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THE SPIRIT OF CAPITALISM: THE ROLE OF EXECUTIVE  
COMPENSATION IN THE FINANCIAL CRISIS

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EUROPEAN UNIVERSITY INSTITUTE, FLORENCE  
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the Role of Executive Compensation in the Financial Crisis*

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## **Abstract**

When economic disasters occur it is common to look to the managers of the economy and question the decisions they made and the incentives that drove their decisions. In the financial crisis of 2007-2009 compensation was singled out as one of the most important and deeply flawed elements of the incentive system that induced firms to accumulate enormous amounts of risk on their balance sheets. In Clementi, Cooley, Richardson, and Walter (2009) we describe many of the flawed practices in financial firms. But, executive compensation more broadly has long been a sensitive issue and financial crises have a tendency to focus increased attention on it. In the past two decades there has been much discussion of executive compensation, many public examples of lavish pay, but no real consensus on the extent of the problem if indeed there is one. In part, this is because there is a lack of clarity about what the facts are. In this lecture I describe recent research on executive compensation in the United States in the period 1993– 2006 looking at both the cross-sectional and time series variation. Most importantly I describe the extent to which compensation practices achieve the goal of aligning the interests of managers and shareholders.

*This lecture was delivered at Villa La Fonte, European University Institute, 21 October 2009.*

*I am grateful to my coauthor Gian-Luca Clementi with whom I have worked on the issues of executive compensation both theoretically and empirically for several years. Also thanks to Matt Richardson and Ingo Walter for deep discussions on these issues. I am most grateful to Ramon Marimon and to the Max Weber Fellows of the EUI for lively discussion and to Susan Garvin for her kind support and patience.*

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## Introduction

It is a great pleasure to join the distinguished list of people who have delivered these lectures and to be a part of this program named for one of the great social scientists of the nineteenth/twentieth or any century. I included in the title of my talk “The Spirit of Capitalism” because Weber’s important book *The Protestant Ethic and The Spirit of Capitalism* had some important insights on the motives for work.

Weber wrote that capitalism in northern Europe evolved when the Protestant/Calvinist work ethic influenced large enough numbers of people to engage in work in the secular world, developing their own businesses and engaging in trade and wealth accumulation in order to invest.

In other words, the Protestant ethic was a force behind the set of activities that influenced the development of capitalism. This idea is also known as "the Weber thesis". Weber proposed the Protestant Ethic as merely one in a number of 'elective affinities' that was instrumental in fostering the development of capitalism.

Weber highlighted the problem that industrialists face when employing pre-capitalist laborers: attempts by agricultural entrepreneurs to encourage more labor input by offering higher wages often failed because higher wages ended up with workers spending less time working and having more leisure rather than affording themselves more consumption. Weber observed that societies having more Protestants are those that have a more developed capitalist economy. He defined the spirit of capitalism as the ideas and *esprit* that favor the pursuit of economic gain: "We shall ... use the expression 'spirit of capitalism' for that attitude which strives systematically for profit for its own sake."

My guess is that Weber would have seen the modern corporate world and the incentive structures therein as a very interesting topic for inquiry. He might even have found it understandable if a bit extreme. But, as ideas have developed in the world of corporate finance we have come to realize that incentives are a lot more complicated – that in the modern corporation, as Berle and Means (1932) described it, ownership and control are divorced from one another and that we need to put some serious thought into how we give managers the incentives to do the right thing. We have long since recognized that there are built in market failures or frictions which occur because we cannot perfectly monitor the efforts of managers and because managers have shorter time horizons than the firm or its atomistic owners.

The past two decades have witnessed a sharp increase in income inequality in the U.S., unlike anything we have seen since the 1920’s. That increase was followed by the Global Financial crisis of 2007-2009. It is not at all surprising that, in such a climate, executive compensation has come under increased scrutiny. Compensation has been singled out as one of the most important and deeply flawed elements of the incentive system that induced firms to accumulate enormous amounts of risk on their balance sheets. In Clementi, Cooley, Richardson and Walter (2009) we describe many of the flawed practices within financial firms. There is currently enormous political pressure to do something more broadly about compensation of executives. The U.S. Treasury, the Federal Reserve, the U.K. Financial Services Authority are all advancing proposals to do something about executive pay particularly in firms that have received government assistance.

Executive compensation more broadly has long been a sensitive issue and financial crises have a tendency to focus increased attention on it. In 1929 for example much attention was focused on the compensation of Eugene Grace, the president of Bethlehem Steel, who faced a huge uproar when it was revealed that he received a base salary of \$12,000 and a bonus of more than \$1.6 million. That amounts to \$150,000 salary in 2009 dollars with a nearly \$20 million bonus.

In 1933 Congress demanded that every corporate income tax return include a list of salaries for top executives. When those lists were made public the following year, there was an outcry in Congress. "For the captains of industry to be drawing down large salaries is unconscionable and unpatriotic," declared Sen. Burton Wheeler, D-Mont. "The practice must be curbed by legislation, through taxation and publicity."

Sen. Thomas P. Gore, D- Okla., grandfather of author Gore Vidal, proposed legislation (it didn't pass) that said:

There shall be levied, collected, and paid for each taxable year upon the amount by which the compensation (including salaries, commissions, emoluments and rewards and any other reward or bonus by any name known)of any individual for personal services exceeds compensation at the rate of \$75,000 per year, a tax of 80 per centum of such amount.

The most important case in that era however involved George Washington Hill, the President of American Tobacco, and his other senior executives. In that case several executives of the American Tobacco Co. had received bonuses that plaintiffs claimed were excessive. The bonuses had been paid under a plan that was approved by shareholders in the form of a by-law adopted in 1912. The by-law provided that if the net profits of American Tobacco exceeded about \$8.2 million in any year, the president of the company would receive payment of 2.5 percent of such excess, and each of five vice presidents would receive 1.5 percent, an aggregate of 10 percent of the annual net profit exceeding \$8.2 million.

In *Rogers v. Hill* (1933), the U.S. Supreme Court ruled that overall compensation must be reasonable in proportion to the value of the services rendered.

While the amounts produced by the application of the prescribed percentages give rise to no inference of actual or constructive fraud, the payments under the by-law have by reason of increase of profits become so large as to warrant investigation in equity in the interest of the company. Much weight is to be given to the action of the stockholders, and the by-law is supported by the presumption of regularity and continuity. But the rule prescribed by it cannot, against the protest of a shareholder, be used to justify payments of sums as salaries so large as in substance and effect to amount to spoliation or waste of corporate property.

The dissenting opinion of Judge Swan indicates the applicable rule:

If a bonus payment has no relation to the value of services for which it is given, it is in reality a gift in part, and the majority stockholders have no power to give away corporate property against the protest of the minority.

That effectively established the legal right to examine compensation in public companies. But of course we know that, in spite of the case law, compensation has grown significantly over the decades. And courts have been reluctant to overturn the decisions of corporate boards. The most notorious recent case was that of Michael Ovitz, who was paid \$140 million for his 14 months of work at Disney. The Delaware Courts cited the judicial respect for the business judgment of directors in refusing to void the severance agreement.

### **Compensation in Financial Firms**

In the past two decades there has been much discussion of executive compensation, many public examples of lavish pay, but no real consensus on the extent of the problem if indeed there is one. In part, this is because there is a lack of clarity, indeed a lot of confusion about what the facts are.

A lot of this talk is going to be about what I consider to be "the facts" of executive compensation in the U.S. with a particular emphasis on the compensation of CEOs . Before I get to that let me address

directly the role that compensation played in the financial crisis. The best way to do this is to give you a little case study of compensation in one of the firms most heavily battered by the financial crisis.

### ***The Story of UBS***

In the summer of 2005, one of the major players in subprime mortgage collateralized debt obligations (CDOs), UBS, ramped up its CDO warehouse business.<sup>1</sup> In this business, UBS would purchase residential mortgage backed securities (RMS) primarily made up of subprime mortgages, house them in its CDO warehouse and prepare them for securitization, and then sell the multi-tranche CDOs in the marketplace. UBS's CDO desk received structuring fees on the notional value of the deal ranging from 30bps to 150bps, depending on the credit quality of the tranche. Because this process from start to finish took 2-4 months, the CDO warehouse was an important component of UBS's value at risk and UBS recognized this as such. In 2005, the CDO business, albeit a risky one, worked as intended. UBS faced short-term holding risk during the securitization process but was compensated by being paid considerable fees. The credit risk that would normally be held by banks or mortgage lenders was transferred to the capital market.

Starting in 2006, however, UBS began to hold the so-called AAA rated, super senior tranches of the CDOs rather than sell them. These tranches have the highest priority within the CDO and thus are somewhat protected by the junior tranches. The senior tranches are only hit if there are substantial defaults and low recoveries. That said, the super senior tranches were structured to hold as much of the pool of subprime loans as possible and still maintain the AAA rating given by rating agencies. From holding almost none of these securities in February 2006, the CDO desk was holding over \$50 billion in September 2007. The main reason for retaining these tranches on their books was that these securities offered a yield above UBS's internal funding rate which hovered around LIBOR, yielding an immediate ongoing profit. Moreover,

- Because these securities were rated AAA, they barely registered on UBS's value at risk or stress tests even when totally unhedged.<sup>2</sup> Thus, the excess yield was treated as pure alpha.
- As a result of this "pure alpha", there were no aggregate notional limits placed on the CDO warehouse. Thus, every extra dollar of CDOs retained increased the desk's profit.
- Moreover, because the UBS compensation structure did not differentiate between profits derived from a low cost of funding versus the generation of true excess return (i.e., alpha), the desk's compensation was directly linked to the size of the CDO's mortgage book.
- There was no liquidity premium charged to the group. That is, there was little or no differentiation between liquid and illiquid assets even though there are many examples of almost identical securities offering different yields in the markets (e.g., off-the-run versus on-the-run treasuries).

These facts meant that the CDO desk had the incentive to increase the balance sheet for CDOs as much as possible because, by construction, their bonuses were tied to instant profits with no recognition of any risk. This growth continued even during the first half of 2007 as subprime lenders were going bankrupt and hedge funds were reporting losses. In fact, UBS shut down one of its own operations, Dillon Read Capital Management, in May 2007 for losses in their subprime investment portfolio. In March 2007, the Treasury group within UBS, alarmed at the tremendous growth of UBS's balance sheet especially in relatively illiquid ABSs, argued for a limit on illiquid assets, a haircut

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<sup>1</sup> This account is taken from UBS's "Shareholder Report on UBS's Write Downs" prepared for the Swiss Federal Banking Commission and is discussed in Clementi, G. L., T. Cooley, M. Richardson, and I. Walter (2009).

<sup>2</sup> A majority of the super senior tranche holdings were partially hedged and treated as having zero effect on the firm's value at risk.

funding model (in which illiquid assets would no longer get short term funding), and an overall freeze on their balance sheet. This call was unheeded.

Putting aside the issue of whether these securities were truly “AAA” in quality, there is no doubt that the underlying risk was very asymmetric. That is, the securities would pay a premium above LIBOR in most states of nature, but in the rare event that there were substantial defaults and low recoveries, they would all get hit. Historically, this rare event would arise only if the underlying collateral (i.e., house prices) fell dramatically or there was a sharp economic downturn (i.e., as in previous recessions). In finance terms, due to the priority structure of the claims, the holders of the senior tranche were essentially invested in a risk-free asset, like LIBOR, while simultaneously making a large one-sided bet on the market.

This is just one case study but it is a story that was repeated many times in many firms.

### **Compensation of Top Executives**

It is important to note that most top executives of banking and financial firms are largely paid in shares, with at least some minimum retention period required, and that some of the top executives in the banks that melted down have lost fortunes, so in that sense the system actually works to punish mistakes. The financial sector tends to have a higher portion of compensation in the form of stock grants than do other sectors of the economy. This is consistent with research (Clementi et. al. 2006) that shows that restricted stock grants are the best way to align the incentives of managers with those of shareholders in a dynamic setting. It may be that the financial industry has a better senior management pay-for-performance track record than many other sectors but there are some significant caveats as we describe below.

When we talk about the facts of executive compensation it is important to think about facts in the light of theory. The standard theory that we use to think about this issue is a model in which a manager of a firm has preferences defined over consumption and effort and in which his effort is unobservable to the owners or shareholders. The optimal contract to offer a manager in such a setting to induce the right amount of effort is one that provides the manager in each period cash payments contingent on firm performance (think salary plus bonus), contingent stock grants that are contingent on current and future performance of the firm and future contingent cash payments.

A structure like this is necessary to keep the incentives of the managers aligned with the shareholders in a long-term sense. A manager’s economic interest in the firm is dictated not just by current compensation but also by the portion of his/her wealth that is tied up in the firm.

These underlying ideas dictate how we choose to measure compensation. We use two preferred definitions in our study. The first is CEO **Wealth** which is defined as the sum of:

- salary
- bonus
- expected discounted value of future salaries
- market value of all stock in CEO's portfolio
- market value of all options in CEO's portfolio
- amounts paid to the executive under the company's long-term incentive plan
- other items such as: severance payments, debt forgiveness, tax reimbursement, signing bonuses, 401K contributions.

CEO **Total Yearly Compensation** is defined as the sum of:

- salary
- bonus
- year on year change in market value of stock in portfolio
- market value of stock awarded during the year

- year on year change in market value of options in portfolio
- Black&Scholes value of options awarded during the year
- amounts paid to the executive under the company's long-term incentive plan
- other items such as: severance payments, debt forgiveness, tax reimbursement, signing bonuses, 401K contributions.

Based on this definition - essentially the change in CEO wealth associated with the firm - it is clear that total compensation could be negative in a year in which the firm's stock performs poorly. There is an alternative definition more widely used in the literature- we refer to it as the "classical definition" - which is current salary bonuses, benefits, and the current date value of security awards but which ignores the changes in wealth from the value of past security awards.

The other bit of theory we ought to have in mind when we assess CEO pay is what economics has to say about the returns to human capital. When we think about the returns to scarce human capital, theory tells us that gains go disproportionately to those with the highest level of skill. This is what is referred to as the "economics of superstars." There is a reason why Tiger Woods makes as much money as he does.

Now, in looking at the whole observable universe of CEOs and top managers I want to ask if there is something badly wrong with the system. And if so is it something that government intervention could likely address - is something broken? That there are abuses is undisputable but the important question for policy makers is, do we need better governance or government intervention. And then more broadly - I want to ask how well do compensation arrangements align the incentives of managers with the incentives of shareholders. These are ultimately empirical questions that can be answered with data.

Most of the results I describe are based on joint work with Gian Luca Clementi . (Clementi and Cooley 2009). We draw our data from the EXECUCOMP database, maintained by Standard & Poor's. EXECUCOMP gathers data from 1992 to the present on the compensation of up to nine executives of all US companies whose stocks are traded on an organized exchange. The source for the database are companies' filings with the Securities and Exchange Commission. The information about executives' securities holdings and their compensation packages is contained in the DEF14A forms (or Schedule 14A), filed annually by Corporations pursuant Section 14(a) of the Securities Exchange Act of 1934. We confine our attention to the years 1992 through 2006, the last (fiscal) year for which we have comprehensive information. Our sample consists of information on 31,587 executives, employed by 2,872 companies, for a total of 33,896 company-executive matches and 167,822 executive-year observations.

### **Some Facts**

1. Executive Compensation is highly skewed. Much of the discussion of executive compensation focuses attention on the average salaries of CEOs and other managers but that is a very misleading indicator. Figures 1 and 2 below show the distribution of CEO pay by quintile for the year 2006. As is obvious, the data are highly skewed with those at the lowest quintile showing negative compensation. For that reason it is appropriate to report medians rather than averages.

Figure 1

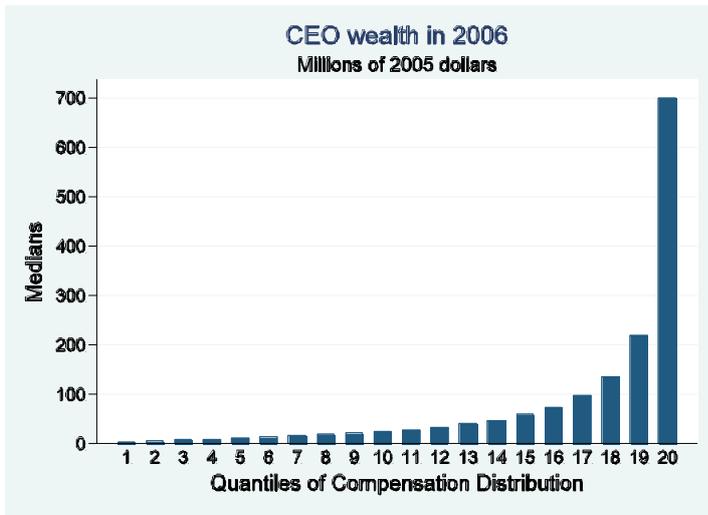
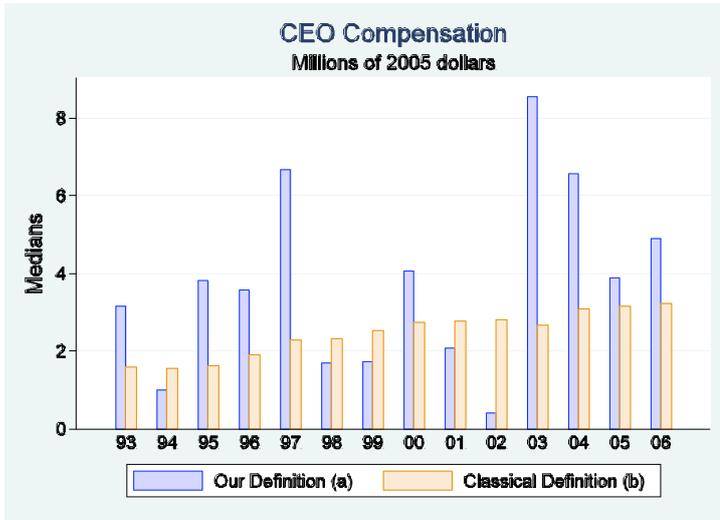


Figure 2



2. Median compensation is extremely variable over time. Once we take account of the change in wealth component of compensation there is a lot of volatility in compensation . Figure 3 shows how our measure compares to the classical definition of compensation.

Figure 3



- Incentive provision has improved over time. The theory of optimal contracting discussed above implies that the best incentives are provided when executives are rewarded with deferred compensation (compensation that provides future consumption if the firm does well) and deferred compensation that takes the form of stock holdings. Figure 4 and 5 show that this has been the pattern.

Figure 4

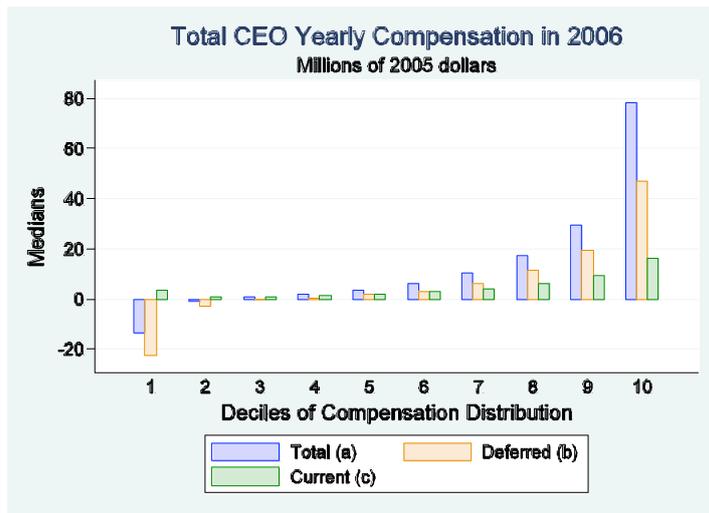
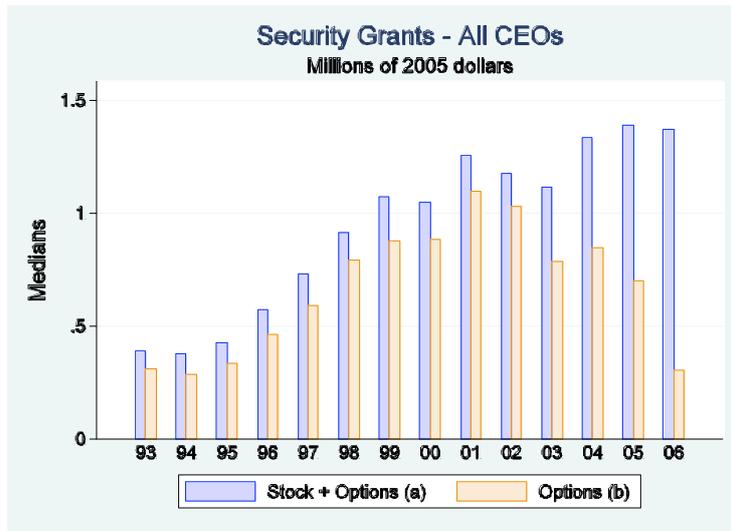


Figure 5



- Median CEO Wealth is significantly higher and incentive provision is better in the Finance Insurance and Real Estate Sector (FIRE) than in other sectors of the economy. Figure 6 shows the cross sectional distribution by sectors.

Figure 6

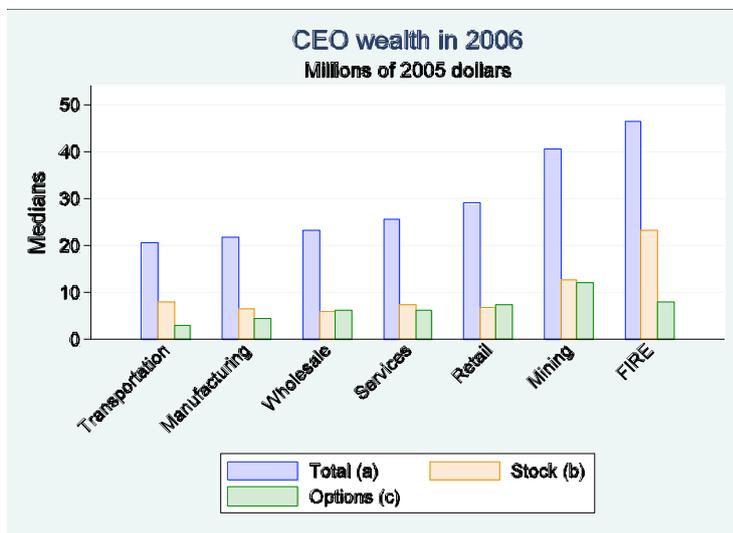


Figure 7



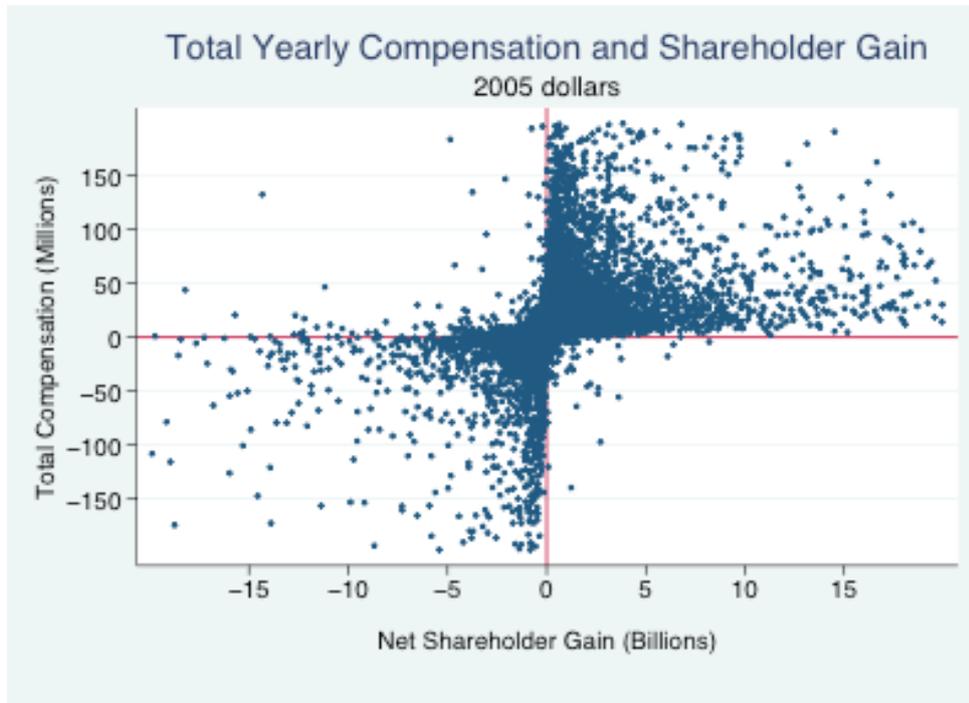
- Growth in CEO wealth has closely tracked the behavior of the stock market. While CEO wealth has increased sharply over time. Figure 7 shows that wealth has closely tracked the behavior of the stock market. This is consistent with the earlier observation that CEO pay has been increasingly in the form of stock with a declining use of options. Thus wealth tends to be highly correlated with the behavior of the stock market.

### The Alignment of Incentives

As I noted at the beginning of this lecture the critical goal of a contract between a principal and an agent, in a setting where there is imperfect monitoring of the agent, is to structure it so that incentives are properly aligned. How do we assess that? In the literature on executive compensation there are a host of econometric assessments of the sensitivity of CEO compensation to changes in shareholder wealth. Clementi and Cooley (2009) present several approaches to estimating this and discuss some of the pitfalls. In keeping with the visual theme of this lecture I want to present a simple summary of the relationship of interest. The scatter plot below, Figure 8, presents on the vertical axis total compensation (measured as changes in wealth) in millions of 2005 dollars, while the horizontal axis represents net shareholder gain, in billions of dollars.

I find this picture quite compelling. In the upper left hand quadrant we can see all of the stories that make headlines as examples of CEO pay excess. For example, included in this sample is the case of Douglas Ivester, the CEO of Coca-Cola Co. from October 1997 to February 2000. During the 1999 fiscal year, Coca-Cola’s shareholders lost about 14%, or about 22.5 billion dollars. According to our calculations, in the same year, Mr. Ivester made about 74 million dollars.

Figure 8



There are clearly many other stories like Mr. Ivester's . It is surprising to me that there are so few and that by and large the system seems to align pay with performance pretty well.

### Conclusions

There has been much righteous, well-deserved anger about the compensation of executives. Much of it derives from the extravagant pay levels realized by financial executives over the past decade or so. This leads to well understood anger about executive compensation writ large and to calls for government intervention. Therein lies the problem. My goal in this lecture has been to take a dispassionate look at the facts of executive compensation and the alignment of incentives between shareholders and managers. Without saying anything about the appropriateness of the levels of compensation, I conclude that the system does not appear badly broken and in need of government intervention. There are many examples of flawed decisions but on the whole the system seems to align incentives quite well.

The problems that led to the financial crisis were not so much problems of CEO or top management pay but problems that occurred further down the chain of command. As in the case of UBS, the incentive system for those who manage profit making lines of business within financial firms is too often tied to short term and incorrect measures of profits. There are relatively simple fixes for those flaws that don't require major federal intervention.

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