficient on  $PRE\_OVER * CASH\_INV * TAX\_HOLIDAY$  is 0.160 and significant at the 5% level which is also consistent with the results above.

Our sample from 1995 to 2007 includes 52 acquisitions using mixed payment forms of cash and stock and 186 acquisitions using cash as the sole form of payment. As a sensitivity analysis, we estimate equation (1) using only acquisitions with cash as the sole form of payment. The results (untabulated) indicate the coefficient on  $PRE * CASH\_INV$  is -1.713, significant at the 5% level. The coefficient on  $PRE * CASH\_INV * TAX\_HOLIDAY$  is 1.500 and significant at the 5% level. These results are consistent with the results above.

Lastly, while we control for country-level factors using fixed effects in our main tests it is possible that some of these factors vary over time in our sample. Therefore, as a sensitivity



analysis we include additional country level factors used in prior literature. Moeller and Schlingemann (2005) find that target countries' acquisition activity is positively associated with acquisition announcement abnormal returns. Consistent with Moeller and Schlingemann (2005), we measure a country's acquisition activity as the annual sum of consideration paid to acquire firms in the country divided by the country's annual gross domestic product (GDP) in current dollars. Country GDP is obtained from the World Bank's World Development Indicators database. Ellis et al. (2011) find that target countries' per capita GDP is positively associated with acquisition announcement abnormal returns. We find similar results (untabulated) when we control for acquisition activity and per capita GDP when estimating equation (1) including the repatriation tax holiday interaction terms. The coefficient on *PRE\*CASH\_INV* is -1.424 and is significant at the 5% level while the coefficient on *PRE\*CASH\_INV\*TAX\_HOLIDAY* is 1.421 and is significant at the 5% level. We also exclude the country fixed effects and separately include each of the La Porta et al. (1998) rule of law and shareholder rights variables. The findings under this specification are consistent with those reported in the paper.<sup>21</sup> These sensitivity analyses indicate the results are not materially affected by target firms' country level factors.

## VI. CONCLUSION

Prior research has documented that current U.S. corporate tax laws create incentives for some U.S. MNCs to delay repatriation of foreign earnings in order to defer taxation on those earnings and hold greater amounts of cash abroad. The current financial accounting treatment for taxes on foreign earnings under ASC 740 potentially exacerbates this issue increasing the

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<sup>21</sup> The La Porta et al. (1998) rule of law variables are efficiency of judicial system, rule of law, corruption, risk of expropriation, risk of contract repudiation, and rating on accounting standards. The shareholder rights variables are one share-one vote, proxy by mail allowed, shares not blocked before meeting, cumulative voting/proportional representation, oppressed minority, preemptive right to new issues, percentage share of capital to call an extraordinary shareholder meeting, antidirector rights, and mandatory dividends.

incentive to avoid the repatriation of foreign earnings by allowing firms to designate foreign earnings as PRE and to defer the recognition of the U.S. tax expense for financial reporting purposes. In this study, we predict and document that the combined effect of these tax and financial reporting incentives lead managers of U.S. MNCs that have high levels of cash trapped overseas in the form of both PRE and cash holdings to make less profitable cash acquisitions of foreign target firms than U.S. MNCs without trapped cash.

We also examine the impact of the 2004 repatriation tax holiday created as part of the AJCA. During the tax holiday U.S. MNCs were able to repatriate earnings previously designated as PRE at a temporarily decreased tax rate of 5.25 percent (from 35 percent) through an 85 percent dividends received deduction. In this same period, firms without profitable foreign investment opportunities and who had excess cash had the opportunity to repatriate foreign earnings. Consistent with predictions, we document that the negative association between firms with cash trapped overseas and announcement returns for foreign cash acquisitions is significantly attenuated following the AJCA repatriation tax holiday.

The latter part of our sample period, following the AJCA, covers the financial crisis of the late 2000's when firms began to hold record levels of cash primarily due to concerns regarding the availability of future financing (Casselmann and Larhart 2011). During this period U.S. MNCs began rebuilding PRE balances at a rapid rate, possibly in expectation of a future repatriation tax holiday (Brennan 2011). In our examination of cash acquisitions during this period we do not observe a significant negative relation between our proxy for trapped cash and acquisition returns, consistent with firms holding additional cash for non-tax and non-financial reporting reasons. Using an alternative measure of excess cash held overseas (PRE greater than

the value of cash acquisitions) we observe a return in the financial crisis period to the value decreasing acquisition activity that was observed prior to the AJCA.

As a caveat, we do not expect that all firms with large amounts of PRE will make relatively less profitable acquisitions. Some U.S. MNCs likely leave earnings abroad as they have attractive growth opportunities overseas, potentially more attractive than their investment opportunities available domestically. It is for this reason that we focus our analysis on firms with both high levels of PRE and large cash holdings. These are the firms we expect to be holding earnings abroad primarily to avoid the cash tax and earnings consequences of repatriating the earnings and that likely face limited foreign investment opportunities. Further, due to the cost of repatriating foreign earnings these acquisitions are not necessarily suboptimal investment decisions.

Depending on the assumption of whether or not a firm will ultimately repatriate earnings and the U.S. tax rate ultimately applied to those repatriations, an overpayment for a foreign strategic asset is possibly better for shareholders than an immediate repatriation of the cash. For example, if earnings are expected to be repatriated well into the future when U.S. tax rates are lower, overpaying for a foreign acquisition by less than the U.S. taxes that would be due upon immediate repatriation results in a smaller transfer of wealth to the former owners of the target (some of whom may be the firm's own institutional shareholders) in lieu of a larger transfer to the U.S. government. However, it is possible that agency costs arising from the tendency of management to use cash holdings for suboptimal investments could contribute to the lower returns associated with acquisitions made by U.S. MNCs with trapped cash abroad. The lower long-run operating performance and shareholder returns after these acquisitions are consistent with agency costs, at least in-part, driving the lower returns.

The findings of this study are of direct interest to policymakers. We document an indirect cost of having both a tax and financial reporting system that encourage firms to retain earnings abroad. The issue of repatriation taxes and the relative merits of a territorial versus worldwide system of taxation have been at the forefront in recent years with interested parties arguing both for and against the issues (see Drucker 2010 and Washington Post 2011). The U.S. government is also currently contemplating the issue. The Committee on Ways and Means recently released a discussion draft that would move the U.S. towards a territorial tax system by providing a deduction from income equal to 95 percent of foreign-source dividends received by U.S. parent companies (U.S. Government 2011). Our findings should be of interest and informative in both the context of a decision to move to a territorial tax system and the creation of a new repatriation tax holiday.

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## Appendix A Variable Definitions

$RET_{i,t}$	Acquisition announcement stock return, calculated as the three-day buy and hold abnormal return over day -1 to +1, where day 0 is the date of the initial bid announcement. Daily abnormal stock returns are computed using the market model and the value-weighted CRSP index where the estimation window is day -200 to day -60.
$\Delta ROA_{i,t}$	The change in the average return on assets surrounding the acquisition, calculated as the average of operating income after depreciation expense (oiadp) divided by lagged assets (at) over the three fiscal years beginning in the first year after the acquisition completion year minus the average over the three fiscal years ending in the last year before the acquisition completion year.
$BHAR\_3Y_{i,t}$	The acquirer's three-year post-acquisition buy and hold abnormal stock return calculated as the difference between the acquirer's buy and hold return over the three-year period beginning in the month after the acquisition is completed and a matched control firms' buy and hold return over the same period, where control firms are matched using firm size, book to market ratio, and pre-acquisition stock returns.
$PRE_{i,t-1}$	The acquirer's permanently reinvested earnings at the end of fiscal year $t-1$ scaled by total assets (at).
$TAX\_HOLIDAY_{i,t}$	An indicator variable equal to one if an acquisition is announced between October 27, 2003 and December 31, 2007, and zero otherwise.
$CRISIS_{i,t}$	An indicator variable equal to one if an acquisition is announced between January 1, 2008 and December 31, 2010, and zero otherwise.
$CASH\_INV_{i,t-1}$	The acquirer's cash and short-term investments (che) at the end of fiscal year $t-1$ scaled by total assets (at).
$EINDEX_{i,t}$	The acquirer's entrenchment index of Bebchuk, Cohen, and Ferrell (2009), defined as the sum of six provisions of classified boards, limits to bylaw amendments, limits to charter amendments, supermajority requirements for mergers, poison pills, and golden parachutes.
$FOREIGN\_SALES_{i,t-1}$	The percentage of the acquirer's sales earned in foreign countries (sale from Compustat segment database) for fiscal year $t-1$ .

<i>PUBLIC</i> <sub><i>i,t</i></sub>	An indicator variable equal to one when the target firm is a public company (from SDC), and zero otherwise.
<i>DIVERSIFYING</i> <sub><i>i,t</i></sub>	An indicator variable equal to one if it is a diversifying acquisition, and zero otherwise. Acquisitions are defined as diversifying when the primary two-digit SIC codes of the acquirer and target are not the same.
<i>RELATIVE_SIZE</i> <sub><i>i,t</i></sub>	Relative size of the M&A deal, defined as transaction value (from SDC) divided by the market value of equity at the end of the fiscal quarter prior to the acquisition announcement date.
<i>#_BIDS</i> <sub><i>i,t</i></sub>	The number of firms making bids to acquire the target firm.
<i>Ln(MV)</i> <sub><i>i,t-1</i></sub>	The acquirer's natural logarithm of market value of equity at the end of fiscal year <i>t-1</i> .
<i>LEVERAGE</i> <sub><i>i,t-1</i></sub>	The acquirer's leverage at the end of fiscal year <i>t-1</i> , defined as total liabilities (lt) divided by total assets (at).
<i>ROA</i> <sub><i>i,t-1</i></sub>	The acquirer's return on assets in fiscal year <i>t</i> , defined as net income (ni) divided by lagged total assets (at).
<i>MTB</i> <sub><i>i,t-1</i></sub>	The acquirer's market to book value of assets at the end of fiscal year <i>t-1</i> , defined as market value (prcc_f*csho) plus total liabilities (lt) divided by total assets (at).
<i>PRE_OVER</i> <sub><i>i,t-1</i></sub>	An indicator variable equal to one if the acquirer's permanently reinvested earnings at the end of fiscal year <i>t-1</i> is greater than the cash paid for the acquisition.

**Table 1**  
**Frequency of Foreign Cash Acquisitions**  
1995-2010

*Panel A: Frequency of Foreign Acquisitions by Year*

Year	Number of Acquisitions
1995	9
1996	9
1997	15
1998	22
1999	20
2000	16
2001	18
2002	24
2003	17
2004	22
2005	25
2006	18
2007	23
2008	20
2009	8
2010	18
Total	284

*Panel B: Frequency of Foreign Acquisitions by Country*

Country	Number of Acquisitions
Argentina	3
Aruba	1
Australia	16
Austria	2
Belgium	5
Bermuda	2
Brazil	3
Canada	59
Chile	1
China	1
Denmark	5
Finland	1
France	17
Germany	23
Greece	1
Hong Kong	2
Iceland	1
India	1
Republic of Ireland	7
Isle of Man	1
Israel	6
Italy	3
Japan	4
Luxembourg	1
Mexico	4
Netherlands	10
Norway	2
Singapore	2
Slovak Republic	1
South Korea	2
Sweden	4
Switzerland	8
Taiwan	2
Thailand	1
United Kingdom	81
Venezuela	1
Total	284

Notes to Table 1:

Table 1 presents the number of cash acquisitions by announcement year (Panel A) and the country (Panel B) of the target firm.

**Table 2**  
**Descriptive Statistics**

*Panel A: Descriptive Statistics 1995-2010*

Variables	N	Mean	Median	Standard Deviation	Q1	Q3
<i>RET</i>	284	0.006	0.006	0.055	-0.022	0.034
<i>ΔROA</i>	162 <sup>a</sup>	-0.023	-0.018	0.075	-0.052	0.019
<i>BHAR_3Y</i>	197 <sup>a</sup>	-0.065	-0.078	0.979	-0.653	0.441
<i>PRE</i>	284	0.048	0.000	0.089	0.000	0.065
<i>TAX_HOLIDAY</i>	284	0.331	0.000	0.471	0.000	1.000
<i>CRISIS</i>	284	0.162	0.000	0.369	0.000	0.000
<i>CASH_INV</i>	284	0.159	0.085	0.178	0.026	0.253
<i>EINDEX</i>	284	2.567	3.000	1.401	1.500	3.000
<i>FOREIGN_SALES</i>	284	0.286	0.264	0.243	0.067	0.435
<i>PUBLIC</i>	284	0.370	0.000	0.484	0.000	1.000
<i>DIVERSIFYING</i>	284	0.363	0.000	0.482	0.000	1.000
<i>RELATIVE_SIZE</i>	284	0.236	0.126	0.262	0.078	0.244
<i>#BIDS</i>	284	1.060	1.000	0.266	1.000	1.000
<i>Ln(MV)</i>	284	7.394	7.187	1.484	6.359	8.508
<i>LEVERAGE</i>	284	0.506	0.509	0.202	0.375	0.635
<i>ROA</i>	284	0.055	0.057	0.089	0.026	0.096
<i>MTB</i>	284	1.853	1.575	0.940	1.289	2.082

<sup>a</sup> Observations from 1995-2007 time period.

Panel B: Pearson Correlation Coefficients 1995-2003

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) <i>RET</i>															
(2) $\Delta ROA$	-0.02														
(3) <i>BHAR_3Y</i>	-0.06	<b>0.36</b>													
(4) <i>PRE</i>	-0.03	<b>-0.19</b>	0.11												
(5) <i>PRE*CASH_INV</i>	<b>-0.20</b>	-0.09	-0.08	<b>0.37</b>											
(6) <i>CASH_INV</i>	0.06	0.02	0.03	-0.07	<b>0.37</b>										
(7) <i>EINDEX</i>	0.06	0.09	0.08	-0.01	-0.02	0.00									
(8) <i>FOREIGN_SALES</i>	-0.02	<b>-0.18</b>	0.08	<b>0.34</b>	<b>0.38</b>	0.05	0.11								
(9) <i>PUBLIC</i>	<b>-0.25</b>	0.02	-0.14	0.10	<b>0.23</b>	-0.04	-0.11	0.00							
(10) <i>DIVERSIFYING</i>	0.09	-0.04	-0.07	0.10	0.03	0.01	0.10	0.01	-0.05						
(11) <i>RELATIVE_SIZE</i>	-0.05	0.11	-0.12	0.02	-0.09	<b>-0.18</b>	-0.05	-0.11	<b>0.17</b>	0.07					
(12) <i>#BIDS</i>	<b>-0.16</b>	0.06	0.06	0.13	-0.04	-0.12	0.04	-0.04	<b>0.23</b>	-0.08	0.11				
(13) <i>Ln(MV)</i>	<b>-0.21</b>	-0.03	-0.04	0.02	0.05	-0.10	-0.08	0.10	<b>0.36</b>	<b>-0.19</b>	-0.07	0.08			
(14) <i>LEVERAGE</i>	-0.10	0.03	-0.02	0.03	<b>-0.20</b>	<b>-0.41</b>	-0.04	-0.09	0.00	-0.05	<b>0.20</b>	0.06	<b>0.21</b>		
(15) <i>ROA</i>	0.07	<b>-0.32</b>	0.00	0.10	0.11	<b>-0.17</b>	-0.07	0.08	0.08	0.08	0.01	-0.02	0.13	-0.04	
(16) <i>MTB</i>	-0.13	<b>-0.20</b>	-0.05	0.09	0.13	<b>0.26</b>	-0.16	0.09	0.09	-0.03	<b>-0.17</b>	0.02	<b>0.37</b>	<b>-0.25</b>	0.11

Panel C: Univariate Analysis of Acquisition Profitability and Trapped Cash 1995-2003

	<i>RET</i>	$\Delta ROA$	<i>BHAR_3Y</i>
High <i>PRE*CASH_INV</i>	-2.4%*	-0.073***	-34.4%*
Other Observations	0.7%	-0.025***	-7.2%
<i>t</i> -statistic (Diff)	-2.09**	-2.36**	-0.95

Notes to Table 2:

This table presents the descriptive statistics (Panel A) and correlation coefficients (Panel B) of variables used in our tests. Panel C presents a comparison of the mean values of our acquisition profitability measures for firms with trapped cash, defined as having values of *PRE\*CASH\_INV* in the upper quartile of the distribution among firms with positive values of *PRE*, and all other firms. Panel B and C are calculated using the 144 observations before the tax repatriation holiday. Variable definitions are described in Appendix A. In Panel B, correlations in bold are significant at the 10% level or less (two-tailed). In Panel C, \*, \*\*, and \*\*\* denote two-tailed (one-tailed when there is a predicted sign) statistical significance at 10%, 5%, and 1%, respectively.

**Table 3**  
**Expected Profitability of Foreign Acquisitions using Cash Payments**  
**1995-2003**

Variables		<i>RET</i>	<i>t</i> -stat	<i>RET</i>	<i>t</i> -stat
Intercept		0.050	0.91	0.044	0.80
<i>PRE</i>	?	0.038	0.79	0.091	1.67*
<i>PRE*CASH_INV</i>	-			-1.753	-1.98**
<i>CASH_INV</i>	?	0.021	0.37	0.063	1.25
<i>EINDEX</i>	-	-0.001	-0.36	-0.001	-0.41
<i>FOREIGN_SALES</i>	?	0.017	0.60	0.029	1.04
<i>PUBLIC</i>	-	-0.020	-1.70**	-0.014	-1.24
<i>DIVERSIFYING</i>	-	0.000	-0.01	0.000	-0.02
<i>RELATIVE_SIZE</i>	?	0.006	0.36	0.005	0.30
<i>#BIDS</i>	?	-0.015	-0.79	-0.017	-0.84
<i>Ln(MV)</i>	?	-0.004	-0.85	-0.004	-0.88
<i>LEVERAGE</i>	?	-0.001	-0.05	-0.002	-0.07
<i>ROA</i>	+	0.079	1.21	0.106	1.80**
<i>MTB</i>	?	-0.002	-0.30	-0.002	-0.31
Country Fixed Effects		Yes		Yes	
Year Fixed Effects		Yes		Yes	
R <sup>2</sup>		0.292		0.330	
Number of observations		144		144	

Notes to Table 3:

This table presents the test of the association between acquisition announcement returns for foreign acquisitions using cash payments and firms' levels of PRE and cash holdings. The test includes acquisitions from 1995 to 2003. Variables descriptions are in Appendix A. We also include year and country fixed effects. Standard errors used to calculate t-statistics are White adjusted and clustered by firm. \*, \*\*, and \*\*\* denote two-tailed (one-tailed when there is a predicted sign) statistical significance at 10%, 5%, and 1%, respectively.

**Table 4**  
**The American Jobs Creation Act of 2004 and Expected Profitability of Foreign Cash Acquisitions**  
**1995-2007**

Variables		<i>RET</i>	<i>t</i> -stat
Intercept		0.016	0.41
<i>PRE</i>	?	0.029	0.69
<i>PRE</i> * <i>CASH_INV</i>	-	-1.437	-2.26 **
<i>PRE</i> * <i>CASH_INV</i> * <i>TAX_HOLIDAY</i>	+	1.439	2.27 **
<i>CASH_INV</i>	?	0.010	0.33
<i>EINDEX</i>	-	0.000	-0.19
<i>FOREIGN_SALES</i>	?	0.018	0.96
<i>PUBLIC</i>	-	-0.017	-1.87 **
<i>DIVERSIFYING</i>	-	-0.004	-0.50
<i>RELATIVE_SIZE</i>	?	-0.024	-1.34
<i>#BIDS</i>	?	-0.003	-0.21
<i>Ln(MV)</i>	?	-0.003	-0.95
<i>LEVERAGE</i>	?	-0.008	-0.45
<i>ROA</i>	+	0.051	1.00
<i>MTB</i>	?	0.001	0.22
Country Fixed Effects		Yes	
Year Fixed Effects		Yes	
R <sup>2</sup>		0.259	
Number of observations		238	

Notes to Table 4:

This table presents the test of the effect of the tax repatriation holiday on the association between acquisition announcement returns for foreign acquisitions using cash payments and firms' levels of PRE and cash holdings. The test includes acquisitions from 1995 to 2007. Variables descriptions are in Appendix A. We also include year and country fixed effects. Standard errors used to calculate t-statistics are White adjusted and clustered by firm. \*, \*\*, and \*\*\* denote two-tailed (one-tailed when there is a predicted sign) statistical significance at 10%, 5%, and 1%, respectively.



**Table 5**  
**The Financial Crisis of the Late 2000's and Expected Profitability of Foreign Cash**  
**Acquisitions**  
**1995-2010**

*Panel A: Effect of Financial Crisis Period*

Variables		<i>RET</i>	<i>t</i> -stat
Intercept		0.085	1.79 *
<i>PRE</i>	?	0.012	0.29
<i>PRE</i> * <i>CASH_INV</i>	-	-1.444	-2.41 ***
<i>PRE</i> * <i>CASH_INV</i> * <i>TAX_HOLIDAY</i>	+	1.531	2.52 ***
<i>PRE</i> * <i>CASH_INV</i> * <i>CRISIS</i>	?	1.780	3.06 ***
<i>CASH_INV</i>	?	0.005	0.18
<i>EINDEX</i>	-	-0.002	-0.62
<i>FOREIGN_SALES</i>	?	0.027	1.53
<i>PUBLIC</i>	-	-0.013	-1.57 *
<i>DIVERSIFYING</i>	-	-0.001	-0.19
<i>RELATIVE_SIZE</i>	?	-0.024	-1.43
<i>#BIDS</i>	?	-0.007	-0.64
<i>Ln(MV)</i>	?	-0.004	-1.63
<i>LEVERAGE</i>	?	-0.005	-0.27
<i>ROA</i>	+	0.064	1.81 **
<i>MTB</i>	?	0.000	-0.10
Country Fixed Effects		Yes	
Year Fixed Effects		Yes	
R <sup>2</sup>		0.280	
Number of observations		284	

Panel B: Analysis by Time Period

	Pre-Repatriation Tax Holiday Period 1995-2003		Repatriation Tax Holiday Period 2004-2007		Financial Crisis Period 2008-2010	
	(1)		(2)		(3)	
Variables	<i>RET</i>	<i>t</i> -stat	<i>RET</i>	<i>t</i> -stat	<i>RET</i>	<i>t</i> -stat
Intercept	0.044	0.80	-0.015	-0.23	0.197	1.87 *
<i>PRE</i>	0.091	1.67 *	-0.271	-1.58	-0.339	-1.89 *
<i>PRE*CASH_INV</i>	-1.753	-1.98 **	1.127	1.46	1.066	2.91 ***
<i>CASH_INV</i>	0.063	1.25	-0.063	-1.41	-0.097	-1.01
<i>EINDEX</i>	-0.001	-0.41	0.004	0.57	-0.011	-1.12
<i>FOREIGN_SALES</i>	0.029	1.04	0.014	0.43	0.080	1.08
<i>PUBLIC</i>	-0.014	-1.24	-0.026	-1.51 *	-0.008	-0.33
<i>DIVERSIFYING</i>	0.000	-0.02	-0.009	-0.66	0.012	0.67
<i>RELATIVE_SIZE</i>	0.005	0.30	-0.029	-0.72	-0.029	-0.68
<i>#BIDS</i>	-0.017	-0.84	0.037	1.06	-0.005	-0.27
<i>Ln(MV)</i>	-0.004	-0.88	0.000	-0.05	-0.016	-1.83 *
<i>LEVERAGE</i>	-0.002	-0.07	-0.035	-1.07	-0.027	-0.37
<i>ROA</i>	0.106	1.80 **	-0.091	-0.89	0.132	1.64 *
<i>MTB</i>	-0.002	-0.31	0.012	1.29	-0.003	-0.31
Country Fixed Effects	Yes		Yes		No	
Year Fixed Effects	Yes		Yes		Yes	
R <sup>2</sup>	0.330		0.488		0.344	
Number of observations	144		94		46	

Panel C: Alternative PRE measure and Financial Crisis Period

Variables	Financial Crisis Period 2008-2010	
	<i>RET</i>	<i>t</i> -stat
Intercept	0.202	2.33 **
<i>PRE_OVER</i>	-0.057	-2.53 **
<i>CASH_INV</i>	-0.037	-0.49
<i>EINDEX</i>	-0.014	-1.72 *
<i>FOREIGN_SALES</i>	0.085	1.33
<i>PUBLIC</i>	-0.010	-0.41
<i>DIVERSIFYING</i>	0.006	0.36
<i>RELATIVE_SIZE</i>	-0.057	-1.36
<i>#BIDS</i>	-0.012	-0.67
<i>Ln(MV)</i>	-0.018	-2.31 **
<i>LEVERAGE</i>	0.015	0.23
<i>ROA</i>	-0.016	-0.19
<i>MTB</i>	0.011	0.10
Country Fixed Effects	No	
Year Fixed Effects	Yes	
R <sup>2</sup>	0.340	
Number of observations	46	

Notes to Table 5:

This table presents the test of the effect of the financial crisis period on the association between acquisition announcement returns for foreign acquisitions using cash payments and firms' levels of PRE and cash holdings. In panel A, we test the change in the association between acquisition announcement abnormal returns and the interaction of PRE and cash holdings from the period before the tax repatriation holiday to both the tax repatriation holiday period and the financial crisis period beginning in 2008. The test includes acquisitions from 1995 to 2010. Panel B presents the estimation of our model separately for each of these periods. Panel C presents the estimation of our model using only observations in the financial crisis period and an alternative measure of PRE. Variables descriptions are in Appendix A. We also include year and country fixed effects. Standard errors used to calculate t-statistics are White adjusted and clustered by firm. \*, \*\*, and \*\*\* denote two-tailed (one-tailed when there is a predicted sign) statistical significance at 10%, 5%, and 1%, respectively.

**Table 6**  
**Long-Run Post-Acquisition Firm Performance**

*Panel A: Acquisition Profitability Based on Change in ROA*

Variables	1995-2003		1995-2007	
	$\Delta ROA$	<i>t</i> -stat	$\Delta ROA$	<i>t</i> -stat
Intercept	-0.005	-0.10	-0.052	-0.87
<i>PRE</i>	? -0.006	-0.09	-0.011	-0.14
<i>PRE*CASH_INV</i>	- -1.571	-1.77 **	-1.198	-1.82 **
<i>PRE*CASH_INV*TAX_HOLIDAY</i>	+		1.649	2.35 **
<i>CASH_INV</i>	? 0.075	1.10	0.085	2.01 **
<i>EINDEX</i>	- 0.006	1.13	0.007	1.79 *
<i>FOREIGN_SALES</i>	? -0.029	-0.62	-0.027	-0.82
<i>PUBLIC</i>	- 0.011	0.59	-0.002	-0.14
<i>DIVERSIFYING</i>	- -0.001	-0.06	-0.018	-1.50 *
<i>RELATIVE_SIZE</i>	? -0.002	-0.07	0.007	0.37
<i>#BIDS</i>	? 0.038	2.16 **	0.012	0.55
<i>Ln(MV)</i>	? 0.001	0.07	0.007	1.04
<i>LEVERAGE</i>	? 0.010	0.23	-0.015	-0.40
<i>MTB</i>	? -0.006	-0.35	-0.022	-1.46
Country Fixed Effects	Yes		Yes	
Year Fixed Effects	Yes		Yes	
R <sup>2</sup>	0.378		0.419	
Number of observations	112		162	

Panel B: Acquisition Profitability Based on Long-Run Abnormal Stock Returns

Variables	1995-2003		1995-2007	
	<i>BHAR_3Y</i>	<i>t</i> -stat	<i>BHAR_3Y</i>	<i>t</i> -stat
Intercept	-0.536	-0.54	-0.164	-0.15
<i>PRE</i>	? 0.022	1.59	0.023	1.60
<i>PRE</i> * <i>CASH_INV</i> ( / 100)	- -0.385	-3.19***	-0.219	-2.43***
<i>PRE</i> * <i>CASH_INV</i> * <i>TAX_HOLIDAY</i> ( / 100)	+ 0.084	0.91	0.084	0.91
<i>CASH_INV</i>	? 0.784	0.66	0.086	0.15
<i>EINDEX</i>	- 0.087	1.28	0.061	1.15
<i>FOREIGN_SALES</i>	? 0.530	1.02	-0.320	-0.79
<i>PUBLIC</i>	- 0.123	0.48	-0.204	-1.10
<i>DIVERSIFYING</i>	- -0.247	-0.94	-0.104	-0.64
<i>RELATIVE_SIZE</i>	? -0.466	-1.26	-0.718	-2.33**
<i>#BIDS</i>	? 0.284	0.88	0.236	0.89
<i>Ln(MV)</i>	? -0.055	-0.59	0.027	0.42
<i>LEVERAGE</i>	? 0.343	0.40	0.251	0.49
<i>ROA</i>	+ 1.407	1.44*	1.008	1.07
<i>MTB</i>	? 0.009	0.08	-0.063	-0.67
Country Fixed Effects	Yes		Yes	
Year Fixed Effects	Yes		Yes	
R <sup>2</sup>	0.293		0.222	
Number of observations	116		197	

Notes to Table 6:

This table presents the test of the association between firms' levels of PRE and cash holdings and post-acquisition long-run firm performance for foreign acquisitions using cash payments. Post-acquisition performance is measured using the change in average return on assets surrounding acquisitions (Panel A) and abnormal buy and hold stock returns over the period after acquisition completion. Variables descriptions are in Appendix A. We divide the coefficient on the interaction term *PRE*\**CASH\_INV* by 100 for ease of interpretation. We also include year and country fixed effects. Standard errors used to calculate t-statistics are White adjusted and clustered by firm. \*, \*\*, and \*\*\* denote two-tailed (one-tailed when there is a predicted sign) statistical significance at 10%, 5%, and 1%, respectively.