# Managerial Entrenchment and Extraordinary Earnings Repatriations[*]

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**Abstract**

In this paper, I show that managerial entrenchment resulting from weak firm governance is a first-order determinant of the repatriation decision under the American Jobs Creation Act of 2004, under which more than \$300 billion were repatriated from foreign subsidiaries to parent companies in the U.S. This tax holiday provides a unique setting to highlight the usefulness of agency theory in explaining extraordinary earnings repatriations. While tax considerations matter, they are only a second order effect in the sense that they influence the amount repatriated, but not the repatriation decision itself. Furthermore, I document that the share price reaction to the repatriation announcement is significantly worse for firms with weaker governance, i.e. where managers are more entrenched. These results are robust to a variety of regression specifications and statistical tests.

# 1 Introduction

The American Jobs Creation Act (henceforth simply "AJCA") was signed into law by U.S. President Bush on October 22, 2004, following a protracted lobbying effort by the so-called "Homeland Investment Coalition," a group of predominantly pharmaceutical and technology multinationals with large overseas cash holdings. Among other items, the AJCA grants multinationals an 85% tax deduction on repatriated foreign earnings (effectively taxing them at the reduced rate of 5.25%) "in either an enterprise's last tax year that began before the enactment date, or the first tax year that begins during the one-year period beginning on the date of the enactment."[1]

The economic impact of the tax holiday was considerable: According to estimates in this paper, more than $300 billion were repatriated under the AJCA to parent companies in the U.S. This amount by far exceeds the usual dividend payments to U.S. parents of multinational companies: According to Desai et al. (2007), repatriations in 1999 amounted to "only" $97 billion. Furthermore, Abaroa and Kozlow (2006) note that in 2005, the year in which most of the repatriations under the AJCA were made, dividends paid by affiliates to U.S. parent companies were four times as high as in 2004. To quote an example, Pfizer alone repatriated $36.7 billion worth of foreign cash and earnings under the AJCA in 2005, which is more than Slovenia's GDP of the same year.[2]

The AJCA represents an ideal laboratory to investigate the influence of tax and agency considerations on the decision by multinational firms to repatriate foreign cash. I show that managerial entrenchment resulting from weak firm governance is a first-order determinant of the repatriation decision under the AJCA. This effect persists irrespective of the actual investment opportunities of the firm and while controlling for a multiplicity of other factors. While tax considerations matter, they are only a second order effect in the sense that they influence the amount repatriated, but not the repatriation decision itself. Furthermore, I show

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[1]  See FASB Staff Position 109-2, from http://www.fasb.org.

[2]  Pfizer's repatriation amount can be found in the company's 10-K filing for fiscal 2005; Slovenia's GDP was EUR 27.5 billion, according to the Statistical Office of the Republic of Slovenia, URL: http://www.stat.si/eng/indikatorji.asp?ID=12.

that the share price reaction to the repatriation announcement is significantly worse for firms with weaker governance, i.e. where managers are more entrenched. These results are robust to a variety of regression specifications and statistical tests.

The paper is organized as follows: Section 2 introduces the related literature and presents the main hypothesis of this paper. Section 3 describes the data sources and variable construction. Section 4 presents the main results from the regression analysis and event study, while section 5 concludes and points to possible further research.

# 2 Related Literature and Hypothesis Development

While this paper specifically focusses on U.S. multinational firms' decisions whether or not to repatriate cash and retained earnings from foreign subsidiaries under the AJCA, the topic touches upon several streams of literature. The imposing repatriations under the AJCA would not have been possible if multinational firms had not built up massive piles of cash and retained earnings in the first place. Second, although the AJCA represents a unique setting in the sense that it creates an opportunity for companies to move and spend huge masses of money which is unrelated to their investment opportunities, it is important to take account of the factors influencing the repatriation decision of multinationals under "normal" circumstances. Finally, before proceeding with the development of the central hypothesis, I consider recent academic literature which also studies the AJCA.

## 2.1 Corporate Cash Holdings

The sheer economic significance of cash holdings is hard to overstate: The median U.S. firm kept 7.14% of its book value as cash in 2005 (see Damodaran, 2005), a ratio which has increased by 129% from 1980 to 2004 (see Bates et al., 2007). These are quite impressive quantities: In 1994, the S&P 500 corporations held around $700 billion in cash in total (see Opler et al., 1999). In 2003, the aggregate cash accumulated by publicly held U.S. firms was 10% of the U.S. GDP.

A large body of work was devoted to explaining the determinants of corporate cash holdings. One stream of the literature focusses on the trade-off theory and precautionary motives to hold cash. Accordingly, Kim et al. (1998) find that the amount of liquidity held by the firms is increasing in the cost of external financing, the variance of future cash flows, and the profitability of future investment opportunities. Mulligan (1997) supplements these findings by documenting economies of scale in the holding of cash in the sense that large firms tend to hold less cash as a percentage of sales than small ones.

In an influential empirical study focussing primarily on the trade-off theory, Opler et al.

(1999) investigate the determinants of corporate cash holdings among publicly traded U.S. firms between 1971 and 1994. They find that firms with strong growth opportunities, firms pursuing riskier activities (e.g. R&D intensive firms), small firms, and firms with little access to capital markets hold higher cash balances. Moreover, their results show that cash holdings are positively correlated with cash flows, overall industry volatility, and capital expenditures. Interestingly, Opler et al. (1999) do not find any signs that firms use their large piles of cash in a wasteful manner; nonetheless, they do find evidence that the average firm's management tends to accumulate excess cash if it has a chance to do so. Bates et al. (2007) find that while there has been a substantial increase in corporate cash holdings until 2004, the Opler et al. (1999) model estimated with data for the 1980s predicts cash holdings in the 1990s and 2000s rather well. The authors interpret this finding as an indication that the increase in cash holdings is not due to a structural shock but can be explained by changes in firm characteristics over the years.

In the context of large firms, where the separation of ownership and control is common, managers can use their discretion to build up excessive amounts of cash so that they have more flexibility to pursue their own goals, which might not necessarily be in the best interests of shareholders (see Jensen, 1986). These agency costs of managerial discretion can be partially alleviated if managers themselves become shareholders, thereby resulting in an alignment of incentives (see Jensen and Meckling, 1976). However, if managers' holdings become large, and if we believe that they are risk averse and less than perfectly diversified, then they will be again inclined to hold excessive amounts of cash. This intuition was formalized in models by Fama and Jensen (1983), as well as Stulz (1988). Opler et al. (1999) document that management ownership increases cash holdings, which is consistent with managerial risk aversion, but cash holdings do not increase further when managerial ownership levels surpass 5%.

While there is ample evidence that entrenched managers hold excess levels of cash (see e.g. Dittmar et al., 2003)[3] and that these excess cash levels reduce firm value (see e.g. Kalcheva and Lins, 2007), it is unclear how exactly managers squander cash. Jensen (1986) argues that

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[3]    A notable exception to these findings is the study by Harford et al. (2006). Focussing on US data, the authors document that firms with weaker shareholder rights along the dimension of more prohibitive anti-takeover provisions hold lower cash reserves.

acquisitions are a natural way for entrenched managers to destroy value. Harford (1999) investigates this hypothesis by analyzing whether excess cash leads managers with discretion to make value decreasing acquisitions. He shows that the probability of becoming a bidder increases with excess cash and inside ownership, and that cash rich bidders are more likely to make diversifying, i.e. value destroying, bids. Agency problems and incentive structures that naturally occur within corporations can be aggravated or weakened by a country's company laws. As La Porta et al. (2002), Claessens et al. (2002) and Dittmar et al. (2003) show, cash is more prevalent in countries with weaker governance structures. Kalcheva and Lins (2007) complement this evidence by documenting that higher degrees of managerial discretion as proxied by managerial control rights, particularly in combination with weaker shareholder protection on a country-level, are correlated with higher cash holdings.

The above literature implies that in the absence of effective country- and firm-level governance mechanisms, "inefficient" levels of cash holdings are likely to be the rule rather than the exception; if neither banks (following the argument by Macey and Miller (1997) and the evidence on Japanese banks from Pinkowitz and Williamson (2001)) nor managers have an incentive to monitor cash holdings, then who does? The answer, according to Jensen (1986), are capital markets: Firms with excess cash that they refuse to pay out are likely takeover targets. On the empirical front, however, evidence by Harford (1999) and Pinkowitz (2002) indicates that the market for corporate control does not monitor cash holdings effectively. Interestingly, Faleye (2004) suggests that proxy contests are effective control mechanisms for excess liquidity.

In the case of multinational corporations (see also the discussion in the next section), taxes also play an important role in the optimal determination of cash levels. Multinationals face negative tax consequences when repatriating profits from subsidiaries in foreign countries. Foley et al. (2007) find that U.S. multinationals try to avoid the tax costs of repatriating profits by holding considerable amounts of cash in their respective subsidiaries. Furthermore, they show that affiliates which trigger higher repatriation tax costs (i.e. lower local taxes) hold more cash than other affiliates of the same firm.

## 2.2 Multinationals

The U.S. government grants multinational firms tax credits for foreign income taxes paid abroad, and allows companies with affiliates incorporated abroad (i.e. subsidiaries) to defer the payment of U.S. taxes as long as these earnings are not repatriated to the U.S. This system explains why multinational firms with large foreign operations tend to operate in tax havens, i.e. low-tax jurisdictions such as Ireland, Luxembourg, Bermuda and Singapore (Desai et al. (2006a)). In fact, Sullivan (2004) shows that U.S. multinationals have been increasingly shifting their foreign profits to tax havens in recent years: The profits of foreign subsidiaries of U.S. multinationals in 18 tax havens have increased from $88 billion in 1999 to $149 billion in 2002.

Desai et al. (2006b) show that these repatriation costs which are inversely related to the foreign tax rates are one of the principal factors affecting a multinational firm's dividend policy. However, the authors emphasize that domestic financing and investment needs, as well as agency problems inside multinational firms are also important determinants of dividend payments from foreign affiliates to the U.S. parent companies. In fact, multinational firms appear to have target payouts for their foreign affiliates which are fairly regular, even though a multinational firm's tax situation can vary considerably over time (see also Desai et al. (2007)). The authors suggest that these stable payouts serve the purpose of restricting the financial discretion of foreign managers, thereby reducing the agency problems inside the multinational firm. They argue that these "within-firm" agency problems are most pronounced when the parent company owns only a fraction of the affiliate's equity, and their empirical findings reveal that regular dividend repatriations are in fact more common among affiliates that are only partially owned. While agency aspects can explain "dividend smoothing" within multinational firms, target payout ratios are also influenced by the repatriation tax costs (see Desai et al. (2001)).

## 2.3 American Jobs Creation Act of 2004

Among other items, the AJCA granted multinationals an 85% tax deduction on repatriated foreign earnings (effectively taxing them at the reduced rate of 5.25%) "in either an enterprise's last tax year that began before the enactment date, or the first tax year that begins during the one-year period beginning on the date of the enactment."[4] The repatriation had to qualify as an "extraordinary dividend" which implied that the amount distributed had to exceed the annual average of income repatriated from foreign subsidiaries over the preceding five years (see O'Brien (2005)). In their financial statements, companies were primarily required to disclose a summary of how the repatriation provision affected their operations, the effect on income tax expense, the range of amounts of unremitted earnings being considered for repatriation, and, upon deciding on the repatriation, the total effect on income tax for amounts that were claimed under the provision. Furthermore, the repatriating firm was required to draft a "Domestic Reinvestment Plan" which had to be approved by the CEO and, while the company was not required to publish it, it was responsible for producing it at the request of the IRS. The uses of the repatriated funds were limited to activities such as employment and training, R&D, capital investment, marketing, infrastructure, financial stabilization, and debt repayment. The AJCA specifically prohibited companies from using the repatriated funds for executive compensation, share repurchases, and dividend payments.

Owing to the huge amounts repatriated (roughly $300 billion, according to estimates in this paper), the AJCA has attracted considerable media interest. Topics discussed by the media included the use of the funds by the repatriating companies, the questionable impact on job creation, the impact on the U.S. dollar and the repatriating companies' credit situation.[5] Furthermore, there was some academic interest in the AJCA, mostly emanating from the accounting and taxation literature.

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[4]  See FASB Staff Position 109-2, from http://www.fasb.org.
[5]  See, for example, "What good is Jobs Creation Act?", *San Jose Mercury News*, 10 April 2006; "Profits head homeward, but where are the jobs?", *Business Week*, 1 August 2005; "Outside Audit: For U.S. firms, the tax breaks come as jobs go", *The Wall Street Journal Europe*, 1 August 2005; "Profit repatriation could cut leverage, tighten spreads", *Bond Week*, 29 July 2005; "Potential for share buybacks post-repatriation worries creditors", *Bond Week*, 3 December 2004.

Clausing (2005) discusses general issues regarding the AJCA, including the impact on aggregate U.S. investment and the U.S. tax system. Oler et al. (2007) investigate the market valuation of foreign earnings and tax liabilities under the AJCA. Albring et al. (2005) calculate the incremental tax savings from the repatriation of foreign earnings under the AJCA for a sample of companies which are eligible to repatriate funds under the tax holiday.

In the study most related to this paper, Blouin and Krull (2007) search SEC filings from October 2004 to March 2006 for companies' repatriation plans; they find 250 firms which repatriate under the AJCA. Using aggregate U.S. flow of funds data, they show that repatriations, dividend payments and share repurchases by U.S. multinationals increase during the tax holiday. Furthermore, the authors document that repatriating firms have lower investment opportunities and higher free cash-flow; moreover, the repatriation decision is correlated with a contemporaneous decrease in capital expenditures and R&D. Firms which repatriate under the AJCA have larger increases in payouts to shareholders (mostly manifested in an increase in share repurchases, not cash dividends), cash balances, R&D expenditures, debt issuance and capital expenditures than companies which don't repatriate.

Blouin and Krull (2007) parenthetically note that their results suggest that repatriating firms increase share repurchases to reduce over-investment. The conclusion that repatriating firms act in the interest of their shareholders by reducing funds under management control is, however, rushed. While the authors show that repatriating firms increase share repurchases when compared with their non-repatriating peers, they also note that repatriating firms have worse investment opportunities than non-repatriating firms. This evidence is consistent with the signalling hypothesis of share repurchases, where managers of undervalued firms (i.e. low market-to-book firms) buy back stocks (see e.g. Vermaelen (1981) and Constantinides and Grundy (1989)). Aside from the fact that the use of repatriated funds for repurchases is outlawed, it is hence conceivable that share repurchases are related primarily to the lack of investment opportunities and not to the repatriations. Furthermore, repatriating firms might be firms which are more inclined to pay out money to shareholders because they are simply larger in size (and hence more likely to be in a more mature stage of their life cycle) and more prone to making payments to shareholders, even under normal circumstances; these

features are in fact borne out by the firms in my sample (see table 2). Given that firms are required by law to invest the repatriation proceeds, the argument made by the authors that firms repatriate because they have bad investment opportunities (see Blouin and Krull (2007), p.20) cannot be followed.[6]

The central hypothesis in this paper is that the repatriation decision is in large part determined by entrenchment/ governance aspects of the U.S. multinational's parent company. The tax holiday provides an opportunity to bring large amounts of cash to the parent company in the U.S. which is exogenous to a firm's investment opportunities. I suggest that agency considerations are one of the principal determinants of the repatriation decision above and beyond aspects like companies' investment opportunity set, size and payout policy. Even tax considerations, while at the forefront of the political and media debate, are likely to be of minor importance in the repatriation decision: It is well-documented that U.S. parent companies are very adept at employing alternative strategies to repatriate foreign earnings without incurring U.S. taxation (see, for example, Clausing (2005)).

The AJCA gives an entrenched CEO (in this paper measured by the quality of a firm's governance) who primarily acts to satisfy his own interests a superficial reason vis-à-vis the shareholders, i.e. the lower tax rate under the tax holiday, to bring large amounts of foreign earnings home to the U.S. and to use these large cash "windfalls" (in the sense of Blanchard et al. (1994)) for uses that serve his personal goals. The repatriated funds can be used for purposes such as empire building (e.g. larger workforce, larger budgets for areas particularly dear to the CEO's heart; see Jensen (1986), Awh and Primeaux (1985)), and/or personal diversification and risk reduction (e.g. diversifying acquisitions and debt repayment in order to reduce firm risk to protect the CEO's underdiversified human capital or to mitigate the performance pressures associated with regular interest payments; see Berger et al. (1997)). The maintained hypothesis in this paper is that an entrenched CEO prefers funds in the U.S. to funds abroad; in other words, the CEO has a "proximity bias" when it comes to his budget. This is not very restrictive if one believes that the CEO in the foreign subsidiary likely has

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[6] Blouin and Krull (2007)'s hypothesis actually reads that firms which repatriate under the AJCA have worse investment opportunities *abroad* than non-repatriating firms. However, the authors never actually test this hypothesis, because they do not have a measure for the *subsidiaries'* investment opportunities.

some say in how local funds are invested. In order to test a possible alternative hypothesis, I also analyze whether informational asymmetries play a role in the repatriation of foreign cash and earnings. According to Myers and Majluf (1984), even managers who act in the best interest of shareholders might be rationed by the capital markets if investors are unsure of the company's investment projects due to the opaqueness of information surrounding the firm. Therefore, if the degree of informational asymmetry surrounding a firm's activities is higher, and the company has sufficient resources to repatriate, we might see firms facing a higher degree of informational asymmetry repatriate more likely, and/or larger amounts.

In sum, I hypothesize that, ceteris paribus, entrenched managers are more likely to repatriate under the AJCA. Furthermore, I expect shareholders of companies with more entrenched management to react more negatively to press announcements of the repatriation decision than shareholders of firms with less entrenched management, simply because they anticipate that the repatriated funds might be squandered.

# 3  Data and Sample Selection

The main variable of interest in this paper is the total amount repatriated by a U.S. multi-national firm under the AJCA. I initially search the "Perfect Information" data base, which contains annual reports plus paper filings and SEC filings of top 4,000 U.S. companies, for mentions of the repatriation decision.[7] Furthermore, I also search news releases in the "Factiva" data base in order to make sure no company is left out of the sample.[8] I find 339 firms that repatriate foreign retained earnings and cash under the AJCA. I had to exclude five firms which repatriated under the AJCA but where the amount could not be determined.[9] The resulting sample is described in Panel A of table 1. A total of approximately $291 billion is repatriated under the AJCA by the firms in my sample. After matching this sample of firms with the Compustat data described below, the total sample consists of 246 repatriating firms.

Most of the remaining data is drawn from Compustat. As the repatriation under the AJCA is a one-off event, I am looking at cross-sectional determinants of the repatriation decision as well as the amount repatriated, if any. The majority of variables of interest to my analysis is jointly (simultaneously) determined with the repatriation amount. For example, the marginal tax rate in the year of repatriation will depend on whether or not cash was repatriated under the AJCA, as well as on the amount repatriated. To avoid an endogeneity problem, I use lagged variables as regressors. While the AJCA might have been anticipated to some extent, it seems safe to assume that observations for the explanatory variables from the year 2003 obtained from Compustat are exogenous. Each U.S. firm in my sample is required to have positive foreign pretax income (Compustat Item 273) in the year 2003; this is my criterion of defining a U.S. firm as a multinational. 1354 firms fit this description for the year

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[7]  The exact search terms used are: "American Jobs Creation" OR "American Job Creation" OR "109-2" OR "Homeland Investment Act". I excluded the categories 8350 banks, 8980 equity investments, 8770 general financial, 8570 life insurance, 8530 nonlife insurance, 3 private equity, 8730 real estate, 1 government & municipal issuers from my search. The search period was from 1 October 2004 to 31 October 2007 (in order not to miss late filers).

[8]  The exact search terms used are: repat* AND ("American Jobs Creation" OR "American Job Creation" OR "109-2" OR "Homeland Investment Act"). The search period was again from 1 October 2004 to 31 October 2007.

[9]  As the companies are not required to disclose the exact amount, the total amount repatriated under the AJCA is not clear in some instances. In these cases, I wrote emails to the companies' Investor Relations and inquired the exact amount.

2003. Financial firms (SIC codes 6000-6999) are excluded from my sample, as in previous work (this reduces the number of Compustat firms by 57).

The following data items are all 2003 values obtained from Compustat, unless explicitly noted. In analogy to Opler et al. (1999) and Foley et al. (2007), who analyze the determinants of corporate cash holdings, my main dependent variable is *Ln(AJCA Amount/NA)*, which is the natural logarithm of the ratio of the total amount repatriated by a given firm under the AJCA, as determined from my search in corporate filings, to total assets less cash. Cash is Item 1 and consists of cash and marketable securities; Total assets are Item 6. One of the main determinants of the repatriation decision is likely to be a multinational's cash holdings. Only consolidated cash holdings are available from Compustat. It might be reasonable to assume that firms with large consolidated cash holdings have some portion of this cash abroad and are hence more likely to repatriate under the AJCA. Hence I include *Ln(Cash/NA)*, the natural logarithm of the ratio of cash to total assets less cash as one of my explanatory variables.[10] Following Opler et al. (1999) and Foley et al. (2007), I include several other control variables which were discussed in relation to corporate cash holdings, and might therefore also have an impact on the decision to repatriate under the AJCA. *MtB* is the market value of assets to total assets. The market value of assets is total assets plus market value of equity minus book value of equity. The market value of equity is calculated as common shares outstanding (Item 25) times fiscal-year closing price (Item 199). Book value of equity is defined as stockholders' equity (Item 216) minus preferred stock liquidating value (Item 10) plus balance sheet deferred taxes and investment tax credit (Item 35) minus post-retirement assets (Item 336).[11] If negative equity is reported in Compustat, I set this variable (Item 216) equal to zero. I apply the same modification to post-retirement assets (Item 336). *Market Leverage* is the ratio of short and long term debt to the sum of short and long term debt and the market value of equity. Long term debt is Item 9, short term debt is Item 34. The decision to repatriate might also

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[10]     There is unlikely to be a multicollinearity problem as the largest partial autocorrelation in the sample is 0.6246, between *Ln(Cash/NA)* and *MtB*. According to standard textbooks, a rule of thumb is that partial correlations from about 0.8 or 0.9 start to be worrisome and are worthy of further investigation (see, for example, Kennedy (2003)). Furthermore, I also ran the regressions in all specifications without *Ln(Cash/NA)*, and all the results remain qualitatively the same.

[11]     The definition follows Malmedier and Tate (2005) and Fama and French (2002)

be influenced by the volatility of cash flows. To take this into account, I calculate *Std. Dev. Op. Inc.*, which is the standard deviation of the ratio of operating income before depreciation (Item 13) to total assets (Item 6), calculated for each firm over a subset of the time span from 1983 to 2003 (subject to data availability). Furthermore, firms with more foreign income (and/or less domestic income) might repatriate more, on average. To account for this, I include *Domestic Income/TA* and *Foreign Income/TA*, which are the ratios of domestic (Item 272) and foreign (Item 273) pretax income to total assets, respectively. As large firms and firms which pay dividends hold less cash on average (see Opler et al. (1999)), they might also repatriate less. To control for this, I include *Size*, the natural logarithm of total assets, and *Dividend Dummy*, which is equal to one if the firm pays cash dividends (Item 127) in year 2003 and zero otherwise. Furthermore, I control for *R&D/TA* and *CAPEX/TA*, which are the ratios of research and development expenditures (Item 460) and capital expenditures (Item 128) to total assets, respectively. As in Opler et al. (1999), I assume that firms whose R&D expenditures in 2003 are missing in Compustat are firms with no R&D expenditures in 2003. Furthermore, I set CAPEX to zero if a negative number for this variable is reported in Compustat.

As hypothesized in this paper, the decision to repatriate is likely to be influenced by agency considerations. I hence include the *G-Index* (the Gompers et al. (2003) governance index) as one of the main variables of interest in the regressions. By now, the G-Index can be considered a well-established measure of managerial entrenchment (see, for example, Harford et al. (2006) and Dittmar and Mahrt-Smith (2006)). When available, I take the 2004 index value as this is the one which is most relevant to the repatriation decision; when not available, I resort to the 2002 index value. I also include inside ownership[12] as a further proxy of managerial entrenchment in some regression specifications. The variable is defined as in Opler et al. (1999): *Inside 0-5%* equals the percentage of inside ownership if inside ownership is less than 5% and 5% if inside ownership is greater than 5%. *Inside 5-25%* equals zero if inside

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[12] I use the Datastream/Worldscope item "closely held shares" for insider ownership. Datastream's "closely held shares" include shares held by directors, officers, or immediate family; shares held in trust, by any other corporation, or pension and benefit plans; and shares held by individuals who own 5% or more of outstanding shares.

ownership is less than 5%, equals inside ownership minus 5% if inside ownership is between 5% and 25%, and equals 20% if inside ownership is more than 25%. *Inside 25-100%* equals zero if inside ownership is less than 25% and equals inside ownership minus 25% if inside ownership is greater than 25%.

Foley et al. (2007) show that multinational firms hold cash, among other reasons, because of the large repatriation costs faced by them. If firms have high marginal tax rates, their repatriation costs (particularly from low tax foreign countries) under normal circumstances are high; therefore, firms with higher marginal tax rates might be more inclined to take advantage of the tax holiday under the AJCA, and might repatriate more under this scheme. Therefore, I include Graham (1996)'s simulated marginal tax rates for 2003 in my analysis.

Finally, it is possible that firms with higher informational asymmetries are more likely to take advantage of the repatriation possibility under the AJCA. According to the asymmetric information theory of Myers and Majluf (1984), even managers who act in the best interest of shareholders have difficulties raising capital for their investment projects if investors are less informed about the company and its investment opportunities. Therefore, if the degree of informational asymmetry surrounding a firm's activities is higher, and the company has sufficient resources to repatriate, we might see firms facing a higher degree of informational asymmetry repatriate more likely, and/or larger amounts. As disagreement among analysts can be taken as a sign for the scarcity of information surrounding a given firm, I follow Krishnaswami and Subramaniam (1999) in using standard deviation of analyst forecasts as a measure of informational asymmetry. To be specific, for the construction of my measure of information asymmetry, I obtain, for the period 01 January 2003 to 31 December 2003, earnings-per-share forecasts for the following fiscal year for the Compustat firms in my sample (subject to availability) from I/B/E/S. I standardize the standard deviations of the earnings forecasts for each firm in a given period by dividing through the median earnings forecast for that company for the relevant time period. I proceed by taking the mean of these standardized standard deviations for each firm; this average is by construction censored at zero but it is unbounded on the upper side. I follow Autore and Kovacs (2006) by transforming it by adding one and taking the natural logarithm of this sum. Therefore, my final measure of informational

asymmetry for a given firm is the natural logarithm of (one plus) the average standardized standard deviation of earnings forecasts.

In order to minimize the impact of outliers, I winsorize variables at the 1% level of each tail of their distribution, unless the variable is censored at zero; in the latter case, I only cut the upper tail at 1%.[13] Descriptive statistics are shown in Table 1. Panel A provides descriptive statistics regarding the total amount repatriated under the AJCA by all 334 firms identified via the search in "Perfect Information" and "Factiva". Panel B shows summary statistics for the variables used in the regression analysis.

[Table 1 about here.]

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[13] To be specific, the variables that I winsorize at both tails are *Ln(Cash/NA)*, *Market Leverage*, *Size*, *MtB*, *Domestic Income/TA*, *Foreign Income/TA*, *Std. Dev. Op. Inc.*, *Info Asymmetry* and *Ln(AJCA Amount/NA)*. I cut 1% of the upper tail of *R&D/TA*, *CAPEX/TA* and *MTR*.

# 4 Results

The analysis in this section begins with a univariate comparison of the main characteristics of multinationals which choose to repatriate under the AJCA vis-à-vis those which do not. I then go on to analyze the factors driving the repatriation decision, as well as the determinants of the repatriated amounts. Finally, I analyze the market reaction to press releases of the repatriation decision.

## 4.1 Univariate Tests

In section 2, I argued that the decision to repatriate under the AJCA is driven by a multiplicity of factors. These factors are likely to be mirrored in differences in characteristics between repatriating and non-repatriating firms. Table 2 presents univariate tests for differences in means and medians of the main variables used in the regression analysis of the following section. T-tests for the equality of means as well as a non-parametric Wilcoxon-Mann-Whitney tests for the equality of medians are performed.

[Insert table 2 here.]

The parametric and non-parametric comparison shows that firms which choose to repatriate under the AJCA have less volatile operating income, higher domestic and foreign income, are larger in size and tend to be more avid dividend payers. The information asymmetries, as proxied by the standard deviation of analyst forecasts, surrounding repatriating firms are lower. This is the opposite of what would be expected if companies' repatriations were motivated by capital constraints arising from information asymmetries. Interestingly, repatriating firms have higher 2003 marginal tax rates. This implies that firms might be more likely to repatriate under the tax holiday when their tax costs of repatriating foreign earnings are high under normal circumstances. This seems to be in line with previous research by Foley et al. (2007) and Desai et al. (2006b) who showed that repatriation tax costs are among the primary determinants of a multinational company's regular repatriation policy. However, this conclusion is based on univariate comparisons that can at best be considered anecdotal and has to

be scrutinized in the multivariate analysis of the following section.

Interestingly, there is no significant difference in cash holdings between repatriating and non-repatriating firms. Few conclusions can be drawn from this comparison of aggregate (consolidated) data, however, since we would only expect firms with more cash *abroad* to be more keen on repatriating under the tax holiday; Unfortunately, this type of data is not readily available.[14] Furthermore, both groups of firms seem to have (statistically) similar levels of market leverage, R&D expenditures and CAPEX. Crucially, average investment opportunities of repatriating firms (as proxied by the market-to-book ratio) are not better for repatriating firms, which is in line with the findings of Blouin and Krull (2007), although it should be noted as a caveat that the median is significantly higher for repatriating firms.

Table 2 also shows that repatriating firms have a higher proportion of closely held shares, i.e. shares held by insiders: inside ownership of repatriating firms is roughly 13% on average (median 10%), whereas non-repatriating firms have significantly higher insider ownership levels. With all the necessary caveats, this seems to be consistent with the hypothesis that firms with entrenched management (according to Morck et al. (1988), inside ownership between approximately 5 and 25% could be an indicator for entrenched management) tend to be more keen on repatriating funds under the AJCA.[15] More importantly, the G-Index values for repatriating firms are significantly higher than for non-repatriating firms, which lends considerable support to the entrenchment hypothesis.

## 4.2 Regression Analysis

The tentative results based on univariate statistics (table 2) seem to broadly support the entrenchment hypothesis. Furthermore, they also indicate that firms repatriate under the AJCA so as to benefit from the tax incentives. In order to shed more light on the repatriation

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[14] Foley et al. (2007) had unique access to Bureau of Economic Analysis (BEA) data which allowed them to analyze the financial structure of U.S. multinational companies on the subsidiary level, as opposed to the consolidated group level available from regular data vendors like Compustat. The BEA maintains a Program for Outside Researchers which permits work on disaggregated, classified company data on-site and under very restrictive conditions. See also Desai et al. (2006b), (2006a) and (2007).

[15] It should be noted that the findings in Morck et al. (1988) are not uncontroversial, see e.g. McConnell and Servaes (1990). I therefore primarily rely on the G-Index to investigate the entrenchment hypothesis.

decision per se, and to properly control for other factors which play a role in the repatriation decision, I perform various specifications of logit regressions explaining a firm's repatriation decision under the AJCA. The dependent variable is one if a given firm chooses to repatriate under the AJCA, and zero otherwise. In all specifications, I control for leverage, investment opportunities, volatility of operating income, domestic and foreign income, size, R&D expenditures and CAPEX, consolidated cash holdings, as well as payout policy as captured by the dividend dummy.

In the logit model, the probability that a company $i$ repatriates can be written as:

$$Pr(Repat_i) = (1 + exp(-X_i'\beta))^{-1} \qquad (1)$$

for $i = 1, \ldots, N$ where $N$ is the sample size, and $Repat_i$ takes a value of one if company $i$ repatriates under the AJCA and zero otherwise. $X_i$ is the $(k+1) \times 1$ vector of (a constant and) $k$ explanatory variables for company $i$. This $(k+1) \times 1$ vector of explanatory variables includes ten control variables (*Market Leverage*, *MtB*, *Std. Dev. Op. Inc.*, *Domestic Income/TA*, *Foreign Income/TA*, *Size*, *R&D/TA*, *CAPEX/TA*, *Dividend Dummy* and *Ln(Cash/NA)*) and one or more (depending on the logit specification, see table 3) of the following primary explanatory variables for each company $i$: *G-Index*, *Info Asymmetry* and *MTR*. The results can be seen in table 3. Industry dummies are included in all regressions and are as defined in Dyck and Zingales (2004).

[Insert table 3 here.]

The results from the logit regressions give rise to a number of interesting observations. First, firm size and foreign income are positively (significantly) related to the likelihood of repatriating earnings under the AJCA. Although disaggregated company data is not readily available, this seems to be in line with media reports that large, international companies, mostly from the pharmaceutical and technology sector, are the main beneficiaries of the AJCA.[16] These big companies with high foreign earnings are the companies that are likely to

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[16] See, for example, "U.S. Companies Benefit From One-Time Law on Foreign Profits", *The New York Times*, 1 February 2005.

have been strong lobbyists for the tax holiday in the first place, and they are also those which are more likely to repatriate under the AJCA. Furthermore, the significantly positive coefficient on the G-Index variable provides strong evidence that firms with weaker governance and hence also more entrenched management are more likely to repatriate under the AJCA. There is some evidence that the marginal tax rate is positively related to the repatriation decision, but the result is only significant at the 10% level, and only in specification (4). Information asymmetry is not a significant determinant of the repatriation decision.

The results in table 3 support the central hypothesis in this paper, namely that agency considerations were among the principal determinants of the repatriation decision under the AJCA. While it is insightful to see which factors influence the likelihood of a repatriation, it is also of interest to investigate what the determinants of the amounts repatriated are. However, running a simple regression of the amount repatriated under the AJCA on a number of covariates would lead to potentially biased and inconsistent estimates. The reason is that firms self-select into the group of repatriating firms according to private information. Therefore, self-selection can be seen as an omitted variable problem where the omitted variable in a regular OLS regression of the repatriation amount on firm characteristics is, loosely speaking, a proxy for the private information underlying the decision to repatriate in the first place.[17] Consistent estimation of the equation determining the repatriated amount therefore requires that we include an estimate of the private information (the so-called "inverse Mills Ratio") underlying a multinational firm's choice to repatriate or not in the regression. To this end, I estimate a Heckman selection model via Maximum Likelihood in which the parameters determining the repatriation decision (the selection equation) are simultaneously estimated with the parameters determining the repatriated amount (the outcome equation).

Specifically, we are interested in running the following regression:[18]

$$Ln(AJCA\ Amount/NA)_i = X_i'\beta + u_i \tag{2}$$

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[17]   See for example Greene (2003) and Li and Prabhala (2006).
[18]   The discussion closely follows Greene (2003), Li and Prabhala (2006) and lecture notes by Toni Whited used in the course "Empirical Corporate Finance and Applied Cross-Sectional Econometrics" taught at the Vienna Graduate School of Finance in May 2007.

for $i = 1, \ldots, N$ where $N$ is the number of repatriating firms in our sample, $Ln(AJCA\ Amount/NA)_i$ is the natural logarithm of the ratio of the total amount repatriated by a given firm $i$ under the AJCA to total assets less cash for that firm, and $X_i$ is the $(k+1) \times 1$ vector of (a constant and) $k$ explanatory variables for company $i$. The complication is that we can only observe our dependent variable $Ln(AJCA\ Amount/NA)_i$ if the company elects to repatriate in the first place, i.e. when

$$Z_i'\delta + v_i > 0 \tag{3}$$

for some vector $Z_i$ of explanatory variables for each company $i$. In order to estimate this model, we assume that $(u_i, v_i)$ is independent of $(X_i, Z_i)$, $v_i \sim N(0,1)$ and $E(u_i|v_i) = \gamma \cdot v_i$.[19] Equation 2 is the so-called "outcome equation" (results shown in table 4), while equation 3 is the so-called "selection equation" (results shown in table 5).

Since we only observe $Ln(AJCA\ Amount/NA)_i$ when $Z_i'\delta + v_i > 0$, we are in fact estimating

$$E(Ln[AJCA\ Amount/NA]_i\ |X_i,\ Z_i'\delta + v_i > 0) \quad = \quad X_i'\beta + E(u_i|X_i,\ Z_i'\delta + v_i > 0) \tag{4}$$

$$
\begin{aligned}
&= \quad X_i'\beta + \gamma \cdot E(v_i|Z_i'\delta + v_i > 0) \\
&= \quad X_i'\beta + \gamma \cdot E(v_i|v_i > -Z_i'\delta) \\
&= \quad X_i'\beta + \gamma \cdot \frac{\phi(-Z_i'\delta)}{1 - \Phi(-Z_i'\delta)} \\
&= \quad X_i'\beta + \gamma \cdot \lambda(Z_i'\delta)
\end{aligned}
$$

In the above equation, $\lambda(\cdot)$ is the so-called "inverse Mills Ratio", a proxy for the private information underlying the decision to repatriate. In the case that $\gamma = 0$, the errors $u_i$ and $v_i$ of the selection and outcome equations are uncorrelated, and the $\lambda(\cdot)$ term drops out; this would imply that we could just use OLS and run the repatriated amount on a set of

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[19]    These assumptions are standard in the empirical corporate finance literature (see Li and Prabhala (2006)).

explanatory variables without risking biased and inconsistent estimates.[20] In the case of the model estimated in this paper, the set of explanatory variables in the selection equation (vector $Z_i$, see equation 3) and in the outcome equation (vector $X_i$, see equation 2) are equivalent (i.e. $X_i = Z_i$, for all $i$), and identification of the model is given by the non-linearity of the regression in equation 4.[21]

Results from estimating various specifications of the Heckman selection model can be seen in tables 4 (showing the outcome equation) and 5 (showing the selection equation). In comparison with the logit regression in table 3, table 5 shows that foreign income and size are still among the most important determinants of the repatriation decision. In addition, corporate cash holdings also significantly increase the likelihood of repatriation. Managerial entrenchment is again a first order determinant of the repatriation outcome: in specification (2) of the Heckman selection model, the coefficient on the G-Index is again significant and positive. As a robustness check, I add a second measure of managerial entrenchment which is constructed as in Opler et al. (1999) and was motivated by Morck et al. (1988): insider ownership. I find that inside ownership between 0 and 5% as well as above 25% significantly reduces the likelihood of repatriating under the AJCA, whereas ownership levels of 5 to 25%, which were shown to be associated with lower market valuations and more entrenched management (see Morck et al. (1988)) increase the likelihood of repatriation under the AJCA[22]. Interestingly, the marginal tax rate (my proxy for the repatriation costs under non-AJCA circumstances) is not significant in the selection equation. In sum, the evidence from table 5 shows that managerial entrenchment is a primary determinant of the repatriation decision,

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[20]  The likelihood ratio test given in the last line of table 5 indicates that biased estimates would obtain in regression specifications (1) and (2) if we didn't perform the Heckman procedure. To be on the safe side and for continuity reasons, I perform the Heckman procedure for all specifications, since even if it is not necessary, the inclusion of the inverse Mills Ratio as an irrelevant variable does not bias estimates; it "only" increases standard errors, which lends additional power to the results.

[21]  I use the same variables in the selection equation as in the outcome equation since I cannot reasonably impose exclusion restrictions, i.e. assume that a given covariate explains the likelihood of repatriation, but has no say in the determination of the amount repatriated.

[22]  As a caveat it should be noted that the positive effect of insider ownership levels between 5 and 25% is only significant at the 10% level, and only in specification (4) of the regression. However, in specification (3) the effect can still be considered economically important (see table 5). It should be noted, furthermore, that the findings in Morck et al. (1988) regarding the "entrenchment bounds" of 5 to 25% insider ownership are not uncontroversial, see e.g. McConnell and Servaes (1990). I therefore primarily rely on the G-Index to investigate the entrenchment hypothesis.

even when controlling for a variety of other effects. This conclusion is robust to a change in the measurement of managerial entrenchment from the G-Index to insider ownership.

Table 4 sheds more light on the determinants of the *amount* repatriated under the AJCA, if any. Several interesting features emerge: First, while agency problems increase the likelihood of repatriation, they don't significantly affect the amount that is repatriated. Second, in all regression specifications, firms repatriate more if they tend to have higher foreign pretax income, and higher R&D expenditures and CAPEX. Furthermore, repatriation costs as proxied by the marginal tax rate are significant determinants of the amount repatriated, which is in line with the findings of Desai et al. (2006b).

The evidence presented so far was supportive of the entrenchment hypothesis. Ceteris paribus, more entrenched managers are more likely to take advantage of the AJCA. While governance is a first-order determinant of the repatriation decision, the repatriation tax costs a company faces under non-AJCA circumstances help explain the *amount* that is repatriated. This finding is very intuitive: In a nutshell, we observe that the AJCA gives an entrenched manager who acts to satisfy his own interests a superficial reason, i.e. the lower tax rate under the tax holiday, vis-à-vis the shareholders to bring large amounts of foreign earnings home to the U.S. and to use these large cash "windfalls" for purposes that might serve his personal goals. Once the decision to repatriate is taken, however, the amount to be repatriated has to be justified carefully vis-à-vis shareholders, and this is achieved by relating it to the tax costs, which under the AJCA can be presented as fictional tax savings, which would have been incurred under non-AJCA circumstances to repatriate foreign earnings and cash. In other words, this implies that once the decision to repatriate was taken, larger amounts were repatriated if marginal tax rates of the company (and hence repatriation costs under normal tax circumstances) were higher. It is worth mentioning that the firm's investment opportunities (as proxied by the market-to-book ratio) were unrelated to the repatriation decision and amount (see tables 4 and 5).

## 4.3 Event Study

If entrenched managers who do not consider the firm's investment opportunities are more likely to repatriate under the AJCA (as is implied by the results in tables 4 and 5), then shareholders of the parent company should be worried. The AJCA is a one-off tax holiday that allows parent CEOs to repatriate large amounts of funds, which entrenched CEOs are *required by law* to invest, which might result in potentially wasteful activities. It is therefore proximate to expect that the share price reaction following the announcement of the repatriation decision and amount is negative on average. In order to study this hypothesis, I search "Factiva" for press releases announcing the repatriation decision and amount.[23] From 334 repatriating firms identified and described in Panel A of table 1, only 25 make separate press announcements regarding the repatriation decision. All other firms announce their repatriation in conjunction with their SEC filings or other events, so that I cannot use them for an event study. Summary statistics for the "event study" sample of the 25 repatriating firms can be found in Panel C of table 1. Mean, median and standard deviation of the repatriated amounts of the firms in the "event study" sample are similar to those of the firms in the full sample.

Three methods to compute daily abnormal returns ($AR_{it}$) are used: market model adjusted, market adjusted, and comparison period mean adjusted abnormal returns. In order to obtain market model adjusted returns, I assume that returns are given by the following one-factor model:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it} \tag{5}$$

where $R_{it}$ is the stock return for company $i$ on day $t$, $R_{mt}$ is the return on the market index for day $t$ (I use equally weighted CRSP returns as the market index), and $\epsilon_{it}$ is a mean zero, uncorrelated and homoscedastic error term. Abnormal returns are then given by $AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt})$, where $\hat{\alpha}_i$ and $\hat{\beta}_i$ are the OLS estimates of the coefficients in equation 5, estimated over a period of 255 to 46 days before the event date. Market adjusted returns are computed by subtracting the return on the market index for day $t$, $R_{mt}$, from

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[23] The exact search terms used are: *"Company name" AND (repat\* OR "foreign earnings") AND ("AMER-ICAN JOBS CREATION" OR "AMERICAN JOB CREATION" OR "109-2" OR "Homeland Investment Act")*.

the stock return of company $i$ on day $t$, $R_{it}$: $AR_{it} = R_{it} - R_{mt}$. Finally, I also compute abnormal returns as "comparison period mean adjusted", where the arithmetic mean return for company $i$, $\overline{R}_i$ (computed over the estimation period from 255 to 46 days before the event date) is subtracted from company $i$'s return: $AR_{it} = R_{it} - \overline{R}_i$.

Cumulative abnormal returns for firm $i$ over the event window from $T_1$ to $T_2$ are calculated as $CAR_{T_{1i}, T_{2i}} = \sum_{t=T_{1i}}^{T_{2i}} AR_{it}$, cumulative average abnormal returns are computed as $CAAR_{T_1, T_2} = \frac{1}{N} \sum_{i=1}^{N} \sum_{t=T_1}^{T_2} AR_{it}$ where $N$ is the number of firms in the sample.

Results from the event study are shown in table 6. The findings are similar for the 3-day [-1, +1], 5-day [-2, +2], and 7-day [-3, +3] event windows. Furthermore, the results are qualitatively similar whether market model adjusted returns (using the equally weighted CRSP returns as the benchmark returns on the market portfolio), market adjusted abnormal returns, or comparison period mean adjusted returns are used, and are statistically significant irrespective of the type of statistical test for the significance of the abnormal returns used.

[Insert table 6 here.]

The picture painted by the results shown in table 6 is unambiguous: shareholders are, on average, unhappy about the firms' repatriation decisions, which is likely to reflect their fear of managers squandering the funds repatriated: Statistically significant negative abnormal returns can be observed surrounding the repatriation announcement. To lend further support to the entrenchment hypothesis, I separate the "event study sample" into firms above and below the median G-Index for that sample. Firms with G-Index below 10 are denoted "good governance" firms, where I assume agency problems to be less of an issue, and firms with G-Index greater or equal than 10 are deemed to be "bad governance" firms.[24] Following the "managerial entrenchment" hypothesis, we would expect the shareholder reaction to the repatriation announcement to be worse for firms with more entrenched management. The results can be seen in table 7 and table 8. Table 7 shows the share price reaction to the repatriation announcement for "good governance" firms, while table 8 shows the reaction for the "bad governance" sub-sample. The results are in line with the entrenchment hypothesis:

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[24] The mean G-Index for the "event study sample" is 9.8, the median is 10. The G-Index is only available for 21 of the 25 firms in my "event study sample".

While the reaction is still negative on average for "good governance" firms, the abnormal returns are, in most specifications, considerably smaller than for the "bad governance" group. Furthermore, in most tests, the abnormal returns for the "good governance" firms are not significant, while they are highly significant and negative for the "bad governance" group.

[Insert table 7 here.]

[Insert table 8 here.]

# 5 Conclusion

In this paper, I show that managerial entrenchment resulting from weak firm governance is a first-order determinant of the repatriation decision under the American Jobs Creation Act of 2004. This tax holiday provides a unique setting to highlight the usefulness of agency theory in explaining extraordinary earnings repatriations. Overall, the results in this paper lend considerable support to the entrenchment hypothesis: Controlling for a multiplicity of other factors, I show that managers of firms with weaker corporate governance, i.e. with more entrenched managers, are more likely to repatriate funds under the AJCA, irrespective of the actual investment opportunities of the firm. While tax considerations matter, they are only a second order effect in the sense that they influence the amount repatriated, but not the repatriation decision itself. Furthermore, I show that the share price reaction to the repatriation announcement is significantly worse for firms with weaker governance, i.e. where managers are more entrenched. These results are robust to a variety of regression specifications and statistical tests.

The results are important for several reasons: First, the sheer magnitude of the amounts repatriated under the AJCA (around $300 billion according to my own estimates) warrant an investigation into what the driving forces of the repatriation decision were. Second, my findings complement the research on intra-firm dividend flows and show that while regular dividend payments from subsidiary to parent company are likely to act as devices to discipline foreign managers of partially owned subsidiaries (see Desai et al. (2006b)), agency problems at the parent company level can help explain extraordinary dividends.

In further research, I would like to analyze more closely the uses of the funds that were repatriated (an investigation similar in spirit is conducted by Blanchard et al. (1994)). My central hypothesis implies that firms with more entrenched management (i.e. weaker governance) would more likely use the funds for diversifying acquisitions and debt repayment, as these activities serve the personal diversification and risk reduction of the entrenched manager (i.e. diversifying acquisitions in order to reduce firm risk to protect the CEO's underdiversified human capital and debt repayment to mitigate the performance pressures associated with

regular interest payments; see Berger et al. (1997)). A potential obstacle to this analysis is that while repatriating firms were required to draft a "Domestic Reinvestment Plan" for the use of the repatriated funds, my preliminary analysis suggests that few companies chose to publicize the plan in their annual reports and similar public documents. Furthermore, the little information revealed on the use of the funds is often very cryptic and unspecific.

Second, I would like analyze the situation within the firm more closely. In most cases, the repatriating multinational does not disclose from which country and subsidiary the funds are repatriated. However, in roughly 5-10% of the cases (tentative estimate), this information is disclosed in the annual report. In the few cases where it is clear where the money comes from, I could use the Osiris data base[25] to investigate if, in analogy to Desai et al. (2006b), more cash is repatriated when affiliates are only partially owned; in the partially owned case, conflicts of interest between parent and subsidiary managers are likely to be most pronounced, and parent companies might jump on the opportunity to reduce the free cash under the foreign managers' disposal to reduce the potential misuse of funds by foreign affiliates.

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[25]   Osiris contains comprehensive reports on almost 35,000 publicly quoted companies worldwide including data on key shareholders, subsidiaries and board members.

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## Table 1: Descriptive Statistics

Panel A provides descriptive statistics regarding the total amount repatriated under the American Jobs Creation Act of 2004 ("AJCA") by all 334 firms identified via the search in "Perfect Information" and "Factiva". *AJCA Amount* is the total amount repatriated by US firms under AJCA. Panel B provides summary statistics for the variables used in the regression analysis. *Ln(AJCA Amount/NA)* is the natural logarithm of the ratio of the total amount repatriated by a given firm under AJCA to total assets less cash. *Ln(Cash/NA)* is the natural logarithm of the ratio of cash to total assets less cash. *Market Leverage* is the ratio of short and long term debt to the sum of short and long term debt and the market value of equity. *MtB* is the market value of assets to the book value of assets. *Domestic Income/TA* and *Foreign Income/TA* are the ratios of domestic and foreign pretax income to total assets, respectively. *Size* is the natural logarithm of total assets. *R&D/TA* and *CAPEX/TA* are the ratios of research and development expenditures and capital expenditures to total assets, respectively. *Dividend Dummy* is equal to one if the firm pays cash dividends and zero otherwise. *G-Index* is the Gompers et al. (2003) governance index. *Info Asymmetry* is the natural logarithm of (one plus) the average standardized standard deviation of earnings forecasts. *MTR* is the marginal effective tax rate as calculated in Graham (1996). *Closely Held Shares* is the percentage of closely held shares as defined by Worldscope/Datastream. Panel C provides descriptive statistics regarding the total amount repatriated under AJCA by the firms used in the event study.

| | Obs | Mean (m\$) | Median (m\$) | Std. Dev. (m\$) | Min (m\$) | Max (m\$) | Total (m\$) |
|---|---|---|---|---|---|---|---|
| **Panel A: Repatriating Firms** | | | | | | | |
| AJCA Amount | 334 | 870.9767 | 198 | 2744.36 | 1.078 | 36700 | 290906.2 |
| **Panel B: Regression Sample** | | | | | | | |
| | Obs | Mean | Median | Std. Dev. | Min | Max | |
| Ln(AJCA Amount/NA) | 218 | -2.4262 | -2.2826 | 1.2181 | -5.7457 | 0.0866 | |
| Ln(Cash/NA) | 954 | -2.1264 | -2.1186 | 1.4948 | -5.9124 | 1.5220 | |
| Market Leverage | 936 | 0.1949 | 0.1441 | 0.2065 | 0.0000 | 1.0000 | |
| MtB | 919 | 2.9552 | 1.9052 | 2.8427 | 0.8793 | 21.9577 | |
| Domestic Income/TA | 954 | 0.0166 | 0.0227 | 0.0911 | -0.5235 | 0.2274 | |
| Foreign Income/TA | 955 | 0.0329 | 0.0222 | 0.0329 | 0.0003 | 0.1879 | |
| Size | 955 | 6.7823 | 6.6920 | 1.8563 | 2.3506 | 11.6680 | |
| R&D/TA | 943 | 0.0430 | 0.0167 | 0.0617 | 0.0000 | 0.3343 | |
| CAPEX/TA | 954 | 0.0377 | 0.0294 | 0.0308 | 0.0031 | 0.1948 | |
| Dividend Dummy | 973 | 0.4337 | 0.0000 | 0.4958 | 0.0000 | 1.0000 | |
| G-Index | 604 | 9.3030 | 9.0000 | 2.5062 | 2.0000 | 16.0000 | |
| Info Asymmetry | 668 | 0.0968 | 0.0394 | 0.1615 | 0.0044 | 1.1485 | |
| MTR | 823 | 0.1986 | 0.2540 | 0.1479 | 0.0000 | 0.3688 | |
| Closely Held Shares | 882 | 22.5895 | 16.5400 | 21.3616 | 0.0000 | 98.3100 | |
| **Panel C: Event Study Sample** | | | | | | | |
| | Obs | Mean (m\$) | Median (m\$) | Std. Dev. (m\$) | Min (m\$) | Max (m\$) | Total (m\$) |
| AJCA Amount | 25 | 880.1 | 200 | 2141.492 | 10 | 10800 | 22002.5 |

**Table 2: Differences in Sample Characteristics.**

This table presents univariate tests for differences in means and medians of the main variables. T-tests ("Mean test" in the table) for the equality of means as well as a non-parametric Wilcoxon-Mann-Whitney tests ("Median test" in the table) for the equality of medians are performed. For both tests the p-values are reported; the p-value for the Wilcoxon-Mann-Whitney test is based on the continuity corrected test statistic. *Cash/NA* is the ratio of cash to total assets less cash. *Market Leverage* is the ratio of short and long term debt to the sum of short and long term debt and the market value of equity. *MtB* is the market value of assets to the book value of assets. *Std. Dev. Op. Inc.* is the standard deviation of the ratio of operating income before depreciation to total assets, calculated for each firm over a subset of the time span from 1983 to 2003 (subject to data availability). *Domestic Income/TA* and *Foreign Income/TA* are the ratios of domestic and foreign pretax income to total assets, respectively. *Size* is the natural logarithm of total assets. *R&D/TA* and *CAPEX/TA* are the ratios of research and development expenditures and capital expenditures to total assets, respectively. *Dividend Dummy* is equal to one if the firm pays cash dividends and zero otherwise. *G-Index* is the Gompers, Ishii and Metrick (2003) governance index. *Info Asymmetry* is the natural logarithm of (one plus) the average standardized standard deviation of earnings forecasts. *MTR* is the marginal effective tax rate as calculated in Graham (1996). *Closely Held Shares* is the percentage of closely held shares as defined by Worldscope/Datastream.

| | Repatriate? Yes | | | Repatriate? No | | | Mean test | Median test |
|---|---|---|---|---|---|---|---|---|
| | Obs | Mean | Median | Obs | Mean | Median | p-value | p-value |
| Cash/NA | 220 | 0.2826 | 0.1201 | 735 | 0.3470 | 0.1198 | 0.1445 | 0.9530 |
| Market Leverage | 218 | 0.1859 | 0.1512 | 718 | 0.1976 | 0.1419 | 0.4656 | 0.8170 |
| MtB | 217 | 3.0771 | 2.0978 | 702 | 2.9175 | 1.8526 | 0.4699 | 0.0190 |
| Std. Dev. Op. Inc. | 220 | 0.0577 | 0.0455 | 729 | 0.0920 | 0.0601 | 0.0000 | 0.0000 |
| Domestic Income/TA | 222 | 0.0365 | 0.0356 | 732 | 0.0106 | 0.0167 | 0.0002 | 0.0000 |
| Foreign Income/TA | 220 | 0.0452 | 0.0367 | 735 | 0.0291 | 0.0185 | 0.0000 | 0.0000 |
| Size | 219 | 8.0862 | 7.9237 | 736 | 6.3943 | 6.3133 | 0.0000 | 0.0000 |
| R&D/TA | 214 | 0.0382 | 0.0240 | 729 | 0.0445 | 0.0141 | 0.1894 | 0.0010 |
| CAPEX/TA | 219 | 0.0386 | 0.0306 | 735 | 0.0374 | 0.0290 | 0.6023 | 0.3560 |
| Dividend Dummy | 222 | 0.6216 | 1.0000 | 751 | 0.3782 | 0.0000 | 0.0000 | 0.0000 |
| Info Asymmetry | 195 | 0.0598 | 0.0251 | 473 | 0.1121 | 0.0475 | 0.0001 | 0.0000 |
| MTR | 179 | 0.2516 | 0.3500 | 644 | 0.1838 | 0.2093 | 0.0000 | 0.0000 |
| G-Index | 203 | 9.8227 | 10.0000 | 401 | 9.0399 | 9.0000 | 0.0003 | 0.0090 |
| Closely Held Shares | 216 | 13.3422 | 9.5350 | 666 | 25.5886 | 19.7450 | 0.0000 | 0.0000 |

**Table 3: Logit Analysis of the AJCA repatriation decision.**

This table presents the results from estimating various specifications of Logit regressions explaining a firm's repatriation decision under the American Jobs Creation Act of 2004. *Market Leverage* is the ratio of short and long term debt to the sum of short and long term debt and the market value of equity. *MtB* is the market value of assets to the book value of assets. *Std. Dev. Op. Inc.* is the standard deviation of the ratio of operating income before depreciation to total assets, calculated for each firm over a subset of the time span from 1983 to 2003 (subject to data availability). *Domestic Income/TA* and *Foreign Income/TA* are the ratios of domestic and foreign pretax income to total assets, respectively. *Size* is the natural logarithm of total assets. *R&D/TA* and *CAPEX/TA* are the ratios of research and development expenditures and capital expenditures to total assets, respectively. *Dividend Dummy* is equal to one if the firm pays cash dividends and zero otherwise. *Ln(Cash/NA)* is the natural logarithm of the ratio of cash to total assets less cash. *G-Index* is the Gompers, Ishii and Metrick (2003) governance index. *Info Asymmetry* is the natural logarithm of (one plus) the average standardized standard deviation of earnings forecasts. *MTR* is the marginal effective tax rate as calculated in Graham (1996). T-statistics based on robust standard errors are given in parentheses below the coefficients. *, **, and *** indicate statistical significance at the 10%, 5% and 1% level, respectively. *p-value* is the p-value of the Chi-squared test for the overall fit of the model.

| | LOGIT | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Market Leverage | -0.384 | -0.467 | -0.172 | 0.081 | 0.050 |
| | (-0.53) | (-0.53) | (-0.20) | (0.11) | (0.05) |
| MtB | 0.044 | 0.061 | 0.043 | 0.034 | 0.069 |
| | (0.83) | (0.81) | (0.80) | (0.59) | (0.89) |
| Std. Dev. Op. Inc. | -4.648** | -5.579* | -2.996 | -4.668** | -5.430* |
| | (-2.25) | (-1.79) | (-1.55) | (-2.09) | (-1.66) |
| Domestic Income/TA | 2.732 | 1.168 | 0.648 | 3.180* | 2.154 |
| | (1.38) | (0.50) | (0.29) | (1.82) | (1.09) |
| Foreign Income/TA | 12.688*** | 18.187*** | 12.595*** | 10.740*** | 15.771*** |
| | (4.30) | (4.86) | (3.59) | (3.07) | (3.86) |
| Size | 0.537*** | 0.590*** | 0.513*** | 0.550*** | 0.580*** |
| | (8.40) | (6.81) | (6.91) | (7.58) | (5.96) |
| R&D/TA | 1.829 | 5.163* | 1.034 | 3.375 | 6.541** |
| | (0.81) | (1.80) | (0.36) | (1.44) | (2.17) |
| CAPEX/TA | -6.177* | -5.020 | -4.563 | -8.905** | -8.958* |
| | (-1.69) | (-1.19) | (-1.11) | (-2.06) | (-1.79) |
| Dividend Dummy | 0.147 | 0.379 | 0.187 | 0.207 | 0.464* |
| | (0.72) | (1.60) | (0.80) | (0.90) | (1.75) |
| Ln(Cash/NA) | 0.144 | 0.180 | 0.164 | 0.161 | 0.194 |
| | (1.48) | (1.58) | (1.50) | (1.43) | (1.47) |
| G-Index | | 0.102** | | | 0.111** |
| | | (2.17) | | | (2.05) |
| Info Asymmetry | | | -1.629 | | |
| | | | (-1.35) | | |
| MTR | | | | 1.486* | 0.897 |
| | | | | (1.73) | (0.92) |
| Constant | -4.879*** | -6.328*** | -4.549*** | -5.262*** | -6.529*** |
| | (-8.15) | (-6.79) | (-6.65) | (-7.88) | (-6.05) |
| N | 811 | 541 | 595 | 673 | 439 |
| Pseudo $R^2$ | 0.1960 | 0.2123 | 0.2182 | 0.2101 | 0.1720 |
| Log Pseudolikelihood | -365.98 | -274.75 | -218.81 | -291.55 | -303.36 |
| p-value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

# Table 4: Sample Selection (Heckman) Model.

This table, as well as table 5, present the results from estimating various specifications of self-selection (Heckman) models explaining a firm's repatriation decision, as well as the amount chosen, under the American Jobs Creation Act of 2004. Table 5 focusses on modeling the decision to repatriate, while this table models the amount repatriated, if any. *Ln(AJCA Amount/NA)* is the natural logarithm of the ratio of the total amount repatriated by a given firm under AJCA to total assets less cash. *Market Leverage* is the ratio of short and long term debt to the sum of short and long term debt and the market value of equity. *MtB* is the market value of assets to the book value of assets. *Std. Dev. Op. Inc.* is the standard deviation of the ratio of operating income before depreciation to total assets, calculated for each firm over a subset of the time span from 1983 to 2003 (subject to data availability). *Domestic Income/TA* and *Foreign Income/TA* are the ratios of domestic and foreign pretax income to total assets, respectively. *Size* is the natural logarithm of total assets. *R&D/TA* and *CAPEX/TA* are the ratios of research and development expenditures and capital expenditures to total assets, respectively. *Dividend Dummy* is equal to one if the firm pays cash dividends and zero otherwise. *Ln(Cash/NA)* is the natural logarithm of the ratio of cash to total assets less cash. *G-Index* is the Gompers, Ishii and Metrick (2003) governance index. *Info Asymmetry* is the natural logarithm of (one plus) the average standardized standard deviation of earnings forecasts. *MTR* is the marginal effective tax rate as calculated in Graham (1996). *Inside 0-5%* equals the percentage of closely held shares ("inside ownership") if inside ownership is less than 5% and 5% if inside ownership is greater than 5%. *Inside 5-25%* equals zero if inside ownership is less than 5%, equals inside ownership minus 5% if inside ownership is between 5% and 25%, and equals 20% if inside ownership is more than 25%. *Inside 25-100%* equals zero if inside ownership is less than 25% and equals inside ownership minus 25% if inside ownership is greater than 25%. The latter three variables are defined as in Opler et al. (1999). T-statistics based on robust standard errors are given in parentheses below the coefficients. *, **, and *** indicate statistical significance at the 10%, 5% and 1% level, respectively.

| Dependent variable: Ln(AJCA Amount/NA) | (1) | (2) | (4) | (5) |
|---|---|---|---|---|
| Market Leverage | -0.048 | -1.041 | -0.840 | -0.835 |
|  | (-0.06) | (-1.45) | (-1.38) | (-1.04) |
| MtB | -0.039 | -0.040 | -0.013 | -0.014 |
|  | (-0.76) | (-1.06) | (-0.38) | (-0.37) |
| Std. Dev. Op. Inc. | 1.220 | -1.522 | -1.071 | -1.213 |
|  | (0.81) | (-0.99) | (-0.70) | (-0.78) |
| Domestic Income/TA | -0.842 | -1.979 | -2.096 | -2.911 |
|  | (-0.33) | (-1.50) | (-1.54) | (-1.56) |
| Foreign Income/TA | 6.151** | 13.901*** | 13.132*** | 13.953*** |
|  | (2.12) | (6.51) | (6.43) | (5.71) |
| Size | -0.326*** | -0.048 | -0.028 | -0.020 |
|  | (-4.76) | (-0.82) | (-0.41) | (-0.29) |
| R&D/TA | 5.637** | 5.573** | 4.941** | 3.992 |
|  | (1.97) | (2.34) | (2.11) | (1.45) |
| CAPEX/TA | 7.641*** | 3.919* | 4.448* | 4.776* |
|  | (2.84) | (1.67) | (1.81) | (1.85) |
| Dividend Dummy | -0.119 | -0.315* | -0.230 | -0.218 |
|  | (-0.66) | (-1.81) | (-1.38) | (-1.21) |
| Ln(Cash/NA) | 0.214*** | 0.260*** | 0.260*** | 0.274*** |
|  | (2.75) | (3.70) | (3.73) | (3.45) |
| G-Index |  | -0.001 |  |  |
|  |  | (-0.03) |  |  |
| Inside 0-5% |  |  | 0.030 | 0.031 |
|  |  |  | (0.61) | (0.57) |
| Inside 5-25% |  |  | -0.008 | -0.007 |
|  |  |  | (-0.57) | (-0.44) |
| Inside 25-100% |  |  | 0.007 | 0.004 |
|  | 36 |  | (0.85) | (0.31) |
| MTR |  | 1.327** | 1.275** | 1.257* |
|  |  | (2.00) | (2.04) | (1.92) |
| Info Asymmetry |  |  |  | -0.109 |
|  |  |  |  | (-0.12) |
| Constant | 1.394* | -2.321*** | -2.678*** | -2.727*** |
|  | (1.80) | (-3.09) | (-3.30) | (-3.28) |

**Table 5: Heckman model continued.**

This table, as well as table 4, presents the results from estimating various specifications of self-selection (Heckman) models explaining a firm's repatriation decision, as well as the amount chosen, under the American Jobs Creation Act of 2004. This table focusses on modeling the decision to repatriate, while table 4 models the amount repatriated, if any. The variables used are described in table 4. T-statistics based on robust standard errors are given in parentheses below the coefficients. *, **, and *** indicate statistical significance at the 10%, 5% and 1% level, respectively. *N (uncensored)* is the number of firms which choose to repatriate. *p-value* is the p-value of the Chi-squared test for the overall fit of the model. *p-value (LR)* is the likelihood ratio test of independent equations; it tests the significance of the correlation of the error terms in the selection equation and the error terms of the equation explaining the amount (if any) repatriated.

| | select | | | |
|---|---|---|---|---|
| | (1) | (2) | (4) | (5) |
| Market Leverage | -0.135 | 0.090 | 0.476 | 0.594 |
| | (-0.34) | (0.17) | (1.01) | (1.09) |
| MtB | -0.001 | 0.001 | -0.003 | -0.001 |
| | (-0.03) | (0.02) | (-0.09) | (-0.02) |
| Std. Dev. Op. Inc. | -2.212** | -2.976* | -2.410** | -1.762 |
| | (-2.24) | (-1.78) | (-2.04) | (-1.48) |
| Domestic Income/TA | 1.116 | 1.453 | 2.453** | 1.859 |
| | (1.09) | (1.27) | (2.29) | (1.41) |
| Foreign Income/TA | 6.551*** | 9.556*** | 6.930*** | 6.462*** |
| | (4.04) | (3.95) | (3.22) | (2.61) |
| Size | 0.317*** | 0.347*** | 0.275*** | 0.269*** |
| | (9.29) | (6.28) | (6.21) | (5.17) |
| R&D/TA | 0.627 | 4.224** | 1.860 | 1.297 |
| | (0.51) | (2.31) | (1.28) | (0.72) |
| CAPEX/TA | -3.190* | -4.531* | -4.467* | -3.992 |
| | (-1.71) | (-1.66) | (-1.84) | (-1.44) |
| Dividend Dummy | 0.072 | 0.273* | 0.161 | 0.195 |
| | (0.63) | (1.74) | (1.16) | (1.22) |
| Ln(Cash/NA) | 0.108** | 0.139* | 0.116* | 0.135* |
| | (2.03) | (1.85) | (1.78) | (1.85) |
| G-Index | | 0.059* | | |
| | | (1.91) | | |
| Inside 0-5% | | | -0.122** | -0.164*** |
| | | | (-2.46) | (-3.02) |
| Inside 5-25% | | | 0.016 | 0.023* |
| | | | (1.26) | (1.70) |
| Inside 25-100% | | | -0.015** | -0.020** |
| | | | (-2.04) | (-2.43) |
| MTR | | 0.486 | 0.544 | 0.190 |
| | | (0.86) | (1.10) | (0.35) |
| Info Asymmetry | | | | -0.538 |
| | | | | (-0.89) |
| Constant | -2.769*** | -3.752*** | -2.319*** | -2.013*** |
| | (-8.72) | (-6.32) | (-5.00) | (-3.82) |
| N (total) | 811 | 439 | 634 | 469 |
| N (uncensored) | 200 | 146 | 158 | 141 |
| p-value | 0.000 | 0.000 | 0.000 | 0.000 |
| Log Pseudolikelihood | -613.8415 | -397.8264 | -469.793 | -405.2405 |
| p-value (LR) | 0.0000 | 0.0938 | 0.4492 | 0.1877 |

## Table 6: Event Study - Full Event Study Sample.

This table, as well as table 7 and 8, presents the results from performing an event study of the market reaction to the press announcement of the repatriation of foreign cash and retained earnings under the American Jobs Creation Act of 2004. This table focusses on the whole event study sample. The first column shows the event window, while the second gives the number of observations. *Mean CAR* is the sum of mean abnormal returns for a given event window. *Precision weighted CAAR* is the weighted average of the cumulative abnormal returns. *Positive: Negative* is the ratio of positive abnormal returns to the number of negative abnormal returns. *Patell Z* is the parametric test for the null hypothesis that the CAAR is zero, while *Generalized Sign Z* is the non-parametric test for the null hypothesis that the CAAR is zero (test statistics are reported in each case). *Portfolio Time-Series (CDA) t* reports the test statistic for the time series standard deviation test, also known as the "crude dependence adjustment" test (Brown and Warner, 1980). *Market Model Adjusted Returns, Equally Weighted Index* indicates that abnormal returns are calculated using the market model (using a portfolio of equally weighted CRSP returns as the proxy for the market portfolio). *Market Adjusted Returns, Equally Weighted Index* refers to the market adjusted returns benchmark method. *Comparison Period Adjusted* performs an event study using comparison period mean adjusted returns. The symbols *, **, and *** imply statistical significance at the 10%, 5% and 1% level, respectively. The symbols (, < or ), > etc. correspond to *, ** and denote the significance and the direction of the generalized sign test.

| DAYS | N | Mean CAR | Precision Weighted CAAR | Positive: Negative | Patell Z | Portfolio Time-Series (CDA) t | Generalized Sign Z |
|---|---|---|---|---|---|---|---|
| Market Model Adjusted Returns, Equally Weighted Index |
| (-30,-2) | 25 | 0.16% | 0.39% | 11:14 | 0.283 | 0.097 | -0.356 |
| (-1,0) | 25 | -0.31% | -0.33% | 10:15 | -0.918 | -0.737 | -0.756 |
| (+1,+30) | 25 | -1.48% | -1.89% | 9:16 | -1.348* | -0.907 | -1.157 |
| (-1,+1) | 25 | -0.74% | -0.69% | 6:19<< | -1.563* | -1.432* | -2.358*** |
| (-2,+2) | 25 | -1.02% | -1.03% | 6:19<< | -1.809** | -1.531* | -2.358*** |
| (-3,+3) | 25 | -1.49% | -1.40% | 7:18< | -2.066** | -1.886** | -1.958** |
| Market Adjusted Returns, Equally Weighted Index |
| (-30,-2) | 25 | 0.69% | 0.88% | 13:12 | 0.577 | 0.414 | 0.456 |
| (-1,0) | 25 | -0.31% | -0.35% | 11:14 | -0.869 | -0.713 | -0.345 |
| (+1,+30) | 25 | -1.35% | -2.02% | 10:15 | -1.303* | -0.798 | -0.745 |
| (-1,+1) | 25 | -0.76% | -0.79% | 6:19<< | -1.611* | -1.423* | -2.348*** |
| (-2,+2) | 25 | -1.11% | -1.20% | 7:18< | -1.902** | -1.602* | -1.947** |
| (-3,+3) | 25 | -1.51% | -1.50% | 7:18< | -2.007** | -1.849** | -1.947** |
| Comparison Period Adjusted |
| (-30,-2) | 25 | 1.88% | 1.93% | 16:9) | 1.159 | 1.085 | 1.571* |
| (-1,0) | 25 | -0.34% | -0.36% | 11:14 | -0.829 | -0.740 | -0.430 |
| (+1,+30) | 25 | 1.02% | 0.49% | 15:10 | 0.287 | 0.579 | 1.171 |
| (-1,+1) | 25 | -0.67% | -0.64% | 6:19<< | -1.192 | -1.193 | -2.432*** |
| (-2,+2) | 25 | -0.96% | -0.99% | 7:18< | -1.432* | -1.331* | -2.031** |
| (-3,+3) | 25 | -1.39% | -1.44% | 7:18< | -1.761** | -1.629* | -2.031** |

**Table 7: Event Study - "Good Governance" Sample.**

This table presents the results from performing an event study of the market reaction to the press announcement of the repatriation of foreign cash and retained earnings under the American Jobs Creation Act of 2004. This table focusses on firms with G-Index<10 ("good governance" firms). The first column shows the event window, while the second gives the number of observations. *Mean CAR* is the sum of mean abnormal returns for a given event window. *Precision weighted CAAR* is the weighted average of the cumulative abnormal returns. *Positive: Negative* is the ratio of positive abnormal returns to the number of negative abnormal returns. *Patell Z* is the parametric test for the null hypothesis that the CAAR is zero, while *Generalized Sign Z* is the non-parametric test for the null hypothesis that the CAAR is zero (test statistics are reported in each case). *Portfolio Time-Series (CDA) t* reports the test statistic for the time series standard deviation test, also known as the "crude dependence adjustment" test (Brown and Warner, 1980). *Market Model Adjusted Returns, Equally Weighted Index* indicates that abnormal returns are calculated using the market model (using a portfolio of equally weighted CRSP returns as the proxy for the market portfolio). *Market Adjusted Returns, Equally Weighted Index* refers to the market adjusted returns benchmark method. *Comparison Period Adjusted* performs an event study using comparison period mean adjusted returns. The symbols *, **, and *** imply statistical significance at the 10%, 5% and 1% level, respectively. The symbols (, < or ), > etc. correspond to *, ** and denote the significance and the direction of the generalized sign test.

| Panel A: "good governance" sample | | | | | | | |
|---|---|---|---|---|---|---|---|
| DAYS | N | Mean CAR | Precision Weighted CAAR | Positive: Negative | Patell Z | Portfolio Time-Series (CDA) t | Generalized Sign Z |
| Market Model Adjusted Returns, Equally Weighted Index | | | | | | | |
| (-30,-2) | 10 | -0.66% | -0.49% | 6:4 | -0.206 | -0.264 | 0.802 |
| (-1,0) | 10 | -0.23% | -0.06% | 4:6 | -0.093 | -0.347 | -0.465 |
| (+1,+30) | 10 | -0.37% | -0.07% | 5:5 | -0.030 | -0.145 | 0.169 |
| (-1,+1) | 10 | -0.87% | -0.63% | 2:8< | -0.826 | -1.086 | -1.731** |
| (-2,+2) | 10 | -0.84% | -0.57% | 2:8< | -0.571 | -0.814 | -1.731** |
| (-3,+3) | 10 | -0.44% | -0.30% | 4:6 | -0.258 | -0.365 | -0.465 |
| Market Adjusted Returns, Equally Weighted Index | | | | | | | |
| (-30,-2) | 10 | 0.54% | 0.59% | 7:3) | 0.234 | 0.213 | 1.388* |
| (-1,0) | 10 | -0.20% | -0.01% | 4:6 | -0.015 | -0.292 | -0.511 |
| (+1,+30) | 10 | 0.80% | 0.73% | 6:4 | 0.283 | 0.308 | 0.755 |
| (-1,+1) | 10 | -0.80% | -0.56% | 3:7 | -0.678 | -0.974 | -1.144 |
| (-2,+2) | 10 | -0.92% | -0.65% | 3:7 | -0.618 | -0.865 | -1.144 |
| (-3,+3) | 10 | -0.47% | -0.25% | 4:6 | -0.203 | -0.374 | -0.511 |
| Comparison Period Adjusted | | | | | | | |
| (-30,-2) | 10 | 1.61% | 1.52% | 6:4 | 0.548 | 0.595 | 0.735 |
| (-1,0) | 10 | -0.32% | -0.16% | 4:6 | -0.217 | -0.452 | -0.531 |
| (+1,+30) | 10 | 2.08% | 2.12% | 7:3) | 0.750 | 0.756 | 1.367* |
| (-1,+1) | 10 | -0.88% | -0.70% | 2:8< | -0.788 | -1.015 | -1.797** |
| (-2,+2) | 10 | -0.82% | -0.57% | 3:7 | -0.496 | -0.729 | -1.164 |
| (-3,+3) | 10 | -0.61% | -0.62% | 4:6 | -0.452 | -0.460 | -0.531 |

## Table 8: Event Study - "Bad Governance" Sample.

This table presents the results from performing an event study of the market reaction to the press announcement of the repatriation of foreign cash and retained earnings under the American Jobs Creation Act of 2004. This table concentrates on firms with G-Index >(or equal) 10 ("bad governance" firms). The first column shows the event window, while the second gives the number of observations. *Mean CAR* is the sum of mean abnormal returns for a given event window. *Precision weighted CAAR* is the weighted average of the cumulative abnormal returns. *Positive: Negative* is the ratio of positive abnormal returns to the number of negative abnormal returns. *Patell Z* is the parametric test for the null hypothesis that the CAAR is zero, while *Generalized Sign Z* is the non-parametric test for the null hypothesis that the CAAR is zero (test statistics are reported in each case). *Portfolio Time-Series (CDA) t* reports the test statistic for the time series standard deviation test, also known as the "crude dependence adjustment" test (Brown and Warner, 1980). *Market Model Adjusted Returns, Equally Weighted Index* indicates that abnormal returns are calculated using the market model (using a portfolio of equally weighted CRSP returns as the proxy for the market portfolio). *Market Adjusted Returns, Equally Weighted Index* refers to the market adjusted returns benchmark method. *Comparison Period Adjusted* performs an event study using comparison period mean adjusted returns. The symbols *, **, and *** imply statistical significance at the 10%, 5% and 1% level, respectively. The symbols (, < or ), > etc. correspond to *, ** and denote the significance and the direction of the generalized sign test.

| DAYS | N | Mean CAR | Precision Weighted CAAR | Positive: Negative | Patell Z | Portfolio Time-Series (CDA) t | Generalized Sign Z |
|---|---|---|---|---|---|---|---|
| | | | Market Model Adjusted Returns, Equally Weighted Index | | | | |
| (-30,-2) | 11 | 0.90% | 1.13% | 4:7 | 0.653 | 0.544 | -0.772 |
| (-1,0) | 11 | -0.50% | -0.64% | 4:7 | -1.397* | -1.151 | -0.772 |
| (+1,+30) | 11 | -3.69% | -3.97% | 2:9< | -2.251** | -2.200** | -1.979** |
| (-1,+1) | 11 | -0.62% | -0.78% | 3:8( | -1.404* | -1.176 | -1.375* |
| (-2,+2) | 11 | -1.38% | -1.50% | 2:9< | -2.088** | -2.017** | -1.979** |
| (-3,+3) | 11 | -1.90% | -1.95% | 2:9< | -2.287** | -2.351*** | -1.979** |
| | | | Market Adjusted Returns, Equally Weighted Index | | | | |
| (-30,-2) | 11 | 1.54% | 1.58% | 4:7 | 0.862 | 0.909 | -0.743 |
| (-1,0) | 11 | -0.50% | -0.66% | 4:7 | -1.362* | -1.129 | -0.743 |
| (+1,+30) | 11 | -3.62% | -4.12% | 2:9< | -2.204** | -2.099** | -1.951** |
| (-1,+1) | 11 | -0.75% | -0.96% | 2:9< | -1.622* | -1.376* | -1.951** |
| (-2,+2) | 11 | -1.43% | -1.63% | 2:9< | -2.131** | -2.025** | -1.951** |
| (-3,+3) | 11 | -1.78% | -1.96% | 2:9< | -2.168** | -2.138** | -1.951** |
| | | | Comparison Period Adjusted | | | | |
| (-30,-2) | 11 | 1.99% | 2.10% | 6:5 | 1.007 | 1.040 | 0.369 |
| (-1,0) | 11 | -0.61% | -0.72% | 4:7 | -1.325* | -1.223 | -0.837 |
| (+1,+30) | 11 | -1.32% | -1.87% | 5:6 | -0.883 | -0.679 | -0.234 |
| (-1,+1) | 11 | -0.57% | -0.69% | 2:9< | -1.032 | -0.930 | -2.044** |
| (-2,+2) | 11 | -1.30% | -1.42% | 2:9< | -1.639* | -1.632* | -2.044** |
| (-3,+3) | 11 | -1.59% | -1.73% | 2:9< | -1.694** | -1.688** | -2.044** |