

The Unintended Consequences of the Homeland Investment Act: Implications for Financial Constraints, Governance, and International Tax Policy

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Abstract: The Homeland Investment Act of 2004 provided for a one-time tax holiday on the repatriation of foreign earnings, thereby allowing U.S. multinationals to access earnings retained abroad at a lower cost. Firms responded to this act by significantly increasing repatriations from foreign affiliates. This paper analyzes the impact of the tax holiday on firm behavior. It controls for endogeneity and omitted variable bias by using instruments that identify the firms likely to receive the largest tax benefits from the holiday. Repatriations did not lead to an increase in investment, employment or R&D—even for the firms that lobbied for the tax holiday stating these intentions. Instead, a \$1 increase in repatriations was associated with an increase of approximately \$1 in payouts to shareholders. These responses are consistent with the view that the domestic operations of U.S. multinationals were not financially constrained and that U.S. multinationals are reasonably well-governed. The results also have significant implications for understanding the impact of the U.S. corporate tax system on the behavior of multinational firms.

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I. Introduction

The Homeland Investment Act (HIA) provided for a one-time tax holiday on the repatriation of foreign earnings by US-based multinational enterprises (MNEs), and was passed in 2004 as part of the American Jobs Creation Act (AJCA). Congressmen argued that it would create more than 500,000 jobs over 2 years by raising investment in the United States.¹ Analysts at J.P. Morgan Securities estimated that businesses would increase capital spending by 2% to 3% over two years.² A survey of firms indicated that they would primarily use the repatriated funds to pay down debt, finance capital spending, and fund research and development, venture capital, and acquisitions.³ Many economists, however, argued that the tax holiday would have little impact on U.S. investment, R&D or employment. The White House's Council of Economic Advisers stated that "the repatriation provision would not produce any substantial economic benefits."⁴

In response to the HIA, repatriations of foreign earnings from affiliates to parents of U.S. MNEs surged. Using tax return data, Redmiles (2008) calculates that U.S. multinationals repatriated about \$362 billion under the provisions of the HIA. This exceeded most predictions and translated into an average of \$370 million of qualifying repatriations for the 843 corporations that took advantage of the tax holiday.

Firms' responses to the HIA provide an opportunity to test several hypotheses about financial constraints, corporate governance, and international tax policy. The temporary tax holiday effectively reduced the cost to U.S. multinationals of accessing internal capital that was held abroad as reinvested earnings. The framers of the Act justified the tax holiday based on the premise that these firms' domestic operations were financially constrained. If this were true, repatriated cash could be invested in U.S. projects that had a positive net present value for the

¹ Estimates used by Congress were based on a 2003 study by Allen Sinai of Decision Economics, Inc. J.P. Morgan Securities estimated that the HIA would create about 600,000 jobs. (Source: "An Update on Repatriation Legislation," May 6, 2004.)

² J.P. Morgan Chase Bank, Economic & Policy Research report "Introducing the Homeland Investment Act," May 1, 2003.

³ Survey conducted by J.P. Morgan Chase Bank and reported in their research report, "Status Report on Repatriation Legislation-aka the Homeland Investment Act," September 17, 2003.

⁴ *Wall Street Journal*, "Tax Windfall May Not Boost Hiring Despite Claims; Some Companies Plan to Use New Break on Foreign Profits for Debt and Other Needs," October 13, 2004, pg. A1.

firm based on the temporarily lower cost of internal capital, but which were not profitable at the higher cost of external finance. Hubbard (1998) and Stein (2003) review the large literature on financial constraints, which suggests that such constraints exist even for large multinational firms.⁵ Studying changes in firms' domestic investment, employment, and R&D expenditures under the HIA reveals whether the domestic operations of U.S. multinationals were financially constrained, and if the reduced tax costs of accessing internal funds spurred domestic activity as intended by the lawmakers.

If firms are not financially constrained, then well-governed firms would return any internal capital accessed under the HIA to shareholders through mechanisms such as share repurchases, dividend payments, or possibly reductions in debt or other liabilities. In the absence of financial constraints, well-governed firms would choose optimal levels of investment and employment before the tax holiday, so they would not increase expenditures on capital and labor when the holiday occurred. If firms are not well-governed, however, any internal cash accessed under the HIA could be squandered. This cash would reduce the constraints on managers and give them more freedom to pursue projects that provide a greater private benefit than shareholder benefit—such as raising management compensation, upgrading corporate headquarters, or increasing investment in other low-return projects. This possibility is discussed in Jensen (1986), and evidence of such behavior appears in several papers, such as Blanchard, López-de-Silanes, and Shleifer (1994), Morck, Shleifer and Vishny (1990), Lang, Stulz and Walking (1991), Bates (2005), and Dittmar and Mahrt-Smith (2007). This paper analyzes the effects of the HIA on payouts to shareholders and tests whether measures of corporate governance affect the extent to which firms returned funds to shareholders.

Firms' responses to the HIA also have important implications for international tax policy, including the effects of the way the U.S. taxes foreign source income and the impact of regulating how repatriations are spent. Altshuler and Grubert (2003) argue that U.S.

⁵ Some of the key contributions in this extensive literature include: Fazzari, Hubbard and Petersen (1988), Blanchard, López-de-Silanes and Shleifer (1994), and Lamont (1997). Kaplan and Zingales (1997) discuss problems in measuring financial constraints. For evidence on financial constraints and R&D, see Hall (1992) and Himmelberg and Petersen (1994).

multinationals are able to use tax planning strategies that allow them to effectively avoid repatriation taxes (even in the absence of a tax holiday). However, several papers find that repatriation taxes significantly distort repatriations decisions.⁶ Evidence that firms made extensive use of the HIA tax holiday - and in particular that those firms that took greatest advantage of the holiday had previously attempted to reduce their repatriation taxes through alternative strategies - would suggest that repatriation taxes do impose burdens, despite the availability of strategies to escape the taxes. Moreover, a concern that is frequently raised in political debates is that the ability of firms to defer repatriation taxes encourages excessive foreign investment. Papers such as Sinn (1993), however, point out that repatriation taxes might lead to an inefficiently low level of foreign investment as firms anticipate these taxes. This paper addresses both of these debates by studying how the foreign investment of U.S. MNEs responded to the tax holiday.

A related aspect of international tax policy addressed in this paper is how government regulation can affect firm spending patterns. The U.S. Treasury Department attempted to shape the behavior of firms that repatriated funds under the HIA by issuing explicit guidelines on how earnings returned to the United States could be spent. The funds had to be used for “permitted investments,” which included hiring workers, investment, research and development, and certain acquisitions. Certain uses, such as executive compensation, intercompany transactions, dividends, stock redemptions and portfolio investments, would disqualify funds from the holiday. The literature on the “flypaper effect” suggests that these regulations could have significant effects. More specifically, this literature finds that money tends to “stick where it hits”; i.e. that targeted grants have large effects on expenditures even though cash is fungible.⁷ Although most papers on the flypaper effect focus on inter-government transfers, Hines and Thaler (1995) review this literature and observe similar effects in the corporate sector when firms expand after receiving a cash windfall. How U.S. multinationals responded to the restrictions on the use of cash repatriated under the HIA provides a test of the effectiveness of these types of regulations.

⁶ Papers that document an effect of taxes on repatriations include Hines and Hubbard (1990) and Desai, Foley, and Hines (2007).

⁷ For examples of papers on the flypaper effect, see Pack and Pack (1993), Knight (2002), Gordon (2004), Baicker and Staiger (2005), and van de Walle (2007).

Two fundamental challenges in analyzing these various effects of repatriations under the HIA are endogeneity and omitted variable bias. Firms choose how much to repatriate while simultaneously making other corporate finance decisions in a given year. In addition, common omitted factors, such as levels of domestic cash flows, could affect both repatriations and other financial decisions. This paper uses an identification strategy that addresses these problems by instrumenting for repatriations under the HIA, using firm characteristics that are strong predictors of HIA repatriations but are predetermined in relation to the enactment of the Act. Specifically, the instruments are dummies for whether the MNE has (a) a tax haven affiliate or holding company structure prior to the HIA, and (b) accumulated large cash holdings abroad (again prior to the HIA). The empirical analysis in this paper utilizes the most extensive data available on U.S. multinational firms by combining information from the U.S. Bureau of Economic Analysis' (BEA) Balance of Payments Survey and Survey of U.S. Direct Investment Abroad with data drawn from Compustat, Execucomp, and other sources.

The results from this analysis indicate that U.S. multinational firms significantly increased repatriations under the HIA. This is especially true for those firms that appear to have taken steps to avoid repatriation taxes by holding high levels of cash abroad or by establishing holding company affiliates or affiliates based in tax haven countries. Higher levels of repatriations, however, were not associated with increased domestic capital expenditures, domestic employment, or research and development (R&D) expenditures. In fact, increased repatriations in response to the HIA had small negative, but insignificant, effects on each of these measures of activity in instrumental variable specifications. Even firms that increased contributions to Congressmen responsible for drafting the HIA and that belonged to a lobbying coalition that asserted that the tax holiday would allow them to increase domestic investment did not significantly increase their domestic expenditures. Also, firms that repatriated larger amounts in response to the HIA do not appear to have decreased their leverage or increased their acquisition activity. Despite the arguments of legislators and the assertions of lobbyists, U.S. multinationals did not respond in a way that is consistent with their facing domestic financial constraints.

Additional results from the analysis of equity provisions by parent firms to their affiliates provides further evidence that firms did not face domestic financial constraints. Before the tax holiday, firms that increased parent equity investments in affiliates (in a particular year or the year before) repatriated lower amounts to the United States. Firms that increased parent equity provisions around the time of the tax holiday, however, had higher levels of repatriations. This pattern suggests that the domestic operations of U.S. MNEs were not capital constrained and were instead providing liquidity to affiliates. These firms seem to have taken advantage of the HIA by “roundtripping”, i.e. by replacing retained earnings that would be subject to high repatriation taxes if there were no tax holiday with new paid-in capital.

Although the results indicate that the higher levels of repatriations under the HIA were not associated with increased expenditures in areas such as domestic investment or employment, the results do show that these repatriations were associated with significantly higher levels of payouts by firms to shareholders, mainly through share repurchases. The instrumental variable estimates imply that a \$1 increase in repatriations was associated with a \$0.91 increase in share repurchases and a \$0.08 increase in dividends. Also, higher levels of repatriations were not associated with higher levels of management compensation. These results are consistent with the hypothesis that firms are well-governed on average, in the sense that they did not use cash accessed under the HIA to increase salaries and bonuses or to increase the scale or scope of firm activities.

Although firms appear to be well governed on average, additional results indicate that corporate governance still affects firm responses to the HIA. Firms with weaker corporate governance, as measured by Gompers, Ishii, and Metrick (2003), appear to have returned less of their repatriations to shareholders. This result suggests that agency issues should be considered when designing corporate tax policy as also argued in Chetty and Saez (2005). Previous work contains mixed findings related to the effect of repatriations on repurchases and on the role of governance. Using hand collected samples and tests that do not address potential endogeneity or omitted variable problems, Blouin and Krull (2006) and Clemons and Kinney (2007) find that firms that increased repatriations under the HIA also increased

share repurchases. Brennan (2008) finds no evidence of an effect on repurchases, but presents results indicating that valuations of firms that repatriated under the HIA fell around the time of its passage, especially for firms with weak corporate governance.⁸ He interprets this as evidence that investors believed that repatriated funds would be spent on activities that destroyed value.

The results in this paper also inform international tax policy in three ways. First, firms that used various strategies to reduce (or avoid) repatriation taxes tended to repatriate more under the HIA than other firms, suggesting that it is not possible to eliminate the burden of repatriation taxes.⁹ Second, firms that increased repatriations significantly decreased their foreign investment and employment. There are a number of possible interpretations of this finding, but the simplest explanation consistent with the evidence relates to the intertemporal tax incentives created by the Act. In particular, the fall in foreign investment in 2005 is consistent with firms anticipating the possibility of a repatriation tax holiday in the years immediately prior to the HIA, while also expecting a higher repatriation tax for returns earned after the holiday expired. Finally, government regulations on how firms used the repatriated funds appear to have been completely ineffective.

The remainder of this paper is organized as follows. Section II discusses U.S. international tax policy and the implications of the HIA. Section III describes the data, and Section IV discusses estimation issues. Section V reports the results, and Section VI concludes.

II. U.S. International Tax Policy

The United States and many other countries tax the foreign income of their residents. In order to avoid double taxation of foreign income, U.S. law grants tax credits for foreign income

⁸ In contrast, Oler, Shevlin and Wilson (2007) find that firms with foreign earnings in low-tax jurisdictions experienced a significant increase in stock prices and market value. Interpreting the results of these two market-based event studies is complicated, however, due to the long discussion period before the tax holiday was enacted.

⁹ Other studies of the HIA and of tax holidays provide further evidence of the effects of taxes on repatriations. Graham, Hanlon and Shevlin (2008) provide survey evidence that tax considerations as well as accounting expense recognition considerations are important in repatriation decisions. Albring, Dzuranin, and Mills (2005) estimate a high tax cost of the HIA, and De Waegenaere and Sansing (2007) show theoretically how a repatriation tax holiday would increase firm value.

taxes paid abroad. U.S. MNEs are permitted to defer U.S. tax liabilities on certain foreign profits until they are repatriated. Generally speaking, the taxes due upon repatriation are equal to the difference between foreign income taxes paid and tax payments that would be due if earnings were taxed at the U.S. rate. For example, if the U.S. tax rate is 35% and a U.S. MNE earns \$100 abroad and pays \$20 in host country income taxes, an additional \$15 would be due in U.S. taxes when the earnings are repatriated. If foreign income taxes paid exceed the amount that would be due if earnings were taxed at the U.S. rate, then no additional taxes are due.

Total U.S. tax obligations on distributed foreign earnings are determined by worldwide averaging. This approach allows firms that pay tax rates above the U.S. tax rate in a particular jurisdiction to use the foreign tax credits from this jurisdiction to shield income repatriated from low tax locations from U.S. taxation. However, these foreign tax credits cannot be used to reduce tax obligations related to income earned within the United States. Firms that have total foreign tax payments greater than what would be due if U.S. tax rates were applied to total taxable foreign income are characterized as having excess foreign tax credits. Excess credits from one year can be used to reduce U.S. taxable income related to foreign earnings in either of two previous years or five subsequent years.¹⁰

Firms often adjust their ownership and financing decisions to minimize their tax obligations. One common strategy involves indirectly owning foreign affiliates through holding companies or through other affiliates based in tax havens or other jurisdictions that do not impose repatriation taxes. Under these kinds of ownership arrangements, earnings need not be returned to the United States before they are invested elsewhere around the world, thereby avoiding U.S. repatriation taxes. Alternatively, firms may hold earnings in the low tax jurisdiction in liquid securities rather than to repatriate them, even though earnings from these passive investments are deemed distributed and therefore taxable.¹¹ To illustrate this point,

¹⁰ There are some limits to the extent to which firms can avoid U.S. taxation through deferral. Under the Subpart F provisions of the U.S. law, certain kinds of income, classified as “passive income,” are “deemed distributed” and therefore immediately taxable by the U.S. even if it is not repatriated. Passive income includes interest income and dividends received from investment in securities.

¹¹ The early literature analyzing repatriation taxes demonstrated that they should not affect the timing of repatriations if the only alternatives are to repatriate or to reinvest foreign earnings in the foreign affiliate’s

consider the previous example in which an incorporated affiliate earned \$100 and pays \$20 in foreign income taxes. If the firm repatriates these earnings immediately, it pays an additional \$15 in U.S. taxes and then can invest the remaining \$65 in passive assets. Any earnings associated with this investment are taxed at the U.S. rate. However, if the firm does not repatriate the earnings, it can invest \$80 in the liquid security. While Subpart F regulations require the firm to pay U.S. taxes on earnings associated with this investment, the firm will be better off holding cash abroad because by doing so it defers the repatriation taxes on the original \$100 of active earnings. Desai, Foley and Hines (2007) and Foley, Hartzel, Titman, and Twite (2007) find evidence indicating that firms that invest in haven countries and make use of holding companies and firms that hold high levels of cash abroad are firms that face especially high tax costs of repatriations. These kinds of firms should value a repatriation tax holiday the most.

Pharmaceutical industry and high-tech lobbyists actively sought tax breaks on the repatriation of overseas profits as early as 2002, but this proposal only started to gain momentum in the spring of 2003 when several members of Congress supported including it in a tax-cut bill—especially after realizing that the proposal could initially increase tax revenues (albeit balanced by lower revenues in future years).¹² As the economy showed signs of weakness in the first half of 2004, legislators seriously began to consider a temporary tax holiday for repatriations, ostensibly as a way of ensuring that U.S. multinationals had funds to invest domestically.¹³

On October 22, 2004, the U.S. Congress passed the AJCA into law. One component of the AJCA, the HIA, was a temporary tax holiday on the repatriation of dividends from foreign subsidiaries, subject to a number of restrictions.¹⁴ More specifically, the HIA allowed

operations (Sinn, 1984; Hartman, 1985). In practice, however, firms also have the option of using foreign earnings to acquire passive assets that are held in the low-tax jurisdiction. Delaying repatriations in this way can confer a substantial deferral advantage by reducing the present value of the U.S. tax liability (see, for example, Weichenrieder (1996)).

¹² Estimates suggest a net revenue loss over a 10-year horizon of \$3.2 billion (Clausing, 2005, p. 337).

¹³ Another key motivation for the AJCA was to offset the effects of the repeal of a tax subsidy for U.S. exporters that was ruled illegal by the World Trade Organization. If this U.S. tax subsidy was not repealed, the European Union planned to impose escalating tariffs on U.S. exports.

¹⁴ Other provisions of the AJCA included: a tax deduction for domestic manufacturing companies, reducing the number of income baskets to calculate a firm's credit for foreign taxes, extending "temporary" investment

companies to deduct 85% of their repatriations from additional U.S. taxes for the first taxable year on or after the HIA was signed. Taxes were still due on the remaining 15% of repatriations, but firms continued to receive tax credits for foreign income taxes paid on these earnings. For example, if a U.S. multinational earned \$100 abroad and paid \$20 in host country income taxes, under the HIA 85% of the foreign earnings would be exempt from U.S. repatriation taxes and the firm would only need to pay 15% in U.S. taxes on the remaining \$15 in earnings. The firm's repatriation tax burden would therefore be only \$2.25 ($=\$15 \times 15\%$) under the Act as opposed to \$15 ($=\$100 \times 15\%$) without the Act. If companies did not take advantage of this benefit by the end of their accounting year after the HIA was passed, the lower tax rate was not available for future years.

U.S. repatriations only qualified for this tax holiday if they met several criteria. First, repatriations had to be paid in cash. This required foreign subsidiaries that had already invested their earnings and had low cash reserves to liquidate investments and/or raise cash. Second, qualifying repatriations could not exceed the greater of (a) \$500 million, (b) the earnings reported as permanently reinvested on the last audited financial statements filed on or before June 30, 2003, or (c) the amount the firm had historically repatriated from its foreign subsidiaries. This amount of qualifying repatriations was also reduced by the total debt outstanding from the foreign subsidiary to related parties and by the amount of the increase in related-party debt between the U.S. firm and its foreign subsidiary. These last qualifications were intended to prevent companies from borrowing from abroad or their U.S. parent companies in order to fund repatriations at the lower tax rate.

Finally, repatriations had to be used for certain domestic activities in accordance with an investment plan in order to qualify for the tax holiday. The investment plan had to be approved by the company's president, CEO, or comparable official before the repatriations were paid, and then subsequently approved by the company's board of directors or management or executive committee. Investments that were "permitted uses" for the repatriated funds included: hiring and training workers, infrastructure and capital investments,

incentives for small businesses, allowing taxpayers in states with no income tax to deduct sales taxes from their federal taxes and a series of tax breaks to special interest groups (from tobacco farmers and cruise-ship owners to Native Alaskan whaling captains and bow-and-arrow makers).

research and development, financial stabilization for the purposes of U.S. job retention or creation (including debt repayment, tort liabilities and the funding of qualified benefit plan obligations), certain acquisitions of business entities with U.S. assets, advertising and marketing, and acquisition of rights to intangible property. Expenditures that were not permitted uses for repatriations receiving the tax holiday were: executive compensation, intercompany transactions, dividends and other shareholder distributions, stock redemptions, portfolio investments, debt instruments, and tax payments. Some economists (e.g. Clausing, 2005) questioned the effectiveness of specifying “permitted uses” for repatriations, since money is fungible and firms could simply relabel existing projects that met the qualifying criteria as “new” to qualify for the tax deduction and then have the freedom to use the repatriated cash in any way.

Even after the HIA was passed in October 2004, considerable uncertainty existed about important details such as what funds were eligible and how repatriations under the tax holiday could be spent. As a result, many firms discussed the possibility of using the repatriation tax holiday in their 2004 annual filings, but did not commit to specific actions.¹⁵ This uncertainty was resolved in a series of clarifying documents released by the U.S. Treasury Department in late 2004 and early 2005.¹⁶ As a result, most companies used this tax holiday in 2005.¹⁷ This prolonged debate and the delay before firms used the tax holiday is important, as it suggests that firms may have anticipated the tax holiday prior to its enactment and implementation. This provided parent firms an opportunity to send cash abroad in the form of new paid-in capital that could replace retained earnings that were subsequently repatriated, a practiced referred to as “roundtripping.”

¹⁵ For example, Pfizer wrote: “As of December 31, 2004, we had not decided whether, and to what extent, we might repatriate foreign earnings under the Act...management continues to investigate whether the Company might repatriate up to \$29 billion...This amount could increase by \$8.6 billion...” Agilent Technologies stated: “the possible amounts that Agilent is considering for repatriation under this provision is between zero and \$970 million.” Hewlett-Packard wrote: “The range of reasonably possible amounts that HP is considering for repatriation, which would be eligible for the temporary deduction, is zero to \$14.5 billion.” All quotes from company 2004 financial statements.

¹⁶ On December 21, 2004 the Financial Accounting Standards Board (FASB) issued a document to provide guidance for firms intending to repatriate dividends under the AJCA. The U.S. Treasury Department issued a 40-page document providing guidance in January of 2005, and fact sheets with additional guidance in January and May of 2005.

¹⁷ Thomas Brennan kindly provided us with a list of firms which report using the tax holiday in their 2004 or 2006 calendar years. Dropping these firms from empirical analysis in Section V does not substantively alter the empirical results.

III. Data

Analyzing how firms responded to the repatriation tax holiday requires combining data from several sources. Annual information on repatriations and on U.S. MNE activity from 1996 to 2005 are drawn from the results of two surveys conducted by the Bureau of Economic Analysis (BEA). As a result of confidentiality assurances and penalties for noncompliance, BEA believes that coverage of these surveys is close to complete and levels of accuracy are high. The first of these surveys is the Balance of Payments survey, which provides information on annual repatriations from 1996-2005 by U.S. multinational entities (MNEs). A U.S. multinational entity is the combination of a single U.S. legal entity that has made a direct investment abroad, called the U.S. parent, and at least one foreign business enterprise, called the foreign affiliate.¹⁸ In the regression analysis, repatriations are scaled by beginning-of-period consolidated firm assets. This data source captures not only repatriation data, but also direct transactions between the U.S. operations and foreign affiliates of U.S. MNEs. It tracks new flows of equity from parent companies to their affiliates and allows for analysis of whether firms that injected new paid-in capital also repatriated retained earnings, or engaged in “roundtripping.”

Figure 1 uses the publicly available aggregates from the BEA data to show total repatriations around the time of the HIA. Repatriations surged from an average of \$62.2 billion per year from 2000-2004 to \$298.7 billion in 2005 under the tax holiday.¹⁹ Preliminary data indicate that repatriations fall back to \$91.1 billion in 2006.

The second BEA data set is drawn from the BEA Survey of U.S. Direct Investment Abroad, which captures financial and operating information for both the parent companies and foreign affiliates of U.S. multinationals.²⁰ These data include information on the industry and

¹⁸ U.S. direct investment abroad is defined as the direct or indirect ownership or control by a single U.S. legal entity of at least ten percent of the voting securities of an incorporated foreign business enterprise or the equivalent interest in an unincorporated foreign business enterprise.

¹⁹ Source: BEA, Table 7a "Direct Investment: Income, Capital, Royalties and License Fees, and Other Private Services", line 3 for Distributed earnings. Website accessed on 08/13/08: http://www.bea.gov/international/bp_web/simple.cfm?anon=71&table_id=18&area_id=3.

²⁰ The forms that firms are required to complete vary depending on the year, size of the parent and affiliate, and the U.S. parent's ownership stake. The most extensive data are collected in benchmark years – 1999 and 2004.

location of each affiliate, as well as firm-level information on some outcome variables that are used to analyze responses to the HIA. Firms are required to report information on their capital expenditures and employment both in the United States and abroad; this information provides measures of U.S. and foreign investment and changes in employment. In the analysis below, investment measures are scaled by beginning-of-period consolidated assets, and changes in employment are scaled by beginning-of-period aggregate firm employment. This data set also contains information to create the instruments used for estimation and discussed in more detail in Section IV: foreign cash holdings before the tax holiday and whether the MNE affiliates are structured as holding companies or are located in tax havens.

Two additional datasets, Compustat and Execucomp, are the sources of several other outcome variables in the analysis. Research and development (R&D) expenditures (data item 46), changes in consolidated levels of debt (changes in data item 9 plus data item 44), dividends to common shareholders (data item 127), and repurchases of common stock (data item 115), are each drawn from Compustat.²¹ These are scaled by beginning-of-period consolidated assets, which are also measured using Compustat (data item 6). Cash flow statement information related to acquisitions (data item 129) is used to create a dummy that is equal to one if firms report acquisition expenditures and zero otherwise. Execucomp is the source of data on total CEO compensation, including salary, bonus, and the value of stock and option grants. Like many other variables, CEO compensation is scaled by beginning-of-period firm consolidated assets.

Compustat data are also used to compute the controls employed in the empirical tests. One control, firm leverage, is measured as the ratio of total debt to the sum of total debt and the market value of equity. Firm investment opportunities is controlled for using a proxy for Tobin's q , defined as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. The final controls,

BEA uses reported data to estimate universe totals when surveys cover only larger affiliates or when only certain affiliates provide information on particular survey forms. Only reported data are used in this paper's analysis. Additional information on the BEA data can be found in Mataloni (2003).

²¹ Missing values for R&D expenditures are assumed to be zero.

firm cash holdings and firm profitability, are measured as consolidated cash and consolidated net income, respectively, both as a ratio to consolidated assets.

The final data for this paper's analysis are on governance, lobbying and political contributions. Firm governance is measured using the index created by Gompers, Ishii, and Metrick (2003). Lobbying activities are measured by two variables. First is a dummy variable equal to one if the firm was a member of the Homeland Investment Coalition (HIC). The HIC was a group of 63 firms and organizations (listed in Appendix A) formed with the sole purpose of lobbying to reduce the tax rate on U.S. repatriations. The second measure is political contributions by each firm's political action committee to key politicians directly responsible for crafting the HIA tax legislation, namely members of the Senate Finance and House Ways and Means Committees.²² These data are from the Federal Election Commission website (www.fec.gov). Because it is impossible to identify which contributions were targeted specifically at reducing the tax rate on repatriations, the analysis uses total contributions in 2003-4 as well as the difference in contributions from 2003-2004 versus 2000-2001 (in order to isolate any change from baseline contributions that occurred during the period when the tax holiday was under discussion). These data show that political contributions from firms to these two key tax-writing committees increased from \$16.6 million in 2000-2001 to \$20.7 million in 2003-2004.

Table 1 reports summary statistics for the complete data set created by the merger of this information from the two BEA surveys, Compustat, Execucomp, and the information on lobbying and governance.

IV. Estimation and First-Stage Results

The empirical analysis in this paper exploits the variation in the tax costs of repatriating earnings resulting from the HIA to explore how firms respond when they face lower costs of accessing one type of internal capital (earnings that are retained abroad). The introduction

²² Political contributions include dollar contributions plus the estimated dollar value of "in kind" contributions and "independent expenditures on behalf of candidate." The data do not include contributions from individuals, "friends of" committees, or issue groups. The resulting data set has information on over 63,000 contributions to members of the House Ways and Means or Senate Finance Committees from 1999 through 2006.

discusses theoretical predictions of the impact of the tax holiday, and the remainder of this paper tests for the impact on several outcome variables: domestic capital expenditures, domestic employment, R&D expenditures, the use of financial leverage, acquisition activity, CEO compensation, dividends to shareholders, share repurchases, foreign capital expenditures and foreign employment.

A simple OLS specification to estimate the impact of dividend repatriations on each of these outcome variables would take the following form:

$$V_{it} = \beta R_{it} + \mathbf{X}_{it}\boldsymbol{\gamma} + \mu_i + \delta_t + \varepsilon_{it} , \quad (1)$$

where V_{it} measures the outcome variable of interest for firm i in year t , R_{it} is repatriations by firm i in year t , \mathbf{X}_{it} is a vector of controls, μ_i is a firm effect, δ_t is a year effect, and ε_{it} is the error term. In order to control for correlations that might be induced by changes in firm size through time, the outcome variables, repatriations, and control variables are scaled.

Specifically, repatriations and all measured outcome variables except those that measure employment are scaled by beginning-of-period consolidated firm assets, and outcomes related to employment are scaled by beginning-of-period consolidated employment.

This general estimating framework has two potential problems, endogeneity and omitted variable bias, either of which could cause OLS estimates of β to be biased downwards or upwards. For example, an omitted variable such as domestic cash flows could bias estimates of β downward. If domestic earnings were high, this could lead to an increase in investment or share repurchases while simultaneously reducing the need to repatriate dividends from abroad. Endogeneity could be a concern because firms that were planning to make changes in key economic variables (such as share repurchases, foreign investment, or domestic investment) could be more or less likely to repatriate their foreign earnings. For example, plans for high levels of domestic capital expenditures could require repatriations, causing a

positive correlation between domestic capital expenditures and repatriations.²³ The challenge of identifying causality is highlighted by the approaches taken in recent papers that analyze firm responses to the HIA. Blouin and Krull (2006) regress some measures of firm payouts on measures of repatriations, while Clemons and Kinney (2007) regress repatriations on measures of payouts and other outcomes.

These problems of omitted variables and endogeneity can be addressed by using firm characteristics that are predetermined in relation to the enactment of the law in order to identify firms that were likely to place the greatest value on the tax holiday. This can be accomplished by instrumenting for R_{it} using measures of these characteristics interacted with a dummy that is equal to one in 2005 (the year of the tax holiday) and otherwise equal to zero. This approach effectively isolates firms that experienced the largest decrease in the costs of accessing earnings retained abroad. First stage tests reveal if repatriations in 2005 did reflect a response to the tax incentive in the HIA, and second stage tests reveal how firms that experienced the largest decreases in the costs of accessing retained earnings abroad altered their behaviors, relative to other firms. This identification approach also has the advantage of making it unlikely that the estimated effects of repatriations pick up the effect of other provisions of the AJCA or other events of 2005.²⁴

The discussion of U.S. tax policy above indicates that firms that face especially high tax costs of repatriations (and which should therefore value a repatriation tax holiday) are firms that (a) hold high levels of cash abroad, and (b) invest in tax haven countries and make use of holding companies. The first instrument is constructed by interacting a dummy for 2005 with an indicator for parents that had relatively high levels of cash accumulated in foreign affiliates in 2004.²⁵ This indicator is equal to one if the parent's foreign cash holdings scaled by lagged

²³ Even if most of the variation in repatriations during the sample period is a consequence of the reduced tax costs from the HIA, as suggested by Figure 1, variation in the amounts that firms repatriate could reflect changes in the demands for repatriated funds and not just changes in the costs of accessing retained earnings abroad.

²⁴ This strategy also imposes the exclusion restriction that, for instance, a firm's establishment of a tax haven affiliate prior to the HIA should not affect its desired payout in 2005 (relative to previous years) other than through the impact of tax haven affiliates on repatriations in 2005. It appears unlikely that this restriction would be violated.

²⁵ Foreign cash holdings are computed as the difference between parent cash holdings from the BEA and consolidated cash holdings as measured in Compustat. When these data on parent cash holdings are not reported, aggregated affiliate cash holdings scaled by consolidated cash holdings are used.

consolidated assets exceeded the median value for the sample in 2004. The second instrument is constructed by interacting a dummy for 2005 with an indicator variable equal to one if the U.S. parent has either (i) an affiliate located in a tax haven, or (ii) a holding company structure.²⁶ This indicator is based on organizational structure as it existed in 2004, prior to the repatriations under the HIA.²⁷

To test the validity of these instruments, Table 2 reports the first-stage regressions. Columns 1 and 2 regress each of the individual instruments on dividend repatriations scaled by lagged consolidated assets with no controls. Column 3 includes both instruments but no controls. Columns 4 through 6 include the full set of controls, with each instrument individually and then both simultaneously. All regressions include firm and year effects as well as heteroskedasticity-consistent standard errors that have been adjusted for clustering at the firm level. In each specification, the coefficients on the instruments are positive and highly significant, signifying that firms with high cash abroad in 2004 or that had an affiliate in a tax haven or with a holding company structure all increased repatriations significantly more than other firms in 2005 under the HIA. The last row of Table 2 provides the results of Wald tests for the significance of the instruments. Following Stock and Yogo (2005), the F-statistics imply that the instruments are not weak.

The fact that firms decided to take advantage of the tax holiday to repatriate such large amounts of cash to the United States, and that those firms that repatriated the most were those firms likely to face the highest tax costs of repatriation prior to the holiday, indicates that the repatriation tax does affect the allocation of cash within the firm. Without repatriation taxes, firms would return more of their foreign earnings to the United States.

V. Firms' Responses to the HIA

A. Domestic and Firm-wide Responses

²⁶ Countries are identified as tax havens based on the definition in Hines and Rice (1994). Companies are defined as having a holding company structure if at least one affiliate has an international survey industry code 5512. A holding company structure is one in which foreign affiliates are not owned directly by the U.S. parent, but rather owned via a holding company located typically in a country such as the Netherlands.

²⁷ Since these instruments differ across firms in 2005 and are time-varying (always 0 for years before the HIA and equal to either 0 or 1 in 2005), it is possible to include both firm effects (μ_i) and year effects (δ_t) in this IV specification.

Table 3 presents results of tests of the impact of repatriations on domestic capital expenditures, domestic employment, and R&D. This table and several that follow present two specifications for each outcome variable. The first is based on equation (1) and is similar to those used in previous studies of the impact of the HIA. The second is an instrumental variables (IV) specification that uses the two instruments for repatriations (discussed above). This specification attempts to address potential endogeneity and omitted variable biases. Both specifications include firm and year fixed effects and report heteroskedasticity-consistent standard errors clustered by firm in parentheses.

The dependent variable in columns 1 and 2 of Table 3 is U.S. capital expenditures scaled by lagged firm consolidated assets. The 0.0174 coefficient on repatriations (scaled by consolidated assets) in column 1 is small in magnitude and insignificant. It implies that increases in repatriations are not significantly correlated with increases in domestic capital expenditures over the sample period. In the IV specification in column 2, the coefficient on repatriations is -0.1450 and remains insignificant. This estimate implies that those firms that, because of their characteristics, repatriated an extra \$1 of earnings from abroad under the HIA invested \$0.15 less domestically. Although the effect of repatriations is insignificant, the standard error of 0.1488 basically rules out the possibility that increased repatriations have a large positive effect on domestic investment.

These specifications include controls for determinants of investment standard in previous work. The coefficient on leverage (which is measured as the ratio of total debt to the sum of total debt and the market value of equity) is negative, as in Lang, Ofek, and Stulz (1996) and other work. The coefficient on lagged Tobin's q is positive, as is the coefficient on lagged profitability (defined as the ratio consolidated firm net income to consolidated assets), which may capture the effects of cash flows. Lagged cash scaled by lagged consolidated assets is insignificant in explaining investment.

The specifications in the columns (3) through (6) of Table 3 repeat these tests, analyzing changes in U.S. employment (scaled by lagged consolidated employment) and levels of R&D spending (scaled by lagged consolidated assets). None of the coefficients on repatriations is

significant, and those in the IV specifications are negative. These results, along with those on U.S. capital expenditures, indicate that the decreased costs of accessing earnings retained abroad under the HIA did not increase domestic activity.

Table 4 repeats this analysis for three other measures of firm activity. The dependant variable in the first two specifications is the change in consolidated long-term and short-term debt (scaled by lagged consolidated assets). The coefficients on repatriations in the OLS and IV specifications are again insignificant, therefore providing no evidence that firms that increased repatriations under the HIA paid down debt and engaged in financial stabilization. The second two columns analyze if repatriations affected the propensity of firms to engage in acquisitions. The dependant variable is a dummy equal to one if a firm reports acquisition expenditures on its statement of cash flows and is otherwise equal to zero. The OLS and IV results indicate that firms did not respond to the HIA by increasing acquisition activity. The last two columns test if repatriations had an effect on CEO compensation, measured by the level of CEO compensation (scaled by lagged consolidated assets). Unlike the other outcome variables considered in Tables 3 and 4, CEO compensation was not a “permitted use” for repatriations under the HIA guidelines set by the U.S. Treasury. Columns (5) and (6) of Table 4 show that there was also no significant impact of higher repatriations on CEO compensation according to either estimation technique.²⁸

The tests presented in Table 5 analyze the effects of repatriations on firm payouts to shareholders through dividends and share repurchases. The coefficient on repatriations is positive and marginally significant in explaining payouts (scaled by lagged assets) in the OLS specification in column 1. The IV results in column 2, however, suggest that the impact of repatriations under the HIA on payouts is large. Although the standard errors indicate that the coefficient on repatriations is not precisely estimated, the 1.0844 coefficient estimate implies that a \$1 increase in repatriations under the HIA spurred a \$1.08 increase in payouts to shareholders.

²⁸ Results are similar for measures of compensation of the top-five firm executives.

In order to understand better this relationship between repatriations and shareholder payouts, columns 3 through 6 of Table 5 repeat the analysis in columns 1 and 2, but break payouts into its two components: dividends and share repurchases. The coefficients on repatriations are positive in each column, but only significant at the 5% level for the IV results for share repurchases. This indicates that the primary effect of higher repatriations on payouts occurred through increased share repurchases instead of increased dividend payments. Moreover, the 0.9108 coefficient on repatriations in column 6 suggests that a \$1 increase in repatriations under the HIA increased repurchases by \$0.91. This series of results suggests that the primary domestic impact of the repatriations under the HIA tax holiday was to increase share repurchases. This use of the repatriations was not one of the political justifications for the holiday and was not a “permitted use” of the cash repatriated under the lower tax rate.

Although the two forms of shareholder payouts analyzed in Table 5—share repurchases and dividends—are equivalent in simple models of the firm without taxes and with perfect information, it is not surprising that firms chose to return the repatriated cash to shareholders mainly through share repurchases instead of dividends.²⁹ The ability to access foreign cash at a lower cost was transitory. Since share repurchases do not imply as much of a commitment to make regular distributions as dividend payments, firms would have been more likely to respond to this temporary change by repurchasing shares instead of paying dividends.³⁰

The fact that firms increased payouts to shareholders primarily through repurchases rather than dividends also suggests that this behavior was not simply a delayed response to the 2003 dividend tax cut. In 2003, Congress enacted the Jobs and Growth Tax Relief Reconciliation Act (JGTRRA), reducing the tax rate on most dividend income to 15%. Chetty and Saez (2005) show that this reform led to a substantial increase in dividend payments by U.S. firms. However, the payout response to the HIA appears to be a distinct phenomenon, as it was

²⁹ Hines (1996) finds that U.S. corporations pay dividends out of their foreign profits at roughly three times the rate they do out of domestic profits. He examines this relationship for all periods, however, and not tax holidays.

³⁰ Lintner (1956) and subsequent work indicates that firms select levels of dividend payments that can be sustained. Also, since paying dividends requires making a formal announcement, while repurchasing shares does not, firms may have preferred to return the cash to shareholders in a manner which avoided having to make a formal announcement that could draw attention to this prohibited use of the funds.

manifested not in the form of dividends but of repurchases (the taxation of which was affected much less significantly by JGTRRA than that of dividends).

Taken together, the results in tables 3 through 5 suggest that repatriations did not alleviate financial constraints. Firms that valued the tax holiday the most and took greatest advantage of it did not increase domestic investment or employment, but instead returned virtually all of the cash they repatriated to shareholders. This behavior is consistent with simple models of the firm which show that if firms are not capital constrained and are well-governed, they will return any additional cash to shareholders. Managers do not appear to have used the repatriated cash to increase management compensation, acquisitions, or investment or to have taken any actions that are symptomatic of certain types of agency problems. Closer examination of the types of firms that chose to repatriate and analysis of how different kinds of firms responded to the HIA offers further insight on these issues.

B. Further Evidence on Financial Constraints

The evidence in the previous section indicating firms did not increase domestic investment when they were able to access retained earnings abroad at lower costs is inconsistent with the view that firms were financially constrained, a view that is implicit in the arguments of the proponents of the HIA. Analyzing the relationship between repatriations from affiliates to parents and provisions of new paid-in capital equity from parents to affiliates before and during the tax holiday sheds additional light on the extent to which firms were financially constrained and on how multinationals used their internal capital markets to take advantage of the HIA. If the domestic operations of U.S. multinationals were financially constrained around the time of tax holiday, repatriations should be negatively correlated with infusions of new equity capital to foreign affiliates. However, if firms reinvested earnings abroad in illiquid assets prior to the HIA, they might decide to change the financing of these assets by increasing paid-in capital and repatriating retained earnings, thus inducing a positive correlation between repatriations of new capital and infusions during the time of the holiday.

Table 6 presents the results of tests for a relationship between repatriations and equity provisions from U.S. parent companies to their foreign affiliates (both scaled by lagged

consolidated firm assets). The specification in column 1 regresses repatriations in a particular year on a dummy equal to one if the parent provided equity to its affiliate in that year and this same variable interacted with a dummy variable for the year 2005. The specification, like those in previous tables, includes firm and year fixed effects, and heteroskedasticity-consistent standard errors adjusted for clustering at the firm level. The negative but insignificant coefficient on the *Positive Equity Provision Dummy* suggests that during all years except for the tax holiday, firms in which U.S. parents increased their equity investment in affiliates abroad repatriated fewer earnings. The positive and significant coefficient on the *Positive Equity Provision Dummy* interacted with the *2005 Dummy*, however, shows that in 2005 the relationship between new parent equity infusions abroad and repatriations was significantly different.

Column 2 of Table 6 repeats the same regression with the four standard control variables used in the other regressions, and columns 3 and 4 report the same regressions except measure equity provisions from the U.S. parent to the foreign affiliate in the current and prior year instead of just the current year. In column 4, the coefficient on the *Positive Equity Provision Dummy* is now negative and significant, and the coefficient on this dummy interacted with the *2005 dummy* is positive and significant. An F-test reveals that the sum of these coefficients is also positive and significant. These results imply that U.S. multinationals were engaging in “roundtripping”— they were injecting capital from their U.S. parents into their foreign affiliates just as they were repatriating funds to the United States from their foreign affiliates at the lower tax rate. New paid-in capital was a source of liquidity abroad that could be used to repatriate foreign reinvested earnings. Firms that had domestic operations that were financially constrained would not have had funds to invest as new equity abroad, so this activity suggests that the average firm was not financially constrained at the time of the tax holiday.

Unlike the average firm, those firms that lobbied extensively for the HIA may have been financially constrained, and these firms may have responded to the tax holiday in a manner consistent with the stated intentions of the lawmakers. Many firms lobbied extensively for a lower tax on repatriations, and as part of this lobbying effort, they claimed they would use the

repatriations to increase investment and R&D and hire workers. For example, the “Homeland Investment Coalition” (HIC) wrote a letter to the Chairman of the key tax-writing committee in the House of Representatives and argued that a tax holiday on repatriations would “benefit the U.S. economy by: increasing domestic investment in plant, equipment, R&D and job creation...”³¹ These arguments helped garner support for the tax holiday as Congress was focusing on tax measures that would respond to concerns about offshoring and that would help reinvigorate investment and employment in the United States.

To test if firms which lobbied for the tax holiday were more likely to increase domestic capital expenditures in response to the HIA, Table 7 repeats the analysis presented in column 2 of Table 3 but divides the sample of firms three different ways based on their lobbying activities. Columns 1 and 2 present results for firms that were and were not members of the HIC—the coalition formed with the sole purpose of lobbying to reduce the tax rate on U.S. repatriations. The coefficient on repatriations is negative and insignificant for each of these subsamples. Repatriations during the HIA did not have a positive effect on domestic investment, even for those firms that were HIC members and argued they would use the repatriations in this manner.

Columns 3 and 4 present results for subsamples created on the basis of whether the firm’s PAC made any contributions to the members of the Senate or House tax writing committees, and columns 5 and 6 present results for subsamples based on whether firms increased their contributions to these tax-writing committees in 2003-2004 (when the HIA was being debated) relative to their 2000-2001 contributions. For each subsample, the estimated effects of repatriations on domestic investment are negative. No matter which of the measures of lobbying is utilized, repatriations in response to the holiday by firms that lobbied for the HIA did not increase investment in the United States. The results are similar if this analysis is repeated replacing investment as the outcome variable with the change in U.S. employment or with R&D expenditures (both scaled as in Table 3).

³¹ Letter to the Honorable Bill Thomas, Chairman of the Committee on Ways and Means in the U.S. House of Representatives, written by the Homeland Investment Coalition on March 21, 2003.

C. Further Evidence on Governance

Examining how different kinds of firms responded to the HIA also sheds light on the role of corporate governance. Agency theory suggests that firms which are poorly governed could use the cash accessed at a lower cost during the tax holiday in ways that do not maximize the return to shareholders. Such cash could reduce the constraints on managers and give them more freedom to pursue projects that provide some kind of private benefits. Even if less well governed firms did not spend the repatriated cash immediately, they would be more likely to retain the cash instead of paying it out to shareholders, possibly in order to have more freedom to pursue non-value maximizing projects in the future.

To test if firm governance affected how firms responded to the tax holiday, Table 8 presents results of some of the main specifications estimated on subsamples of firms that are classified as having weak or strong governance. Firms are classified as having weak governance if their Gompers, Ishii, and Metrick (2003) *g* index, as measured in 2004, is equal to or greater than the 2004 sample median of 10. They are classified as having strong governance if their index in 2004 has a value of 9 or less. Columns 1 and 2 present results of the specification presented in column 2 of Table 3 that explains U.S. capital expenditures (scaled by lagged consolidated assets). The estimated coefficient on repatriations (scaled by lagged consolidated assets) is small and insignificant for firms with weak and strong governance. Neither set of firms exhibit a significant effect of repatriations on capital expenditures. The results in columns 3 and 4 illustrate that repatriations also do not have a significant effect on CEO compensation for either set of firms. Similar regressions (not reported) find no significant effect of repatriations on the change in employment, R&D, or acquisitions for either subset of firms as well.

The results in columns 5 and 6, however, show a difference between the two subsamples in the relationship between repatriations and payouts. More specifically, firms with strong governance have a significant positive effect of repatriations under the HIA on payouts, as found for the full sample in Table 5, while firms with weak governance have a positive but insignificant effect of repatriations on payouts. This suggests that firms with weaker corporate governance were less likely to return the cash repatriated at the lower tax rate to shareholders.

Although these results do not pinpoint what happened to funds that were repatriated by firms with weak governance, they do indicate that repatriations induced by the HIA resulted in payouts to shareholders for well-governed firms. This finding is consistent with the hypothesis that when well-governed firms that are not financially constrained gain access to an internal source of cash, they return it to shareholders.

D. Foreign Responses and International Tax Policy

The HIA could also have had significant effects on the foreign operations of U.S. multinationals. To test this, Table 9 presents the results of tests for how repatriations affected foreign capital expenditures and foreign employment. The dependant variable in columns 1 and 2 is the ratio of foreign capital expenditures to lagged consolidated firm assets. This specification includes the same controls as those in Tables 3-5, including firm and year fixed effects. In the OLS specification in Column 1, the estimated coefficient on repatriations is insignificant. In the IV specification in column 2, the coefficient on repatriations is significant, and the -0.2249 point estimate indicates that a \$1 increase in repatriations is associated with \$0.22 less in foreign capital expenditures. Columns 3 and 4 present the results for the same tests, replacing foreign investment with foreign employment as the dependent variable. Foreign employment is measured as the change in foreign employment scaled by lagged consolidated employment. The IV results in column 4 also indicate that increased repatriations under the HIA are associated with lower levels of foreign activity.

There are several potential explanations of these results, but the simplest interpretation consistent with this evidence relates to the intertemporal tax incentives created by the HIA. As discussed above, a repatriation tax holiday was discussed for about two years before it became law (see e.g. Clausing, 2005). Therefore, firms anticipated the possibility of a tax holiday in the years immediately prior to the HIA. This expectation would induce higher levels of foreign investment, because (at least some of) the active income generated by these investments could be repatriated under the holiday. Foreign investment undertaken in 2005 (once the temporary tax holiday had been implemented), however, would face a higher expected repatriation tax burden. For example, suppose that when a firm made its foreign investment decisions for 2004, it anticipated a 0.5 probability that the HIA would be enacted

(i.e. that the active income generated by these investments could be repatriated under the holiday). If the firm were investing in a zero-tax foreign country, its expected repatriation tax on income generated by foreign investment undertaken in 2004 and repatriated in 2005 would be 17.5% (half the US rate of 35%). When the firm makes foreign investment decisions for 2005, the HIA has already been enacted. Suppose that the firm believes there is a 0.2 probability that another tax holiday will be enacted in the next few years, then the expected repatriation tax (assuming immediate repatriation) on foreign income generated by foreign investment undertaken in 2005 would be 28%. In this scenario, the firm would have an incentive to lower its level of foreign investment in 2005, relative to that in 2004; this is consistent with the result in Table 9.³²

VI. Conclusion

This paper analyzes how firms responded to the temporary reduction in the tax costs of repatriating foreign earnings under the Homeland Investment Act, and finds three main conclusions. First, the domestic operations of U.S. multinationals were not financially constrained at the time of the Act. The ability to access an internal source of capital at a lower cost did not boost domestic investment, employment, or R&D. Statements by Congressmen and lobbyists indicate that they believed that reducing repatriation taxes would increase the domestic activities of U.S. MNEs. This paper's results clearly show that the tax holiday did not have this effect. Moreover, around the time of the tax holiday, repatriations were positively associated with new parent equity provisions to foreign affiliates, suggesting that parent companies substituted new paid-in capital for reinvested earnings to take advantage of the HIA and repatriate. This "roundtripping" behavior is inconsistent with the view that parent operations were financially constrained.

³² Other potential explanations of the foreign investment response to the HIA relate to liquidity constraints and agency issues, but they are inconsistent with other findings. For example, if firms were capital constrained, they might cut foreign investment at the time of the HIA as they took advantage of the limited opportunity to repatriate under the Act. However, this explanation is inconsistent with the other evidence that firms were not financially constrained, such as the evidence of roundtripping. Similarly, if firms were poorly governed, foreign managers might invest whatever funds they have abroad, even if such investment is inefficient. Given that repatriations induced by the HIA were associated with greater payouts, however, it appears that overinvestment is not an issue.

Second, this paper's results indicate that U.S. multinationals are reasonably well-governed. If U.S. multinationals had serious agency problems, then managers would have been likely to respond to the ability to access cash at a lower cost under the HIA in ways that maximize their private return instead of shareholder value. For example, managers may have increased management compensation or engaged in empire building through acquisitions or investment. Managers might also have reduced external debt in order to reduce future constraints on their operations by reducing their future fixed obligations. The results indicate that increases in repatriations under the HIA did not have these effects. Instead, roughly every extra dollar of repatriated cash was associated with an extra dollar of payouts to shareholders. Although this response was concentrated among firms characterized by stronger corporate governance, the overall results indicate that agency problems were not significant, on average, in the full sample of firms.

Third, the results in this paper have important implications for the effectiveness of U.S. tax policy. Discussion of reforming the U.S. tax code often includes a debate on whether reducing or eliminating the taxation of foreign earnings for U.S. multinationals would have any effect. Some commentators argue that changes to taxes on repatriations would have little impact because there are numerous ways around these taxes. In a frictionless world where the repatriation tax can be completely avoided, the foreign capital stock would thus be unaffected by a repatriation tax holiday. However, the substantial impact of the HIA on repatriations indicates that the relatively high U.S. tax rate, coupled with the ability to defer paying taxes on foreign earnings until they are repatriated, provide incentives for firms to keep foreign profits abroad. The results also show that the tax holiday was associated with reduced foreign capital expenditures and employment, a finding consistent with multinationals expecting higher repatriation taxes after the holiday. Therefore, repatriation taxes also appear to affect the foreign capital stock.

A key goal of the HIA—and the broader series of tax changes in the AJCA—was to promote investment and employment growth in the United States. The HIA and corresponding regulations included specific guidelines on how cash repatriated at the lower tax rate could be used in order to ensure that repatriations were used to further these goals. This paper clearly

shows, however, that these guidelines were ineffective. Estimates imply that firms returned almost all of the repatriated cash to shareholders—a use that was explicitly not permitted. This result reflects the fact that cash is fungible, and that a tax policy which reduces the cost of cash to firms will have difficulty affecting how that cash is used.

Although the HIA does not appear to have spurred the domestic investment and employment of firms that used the tax holiday to repatriate earnings from abroad, it may still have benefited the U.S. economy in other ways. The tax holiday encouraged U.S. multinationals to repatriate roughly \$362 billion of foreign earnings and pay these earnings to shareholders. Presumably these shareholders either reinvested these funds or used them for consumption. Either of these activities could have a substantial effect on growth, investment, and employment.

**Appendix A:
Members of the Homeland Investment Coalition (HIC)**

3M	Kerr McGee
Advanced Energy Industries	MAPICS
Advanced Micro Devices	Masimo
Alpharma	Medical Device Manufacturers Association
Alvaka Networks	National Association of Manufacturers
American Electronics Association	National Semiconductor
Apple Computer	Nike
Autodesk	Nuera Communications
BEA Systems	Oracle
BioMEMS Technologies	Pacific Northwest Intl. Trade Association
Boston Scientific	Pharmacia ³³
BMC Software	PhRMA
Cadence Design Systems	Plantronics
Computer & Communications Industry Association	Printronix
Corning	Qsent
Cummins	QUALCOMM
Dell	Sara Lee
DuPont Photomasks	Schering-Plough
EDS	Scientific Technologies
Eeparts	Semiconductor Industry Association
Eli Lilly	SGI (Silicon Graphics, Inc)
EFJ	Software Finance & Executives Council
EMS Technologies	Solectron
Frequency Electronics	Sun Microsystems
GM Nameplate	TechNet
Guidant	Technitrol
Hewlett-Packard	Texas Instruments
Honeywell	United Technologies
Information Technology Association of America	VERITAS Software
Information Technology Industry Council	Wyeth
Intel	Xilinx
Johnson & Johnson	

³³ Acquired by Pfizer in 2003.

References

- Albring, Susan, Ann Dzurainin, and Lillian Mills. 2005. "Tax Savings on Repatriations of Foreign Earnings Under the American Jobs Creation Act of 2004." *Tax Notes*, August 8, 655-669.
- Altshuler, Rosanne and Harry Grubert. 2003. "Repatriation Taxes, Repatriation Strategies and Multinational Financial Policy." *Journal of Public Economics* 87: 73-107.
- Baicker, Katherine and Douglas Staiger. 2005. "Fiscal Shenanigans, Targeted Federal Health Care Funds, and Patient Mortality." *Quarterly Journal of Economics* 120(1): 345-386.
- Bates, Thomas. 2005. "Asset Sales, Investment Opportunities, and the Use of Proceeds." *Journal of Finance* 60(1): 105-135.
- Blanchard, Olivier, Florencio Lopez-de-Silanes, and Andrei Shleifer. 1994. "What Do Firms Do with Cash Windfalls?" *Journal of Financial Economics* 36(December): 337-360.
- Blouin, Jennifer and Linda Krull. 2006. "Bringing it Home: A Study of the Incentives Surrounding the Repatriation of Foreign Earnings Under the American Jobs Creation Act of 2004." Unpublished working paper.
- Brennan, Thomas. 2008. "Cash-Flow and Market Response to Repatriation." Unpublished working paper.
- Chetty, Raj and Emmanuel Saez. 2005. "Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut." *Quarterly Journal of Economics* 120(3): 791-833.
- Clausing, Kimberly. 2005. "Tax Holidays (and other Escapes) in the American Jobs Creation Act." *National Tax Journal* 58(Sept): 331-46.
- Clemons, Roy and Michael Kinney. 2007. "The Who, Why and What of the One-time Tax Holiday for Repatriations Provided by the American Jobs Creation Act of 2004." Unpublished working paper.
- De Waegenare, Anja and Richard Sansing. 2007. "Taxation of International Investment and Accounting Valuation." *Contemporary Accounting Research*, forthcoming.
- Desai, Mihir, C. Fritz Foley and James Hines. 2007. "Dividend Policy inside the Multinational Firm." *Financial Management* 36(1): 5-26.
- Dittmar, Amy and Jan Mahrt-Smith. 2007. "Corporate Governance and the Value of Cash Holdings." *Journal of Financial Economics* 83:599-634.
- Fazzari, Steven, R. Glenn Hubbard, Bruce Petersen. 1988. "Financial Constraints and Corporate Investment." *Brookings Papers on Economic Activity* 1: 141-95.

Foley, C. Fritz, Jay Hartzell, Sheridan Titman, and Garry Twite. 2007. "Why do Firms Hold so Much Cash? A Tax-Based Explanation." *Journal of Financial Economics*. Forthcoming.

Gompers, Paul, Joy Ishii, and Andrew Metrick. 2003. "Corporate Governance and Equity Prices." *Quarterly Journal of Economics* 118(1): 107-166.

Gordon, Nora. 2004. "Do Federal Grants Boost School Spending? Evidence from Title I." *Journal of Public Economics* 88(9-10): 1771-92.

Graham, John, Michelle Hanlon, and Terry Shevlin. 2008. "The Effect of Financial Accounting on the Location, Reinvestment, and Repatriation Decisions of Multinational Companies." Unpublished working paper.

Hall, Bronwyn. 1992. "Investment and Research and Development at the Firm Level: Does the Source of Financing Matter?" NBER Working Paper #4096.

Hartman, David. 1985. "Tax Policy and Foreign Direct Investment" *Journal of Public Economics*, 26, 107-21.

Himmelberg, Charles and Bruce Petersen. 1994. "R&D and Internal Finance: A Panel Study of Small Firms in High-Tech Industries." *Review of Economics and Statistics* 76:38-51.

Hines, James. 1996. "Dividends and Profits: Some Unsubtle Foreign Influences." *Journal of Finance* 51(2): 661-689.

Hines, James and R. Glenn Hubbard. 1990. "Coming Home to America: Dividend Repatriations by U.S. Multinationals." In A. Razin and J. Slemrod, eds. *Taxation in the Global Economy*. Chicago: University of Chicago Press, pgs 161-200.

Hines, James and Eric Rice. 1994. "Fiscal Paradise: Foreign Tax Havens and American Business." *Quarterly Journal of Economics* 109(1): 149-182

Hines, James and Richard Thaler. 1995. "Anomalies: The Flypaper Effect." *Journal of Economic Perspectives* 9(4, Autumn): 217-226.

Hubbard, R. Glenn. 1998. "Capital-Market Imperfections and Investment." *Journal of Economic Literature* 36: 193-225.

Jensen, Michael. 1986. "Agency Costs of Free Cash Flow, Corporate Finance and Takeovers." *American Economic Review: Papers and Proceedings* 76 (2):323-329.

Kaplan, Steven and Luigi Zingales. 1997. "Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints?" *Quarterly Journal of Economics* 112(1, February): 169-215.

- Knight, Brian. 2002. "Endogenous Federal Grants and Crowd-out of State Government Spending: Theory and Evidence from the Federal Highway Aid Program." *American Economic Review* 92(1, March): 71-92.
- Lamont, Owen. 1997. "Cash Flow and Investment: Evidence from Internal Capital Markets." *Journal of Finance* 52: 83-109.
- Lang, Larry, Eli Ofek, and René Stulz. 1996. "Leverage, Investment and Firm Growth." *Journal of Financial Economics* 40(1): 3-29.
- Lang, Larry, René Stulz, and Ralph Walkling. 1991. "A Test of the Free Cash Flow Hypothesis: The Case of Bidder Returns." *Journal of Financial Economics* 29: 315-35.
- Lintner, John. 1956. "Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes." *American Economic Review: Papers and Proceedings* 46(2, May): 97-113.
- Mataloni, Raymond J., Jr. 2003. "U.S. Multinational Companies: Operations in 2001." *Survey of Current Business* November: 85-105.
- Morck, Randall, Andrei Shleifer, and Robert Vishny. 1990. "Do Managerial Objectives Drive Bad Acquisitions?" *Journal of Finance* 45: 31-48.
- Myers, Stewart and Nicholas Majluf. 1984. "Corporate Financing and Investment Decisions when Firms have Information that Investors do not Have." *Journal of Financial Economics* 13:187-221.
- Oler, Mitchell, Terry Shevlin and Ryan Wilson. 2007. "Examining Investor Expectations Concerning Tax Savings on the Repatriations of Foreign Earnings under the American Jobs Creation Act of 2004." Unpublished working paper.
- Pack, Howard and Janet R. Pack. 1993. "Foreign Aid and the Question of Fungibility." *Review of Economics and Statistics*, 75(2,May): 258-65.
- Redmiles, Melissa. 2008. "The One-Time Received Dividend Deduction." *Statistics of Income Bulletin*, Spring, 102-114.
- Sinn, Hans-Werner. 1984. "Die Bedeutung des Accelerated Cost Recovery System für den internationalen Kapitalverkehr." *Kyklos*, 37: 542-576.
- Sinn, Hans-Werner. 1993. "Taxation and the Birth of Foreign Subsidiaries" in Horst Herberg and Ngo Van Long, eds. *Trade, Welfare, and Economic Policies. Essays in Honor of Murray C. Kemp*. Ann Arbor: University of Michigan Press.

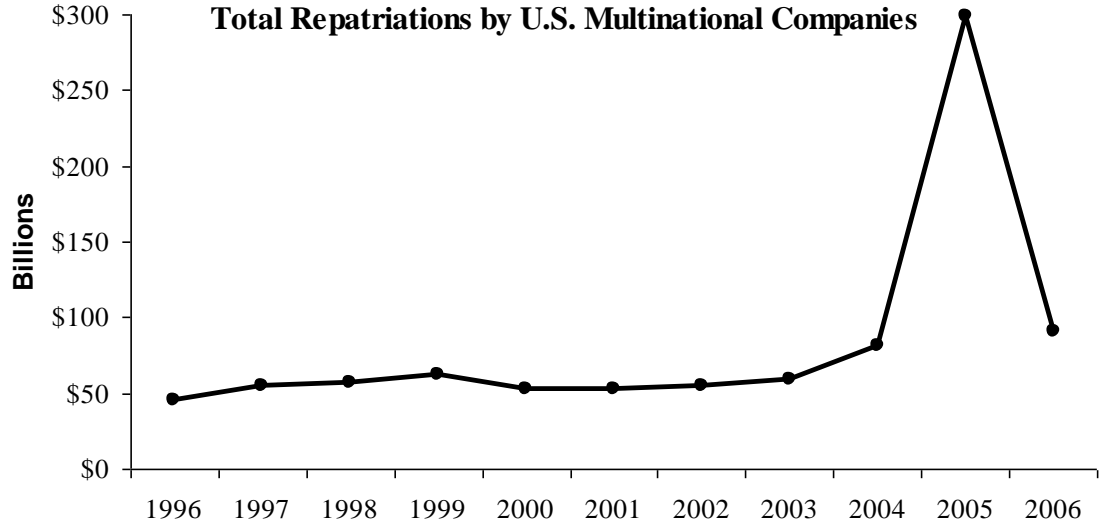
Stein, Jeremy. 2003. "Agency, Information and Corporate Investment." In George Constantinides, Milt Harris and René Stulz, eds., *Handbook of the Economics of Finance*, 111-165.

Stock, James and Motohiro Yogo. 2005. "Testing for Weak Instruments in Linear IV Regression." In J.H. Stock and D.W.K. Andrews, eds. *Identification and Inference for Econometric Models: Essays in Honor of Thomas J. Rothenberg*, Cambridge University Press.

Van De Walle, Dominique. 2007. "Fungibility and the Flypaper Effect of Project Aid: Micro-Evidence for Vietnam." *Journal of Development Economics* 84(2, Nov.): 667-85.

Weichenrieder, Alfons. 1996. "Anti Tax-avoidance Provisions and the Size of Foreign Direct Investment." *International Tax and Public Finance* 3:67-81.

Figure 1
Total Repatriations by U.S. Multinational Companies



Notes: Data from Bureau of Economic Analysis, U.S. International Transactions Accounts Data, Table 7b, line 3 for distributed earnings. Repatriations are payments to U.S. multinational entities from their foreign affiliates.

Table 1
Descriptive Statistics

Notes: This table provides descriptive statistics for the variables used in the analysis that follows. Many of these are scaled by lagged consolidated assets, which measures total firm assets, or lagged consolidated employment, which measures total firm employment. Repatriations are earnings repatriated from foreign affiliates to their parent. U.S. Capital Expenditures measures U.S. MNE investment in the U.S., and the Change in U.S. Employment is the first difference of U.S. MNE employment in the U.S. R&D is the aggregate research and development expenditures of a firm. Change in debt is calculated as the first difference of the sum of consolidated values of short term debt and long term debt. The Acquisition Dummy is equal to one if a firm reports acquisition expenditures on its statement of cash flows and zero otherwise. CEO compensation includes salary, bonus, and the value of stock and option grants. Dividends measure cash dividends paid by firms to shareholders, and repurchases measure purchases of common and preferred stock. Payouts are equal to the sum of dividends and repurchases. Foreign Capital Expenditures refer to the U.S. MNE investment outside of the U.S., and Change in Foreign Employment is the first difference of U.S. MNE employment outside of the U.S. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Profitability is calculated as the ratio of consolidated net income to consolidated assets.

	<u>Mean</u>	<u>Standard Deviation</u>
Repatriations/Lagged Assets	0.0058	0.0199
U.S. Capital Expenditures/Lagged Assets	0.0398	0.0446
Change in U.S. Employment/Lagged Employment	0.0131	0.1795
R&D/Lagged Assets	0.0295	0.0528
Change in Debt/Lagged Assets	0.0289	0.1580
Acquisition Dummy	0.5615	0.4962
CEO Compensation/Lagged Assets	0.0023	0.0038
Dividends/Lagged Assets	0.0132	0.0221
Repurchases/Lagged Assets	0.0262	0.0549
Payouts/Lagged Assets	0.0402	0.0639
Foreign Capital Expenditures/Lagged Assets	0.0146	0.0268
Change in Foreign Employment/Lagged Employment	0.0165	0.1702
Lagged Leverage	0.2239	0.2196
Lagged Tobin's q	1.9380	1.4096
Lagged Cash/Lagged Assets	0.1135	0.1413
Lagged Profitability	0.0344	0.1072

Table 2**First Stage Regressions**

Notes: The dependent variable is the earnings repatriated by foreign affiliates to their parent scaled by lagged consolidated assets. The High Cash Abroad Dummy is equal to one for firms that, in 2004, have a ratio of cash holdings outside of the U.S. to total firm assets that is above the sample median and is otherwise equal to zero. The Haven or Holding Company Dummy is equal to one for firms that, in 2004, either have operations in a tax haven or use a holding company abroad and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification is an OLS specification that includes firm and year fixed effects. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses. F-statistic for Instruments indicates the results of Wald tests for the joint significance of the instruments following Stock and Yogo (2005).

Dependent Variable:	Dividend Repatriations/Lagged Consolidated Assets					
	(1)	(2)	(3)	(4)	(5)	(6)
High Cash Abroad Dummy * 2005 Dummy	0.0113 (0.0026)		0.0101 (0.0026)	0.0109 (0.0026)		0.0098 (0.0025)
Haven or Holding Company Dummy * 2005 Dummy		0.0089 (0.0025)	0.0071 (0.0024)		0.0087 (0.0025)	0.0070 (0.0024)
Lagged Leverage				-0.0016 (0.0024)	-0.0014 (0.0024)	-0.0017 (0.0024)
Lagged Tobin's q				-0.0004 (0.0004)	-0.0005 (0.0004)	-0.0004 (0.0004)
Lagged Cash/Lagged Assets				0.0083 (0.0054)	0.0112 (0.0056)	0.0081 (0.0054)
Lagged Profitability				-0.0036 (0.0047)	-0.0028 (0.0047)	-0.0033 (0.0047)
Firm and year dummies?	Y	Y	Y	Y	Y	Y
No. of Obs.	5,846	5,846	5,846	5,846	5,846	5,846
R-Squared	0.4061	0.4028	0.4087	0.4070	0.4041	0.4095
F-Statistic for Instruments	18.13	12.89	11.38	17.49	12.52	11.11

Table 3

The Effects of Repatriations on U.S. Capital Expenditures, U.S. Employment, and R&D

Notes: The dependent variable in columns 1-2 is the ratio of capital expenditures by U.S. MNEs in the U.S. to lagged consolidated assets. In columns 3-4 it is the ratio of the first difference of U.S. MNE employment in the U.S. to lagged consolidated employment, and in columns 5-6 it is research and development expenditures scaled by lagged consolidated assets. Repatriations/Lagged Assets is the earnings repatriated from foreign affiliates to their parent scaled by lagged consolidated assets. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification includes firm and year fixed effects. The specifications in columns 1, 3, and 5 are OLS specifications, and the specifications in columns 2, 4, and 6 are IV specifications that instrument for Repatriations/Lagged Assets using the Haven or Holding Company Dummy interacted with the 2005 Dummy and the High Cash Abroad Dummy interacted with the 2005 Dummy. The Haven or Holding Company Dummy is equal to one for firms that, in 2004, either have operations in a tax haven or use a holding company abroad and is otherwise equal to zero. The High Cash Abroad Dummy is equal to one for firms that, in 2004, have a ratio of cash holdings outside of the U.S. to total firm assets that is above the sample median and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses.

Dependent Variable:	U.S. Capital Expenditures/Lagged Assets		Change in U.S. Employment/ Lagged Employment		R&D/Lagged Assets	
	(1)	(2)	(3)	(4)	(5)	(6)
Repatriations/Lagged Assets	0.0174 (0.0254)	-0.1450 (0.1488)	-0.2739 (0.1649)	-0.3247 (1.0481)	0.0140 (0.0242)	-0.1103 (0.1426)
Lagged Leverage	-0.0381 (0.0064)	-0.0383 (0.0064)	-0.2859 (0.0387)	-0.2859 (0.0386)	-0.0039 (0.0030)	-0.0041 (0.0030)
Lagged Tobin's q	0.0036 (0.0008)	0.0035 (0.0008)	0.0165 (0.0042)	0.0165 (0.0042)	0.0063 (0.0011)	0.0062 (0.0011)
Lagged Cash/Lagged Assets	-0.0091 (0.0139)	-0.0071 (0.0142)	0.0358 (0.0601)	0.0368 (0.0650)	-0.0243 (0.0112)	-0.0228 (0.0117)
Lagged Profitability	0.0227 (0.0073)	0.0221 (0.0073)	0.1007 (0.0490)	0.1005 (0.0490)	0.0138 (0.0055)	0.0134 (0.0055)
Firm and year dummies?	Y	Y	Y	Y	Y	Y
Instrument with Haven or Holding Company Dummy * 2005 Dummy and High Cash Abroad Dummy * 2005 Dummy?	N	Y	N	Y	N	Y
No. of Obs.	5,477	5,477	4,932	4,932	5,846	5,846
R-Squared	0.5688		0.2005		0.8722	

Table 4

The Effects of Repatriations on Debt, Acquisitions, and CEO Compensation

Notes: The dependent variable in columns 1-2 is the first difference of the sum of consolidated values of short-term and long-term debt scaled by lagged consolidated assets. In columns 3-4 it is a dummy that is equal to one if a firm reports acquisition expenditures on its statement of cash flows and zero otherwise, and in columns 5-6 it is CEO compensation, including salary, bonus, and the value of stock and option grants, scaled by lagged consolidated assets. Repatriations/Lagged Assets is the earnings repatriated from foreign affiliates to their parent scaled by lagged consolidated assets. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification includes firm and year fixed effects. The specifications in columns 1, 3, and 5 are OLS specifications, and the specifications in columns 2, 4, and 6 are IV specifications that instrument for Repatriations/Lagged Assets using the Haven or Holding Company Dummy interacted with the 2005 Dummy and the High Cash Abroad Dummy interacted with the 2005 Dummy. The Haven or Holding Company Dummy is equal to one for firms that, in 2004, either have operations in a tax haven or use a holding company abroad and is otherwise equal to zero. The High Cash Abroad Dummy is equal to one for firms that, in 2004, have a ratio of cash holdings outside of the U.S. to total firm assets that is above the sample median and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses.

Dependent Variable:	Change in Debt/Lagged Assets		Acquisition Dummy		CEO Compensation/Lagged Assets	
	(1)	(2)	(3)	(4)	(5)	(6)
Repatriations/Lagged Assets	-0.0435 (0.1156)	0.9099 (0.8654)	-0.2738 (0.3832)	0.6715 (3.5396)	-0.0011 (0.0022)	-0.0189 (0.0188)
Lagged Leverage	-0.4291 (0.0336)	-0.4279 (0.0336)	-0.3646 (0.0659)	-0.3616 (0.0665)	-0.0032 (0.0006)	-0.0032 (0.0006)
Lagged Tobin's q	0.0123 (0.0044)	0.0128 (0.0044)	0.0013 (0.0090)	0.0019 (0.0089)	0.0005 (0.0001)	0.0005 (0.0001)
Lagged Cash/Lagged Assets	0.0941 (0.0537)	0.0825 (0.0558)	0.2354 (0.1111)	0.2239 (0.1185)	0.0003 (0.0019)	0.0006 (0.0020)
Lagged Profitability	0.0760 (0.0369)	0.0790 (0.0378)	0.2769 (0.0813)	0.2813 (0.0826)	0.0008 (0.0010)	0.0007 (0.0010)
Firm and year dummies?	Y	Y	Y	Y	Y	Y
Instrument with Haven or Holding Company Dummy*2005 Dummy and High Cash Abroad Dummy*2005 Dummy?	N	Y	N	Y	N	Y
No. of Obs.	5,821	5,821	5,170	5,170	3,670	3,670
R-Squared	0.2676		0.4731		0.5299	

Table 5**The Effects of Repatriations on Dividends and Repurchases**

Notes: The dependent variable in columns 3-4 is the ratio of cash dividends to lagged consolidated assets; in columns 5-6 it is the ratio of repurchases of common and preferred shares to lagged consolidated assets, and in columns 1-2 it is the sum of these two. Repatriations/Lagged Assets is the earnings repatriated from foreign affiliates to their parent scaled by lagged consolidated assets. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification includes firm and year fixed effects. The specifications in columns 1, 3, and 5 are OLS specifications, and the specifications in columns 2, 4, and 6 are IV specifications that instrument for Repatriations/Lagged Assets using the Haven or Holding Company Dummy interacted with the 2005 Dummy and the High Cash Abroad Dummy interacted with the 2005 Dummy. The Haven or Holding Company Dummy is equal to one for firms that, in 2004, either have operations in a tax haven or use a holding company abroad and is otherwise equal to zero. The High Cash Abroad Dummy is equal to one for firms that, in 2004, have a ratio of cash holdings outside of the U.S. to total firm assets that is above the sample median and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses.

Dependent Variable:	Payouts/Lagged Assets		Dividends/Lagged Assets		Repurchases/Lagged Assets	
	(1)	(2)	(3)	(4)	(5)	(6)
Repatriations/Lagged Assets	0.1072 (0.0586)	1.0844 (0.4582)	0.0198 (0.0152)	0.0807 (0.1022)	0.0832 (0.0514)	0.9108 (0.4043)
Lagged Leverage	-0.0381 (0.0097)	-0.0363 (0.0102)	-0.0177 (0.0030)	-0.0176 (0.0030)	-0.0136 (0.0077)	-0.0122 (0.0081)
Lagged Tobin's q	0.0041 (0.0019)	0.0046 (0.0020)	-0.0005 (0.0006)	-0.0004 (0.0006)	0.0052 (0.0015)	0.0057 (0.0016)
Lagged Cash/Lagged Assets	0.0725 (0.0172)	0.0598 (0.0183)	0.0124 (0.0067)	0.0117 (0.0068)	0.0564 (0.0130)	0.0449 (0.0137)
Lagged Profitability	0.0511 (0.0102)	0.0538 (0.0120)	0.0104 (0.0034)	0.0106 (0.0034)	0.0410 (0.0083)	0.0435 (0.0101)
Firm and Year Dummies?	Y	Y	Y	Y	Y	Y
Instrument with Haven or Holding Company Dummy*2005 Dummy and High 2004 Cash Dummy*2005 Dummy?	N	Y	N	Y	N	Y
No. of Obs.	5,433	5,433	5,750	5,750	5,520	5,520
R-Squared	0.5209		0.6726		0.4809	

Table 6**Repatriations and Liquidity Provisions**

Notes: The dependent variable is the earnings repatriated from foreign affiliates to their parent scaled by lagged consolidated assets. Positive Equity Provision Dummy measures parent firm investments of new equity abroad. In columns 1 and 2 it is equal to one if the parent increased its equity investment in the year repatriations are measured and is otherwise equal to zero. In columns 3 and 4, it is equal to one if the parent increased its equity investment in the year repatriations are measured or the year before and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification is an OLS specification that includes firm and year fixed effects. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses.

Dependent Variable:	Repatriations/Lagged Assets			
	(1)	(2)	(3)	(4)
Positive Equity Provision Dummy	-0.0006 (0.0006)	-0.0011 (0.0006)	-0.0012 (0.0007)	-0.0014 (0.0007)
Positive Equity Provision Dummy * 2005 Dummy	0.0069 (0.0034)	0.0070 (0.0035)	0.0078 (0.0032)	0.0079 (0.0032)
Lagged Leverage		-0.0024 (0.0023)		-0.0029 (0.0025)
Lagged Tobin's q		-0.0005 (0.0004)		-0.0009 (0.0004)
Lagged Cash/Lagged Assets		0.0117 (0.0052)		0.0180 (0.0061)
Lagged Profitability		-0.0028 (0.0040)		-0.0044 (0.0046)
Firm and year dummies?	Y	Y	Y	Y
Positive Equity Provision measured as concurrent value?	Y	Y	N	N
Positive Equity Provision measured as lagged plus concurrent value?	N	N	Y	Y
No. of Obs.	6,927	6,472	5,687	5,330
R-Squared	0.3959	0.3954	0.4120	0.4146

Table 7

Lobbying and the Effects of Repatriations on U.S. Capital Expenditures

Notes: The dependent variable is the ratio of capital expenditures by U.S. MNEs in the U.S. to lagged consolidated assets. Repatriations/Lagged Assets is the earnings repatriated from foreign affiliates to their parent scaled by lagged consolidated assets. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification includes firm and year fixed effects. The specifications are IV specifications that instrument for Repatriations/Lagged Assets using the Haven or Holding Company Dummy interacted with the 2005 Dummy and the High Cash Abroad Dummy interacted with the 2005 Dummy. The Haven or Holding Company Dummy is equal to one for firms that, in 2004, either have operations in a tax haven or use a holding company abroad and is otherwise equal to zero. The High Cash Abroad Dummy is equal to one for firms that, in 2004, have a ratio of cash holdings outside of the U.S. to total firm assets that is above the sample median and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. The samples in the first two columns, respectively, include members of the Homeland Investment Coalition and all other firms. The samples in the third and fourth columns, respectively, include firms that made contributions to the Senate Finance Committee or the House Ways and Means Committee in 2003 or 2004 and those that did not. The samples in the last two columns, respectively, include firms that increased their contributions to the Senate Finance Committee or the House Ways and Means Committee in 2003 or 2004 relative to 2000 or 2001 and those that did not. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses.

Dependent Variable:	U.S. Capital Expenditures/Lagged Assets					
Subsample	(1) HIC Member Yes	(2) No	(3) Contributor in 2003-2004 Yes	(4) No	(5) Increase in 2003-2004 Yes	(6) No
Repatriations/Lagged Assets	-0.6977 (0.5236)	-0.1240 (0.1832)	-0.1765 (0.1419)	-0.3206 (0.3779)	-0.1340 (0.1625)	-0.2260 (0.2315)
Lagged Leverage	-0.1172 (0.0316)	-0.0367 (0.0065)	-0.0564 (0.0175)	-0.0371 (0.0077)	-0.0578 (0.0236)	-0.0400 (0.0065)
Lagged Tobin's q	0.0003 (0.0020)	0.0038 (0.0009)	0.0030 (0.0016)	0.0040 (0.0010)	0.0025 (0.0017)	0.0038 (0.0009)
Lagged Cash/Lagged Assets	-0.0019 (0.0410)	-0.0070 (0.0151)	0.0292 (0.0268)	-0.0046 (0.0157)	0.0315 (0.0347)	-0.0063 (0.0149)
Lagged Profitability	0.0022 (0.0494)	0.0226 (0.0074)	-0.0006 (0.0149)	0.0213 (0.0087)	-0.0122 (0.0185)	0.0214 (0.0080)
Firm and Year Dummies?	Y	Y	Y	Y	Y	Y
Instrument with Haven or Holding Company Dummy*2005 Dummy and High Cash Abroad Dummy*2005 Dummy?	Y	Y	Y	Y	Y	Y
No. of Obs.	222	5,255	1,243	4,215	824	4,642

Table 8**Governance and the Effects of Repatriations on U.S. Capital Expenditures, Foreign Capital Expenditures, and Payouts**

Notes: The dependent variable in columns 1 and 2 is the ratio of capital expenditures by U.S. MNEs in the U.S. to lagged consolidated assets. In columns 3 and 4, it is CEO compensation, including salary, bonus, and the value of stock and option grants, scaled by lagged consolidated assets, and in columns 5 and 6, it is the sum of cash dividends and repurchases of common and preferred shares scaled by lagged consolidated assets. Repatriations/Lagged Assets is the earnings repatriated from foreign affiliates to their parent scaled by lagged consolidated assets. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification includes firm and year fixed effects. The specifications are IV specifications that instrument for Repatriations/Lagged Assets using the Haven or Holding Company Dummy interacted with the 2005 Dummy and the High Cash Abroad Dummy interacted with the 2005 Dummy. The Haven or Holding Company Dummy is equal to one for firms that, in 2004, either have operations in a tax haven or use a holding company abroad and is otherwise equal to zero. The High Cash Abroad Dummy is equal to one for firms that, in 2004, have a ratio of cash holdings outside of the U.S. to total firm assets that is above the sample median and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. The sample in columns 1, 3, and 5 includes poorly governed firms, or firms with above median values of governance, as measured in Gompers, Ishii, and Metrick (2003). Firms with stronger governance comprise the sample employed in columns 2, 4, and 6. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses.

Dependent Variable:	U.S. Capital Expenditures/ Lagged Assets		CEO Compensation/Lagged Assets		Payouts/Lagged Assets	
	(1) Weak	(2) Strong	(3) Weak	(4) Strong	(5) Weak	(6) Strong
Governance Subsample						
Repatriations/Lagged Assets	0.0850 (0.1688)	0.0519 (0.2214)	0.0012 (0.0135)	-0.0304 (0.0343)	0.6261 (0.4912)	1.7161 (0.7260)
Lagged Leverage	-0.0296 (0.0132)	-0.0506 (0.0117)	-0.0029 (0.0006)	-0.0039 (0.0009)	-0.0576 (0.0160)	-0.0450 (0.0157)
Lagged Tobin's q	0.0023 (0.0013)	0.0028 (0.0011)	0.0006 (0.0002)	0.0003 (0.0001)	0.0060 (0.0036)	0.0042 (0.0026)
Lagged Cash/Lagged Assets	-0.0175 (0.0293)	0.0023 (0.0163)	-0.0041 (0.0020)	0.0025 (0.0032)	0.0721 (0.0358)	0.0502 (0.0257)
Lagged Profitability	0.0733 (0.0187)	0.0021 (0.0118)	0.0016 (0.0010)	0.0010 (0.0020)	0.0941 (0.0267)	0.0284 (0.0191)
Firm and Year Dummies?	Y	Y	Y	Y	Y	Y
Instrument with Haven or Holding Company Dummy*2005 Dummy and High Cash Abroad Dummy*2005 Dummy?	Y	Y	Y	Y	Y	Y
No. of Obs.	2,432	1,956	1,780	1,464	2,406	1,924

Table 9

The Effects of Repatriations on Foreign Capital Expenditures and Foreign Employment

Notes: The dependent variable in columns 1-2 is the ratio of capital expenditures by U.S. MNEs outside of the U.S. to lagged assets, and in columns 3-4 it is the first difference in employment by U.S. MNEs outside of the U.S. scaled by consolidated employment. Repatriations/Lagged Assets is the earnings repatriated from foreign affiliates to their parent scaled by lagged consolidated assets. Leverage is the ratio of total debt to the sum of total debt and the market value of equity. Tobin's q is calculated as the ratio of the book value of firm assets plus the market value of firm equity less the book value of firm equity to the book value of firm assets. Industry median values of Tobin's q are used if firm specific ones are unavailable. Lagged Cash/Lagged Assets measures the lagged ratio of consolidated cash holdings to consolidated cash. Profitability is calculated as the ratio of consolidated net income to consolidated assets. Each specification includes firm and year fixed effects. The specifications in columns 1 and 3 are OLS specifications, and the specifications in columns 2 and 4 are IV specifications that instrument for Repatriations/Lagged Assets using the Haven or Holding Company Dummy interacted with the 2005 Dummy and the High Cash Abroad Dummy interacted with the 2005 Dummy. The Haven or Holding Company Dummy is equal to one for firms that, in 2004, either have operations in a tax haven or use a holding company abroad and is otherwise equal to zero. The High Cash Abroad Dummy is equal to one for firms that, in 2004, have a ratio of cash holdings outside of the U.S. to total firm assets that is above the sample median and is otherwise equal to zero. The 2005 Dummy is equal to one in 2005 and zero in other years. Heteroskedasticity-consistent standard errors that correct for clustering at the firm level appear in parentheses.

Dependent Variable:	Foreign Capital Expenditures/Lagged Assets		Change in Foreign Employment/Lagged Employment	
	(1)	(2)	(3)	(4)
Repatriations/Lagged Assets	0.0142 (0.0177)	-0.2249 (0.1055)	0.1761 (0.2397)	-2.3407 (1.1171)
Lagged Leverage	-0.0087 (0.0029)	-0.0090 (0.0030)	-0.0987 (0.0299)	-0.1020 (0.0314)
Lagged Tobin's q	0.0020 (0.0006)	0.0019 (0.0006)	0.0088 (0.0037)	0.0071 (0.0039)
Lagged Cash/Lagged Assets	-0.0054 (0.0050)	-0.0024 (0.0053)	0.1143 (0.0443)	0.1669 (0.0540)
Lagged Profitability	0.0184 (0.0056)	0.0177 (0.0056)	0.0702 (0.0422)	0.0616 (0.0437)
Firm and Year Dummies?	Y	Y	Y	Y
Instrument with Haven or Holding Company Dummy* 2005 Dummy and High 2004 Cash Dummy* 2005 Dummy?	N	Y	N	Y
No. of Obs.	5,538	5,538	5,068	5,068
R-Squared	0.5682		0.2270	