The Impact of Public Scrutiny on Executive Compensation

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Abstract

This paper examines the impact of public scrutiny on CEO compensation using the unique opportunity provided by the 2008 financial crisis, government support, and legislated compensation restrictions. I introduce novel data on executive perks at S&P 500 firms from 2006 to 2012. Overall, my results are consistent with increased public scrutiny having lasting impact on perks and temporary impact on wage, and with legislated compensation restrictions having temporary impact on wage. Changes in specific perks items provide evidence on which perks firms perceive as excessive and which provide common value.

Keywords: Financial crisis, perks, executive compensation, private benefits, public scrutiny
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Introduction

The financial crisis of 2008 is arguably the largest global macroeconomic shock since the Great Depression. There is widespread blame for the crisis on excessive risk-taking by executives at financial institutions, with accusations that the structure of compensation plans incented these executives to embrace risks (e.g., Haan and Vlahu, 2016 and Dell'Atti *et al.*, 2013). Over past decades, compensation committees of company boards of directors adjusted the structure of pay packages with the express purpose of minimizing agency conflict by aligning interests of top executives and shareholders (Faulkender and Yang, 2010). Yet, it is these very compensation plans that became the subject of heated criticism. Calls for reform of executive compensation are widespread in academic, political, and public circles, and are coincident with a dramatic increase in executive compensation since the 1980s (e.g., Hall and Murphy, 2003). Compensation reformists became increasingly vocal as scrutiny of executive pay intensified in the wake of the financial crisis (e.g., Bebchuk *et al.*, 2010). Effective October 3, 2008, the Emergency Economic Stabilization Act (EESA) established TARP in response to the deterioration of the US stock market. TARP is an umbrella program with initiatives that fall into six different categories. Under the *Executive Compensation Program*, TARP recipients became subject to executive compensation restrictions while they had outstanding TARP obligations. The TARP legislation included compensation restrictions because of political and public concern about using taxpayer money to bailout firms that had excessive compensation schemes. Government support acted as a

trigger to expand the debate on CEO pay because the legislation made support contingent on compensation restrictions.

Three primary arguments for the levels and increases in CEO pay are managerial rent extraction (e.g., Bebchuk and Fried, 2004), optimal contracting in competitive labor markets (e.g., Edmans and Gabaix, 2009), and reward for accepting compensation contracts with proportionately higher levels of at-risk incentive pay (e.g., Murphy, 2002). There is extensive literature examining the impact of firm size (e.g., Gabaix and Landier, 2008), firm performance (e.g., Jensen and Murphy, 1990), and human capital (e.g., Murphy and Zabojnik, 2004) on CEO compensation. Regardless of the reason for high pay packages, executive compensation became an increasingly important corporate governance issue as public scrutiny intensified in step with reformist rhetoric. From a governance perspective, public scrutiny is the examination and monitoring of firms by broad segments of the population with the aim of improving firm performance. The definition is encompassing and would include, for example, critical observation by government entities, politicians, media, shareholders, and voters. Wiersema and Zhang (2013) find that scrutiny by media and government of stock option backdating, rather than the backdating itself, causes firms to take corrective action to demonstrate to stakeholders a commitment to resolving problems. Lokanan (2017) cites scrutiny by regulators and investor advocates as a factor in efforts to improve self-regulatory enforcement in the securities industry. Dyck and Zingales (2002) show that public scrutiny, specifically media attention, influences corporate governance to affect shareholder value and corporate social responsibility. Jia *et al.* (2016) examine the impact of negative media coverage on firms. Gan (2006) finds that public scrutiny can impact firms through legal or economic costs of dealing with special interest groups, compliance costs of government regulations, and implicit costs of negative media coverage of

firm misbehavior. However, little is known about the influence of public scrutiny on executive pay. In one of the few related studies, Core *et al.*, (2008) find a strong relationship between negative media coverage and both excess CEO pay and high levels of exercised options, but find little evidence that the negative media coverage (i.e., heightened scrutiny) leads to decreased compensation. Setting executive pay is the prerogative of firms' boards of directors acting as principals on behalf of the shareholders. Increasing explicit and implicit scrutiny costs may influence the boards' decisions about compensation structures and levels.

The financial crisis and TARP legislation provide an interesting opportunity to re-examine whether the costs of public scrutiny are high enough to cause changes in executive compensation practices. First, I use the years surrounding the crisis to examine time trends in compensation in response to changing levels of public scrutiny. The financial crisis likely increased public scrutiny at all S&P500 firms. For example, the crisis caused widespread, large declines in equity values, unfavorably impacting investments and savings of broad cross sections of the population. In addition, liquidity evaporated during the crisis and actions by firms to preserve cash affected job security and wages. As the impact of crisis had tangible effect on individuals, the media and the public at large subjected firms to increased scrutiny. In particular, perceived excess in compensation practices at recipients of government bailout funds acted as a lightning rod for scrutiny as the media, politicians, and public demanded accountability to ensure protection of taxpayer resources. For example, Andrews and Bajaj (2009) quote President Obama, "For top executives to award themselves these kinds of compensation packages in the midst of this economic crisis is not only in bad taste – it's a bad strategy – and I will not tolerate it as President. We're going to be demanding some restraint in exchange for federal aid – so that when firms seek new federal dollars, we won't find them up to the same old tricks."

Second, I differentiate firms with respect to scrutiny. Thirty-four S&P500 firms received government assistance through TARP — twelve of those firms, *$TARP_{nonrestricted}$ firms,* avoided legislated compensation restrictions by repaying their TARP obligations before the end of 2009. *$TARP_{restricted}$ firms,* the remaining twenty-two, were subject to legislated compensation restrictions in at least one year due to outstanding TARP obligations. The balance of S&P500 firms, *nonTARP firms,* did not receive funding through TARP. If these firms all experienced increased scrutiny because of the financial crisis, nonTARP firms provide a benchmark for how firms changed compensation practices in response to heightened scrutiny. Compared to nonTARP firms, TARP firms came under more intense political and regulatory scrutiny, and the media responded by demonstrating unfavorable coverage toward TARP firms. The majority of Wall Street Journal articles about TARP recipients had a negative tone during program initiation (Ng *et al.*, 2017). It reasonably follows that public sentiment echoed media coverage — in 2009, trust in U.S. business (at 38% compared to 58% in 2008) was the lowest since tracking began, even lower than in the aftermath of the scandals that led to the Sarbanes Oxley legislation in 2002 and firms in industries that received government support during the financial crises experienced the largest decreases in public trust (Edelman, 2009). I use $TARP_{nonrestricted}$ firms to examine the impact of intense public scrutiny on CEO compensation and $TARP_{restricted}$ firms to study the impact of both intense scrutiny and legislated compensation restrictions on CEO pay.

Third, I distinguish between monetary (wage) and nonmonetary (perk) compensation, and show that behavior of wage and perks is very different in response to heightened scrutiny. Executive perks play an important role in the analysis because the exclusivity and luxury of perks make them even more controversial (i.e., subject to even higher scrutiny) than wage (e.g., *The Economist*, 2009). Since perks attract more attention than wage, the examination of perks is

interesting in testing the impact of public scrutiny on pay because the effects may be more pronounced or lasting. The literature shows that the media acts to satisfy both the demand for information and the demand for entertainment (e.g., Core *et al.*, 2008). For instance, the media may take a particular interest in perk excess because such stories sell better than traditional coverage of wages (i.e., sensationalism). The cycle may feed itself as the ensuing increased public scrutiny encourages further coverage of perks as the public seeks to better evaluate the excessive nature of perks (i.e., investigative reporting). Dyck and Zingales (2002) find that the costs of media scrutiny are related to the impact on reputation. The magnitude of the costs depends on the effect of media coverage on public sentiment. Regardless of whether the media is engaged in sensationalism or investigative reporting, there is a point at which boards of directors will take action in response to the costs of increased scrutiny. Because perks are so controversial, they may be a very good way to test the impact of public scrutiny on executive compensation. The public can perceive perks items as excessive (e.g., Edgerton, 2012) or productivity enhancing (e.g., Rajan and Wulf, 2006). Decisions by firms to increase or decrease levels of overall and specific perks in an environment of increased public scrutiny may cast light on whether perks are excessive or value enhancing.

This paper makes the following contributions. First, it addresses a gap in the literature on executive compensation by investigating the impact of public scrutiny on CEO wage and perks. Public scrutiny could be an important source of external governance if firms change behavior in response to explicit and implicit scrutiny costs. Second, it contributes to the discussion of perks as excess by introducing a novel data set of perk compensation at S&P500 firms, and by studying how firms choose to alter levels of specific perk items in response to increased public scrutiny and legislated compensation restrictions. Using changes in perks at S&P500 firms, I

provide evidence that traditional practices with respect to perks such as personal use of corporate aircraft, personal security, and company paid club memberships may have been excessive, while perks such as medical/health benefits, cost of living allowances, and car and driver services may provide common benefits that outweigh any negatives related to public perception. One constraint in studying perk compensation is the availability of data. Execucomp does not provide detailed perk information. Existing literature on perks relies on limited data. I manually collected information on executive perks from public disclosures contained in the proxy statements that S&P500 companies filed with the U.S. Securities and Exchange Commission (SEC) between January 1, 2007 and December 31, 2013. To the best of my knowledge, this data provides the most comprehensive executive perks information to date at S&P500 companies.

The rest of the paper proceeds as follows. The next section provides background. Section 3 presents the empirical results and the final section summarizes and concludes.

Background

Factors Contributing to the Financial Crisis

DeYoung *et al.,* (2010) summarize key changes in the banking sector during the two decades preceding the financial crisis. During the 1990s, there was a structural change in the financial sector with banks shifting away from the traditional "originate-and-hold" lending model in which they derived profit from loan interest and repeat business. The emerging "originate-and-securitize" model effectively removed loans from bank balance sheets, allowing banks to derive income mostly from fees. There was coincident increasing reliance on mortgage loans. Moreover, in an environment of decreased regulation and increased competition, many financial firms and institutional investors became overexposed to collateralized debt obligations (CDOs) and mortgage backed securities (MBSs). Banks became particularly vulnerable when the

collapse of the US housing bubble simultaneously reduced fee income for new mortgages and devalued illiquid investment grade MBSs that they held in their investment portfolios. Management at both commercial and investment banks made many fundamental risk management mistakes (Kashyap and Zingales, 2010). For example, executives at financial institutions underestimated the covariance of house prices across geographical regions and allowed their firms to become overexposed to MBSs. When the default rates on the underlying mortgages increased as housing prices collapsed, these institutions were left holding illiquid, severely distressed financial assets.

Defaults in the subprime mortgage market began to increase in 2006 as a result of the slowing in the growth of US house prices and the resetting of teaser interest rates. Beginning in 2007, major financial governing bodies such as the Organisation for Economic Co-operation and Development, the Financial Services Authority, and the Bank of England issued warnings about liquidity risk. By June 2007, credit spreads started to increase in some of the major global financial markets (e.g., DeYoung *et al.*, 2010 and Goddard *et al.*, 2009). The primary cause was fear about the US subprime residential mortgage market and the risk exposure of institutional investors to losses from investments in securitized or structured financial products such as CDOs and MBSs. While there were clear warning signs as early as 2006, it is common to date the financial crisis to 2008 because the collapse of Lehman Brothers in September 2008 was the largest bankruptcy filing in US history (e.g., Mensah, 2014). Two weeks later, the imminent implosion of American International Group threatened to destabilize the global financial system — the US government faced enormous pressure to act quickly and aggressively.

Legislation

The US Department of the Treasury website is the primary source for details in this section (TARP Programs, 2016). Effective October 3, 2008, the Emergency Economic Stabilization Act (EESA) established TARP in response to the deterioration of the US stock market. TARP is an umbrella program with initiatives that fall into six different categories: *Bank Investment Programs, Investment in AIG, Auto Industry, Executive Compensation, Credit Market Programs, and Housing.* The purpose of *Bank Investment Programs* was to stabilize the US banking system during the financial crisis. It included the Capital Purchase Program (CPP) which provided capital to viable institutions (generally through preferred stock and warrants). The CPP was, by far, the largest of the TARP initiatives in terms of public funding. The Treasury Department created a distinct initiative, *Investment in AIG*, because of the enormous risk to the financial system posed by credit default swap positions held by American International Group. As part of the securitization process for mortgage portfolios, financial institutions had been using credit default swaps to justify high credit ratings for MBSs — AIG was, by far, the largest counterparty. *Auto Industry* involved major equity investments in General Motors and Chrysler because of the risk to the overall economy and the potential harm to a wide cross-section of citizens that would result from the collapse of domestic automobile manufacturing. In total, thirty-four S&P500 firms (mostly finance and insurance companies) received TARP funding. While more than half are commercial banks, the group is not homogenous and also includes federal and federally-sponsored credit agencies, personal credit institutions, finance lessors, finance services, security brokers and dealers, investment advisors, life insurers, fire, marine, and casualty insurers, and automobile manufacturers. See Appendix A for a summary of all S&P500 TARP recipients. The data source is publicly available information from the U.S. Department of the Treasury (TARP Reports, 2014).

Under the *Executive Compensation Program*, all TARP recipients became subject to restrictions on executive compensation while they had outstanding obligations under TARP. In the initial 2008 legislation, EESA specified executive compensation standards for certain TARP participants that prohibited new golden parachute agreements in the event of involuntary termination and limited golden parachutes to 300% of average taxable compensation of past five years, reduced the IRS tax deductibility limit from $1,000,000 to $500,000, placed "limits on compensation that exclude incentives for senior executive officers of a financial institution to take unnecessary and excessive risks that threaten the value of the financial institution" (EESA Section 111(b)(2)(A)), and established "a provision for the recovery by the financial institution of any bonus or incentive compensation paid to a senior executive officer based on statements of earnings, gains, or other criteria that are later proven to be materially inaccurate" (EESA Section 111(b)(2)(B)) which significantly expanded clawbacks introduced in the Sarbanes-Oxley legislation of 2002.

However, from an implementation viewpoint, the interim final rule was not updated until 2009, so none of the 2008 TARP recipients had meaningful restriction on 2008 compensation. There was a clear groundswell of populist sentiment against perceived excessive pay at financial institutions. For example, in March 2009, firms seeking capital under TARP had to agree with limits on executive compensation and the US Treasury Department took action to prevent bonuses owed to executives and other financial professionals at AIG. Compensation restrictions associated with TARP included: bonuses limited to 33% of total compensation (payable in restricted stock only) subject to clawback provisions; prohibition of severance and change in control payments for named executive officers; enhanced disclosure of perks in the context of a requirement for firms to adopt a luxury expenditure policy; prohibition of tax gross-ups; annual

non-binding "say on pay" shareholder vote; and independent compensation committees (Core and Guay, 2010).

Both legislative and administrative branches of the US government exerted continued pressure for regulation of executive compensation such as increasing shareholder power over and board responsibility for compensation contracts, strengthening bank supervisors' ability to monitor and restrict executive pay, or imposing bans on pay practices thought to encourage short-run risk-taking at the expense of long-run firm value. In the wake of public outrage of 2009 bonus payments, the American Recovery and Reinvestment Act of 2009 strengthened the restrictions on executive compensation at firms that had outstanding TARP obligations (Murphy, 2012).

It is interesting that twelve S&P500 TARP recipients (i.e., JPMorgan Chase, Bank of New York Mellon, Goldman Sachs Group, Morgan Stanley, State Street, BB&T, Capital One Financial, Northern Trust, US Bancorp, American Express, Bank of America, and Wells Fargo) repaid their TARP obligations before the end of 2009 and, as such, effectively avoided legislated restrictions on executive compensation. In 2009, these twelve firms made TARP principal repayments totaling $138.3 billion plus an additional $12.9 billion profit to the Treasury Department (TARP Reports, 2014). See Appendix A for details.

Data and Results

Data

The source of data on executive compensation originates with disclosures contained in publicly available SEC Form DEF 14As (i.e. definitive proxy statements) that S&P500 companies filed with the SEC between January 1, 2007 and December 31, 2013 available from the SEC Edgar database (EDGAR|Company Filings, 2014). These proxy statements were all subject to the

stricter SEC disclosure rules that came into effect on December 15, 2006. The SEC defines named executive officers (NEOs) as CEO, CFO (chief financial officer), and the other top three highest paid officers of the company, and requires publicly traded companies to disclose compensation for named executive officers in annual proxy statements. The SEC specifies the elements of executive compensation that companies must report in separate columns in the summary compensation table: *salary, bonus, stock awards, option awards, non-equity incentive plan compensation, change in pension value and nonqualified deferred compensation earnings, all other compensation*, and *total*. There are two categories of *all other compensation*: *perquisites and other personal benefits* and *additional all other compensation*. Research databases such as Execucomp do not provide a breakdown of *all other compensation.*

Regarding *perquisites and other personal benefits,* the SEC intentionally avoids defining specific formal perk categories. It does however provide guidance on reporting expectations. The SEC expresses concern "that sole reliance on a bright line definition in our rules might provide an incentive to characterize perquisites or personal benefits in ways that would attempt to circumvent the bright lines…. An item is not a perquisite or personal benefit if it is integrally and directly related to the performance of the executive's duties. Otherwise, an item is a perquisite or personal benefit if it confers a direct or indirect benefit that has a personal aspect, without regard to whether it may be provided for some business reason or for the convenience of the company, unless it is generally available on a non-discriminatory basis to all employees." (SEC Release No. 33-8732A, 2013, p. 73). Furthermore, "examples of items requiring disclosure as perquisites or personal benefits under Item 402 include, but are not limited to: club memberships not used exclusively for business entertainment purposes, personal financial or tax advice, personal travel using vehicles owned or leased by the company, personal travel otherwise financed by the

company, personal use of other property owned or leased by the company, housing and other living expenses (including but not limited to relocation assistance and payments for the executive or director to stay at his or her personal residence), security provided at a personal residence or during personal travel, commuting expenses (whether or not for the company's convenience or benefit), and discounts on the company's products or services not generally available to employees on a non-discriminatory basis." (SEC Release No. 33-8732A, 2013, p. 77). The above list is not exhaustive. The SEC expects firms to report executive perk compensation according to the rules – firms cannot avoid declaring a certain category of perks simply because the SEC did not specify a complete list of all possible perk categories.

I manually collected detailed information for *perquisites and other personal benefits* from the proxy statements of S&P 500 companies available at the SEC website (i.e., EDGAR|Company Filings, 2014) and then supplemented this hand collected data with company financial statement and monetary compensation information from Compustat (Execucomp) and governance provisions from RiskMetrics. The final merged dataset has 19,249 (3,529) observations on 5,884 (964) executives (CEOs) from 624 firms. The number of firms exceeds 500 because of changes to the composition of the index over time. I winsorize all variables at the top and bottom one percent.

To facilitate the investigation of the differences in firm behavior with respect to monetary and nonmonetary compensation, I define the following. *Wage* is the sum of salary, bonus, stock awards, option awards, non-equity incentive plan compensation, and change in pension value and nonqualified deferred compensation earnings reported in SEC proxy filings. This is the benchmark measure of total monetary compensation. It specifically excludes *perquisites and other personal benefits* (the nonmonetary part of total compensation) and *additional all other*

compensation (to avoid clouding the results with one time payments such as severance or retirement lump sums). *Perks* is the amount reported as perquisites and other personal benefits. This is the measure of nonmonetary compensation.

Results

I define $TARP_{nonrestricted}$ *firms* as the twelve sample firms that received TARP funding at some time during the sample period but avoided compensation restrictions by repaying TARP obligations before the end of 2009, $TARP_{restricted}$ *firms* as the twenty-two sample firms that were subject to compensation restrictions for at least one year in the sample period because of outstanding TARP obligations, and *nonTARP firms* as S&P500 firms that did not receive government support through TARP. See Appendix A for a list of S&P500 TARP recipients. The "Date Repaid" column distinguishes *restricted* from *nonrestricted* firms.

(Table 1 about here)

(Figure 1 about here)

Table 1 and Figure 1 summarize wage information for CEOs at S&P500 firms in the years surrounding the financial crisis. Compared to nonTARP firms, CEO wages are higher at $TARP_{nonrestricted}$ firms prior to the financial crisis. $TARP_{nonrestricted}$ firm CEO wages demonstrate a pronounced V-shape during the years surrounding the financial crisis. For example, mean wage decreases from $23.9 million in 2006 to $8.1 million in 2009 — 33.9% of 2006 levels — before rebounding to $16.1 million in 2012 — 67.2% of 2006 levels. Prior to the crisis, CEO wage levels are similar at nonTARP and $TARP_{restricted}$ firms, but CEO wages at $TARP_{restricted}$ firms demonstrate the same pronounced V-shape as at $TARP_{nonrestricted}$ firms. Mean CEO wage decreases from $10.7 million in 2006 to $4.7 million in 2008 — 43.1% of 2006 levels — before rebounding to $8.3 million in 2012 — 77.2% of 2006 levels. In contrast, nonTARP firm CEO

wage decreases modestly during the crises before reaching new highs. Mean CEO wage goes from $9.4 million in 2006 to $9.2 million in 2008 — 98.2% of pre-crisis levels — then to $10.6 million in 2012 — 113% of pre-crisis levels. In short, from 2006 to 2012, the wage gap between CEOs at $TARP_{nonrestricted}$ ($TARP_{restricted}$) and nonTARP firms narrows (reverses).

(Table 2 about here)

(Figure 2 about here)

Table 2 and Figure 2 summarize CEO perks at $TARP_{nonrestricted}$, $TARP_{restricted}$ and nonTARP firms. Perks are higher at $TARP_{nonrestricted}$ firms than at $TARP_{restricted}$ firms for all years from 2006 to 2012. Compared to nonTARP firms, perks are higher at both nonrestricted and restricted TARP firms prior to the financial crisis. Overall, TARP firm perks decrease substantially over the entire period. Mean CEO perks at $TARP_{nonrestricted}$ firms decrease from $207,880 in 2006 to $137,474 in 2012 — 66.1% of 2006 levels. The percent reduction of mean CEO perks at $TARP_{restricted}$ firms is even larger than at $TARP_{nonrestricted}$ firms. CEO mean perks decrease from $119,683 in 2006 to $41,416 in 2012 — 34.6% of 2006 levels. At nonTARP firms, CEO perks decrease modestly over the sample period; mean perks are $89,886 in 2006 and $84,756 in 2012. Despite being a small proportion of executive compensation (typically less than 1% of wage), perks may foster behaviors that make them psychologically important to executives (e.g., Rajan and Wulf, 2006) or to shareholders, politicians, and the public in general.

The subsequent multivariate regression analysis uses financial crisis and government intervention to isolate the impact of public scrutiny and legislated compensation restrictions on executive pay. To use a "pure" year effect to study the impact of scrutiny on compensation, the regressions control for other determinants of compensation to remove their effect from the year dummy coefficients. For example, if share prices decrease in 2008 and 2009 because of the crisis

and are also important determinants of executive compensation, including share price as a separate control variable removes the impact of crisis-related share price changes from the year dummy coefficients. The extant literature investigating how firm characteristics (such as size, profitability and stock price) and managerial characteristics (such as job tenure and gender) affect executive compensation informs my choice of regression explanatory variables that specifically control for firm size, growth opportunities, market performance, accounting performance, growth, tenure, gender, governance, and firm fixed effects.

(Table 3 about here)

Table 3 presents regression results for CEO compensation based on the following equation: $Ln(Compensation_{it}) = \alpha_c + \mathbf{W}'\boldsymbol{\beta}_C + \mathbf{X}'\boldsymbol{\gamma}_C + \mathbf{Y}'\boldsymbol{\chi}_C + \mathbf{Z}'_{it-1}\boldsymbol{\varphi}_C + u_j^c + \varepsilon_{it}^c$, where the dependent variable, $Ln(Compensation_{it})$, is the logarithm of CEO *i*'s compensation in year *t* and *compensation* is either *wage* (columns 1 and 2) or *pe*^{r}*ks* (columns 3 and 4). u_j is industry *j*'s fixed effect based on 3 digit SIC code. $\mathbf{Z}_{it-1}$ is a vector of control variables including ln(Market Value$_{t-1}$), Market to Book Ratio$_{t-1}$, Stock Return$_t$, Stock Return$_{t-1}$, Return on Assets$_t$, Return on Assets$_{t-1}$, Free Cash Flow Ratio$_{t-1}$, Sales Growth$_{t-1}$, ln(Tenure$_t$), and Female. Columns (2) and (4) include E (entrenchment) Index as a control for governance (Bebchuk *et al*., 2009). Separate regressions control for governance because of limited availabilty of data from RiskMetrics to calculate E Index for all firm-years. $\mathbf{W}$ is a vector of year dummy variables for 2007 to 2012. $\mathbf{X(Y)}$ is a vector of dummy variables for TARP$_{\text{nonrestricted}}$ (TARP$_{\text{restricted}}$) in each year from 2006 to 2012. The design of the regression specification simplifies the interpretation of the regression coefficients of the dummy variables. β_1 to β_6 represent the differences in compensation at nonTARP firms in 2007 to 2012, respectively, compared to nonTARP firms in 2006. γ_1 to γ_7

represent the differences in compensation at $TARP_{nonrestricted}$ firms in 2006 to 2012, respectively, compared to compensation at nonTARP firms in the year defined by the dummy. Similarly, χ_1 to χ_7 represent the differences in compensation at $TARP_{restricted}$ firms in 2006 to 2012, respectively, compared to compensation at nonTARP firms in the year defined by the dummy. By controlling for industry fixed effects plus generally accepted determinants of CEO compensation, the regression specification isolates pure year effects for the three categories of firms. That is, the compensation changes associated with the dummy variables are not the result of changing firm size, firm performance, industry factors, or managerial traits. The key exogenous event that occurred during the sample period was the financial crisis, which led to heightened public scrutiny of compensation practices at *all* sample firms. However, the level of scrutiny was more intense at firms that received government support during the crisis. NonTARP firms provide a benchmark for the impact of changes in public scrutiny on CEO compensation in the years 2006 to 2012. $TARP_{nonrestricted}$ firms enable the examination of the impact of intense public scrutiny on CEO compensation; $TARP_{restricted}$ firms permit the study of the impact of both intense scrutiny and legislated compensation restrictions on CEO pay. $TARP_{nonrestricted}$ firms had the heightened attention associated with receiving government bailout funds, but clearly had better financial viability than other TARP recipients (i.e., they were able to more quickly raise the capital required to repay TARP obligations and avoid compensation restrictions). In contrast, $TARP_{restricted}$ firms had not only the scrutiny of receiving TARP funding, but also had to adhere to legislated wage restrictions and had to assess and publicly disclose their approach to luxury spending. Compensation changes at $TARP_{nonrestricted}$ firms (reflected by $\gamma's$) indicate the impact of intense scrutiny while compensation changes at $TARP_{restricted}$ firms (reflected by $\chi's$) indicate the impact of (even more) intense scrutiny plus the impact of legislated compensation restrictions

while TARP obligations were outstanding. In a principal-agent framework, external factors influence the board of directors (i.e., principal) in setting CEO (i.e., agent) pay. In the regressions, the coefficients of the control variables absorb the effects of those specific factors, leaving the coefficients of the dummy variables to capture the remaining influences, including scrutiny. Carty and Weiss (2012) found no correlation between CEO duality and failure of US banks during the financial crisis.

In the wage regression of column (1), the significant positive and increasing $\beta's$ for the 2008 to 2012 dummies confirm overall increasing wage at nonTARP firms. Given that the sample average nonTARP CEO 2006 wage was $9.78 million, the 2008 (2012) dummy coefficient of 0.102 (0.236) suggest that 2008 (2012) nonTARP average CEO wage increased to $10.82 million ($12.38 million) — a 10.7% (26.6%) increase over 2006 levels. The column (2) wage regression includes E index as an explanatory variable, and shows the same increasing CEO wage pattern. The main difference is that the year dummy variables are not significant until 2010, but the overall interpretation is the same. The positive, significant E index regression coefficient indicates that CEO wage at S&P500 firms was higher at firms in which the shareholders cede more rights to management. These benchmark results are consistent with the perceived cost of increased scrutiny at nonTARP firms being insufficient to cause these firms to decrease CEO wage.

With a value of 0.583, the significant, large, positive γ_1 means that 2006 CEO wage at $TARP_{nonrestricted}$ firms was much higher than at nonTARP firms (i.e., $17.52 million or 79.1% higher). γ_3 and γ_4 are significant, negative and large, indicating significant CEO wage reductions at $TARP_{nonrestricted}$ firms in 2008 and 2009. Given that the average 2008 (2009) nonTARP firm CEO wage was $9.25 ($9.27) million, γ_3 = -0.527 (γ_4 = -1.019) implies that 2008

(2009) $TARP_{nonrestricted}$ firm CEO wage was $5.46 ($3.35) million, 59.0% and 36.1% of 2008 and 2009 nonTARP CEO wage, respectively. γ_5 to γ_7 are negative but not significant, suggesting that the impact of scrutiny on CEO wage at $TARP_{nonrestricted}$ firms eased in 2009 to 2012. This result is consistent with wage scrutiny declining as the crisis receded. The wage pattern in regression (2), which controls for governance, is nearly identical.

The regression (1) and (2) χ_1 coefficients are not significantly different from zero, indicating 2006 CEO wages were approximately the same at $TARP_{restricted}$ and nonTARP firms. For both regressions, χ_2 to χ_7 are all significant, large, and negative, indicating that from 2007 to 2012 CEO wages at $TARP_{restricted}$ firms were significantly lower than at nonTARP firms. The results show that the wage gap was greatest in 2009 and narrowed by 2011 and 2012. For example, in regression (1), χ_3 = -1.187 (χ_7 = -0.413) implies that 2009 (2012) $TARP_{restricted}$ firm CEO wage was $2.83 ($7.01) million, 30.5% and 66.2% of 2008 and 2012 nonTARP CEO wage, respectively. The results suggest that increased public scrutiny began to impact $TARP_{restricted}$ firm CEO wage in 2007, with legislated wage restrictions causing further wage reductions while TARP obligations were outstanding. The coefficient magnitude decreases in 2010 to 2012 as firms repaid TARP obligations. However, the fact that CEO wages at $TARP_{restricted}$ firm remained significantly lower than at nonTARP firms through 2012 is consistent with the scrutiny of wages being more intense and lasting longer at $TARP_{restricted}$ firms than $TARP_{nonrestricted}$ firms.

With respect to perks, E index is not a significant explanatory factor for CEO perks. In the perk regressions of columns (3) and (4), the $\beta's$ are not significant except for β_3, indicating that CEO perks at nonTARP firms did not change significantly from 2006 to 2012. These benchmark results suggest that increased scrutiny at nonTARP firms did not impact overall perk practices. In

regression (3), the large, significant, and positive γ_1 to γ_3 indicate that from 2006 to 2008, CEO perks at $TARP_{nonrestricted}$ firms were much higher than at nonTARP firms. Although γ_4 to γ_7 are all positive, they are not statistically significant, indicating that $TARP_{nonrestricted}$ reduced CEO perks by 2009 and kept them lower through 2012. CEO perks at $TARP_{restricted}$ firms demonstrate a similar pattern, but the results suggest that the cuts occurred earlier and were deeper. In regression (3), χ_1 and χ_2 are large, significant and positive, indicating that 2006 and 2007 CEO perks at $TARP_{restricted}$ firms were significantly higher than the respective levels at nonTARP firms. χ_3 to χ_7 are mostly negative and not significant. The results suggest that intense scrutiny has a more lasting impact on perks than on wages. The benchmark nonTARP firms made little change to perks as they came under increased scrutiny during the crisis. The high perk paying $TARP_{nonrestricted}$ firms responded to increased scrutiny by making large cuts to perks as the crisis unfolded and maintained the cuts through 2012. Compensation restrictions under TARP did not specifically limit perks — the results for $TARP_{restricted}$ firms suggest that they experienced the most intense scrutiny, reducing perks earlier and keeping them lower than nonTARP firms. The differing impact of scrutiny on CEO wages and perks may be related to perks attracting more attention and being perceived as more excessive than wage causing boards of directors (i.e., principals) to rethink the (implicit) scrutiny costs of perks and more permanently shift attitudes about perks as part of executive compensation packages. The regression (4) results have the same interpretation, but the reductions in CEO perks at both restricted and nonrestricted TARP firms start one year later at the sample firms for which E index data is available.

(Table 4 about here)

I further investigate the idea that excessive perks attract more public scrutiny by examining changes in specific perk items. Although CEO perks at benchmark nonTARP firms remained

relatively static from 2006 to 2012, there was significant movement in individual perks items. In Table 4, columns 1 to 3 (4 and 5) present results for specific perk items that experienced significant decreases (increases) at nonTARP firms during the sample period. The regression specification is the same as in Table 3 but with specific perks items as the dependent variables instead of wage or total perks. To simplify, the table presents only the $\beta's$ because the focus is on the changing perk practices at nonTARP firms. The dependent variables in columns (1) to (5) are logarithmic company-paid club memberships, payout for unused vacation, professional association dues, charitable gift matching, and medical/health perks, respectively. Given the specification, the year dummy variable coefficients represent (approximately) the percentage change in that perk item compared to 2006 levels. In columns (1) to (3), the $\beta's$ are all negative (except for 2007 in the club membership regression) and statistically significant particularly in the later years of the sample period, indicating sustained reductions in these specific perk items. Overall, compared to 2006 levels, nonTARP firm CEO consumption of club memberships, vacation payouts, and professional association dues remained significantly lower in 2012. The decision to reduce perks may reflect a board of director's assessment that previous levels of these perks were excessive or inappropriate.

In columns (4) and (5), all of the year dummy coefficients are positive and most are significant, indicating that CEO charitable gift matching and medical/health perks increased from 2006 levels and remained higher. The results are consistent with benchmark nonTARP firms recognizing the benefits of corporate social responsibility and executive well-being. Under scrutiny, firms may choose to reduce perks that are excessive, and increase those perks that provide common value.

(Table 5 about here)

Table 5 shows what happened at firms that received TARP funding by examining changes in specific perks items consumed by CEOs at $TARP_{nonrestricted}$ firms from 2006 to 2012. Columns 1 to 3 (4 and 5) presents results for specific perk items that experienced significant decreases (increases). The dependent variables in columns (1) to (5) are logarithmic personal use of company aircraft, security, financial services, car and driver services, and medical/health perks, respectively. The regression specification means that the $\gamma's$ indicate the difference in the level of the specific perk item at $TARP_{nonrestricted}$ firms compared to nonTARP firms in the year defined by the dummy.

The regression (1) results show that $TARP_{nonrestricted}$ firms make very large cuts to the personal use of corporate aircraft perk. $\gamma_4 = -2.847$, $\gamma_6 = -2.557$, and $\gamma_7 = -3.079$ are all statistically significant and indicate that $TARP_{nonrestricted}$ firms all but eliminated aircraft perks starting in 2009. The γ_1 coefficients in regressions (2), (3), and (4) are large, positive, and statistically significant, indicating that, in 2006, $TARP_{nonrestricted}$ firm CEOs had much higher levels of security, financial, and car and driver services than nonTARP firm CEOs. The security regression in column (2) shows that the gap between $TARP_{nonrestricted}$ and nonTARP firms became progressively smaller from 2007 to 2010. By 2011 and 2012, spending on CEO security was not statistically different between $TARP_{nonrestricted}$ and nonTARP firms. Similarly, $TARP_{nonrestricted}$ firms reduced spending on financial services, although the results are less compelling (γ_3, γ_5, and γ_7 are not significant, indicating that CEO financial services perks at $TARP_{nonrestricted}$ firms are not significantly different from those at nonTARP firms in 2008, 2010, and 2012). The regression (1), (2), and (3) results are consistent with $TARP_{nonrestricted}$ firms acting to reduce excessive consumption of aircraft, security, and financial services perks (i.e., three of the highest dollar value and/or most frequent perks — the number of data points (average value)

are 1334 ($139,706), 436 ($155,119), and 879 ($17,342) for aircraft, security, and financial services, respectively). While $TARP_{nonrestricted}$ firms responded to the financial crisis by making perk reductions overall, they chose to significantly increase spending on car and driver services and medical/health perks. Given that these firms were aware of the negative impact of public scrutiny, their decision to increase these perks suggest that firms perceived them as beneficial and not excessive. The column (4) regression shows that the gap between $TARP_{nonrestricted}$ firms and nonTARP firms widens — the γ_2 *to* γ_7 (2007 to 2012) are all larger than γ_1 and significant at the 1% level. Executives at $TARP_{nonrestricted}$ firms became significantly higher users of car and driver services. Given that $TARP_{nonrestricted}$ firms are predominantly big city banks and investment brokers, this behavior is consistent with recognizing the productively benefit of letting executives continue to focus on business while someone else deals with vagaries and stress of city traffic. Since a car service is particularly beneficial in, for example, New York City, it is reasonable that $TARP_{nonrestricted}$ firms would find this perk more beneficial than would nonTARP firms. The medical/health regression in column (5) shows that in 2006, CEO spending on medical/health was not significantly different at $TARP_{nonrestricted}$ and nonTARP firms, but the γ_2 to γ_7 coefficients are all large, postive, and significant, indicating that, compared to nonTARP firms, $TARP_{nonrestricted}$ firms spent more on medical/health perks in 2007 to 2012. Note that the behavior of $TARP_{nonrestricted}$ firms with respect to medical/health perks is incremental to increasing levels of this perk at nonTARP firms between 2007 and 2012, indicating that $TARP_{nonrestricted}$ firms placed a very high value on the benefits of executive well-being.

(Table 6 about here)

To complete the analysis, I examine the perk choices made by $TARP_{restricted}$ firms. Although there were no specific restrictions on perks, TARP regulations required these firms to formalize

policies with respect to luxury spending. Table 6 shows changes in specific perks items consumed by CEOs at $TARP_{restricted}$ firms from 2006 to 2012. The results in columns (1) to (3) show that $TARP_{restricted}$ firms decreased spending on personal use of company aircraft, security, and other perks and the column (4) results indicate that they increased spending on cost of living allowances. The $\chi's$ indicate the difference in the level of the specific perk item at $TARP_{restricted}$ firms compared to nonTARP firms in the year defined by the dummy.

The regression (1) results show that $TARP_{restricted}$ firms make very large cuts to the personal use of corporate aircraft perk. χ_4 = -3.582, χ_5 = -1.976, and χ_6 = -1.982 are all statistically significant and indicate that $TARP_{restricted}$ spending on CEO personal use of aircraft was much less than at nonTARP firms from 2009 to 2011. The coefficient for 2012 is also large and negative, but is not statistically significant. The regression (2) results show that $TARP_{restricted}$ firms reduced spending on security as well — χ_3 = -1.371, χ_4 = -1.930, and χ_5 = -1.652 are all statistically significant and indicate that spending on CEO security was much lower at $TARP_{restricted}$ firms than at nonTARP firms in 2008, 2009, and 2010. In regression (3), χ_1 = 3.753, χ_2 = 3.908, and χ_3 = 3.724 are all at the 1% significance level, indicating that $TARP_{restricted}$ firms had much, much higher levels of "other" perks than nonTARP firms in 2006, 2007, and 2008. This changed abruptly in 2009. χ_4 to χ_7 are all much smaller and not statistically significant — the gap in spending on "other" perks disappeared from 2009 to 2012. The behavior of $TARP_{restricted}$ firms with respect to other perk consumption suggests that these firms became more careful in monitoring (luxury) perk spending. Consolidation of relatively large perk provision under the banner "miscellaneous" tends to project an image of nontransparency and lack of control; $TARP_{restricted}$ firms made efforts to address this public image problem.

However, even in an environment of intense scrutiny and widespread cuts in perks, $TARP_{restricted}$ firms chose to maintain and even increase some perks. For example, the regression results show higher levels of cost of living allowances in 2009 and 2011 at $TARP_{restricted}$ firms compared to nonTARP firms. A deeper investigation of $TARP_{retricted}$ spending on cost of living allowances for all named executives shows that $TARP_{retricted}$ firms maintained much higher levels than nonTARP firms through the entire sample period. This behavior is consistent with recognizing the value of developing executives through international assignments international assignments. Multinational firms, in particular, use international assignments as part of career advancement for top executives - cost of living allowances are an important decision factor for executives (Baruch, 2004).

Conclusions

The financial crisis and TARP legislation provide an interesting opportunity to evaluate the impact of public scrutiny on executive compensation. I investigate the extent to which increased public scrutiny associated with financial crisis and governance intervention changed corporate compensation practices by examining time trends in compensation, by differentiating firms with respect to public scrutiny, and by including both monetary and nonmonetary compensation. Compensation practices at $TARP_{nonrestricted}$, $TARP_{restricted}$ and nonTARP firms were markedly different in the years surrounding the financial crisis, and CEO wage and perks behaved differently in response to heightened public scrutiny.

The financial crisis had a much greater impact on CEO compensation at both nonrestricted and restricted TARP firms, and the effects lingered. By the end of the crisis, the wage and perk gap between $TARP_{nonrestricted}$ ($TARP_{restricted}$) firms and nonTARP firms narrowed (reversed). TARP firm compensation committees and boards of directors acting as principals on behalf of

shareholders may have decided that the negative impact of public perception of perks as excessive more than offset the potential benefit of perks as part of executive pay. The magnitude and persistence of perk reductions at TARP firms suggest that this change has a degree of permanence. Using changes in individual perk items, I provide evidence that previous levels of perks such as personal use of corporate aircraft, personal security, and company paid club memberships may have been excessive, while perks such as charitable gift matching, medical/health benefits, cost of living allowances, and car and driver services may provide common benefits that outweigh any negatives related to public perception.

Overall, the results are consistent with compensation restrictions having a temporary impact on wage and public scrutiny having a temporary impact on wage and a lasting impact on perks. Increased scrutiny related to the crisis did not cause benchmark nonTARP firms to reduce CEO wages or perks. However, bailout recipients responded to the resulting intense scrutiny with large cuts to CEO wages that moderated as the crisis and scrutiny receded. In contrast, in the wake of the financial crisis, these firms experienced more permanent shifts in their attitudes toward the scrutiny costs of providing perks. NonTARP firms (i.e., firms experiencing more moderate changes in scrutiny) maintained overall levels of CEO perks but reduced perks perceived as excessive and focused on ones that have the potential to provide common value. TARP firms (i.e., firms facing more intense scrutiny) made large overall perk reductions through focused cuts to expensive and excessive perks, yet maintained or increased perks that provide common value.

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Figure 1

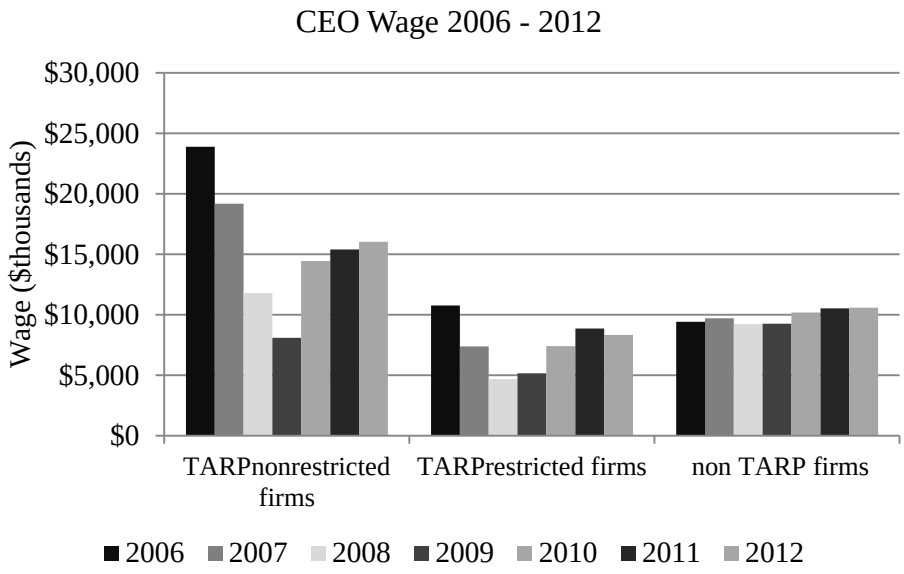

Figure 2

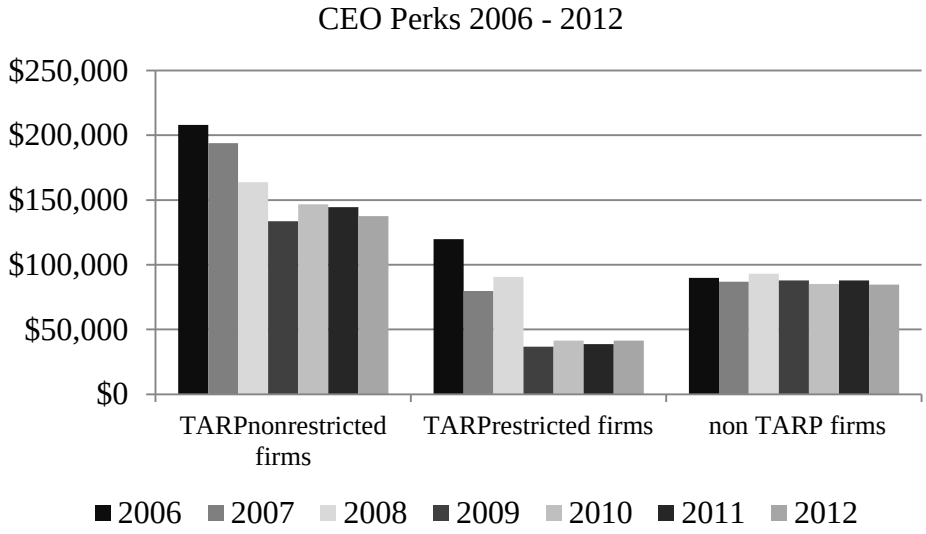

Table 1

Summary wage information for S&P500 CEOs

This table presents summary statistics for CEO wage ($000s) at S&P500 companies as disclosed in SEC filings between January 1, 2006 and December 31, 2013. Columns present data for CEOs at $TARP_{nonrestricted}$ (firms that repaid TARP obligations before December 31, 2009), $TARP_{restricted}$ (firms that did not repay TARP obligations before December 31, 2009) and nonTARP (firms that did not receive government support through TARP) firms as indicated.

	$TARP_{nonrestricted}$		$TARP_{restricted}$		nonTARP	
Year	Mean (Median)	Std Dev	Mean (Median)	Std Dev	Mean (Median)	Std Dev
2006	23,910 (28,004)	7,679	10,783 (9,422)	7,009	9,417 (7,719)	6,832
2007	19,189 (23,468)	9,945	7,398 (6,085)	6,098	9,724 (7,918)	6,871
2008	11,800 (9,719)	8,925	4,690 (4,477)	3,527	9,248 (7,563)	6,318
2009	8,106 (6,931)	6,554	5,154 (4,791)	4,327	9,274 (7,991)	6,092
2010	14,460 (14,985)	5,077	7,407 (6,837)	5,418	10,192 (8,884)	6,417
2011	15,395 (15,705)	5,096	8,872 (7,885)	5,149	10,521 (9,129)	6,601
2012	16,051 (14,502)	5,962	8,328 (8,807)	4,197	10,596 (9,149)	6,407

Table 2

Summary perk information for S&P500 CEOs

This table presents summary statistics for CEO perks at S&P500 companies as disclosed in SEC filings between January 1, 2006 and December 31, 2013. Columns present data for CEOs at $TARP_{nonrestricted}$ (firms that repaid TARP obligations before December 31, 2009), $TARP_{restricted}$ (firms that did not repay TARP obligations before December 31, 2009) and nonTARP (firms that did not receive government support through TARP) firms as indicated.

	$TARP_{nonrestricted}$		$TARP_{restricted}$		nonTARP	
Year	Mean (Median)	Std Dev	Mean (Median)	Std Dev	Mean (Median)	Std Dev
2006	207,880	176,018	119,683	144,844	89,886	127,633
	(161,097)		(46,797)		(32,760)	
2007	193,921	179,825	79,697	112,384	87,004	128,461
	(134,656)		(40,741)		(30,369)	
2008	163,742	162,048	90,582	96,546	93,066	131,712
	(116,575)		(43,725)		(34,742)	
2009	133,564	141,497	36,795	52,699	87,791	117,470
	(92,759)		(17,337)		(37,870)	
2010	146,657	172,014	41,348	79,226	85,257	120,497
	(63,461)		(15,337)		(32,791)	
2011	144,565	175,395	38,648	52,519	87,811	125,292
	(84,635)		(22,318)		(33,528)	
2012	137,474	160,004	41,416	59,662	84,756	124,506
	(71,252)		(23,160)		(29,585)	

Table 3

Changes in CEO compensation at S&P500 firms in the years surrounding the financial crisis

This table reports the changes in CEO wage and perk compensation over time. The dependent variable in columns 1&2 (3&4) is CEO logarithmic wage (perks). The coefficients for the year dummy variables indicate the level of CEO wage or perks in that year relative to 2006.The coefficients on the respective $TARP_{nonrestricted}$·Year ($TARP_{restricted}$·Year) dummies indicate the level of CEO wage or perks at nonrestricted (restricted) TARP firms compared to nonTARP firms in the given year. All regressions control for industry fixed effects and $\ln(\text{Market Value}_{t-1})$, Market to Book Ratio_{t-1}, Stock Return_t, Stock Return_{t-1}, Return on Assets_t, Return on Assets_{t-1}, Free Cash Flow Ratio_{t-1}, Sales Growth_{t-1}, $\ln(\text{Tenure}_t)$, and Female. Regressions contol for governance (E Index) as indicated. The subscripts $_t$ and $_{t-1}$ indicate current and prior year respectively. Cluster-robust standard errors are in parentheses with clustering at firm level. ***, **, * indicate significance level at 1%, 5% and 10% level respectively.

	1 $\ln(Wage_t)$	2 $\ln(Wage_t)$	3 $\ln(Perks_t)$	4 $\ln(Perks_t)$
β_1 (2007 dummy)	0.057	-0.010	-0.158	-0.451
	(0.049)	(0.054)	(0.284)	(0.328)
β_2 (2008 dummy)	0.102**	0.026	-0.025	-0.253
	(0.051)	(0.055)	(0.297)	(0.335)
β_3 (2009 dummy)	0.126**	0.089	0.656**	0.567*
	(0.053)	(0.055)	(0.307)	(0.336)
β_4 (2010 dummy)	0.142***	0.147***	0.451	0.353
	(0.052)	(0.054)	(0.304)	(0.330)
β_5 (2011 dummy)	0.173***	0.179***	0.221	0.120
	(0.049)	(0.051)	(0.284)	(0.312)
β_6 (2012 dummy)	0.236***	0.254***	0.393	0.347
	(0.052)	(0.054)	(0.299)	(0.329)
γ_1 ($TARP_{nonrestricted}$·2006 dummy)	0.583**	0.533**	3.340**	3.942**
	(0.255)	(0.261)	(1.476)	(1.595)
γ_2 ($TARP_{nonrestricted}$·2007 dummy)	0.101	0.336	3.285**	4.161***
	(0.247)	(0.252)	(1.429)	(1.542)
γ_3 ($TARP_{nonrestricted}$·2008 dummy)	-0.527**	-0.512**	2.860**	3.599**
	(0.247)	(0.243)	(1.431)	(1.483)
γ_4 ($TARP_{nonrestricted}$·2009 dummy)	-1.019***	-1.008***	1.919	2.726*
	(0.248)	(0.243)	(1.435)	(1.484)
γ_5 ($TARP_{nonrestricted}$·2010 dummy)	-0.197	-0.189	0.914	1.715
	(0.247)	(0.243)	(1.432)	(1.483)
γ_6 ($TARP_{nonrestricted}$·2011 dummy)	-0.002	0.003	0.266	0.949
	(0.247)	(0.242)	(1.431)	(1.481)
γ_7 ($TARP_{nonrestricted}$·2012 dummy)	-0.057	-0.041	1.251	2.009
	(0.248)	(0.243)	(1.434)	(1.483)
χ_1 ($TARP_{restricted}$·2006 dummy)	-0.092	-0.163	2.873**	3.648***
	(0.200)	(0.206)	(1.159)	(1.261)
χ_2 ($TARP_{restricted}$·2007 dummy)	-0.934***	-0.758***	2.202*	3.161**
	(0.195)	(0.206)	(1.128)	(1.262)
χ_3 ($TARP_{restricted}$·2008 dummy)	-1.024***	-0.810***	1.796	3.122**
	(0.200)	(0.206)	(1.158)	(1.259)
χ_4 ($TARP_{restricted}$·2009 dummy)	-1.187***	-0.880***	-0.809	0.410
	(0.203)	(0.206)	(1.174)	(1.257)
χ_5 ($TARP_{restricted}$·2010 dummy)	-0.748***	-0.450**	-1.281	0.001
	(0.190)	(0.209)	(1.100)	(1.279)
χ_6 ($TARP_{restricted}$·2011 dummy)	-0.398**	-0.392**	-1.119	-0.300
	(0.190)	(0.199)	(1.099)	(1.214)
χ_7 ($TARP_{restricted}$·2012 dummy)	-0.413**	-0.347*	-0.951	-0.044
	(0.190)	(0.199)	(1.102)	(1.217)
E Index		0.029**		-0.012
		(0.013)		(0.081)
Constant	14.137***	14.465***	2.503	-5.517
	(0.774)	(0.721)	(4.483)	(4.407)
Observations	3,530	3,092	3,530	3,092
R-squared	0.320	0.356	0.231	0.238

Table 4

Changes in specific perk items at nonTARP firms from 2006 to 2012

This table shows changes in specific perks items consumed by CEOs at nonTARP S&P500 firms (firms that did not receive government support through TARP) from 2006 to 2012. Columns (1) to (3) summarize data for perk items that decreased during the period. Columns (4) and (5) summarize data for perk items that increased during the period. The dependent variables in columns (1) to (5) are logarithmic club memberships, payout for unused vacation, professional association dues, charitable gift matching, and medical/health perks, respectively. All regressions control for industry (3 digit SIC) fixed effects and ln(Market Value$_{t-1}$), Market to Book Ratio$_{t-1}$, Stock Return$_t$, Stock Return$_{t-1}$, Return on Assets$_t$, Return on Assets$_{t-1}$, Free Cash Flow Ratio$_{t-1}$, Sales Growth$_{t-1}$, Ln(Tenure$_t$), and Female. The subscripts $_t$ and $_{t-1}$ indicate current and prior year respectively. Cluster-robust standard errors are in parentheses with clustering at firm level. ***, **, * indicate significance level at 1%, 5% and 10% level respectively.

	(1) ln(Club Fees$_t$)	(2) ln(Vacation$_t$)	(3) ln(Pro Fees$_t$)	(4) ln(Charity$_t$)	(5) ln(Medical$_t$)
β_1 (2007 dummy)	0.035	-0.129	-0.065**	0.180	0.152
	(0.139)	(0.088)	(0.026)	(0.137)	(0.163)
β_2 (2008 dummy)	-0.077	-0.204**	-0.043	0.206	0.213
	(0.145)	(0.092)	(0.027)	(0.143)	(0.170)
β_3 (2009 dummy)	-0.222	-0.227**	-0.040	0.292**	0.057
	(0.150)	(0.095)	(0.028)	(0.148)	(0.176)
β_4 (2010 dummy)	-0.119	-0.141	-0.046*	0.278*	0.380**
	(0.149)	(0.094)	(0.027)	(0.146)	(0.174)
β_5 (2011 dummy)	-0.237*	-0.167*	-0.064**	0.382***	0.346**
	(0.139)	(0.088)	(0.026)	(0.137)	(0.163)
β_6 (2012 dummy)	-0.308**	-0.210**	-0.065**	0.419***	0.646***
	(0.146)	(0.093)	(0.027)	(0.144)	(0.171)
Constant	1.233	-0.048	-0.131	-1.609	1.141
	(2.197)	(1.388)	(0.404)	(2.161)	(2.570)
γ dummies	Y	Y	Y	Y	Y
χ dummies	Y	Y	Y	Y	Y
Control Variables	Y	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y
Observations	3,530	3,530	3,530	3,530	3,530
R-squared	0.193	0.063	0.091	0.230	0.168

Table 5

Changes in specific perk items at $TARP_{nonrestricted}$ firms from 2006 to 2012

This table shows changes in specific perks items consumed by CEOs at $TARP_{nonrestricted}$ S&P500 firms (firms that repaid TARP obligations by December 31, 2009) from 2006 to 2012. Columns (1) to (3) summarize data for perk items that decreased during the period. Columns (4) and (5) summarize data for perk items that increased during the period. The dependent variables in columns (1) to (5) are logarithmic personal use of company aircraft, security, financial services, car and driver services, and medical/health perks, respectively. All regressions control for industry (3 digit SIC) fixed effects and ln(Market $Value_{t-1}$), Market to Book $Ratio_{t-1}$, Stock $Return_t$, Stock $Return_{t-1}$, Return on $Assets_t$, Return on $Assets_{t-1}$, Free Cash Flow $Ratio_{t-1}$, Sales $Growth_{t-1}$, Ln($Tenure_t$), and Female. The subscripts $_t$ and $_{t-1}$ indicate current and prior year respectively. Cluster-robust standard errors are in parentheses with clustering at firm level. ***, **, * indicate significance level at 1%, 5% and 10% level respectively.

	(1) ln ($Aircraft_t$)	(2) ln ($Security_t$)	(3) ln ($Financial_t$)	(4) ln ($Car\ Service_t$)	(5) ln ($Medical_t$)
γ_1 $TARP_{nonrestricted}$·2006 dummy	-0.118	3.671***	3.855***	1.989**	-0.107
	(1.537)	(1.002)	(1.266)	(0.877)	(0.350)
γ_2 $TARP_{nonrestricted}$·2007 dummy	-0.502	3.321***	2.406**	3.017***	1.285***
	(1.488)	(0.970)	(1.225)	(0.849)	(0.339)
γ_3 $TARP_{nonrestricted}$·2008 dummy	-0.734	2.574***	1.544	2.680***	0.587*
	(1.490)	(0.971)	(1.227)	(0.850)	(0.339)
γ_4 $TARP_{nonrestricted}$·2009 dummy	-2.847*	1.699*	2.163*	3.535***	0.560*
	(1.494)	(0.974)	(1.230)	(0.852)	(0.340)
γ_5 $TARP_{nonrestricted}$·2010 dummy	-2.425	1.606*	1.532	3.613***	1.136***
	(1.491)	(0.972)	(1.228)	(0.851)	(0.339)
γ_6 $TARP_{nonrestricted}$·2011 dummy	-2.557*	1.273	2.339*	3.398***	0.548
	(1.490)	(0.971)	(1.227)	(0.850)	(0.339)
γ_7 $TARP_{nonrestricted}$·2012 dummy	-3.079**	0.735	1.578	2.328***	1.201***
	(1.493)	(0.973)	(1.230)	(0.852)	(0.340)
Constant	-17.217***	-10.489***	-3.112	-2.888	0.035
	(4.667)	(3.042)	(3.843)	(2.663)	(1.062)
β Year dummies	Y	Y	Y	Y	Y
χ $TARP_{restricted}$·Year dummies	Y	Y	Y	Y	Y
Control Variables	Y	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y	Y
Observations	3,530	3,530	3,530	3,530	3,530
R-squared	0.359	0.275	0.213	0.217	0.157

Table 6

Changes in specific perk items at $TARP_{restricted}$ firms from 2006 to 2012

This table shows changes in specific perks items consumed by CEOs at $TARP_{restricted}$ S&P500 firms (firms that did not repay TARP obligations by December 31, 2009) from 2006 to 2012. Columns (1) to (3) summarize data for perk items that decreased during the period. Column (4) summarizes data for perk items that increased during the period. The dependent variables in columns (1) to (4) are logarithmic personal use of company aircraft, security, other, and cost of living allowances, respectively. All regressions control for industry (3 digit SIC) fixed effects and ln(Market $Value_{t-1}$), Market to Book $Ratio_{t-1}$, Stock $Return_t$, Stock $Return_{t-1}$, Return on $Assets_t$, Return on $Assets_{t-1}$, Free Cash Flow $Ratio_{t-1}$, Sales $Growth_{t-1}$, Ln($Tenure_t$), and Female. The subscripts $_t$ and $_{t-1}$ indicate current and prior year respectively. Cluster-robust standard errors are in parentheses with clustering at firm level. ***, **, * indicate significance level at 1%, 5% and 10% level respectively.

	(1) ln ($Aircraft_t$)	(2) ln ($Security_t$)	(3) ln ($Other_t$)	(4) ln ($COLA_t$)
χ_1 ($TARP_{restricted}$·2006 dummy)	0.346	-0.954	3.753***	0.674
	(1.207)	(0.787)	(1.044)	(0.427)
χ_2 ($TARP_{restricted}$·2007 dummy)	-0.312	-0.917	3.908***	0.680
	(1.174)	(0.765)	(1.015)	(0.415)
χ_3 ($TARP_{restricted}$·2008 dummy)	-0.060	-1.371*	3.724***	0.657
	(1.206)	(0.786)	(1.043)	(0.427)
χ_4 ($TARP_{restricted}$·2009 dummy)	-3.582***	-1.930**	1.029	0.772*
	(1.223)	(0.797)	(1.057)	(0.433)
χ_5 ($TARP_{restricted}$·2010 dummy)	-1.976*	-1.652**	0.460	0.324
	(1.145)	(0.747)	(0.991)	(0.405)
χ_6 ($TARP_{restricted}$·2011 dummy)	-1.982*	-0.956	0.115	0.892**
	(1.144)	(0.746)	(0.989)	(0.405)
χ_7 ($TARP_{restricted}$·2012 dummy)	-1.285	-1.034	0.038	0.414
	(1.147)	(0.748)	(0.992)	(0.406)
Constant	-17.217***	-10.489***	9.567**	0.883
	(4.667)	(3.042)	(4.036)	(1.651)
β Year dummies	Y	Y	Y	Y
γ $TARP_{nonrestricted}$·Year dummies	Y	Y	Y	Y
Control Variables	Y	Y	Y	Y
Industry Fixed Effects	Y	Y	Y	Y
Observations	3,530	3,530	3,530	3,530
R-squared	0.359	0.275	0.168	0.217

Appendix A

Sample Firms Receiving Government Support Under the Troubled Asset Relief Program (TARP)[1]

Company Name	SIC Code	SIC Description	TARP Program	Funding Received	Date Received	Payment Status	Date Repaid	Profit to US Government
American Express Co	6199	Finance Services	CPP	$3,389	9-Jan-09	Full	9-Jun-09	$414.4
American International Group	6331	Fire, Marine, and Casualty Insurance	AIG	$67,800	25-Nov-08	Full	14-Dec-12	$5,030.0
Bank of America Corp	6020	Commercial Banks	CPP/TIP/AGP	$45,000	28-Oct-08	Full	9-Dec-09	$4,570.0
Bank of New York Mellon Corp	6020	Commercial Banks	CPP	$3,000	28-Oct-08	Full	9-Jun-09	$231.4
BB&T Corp	6020	Commercial Banks	CPP	$3,134	14-Nov-08	Full	9-Jun-09	$159.7
Blackrock Inc	6282	Investment Advice	PPIP	$1,580	2-Oct-09	Full	18-Oct-12	$436.0
Capital One Financial Corp	6141	Personal Credit Institutions	CPP	$3,555	14-Nov-08	Full	9-Jun-09	$251.7
CIT Group Inc	6172	Finance Lessors	CPP	$2,330	31-Dec-08	None		$0.0
Citigroup Inc	6199	Finance Services	CPP/TIP/AGP	$45,000	28-Oct-08	Full	6-Dec-10	$13,400.0
Comerica Inc	6020	Commercial Banks	CPP	$2,250	14-Nov-08	Full	17-Mar-10	$322.0
Discover Financial Services Inc	6141	Personal Credit Institutions	CPP	$1,225	13-Mar-09	Full	21-Apr-10	$239.7
Fannie Mae	6111	Federal and Federally-Sponsored Credit Agencies	PSI	$116,100	31-Mar-09	Partial		$0.0
Fifth Third Bancorp	6020	Commercial Banks	CPP	$3,408	31-Dec-08	Full	2-Feb-11	$593.4
First Horizon National Corp	6020	Commercial Banks	CPP	$867	14-Nov-08	Full	22-Dec-10	$170.9
General Motors	3711	Motor Vehicles and Passenger Car Bodies	AIFP	$50,700	29-Dec-08	Partial		$0.0
Goldman Sachs Group Inc	6211	Security Brokers, Dealers, and Flotation Companies	CPP	$10,000	28-Oct-08	Full	9-Jun-09	$1,420.0
Hartford Financial Services	6331	Fire, Marine, and Casualty Insurance	CPP	$3,400	26-Jun-09	Full	31-Mar-10	$814.4

[1] Compiled from publicly available data from http://www.treasury.gov/initiatives/financial-stability/TARP-Programs

Company Name	SIC Code	SIC Description	TARP Program	Funding Received	Date Received	Payment Status	Date Repaid	Profit to US Government
Huntington Bancshares	6020	Commercial Banks	CPP	$1,398	14-Nov-08	Full	22-Dec-10	$196.3
Invesco Ltd	6282	Investment Advice	PPIP	$16,000	30-Sep-09	Full	29-Mar-12	$576.8
JPMorgan Chase & Co	6020	Commercial Banks	CPP	$25,000	28-Oct-08	Full	6-Jun-09	$1,730.0
Keycorp	6020	Commercial Banks	CPP	$2,500	14-Nov-08	Full	30-Mar-11	$367.2
Lincoln National Corp	6311	Life Insurance	CPP	$950	10-Jul-09	Full	30-Jun-10	$259.9
M & T Bank Corp	6020	Commercial Banks	CPP	$600	23-Dec-08	Full	17-Aug-12	$100.5
Marshall & Ilsley Corp	6020	Commercial Banks	CPP	$1,715	14-Nov-08	Full	5-Jul-11	$229.8
Morgan Stanley	6211	Security Brokers, Dealers, and Flotation Companies	CPP	$10,000	28-Oct-08	Full	9-Jun-09	$1,270.0
Northern Trust Corp	6020	Commercial Banks	CPP	$1,576	14-Nov-08	Full	9-Jun-09	$133.6
PNC Financial Services Group Inc	6020	Commercial Banks	CPP	$7,579	31-Dec-08	Full	10-Feb-10	$741.3
Regions Financial Corp	6020	Commercial Banks	CPP	$3,500	14-Nov-08	Full	4-Apr-12	$638.1
State Street Corp	6020	Commercial Banks	CPP	$2,000	28-Oct-08	Full	9-Jun-09	$123.6
Suntrust Banks Inc	6020	Commercial Banks	CPP	$4,850	14-Nov-08	Full	30-Mar-11	$527.3
Synovus Financial Corp	6020	Commercial Banks	CPP	$968	19-Dec-08	Full	26-Jul-13	$223.0
U S Bancorp	6020	Commercial Banks	CPP	$6,599	14-Nov-08	Full	9-Jun-09	$334.2
Wells Fargo & Co	6020	Commercial Banks	CPP	$25,000	28-Oct-08	Full	23-Dec-09	$2,280.0
Zions Bancorporation	6020	Commercial Banks	CPP	$1,400	14-Nov-08	Full	26-Sep-12	$253.0

AIFP – Automotive Industry Financing Program
AIG – Investment in AIG
AGP – Asset Guarantee Program
CPP – Capital Purchase Program
PPIP – Public-Private Investment Program
PSI – Preferred Stock Investment
TIP – Target Investment Program