



The Bonus-Driven "Rainmaker" Financial Firm:  
How These Firms Enrich Top Employees,  
Destroy Shareholder Value and  
Create Systemic Financial Instability

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**How Bonus-Driven “Rainmaker” Financial Firms Enrich Top Employees, Destroy  
Shareholder Value and Create Systemic Financial Instability**

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## **Abstract**

We recently experienced a global financial crisis so severe that only massive rescue operations by governments around the world prevented a total financial market meltdown and perhaps another global Great Depression. One precondition for the crisis and the “Great Recession” that followed was the perverse, bonus-driven compensation structure employed in important financial institutions such as investment banks. This structure provided the rational incentive for key decision makers in these firms (who I call “rainmakers”) to take the excessive risk and employ the excessive leverage that helped create the bubble and made the crisis so severe. This chapter presents data on compensation practices in important financial institutions that demonstrate how rainmaker compensation has asymmetric properties that induce reckless risk-taking. A review of the modest literature on financial firm compensation practices demonstrates that the giant bonuses of the recent past are not appropriate returns to human capital – they are unjustified rents. The paper discusses possible answers to the challenging question: what is the source of rainmaker rent and how is it sustained over time? Answers to this question are necessary inputs to the development of an adequate theory of the “rainmaker” financial. I also link the microeconomic structure of rainmaker incentives to the evolution of macroeconomic financial fragility and the Great Recession.

**Key Words:** bonuses; investment banks; leverage; financial crisis; perverse incentives

**JEL Codes:** G01; G24; G10

## I. Introduction

It is now universally agreed that the US and global economies recently experienced their worst financial crisis since the 1930s. From a US-centric perspective, it is clear that the evolution of financial markets since the end of the 1970s led almost inevitably to a crisis moment such as this. In the late 1970s and very early 1980s, the US government began to accelerate an ongoing process of financial market deregulation. A combination of deregulation and fast-paced financial innovation led to a series of financial crises both in the US and elsewhere. These crises were always met by government bailouts, which restored stability and vitality to financial markets, but also created an increasingly assured belief among leaders of financial institutions that the government would always intervene to limit the depth and duration of future financial crises. This reduced expected future losses associated with risk-taking in a financial boom, which increased the incentive for financial institutions to take more risk and use more leverage. This risk-taking strategy maximized the expected compensation of key decision-makers in financial firms – hereafter known as “**rainmakers.**” The term rainmaker is usually taken to mean those who can generate high sales for the firm. *I use it here to denote all key people in financial firms who are responsible for generating high revenue and profit.* It thus includes top executives, traders, sales people, wealth managers, and mergers-and-acquisitions and initial-public-offerings teams.

Rainmakers understood that they could gain huge bonuses by using dangerous levels of leverage to fund excessive risk-taking in the boom that they did not have to return when their recklessness caused their firms and the entire financial system to crash. Indeed, they continued to receive exorbitant bonuses in the downturn. Of course, in an environment of fundamental uncertainty, rainmakers are not immune from infection by the general boom euphoria that arises in prolonged financial upturns. Some may believe that objectively risky policies are not really risky when market conditions seem ideal. However, as insiders they are much more aware of the dangers involved in aggressive investment strategies than is the general public. There are numerous examples of financial institutions that continued to use high-risk strategies even when it became clear that the mortgage-related securities they relied on were in serious trouble.<sup>1</sup> Most

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<sup>1</sup> For example, when CDOs began to lose value in 2007, giant investment banks such as Merrill Lynch and Goldman Sachs began lending money to supposedly ‘independent’ CDO managers (who in fact were strongly

important, the data demonstrate that it is rational for top financial firm operatives to take excessive risk in the bubble *even if they understand that their decisions are likely to cause their firm to suffer large losses in the intermediate future*. The incentive to pursue risky strategies inherent in rainmaker compensation schemes, combined with deregulation and destructive financial innovation, made it virtually impossible to avoid the outbreak of a serious financial and economic crisis. (For an analysis of the financial causes of the recent crisis, see Crotty (2009) and the other chapters in this volume.)

This chapter deals with the effects of perverse bonus-based compensation incentives in financial markets in general, but focuses special attention on giant investment banks. They were the source of most of the financial innovations - such as mortgage-backed securities, collateralized debt obligations of various kinds and credit default swaps - that helped create the crisis. Investment banks were also at the center of the system's leverage creation process.

While the primary focus here is on the effects of perverse rainmaker incentives on financial market performance, it is important to understand that these incentives also helped cause the Great Recession. Perverse incentives induced financial institutions to make mortgage loans to those who could not afford them, and to package mortgages into nontransparent, risky securities that infected the global financial system. They helped create an unsustainable bubble in housing prices. Perverse incentives led financial institutions to encourage households to borrow excessively on the bubble-induced rise in home equity. They contributed to a leverage-fed asset price bubble that left the financial system in a disastrously fragile condition by 2007. When the inevitable crisis hit, household wealth collapsed, forcing consumption spending to contract and the construction industry to implode, while a credit freeze restrained spending in the private sector.<sup>2</sup>

Section II of this chapter presents data on rainmaker compensation in giant investment banks that show that rainmaker compensation is very large, and has asymmetric properties that

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influenced by the big banks) "so they could buy the banks' dodgy assets. ...Faced with increasing difficulty in selling the mortgage-backed securities that had been among their most lucrative products, the banks hit on a solution that preserved their quarterly earnings and huge bonuses: They created fake demand." However, to induce the CDO managers to take their "dodgy assets" the banks had to lend them the money used in the purchase. "If the managers couldn't pay the loans back - and most were thinly capitalized - the banks were on the hook for even more losses when the CDO business collapsed." But bank rainmakers did not have to give back the bonuses associated with these deals, so it was in their interest to do them. (Pro Publica, 2010).

<sup>2</sup> See the chapter by Cynamon and Fazzari on the influence of financial markets on consumption spending in the boom. Related themes are also explored in chapters by Palley, Kregel, and Wray.

generate strong incentives for excessive risk-taking in financial booms. Section III reviews the modest literature on compensation in financial firms in general and investment banks in particular. It demonstrates that large rainmaker premiums cannot be explained as returns to human capital – they are unearned rents.<sup>3</sup> Sections IV and V discuss possible answers to the difficult question: what are the sources of rainmaker rents? The final section summarizes conclusions from this analysis.

## II. Rainmaker Compensation Schemes: The Primacy of Bonuses

Data on bank compensation practices in the recent boom and crisis were collected by New York State Attorney General Andrew Cuomo 2009. He concludes that

Bonuses and overall compensation did not vary significantly as profits diminished. An analysis of the 2008 bonuses and earnings at the original nine TARP recipients [of \$125 billion in government bailouts] illustrates the point. *Two firms, Citigroup and Merrill Lynch suffered massive losses of more than \$27 billion at each firm. Nevertheless, Citigroup paid out \$5.33 billion in bonuses and Merrill paid \$3.6 billion in bonuses. Together, they lost \$54 billion, paid out nearly \$9 billion in bonuses and then received TARP bailouts totaling \$55 billion.* (Cuomo 2009, pp. 1-2, emphasis added).

Compensation failed to shrink in line with revenue and profit in the crash. Yet the main purpose of a bonus system is to reduce compensation as revenues fall, thereby protecting profit and shareholder value. Indeed, as earnings at key banks collapsed, compensation increased. For example, Cuomo reports that Bank of America's compensation (including benefits) rose from \$10 billion in 2003 to more than \$18 billion near the peak of the boom in 2006. But compensation remained at \$18 billion in 2008 even though BOA's net income collapsed by 70%. Citigroup showed a similar pattern; compensation remained at record levels even as the firm faced a financial crisis.

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<sup>3</sup> The fact that rainmakers help create the revenues that are the source of their bonuses requires us to distinguish the definition of 'rent' used in this paper from the definition typically used in economic discourse. The concept of rent normally refers to a situation in which agents use economic or political power to extract income they did not create and thus do not deserve. For example, a firm that possesses monopoly power can extract larger profits than would be available to firms operating under conditions assumed in theories of perfect competition. But the revenues in modern financial markets that are the source of rainmaker bonuses are not independent of their activities. Were it not for excessive risk-taking by rainmakers induced by perverse incentives, and bubble-generated capital gains and fees, the revenues flowing to their firms would not be nearly as large as they were in recent years. To a substantial degree, rainmakers create the revenues from which their bonuses are derived, and thus their rents are different from the standard cases discussed in economic theory. They are still rents, however, because, as explained below, they are payments not justified by long-term value creation.

Many commentators claimed that the large losses suffered by rainmakers in the crash provide evidence against the assertion that perverse incentives were an important cause of the crisis. However, while many rainmakers did suffer substantial losses on the shares they held in the latter part of 2008 and early 2009, their cash bonuses and cumulative realized gains from stock sales in preceding years far exceeded their losses. Bebchuk, Cohen and Spamann (2009) demonstrate that the top five executives at Bear Stearns and Lehman Brothers received an average \$250 million in net compensation in the period from 2000 through - and therefore including - their firms' demise.

Figure 1 compares bonuses at Wall Street firms (i.e., broker-dealers located in Manhattan, a sample dominated by giant investment banks) to the pre-tax profit of securities firms listed on the New York Stock Exchange (a larger sample) from 1985 to 2008. It shows not only that investment bank and security dealer profit experienced exceptional growth during this period, but also that the relationship between bonuses and pre-tax profit changed substantially over time. From 2004 through 2006, the gap between bonuses and profit became very large. Bonus growth was substantially eroding profit. In 2007 these firms collectively lost \$11.3 billion. To reward themselves for generating these losses, rainmakers paid themselves bonuses of \$33 billion, an amount far greater than paid in any year other than 2006. 2007 bonuses were only \$1 billion below the previous boom year. *If bonuses had declined in 2007 to their 2002 level, a year in which firms made almost \$7 billion in profit, these firms would have made \$26 billion in profit instead of suffering massive losses.*<sup>4</sup> In 2008, the full force of the meltdown caused Wall Street to lose a record-high \$42.6 billion dollars. Bonuses fell substantially, but at \$17.4 billion they were about equal to the 2004 bonus total when profit was \$13.7 billion.

Though the financial system suffered a near-death experience in late 2008 and early 2009, a \$12 trillion rescue effort by the government triggered a miraculous financial recovery. The New York State Comptroller's Office (2011) estimates that industry profits, "fueled by federal bailouts, low interest rates, and proprietary trading" exceeded \$61 billion in 2009, about three times greater than the previous record high. Even 2010 profits of \$27.6 billion were higher than any year except 2009. The Comptroller's bonus estimates for 2009 and 2010 are \$22.5 billion and \$20.8 billion, higher than in any year except 2005 to 2007. However, these estimates

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<sup>4</sup> While, as noted, these series are not fully consistent, the general conclusion stated here is correct. If bonuses had been set at 2002 levels in 2007, investment banks would collectively have generated modest profits instead of suffering substantial losses.

are clearly too low. The Comptroller's bonus data does not include unrealized gains on stock options and other forms of deferred bonuses. The degree of under-estimation was especially pronounced in 2009 and 2010 because, under pressure from the public and some regulators, “many financial firms delayed payments and paid a greater share in stock or other forms of deferred compensation” (New York State Comptroller’s Office 2010). Total compensation paid to employees at the top 35 Wall Street firms hit a record high in 2009, and 2010 compensation is expected to be yet another record (*Wall Street Journal*, “Wall Street Pay: A Record \$144 Billion,” October 11, 2010).

A standard way to measure shareholder gains over time is by calculating the “cumulative total return” (CTR) on the stock, which includes capital gains or losses over time (adjusted for stock splits) and assumes dividends are used to buy more shares. A CTR calculation requires specified dates for stock purchase and the end of the sample period. I argue in Crotty 2010 that the most relevant question for evaluating the effect of perverse incentives on shareholders is: what would have happened to shareholders if market forces had been left to determine their fate in the absence of massive government rescue efforts? It thus seems reasonable to examine shareholder and rainmaker returns along the path that their firms’ market activities brought them by March 2009, prior to the rebound caused by radical government intervention in the market system.

Figure 2 presents inflation-adjusted CTR for the five giant investment banks that were independent prior to the crash. *If you bought stock in the big five investment banks after 1994 you would have lost wealth. Buying in 1998 would result in a 67% loss of investment value.* Thus, over the period of the two recent financial market booms, when the new compensation system became strongly entrenched, rainmakers became phenomenally wealthy by following high-risk high-leverage strategies, while their stockholders were financially devastated. “All this has reinforced the idea that banking is simply a gravy train for employees” (*The Economist*, “The bonus racket,” Jan 29, 2009).

### **III. Do Rainmaker Premiums Exist: If So, Are They Rent?**

After observing that compensation policies that “incentivized top executives of United States financial institutions to take excessive risk” were widely believed to be a major cause of the financial crisis, Balachandran, Kogut and Harnal 2010 note: “The academic evidence that



speaks to this claim of excessive risk [due to compensation schemes] is surprisingly sparse” (p. 2). However, there are a few articles that show that compensation received by financial industry rainmakers is substantially higher than the compensation of seemingly equivalent workers in nonfinancial firms. Paul Oyer 2006 uses a data base that covers several thousand graduates of Stanford’s MBA program. He assumes these MBAs have broadly equivalent human capital attributes. Since investment banking is an extremely popular field among Stanford MBAs, Oyer argues that the percentage of new graduates who enter investment banking is chronically constrained by job availability. That is, he sees a chronic excess supply of potential investment bank rainmakers, a finding that conflicts with the conventional justification of high rainmaker premiums discussed below - that there is a chronic excess demand for rainmakers. During stock market booms, the percentage of MBAs who can get Wall Street jobs rises. Oyer documents that, in spite of the chronic excess supply, those who get Wall Street jobs get much higher salaries than those who enter other fields. The investment banking premium is stunning.

The [annual] premium varies from about 60% for a new MBA on Wall Street relative to one in management consulting to over 300% for investment bankers fifteen years after leaving Stanford relative to an average alumnus with the same amount of experience in any other industry. ... I estimate that a new MBA that goes to Wall Street can expect to earn between \$2 million and \$6 million in discounted lifetime income (in \$1996) relative to what he would earn if he took a job elsewhere” (p. 2).

Oyer notes that these are under-estimates of the premium. The “income premium for investment bankers ... is biased downward because so much investment banking income comes through bonuses” whereas the income measure is salaries (p. 29). Since bonuses are the main form of rainmaker compensation, often hitting 90% of total compensation, this under-estimation must be extremely large.

Philippon and Reshef 2009 and Goldin and Katz 2008 provide persuasive evidence that these premiums are rents rather than returns to human capital. The Philippon and Reshef paper studies *average* industry wages. It thus under-estimates the degree to which rainmaker incomes have risen since 1980s because rainmaker incomes are at the very top of the distribution and have risen by much more than average incomes. The authors show that the ratio of the average wage of financial market employees relative to the average wage in other industries was high in the 1920s through the early 1930s, when it peaked at over 1.6. It then collapsed through the early 1950s under the much stricter regulatory regime of the period, and continued to decline modestly

through the late 1970s, where it approached 1.0. At this point, there was no premium. The ratio rose again through 1990 to near 1.2 as the post-Depression regulatory regime was deconstructed. It then skyrocketed through 2006, where, at 1.7, it exceeded the peak reached after the bubble of the 1920s.

Philippon and Reshef separate financial employees into three sub-categories: credit intermediation (or traditional banking), insurance, and "other finance." "Other finance" includes commodity traders, investment funds and trusts, venture capital, hedge and private equity funds, and investment banks. It thus comes closest to the financial firms and rainmakers we are concerned with. After 1980, the indices for credit intermediation and insurance rise above 1.0, and eventually hit 1.5 in 2006. But as Philippon and Reshef show in Figure 2, the relative wage for "other finance" remains reasonably stable at around 1.0 from 1940 through 1980. At that point, just as the secular financial market explosion begins, *the relative wage of 'other finance' accelerates rapidly and is near 4.0 by 2006 – a ratio almost four times its 1980 value, two and one-half times higher than its early 1930s peak, and almost three times higher than compensation for credit intermediation and insurance.* The rapid rise in financial market compensation is clearly concentrated in the most speculative, risk-seeking segments of the industry. It is interesting to note that the pattern over time of "other finance" is quite similar to that of the percent of before-tax income captured by the top 0.01 percent of the income distribution (Saez 2009, Figure 3).

Using Current Population Survey data, Philippon and Reshef estimate wage regressions that include as control variables education, race, gender, marital status, urban residence, and experience. These regressions show that "individuals working in finance indeed earn more than observationally equivalent workers" in other industries (p. 24) by a percent that peaked in 2005 at 20% - about four times its value in the years from 1967 to 1980. Given the pronounced differences among the relative wages in credit intermediation, insurance and 'other finance,' it would be reasonable to assume that the 'other finance' premium is very much larger than 20 percent. Moreover, the use of CPS data creates a very strong downward bias in these estimates because CPS incomes are top-coded – incomes above an arbitrary level are recorded as if they were equal to that level. CPS data "is not appropriate for the study of very high incomes" - which is the focus of interest here (Philippon and Reshef 2007, p. 3). There are 13 times more top

coded individuals in ‘other finance’ than in nonfinancial industries. The true rainmaker premium must be very large indeed.

Philippon and Reshef show that rainmaker- driven compensation growth was far greater than can be justified by the increased demand for human capital in finance. They “conclude that a large part of the excess wages ... is due to rent” (p. 29). They note that large rents “explain the large flow of talent into the industry.” But Philippon and Reshef do not explain what caused or sustained the rents (p.31).

Goldin and Katz 2008 regress the annual earnings of 6,207 Harvard graduates against an impressively large set of variables. Control variables include grade point average, SAT math and verbal scores, college major, dummy variables for a number of advanced degrees, three full-time full-year work-status dummies, and 19 different occupation dummies. They find the “the highest earnings by occupation are garnered by those in finance, for which the earnings premium relative to all other occupations is an *astounding 1.08 log points, or 195 percent*” (p. 367, emphasis added). Highly educated employees working in finance receive a huge compensation premium relative to seemingly identical employees working elsewhere. *The near 200% premium certainly appears to be rent.*

Bertrand, Goldin and Katz 2009 examine the careers of University of Chicago MBAs who graduated between 1990 and 2006. After five years, mean compensation was \$500,979 for investment bankers and \$307,451 for all respondents - including investment bankers. Ten year or more after graduation, it was \$815,914 for investment bankers and \$400,715 for all respondents – *a premium in excess of 100%* (Table 2, p. 31).

#### **IV. How Are Rainmaker Rents Created and Sustained Over Time:**

##### **“False Value” and Oligopoly Power**

To answer the key question of how rainmaker rents can exist, be so large, and sustain themselves over time, we have to address two sub-questions. *First, why are investment bank and other financial firm revenues per employee so large in booms? Second, why are rainmakers able to capture such an exceptionally large share of revenues in good times and bad?*

We preface our answer to the first question by briefly commenting on the standard answer: financial market rainmakers are paid more than others with similar backgrounds because they are smarter and more talented, and therefore more productive of long-term value than

others. They are, in other words, the ‘best and the brightest’ people in the business world. Here the case is made that there may be qualities that distinguish successful financial market rainmakers from those with similar human capital endowments as traditionally measured, but they are not qualities that lead to the generation of the above-average, long-term, risk-adjusted value creation that is typically used to justify outsize rainmaker compensation. On the contrary, they are qualities likely to generate volatile booms and busts that are value-destroying over the long-run.

Both contacts on Wall Street and acquaintances who teach at elite colleges that send large portions of their graduate to Wall Street tell me that investment banks do not focus their recruiting efforts on those students with the most impressive academic credentials. Rather, they look for students at prestigious schools with acceptable grade point averages (perhaps B or better) who have demonstrated exceptional aggressiveness or competitiveness. They want dominating type-A people, not exceptionally smart or well-informed people who are not hyper-aggressive. For example, they frequently recruit lacrosse, rugby and hockey players. At the AEA annual meetings in January 2009, Nobel Laureate Joseph Stiglitz attacked the “myth that Wall Street is populated by the best and the brightest, who deserve their big paydays.” “When I look at the salaries some of our B students [on Wall Street] got, it doesn’t correspond to their innate ability” (*Wall Street Journal*, “Overheard,” January 4, 2010, p. C8). Andrew Ross Sorkin said of the legendary investor Warren Buffet: “he despised the trader ethos and the lucrative paydays that enriched people he thought were neither particularly intelligent or created much value.” Sorkin observes that investment bank trading is “like a sport, something that required skill, but not necessarily brains or creativity.” He quotes Lehman CEO Richard Fuld using martial metaphors to describe this work: “Every day is a battle... you have to kill the enemy,” and says that when John Mack, the current CEO and board chairman of Morgan Stanley was a trader, he would “stride through the trading floor and, seeing a chance to make big profits, would yell “There’s blood in the water, let’s go kill someone!”(Sorkin 2009, pp. 24, 28, 55 and 186).

Discussion of these character traits first appear after 1980, when investment banking began to change dramatically. In his 1989 best seller *Liar’s Poker*, Michael Lewis described mortgage traders and other rainmakers at Salomon Brothers in the mid 1980s as hyper-competitive, risk-loving gamblers obsessed with short-term bonuses. Lewis wrote that the best rainmakers “are cutthroat, competitive, and often neurotic and paranoid,” and referred to the

“backstabbing and intrigue for which investment bankers are justifiably renowned” (p. 141 and 185). He argued that gambling is a consuming passion for traders: “all the boys on the trading floor loved to gamble” (p. 14). Lewis also emphasized “the insatiable hunger for more [money] felt by anyone who had succeeded at Salomon Brothers and probably at any Wall Street firm. ... The most poisonous [form of greed] was the desire to have more *now*; short term greed rather than long-term greed” (1989 p. 203, emphasis in original).

In recent decades, the CEOs and other top executives of large investment banks have often been former traders who still have a trader’s mentality, and top sales persons often share many of the traders’ character traits. Thus, the typical investment bank rainmaker appears to be a competitive risk-loving, money-obsessed gambler with a short-term planning horizon - “I want my bonus now.” It may be that it is these characteristics, rather than superior talent, that distinguish financial-market rainmakers from others with similar educational credentials and experience who work elsewhere, though they do not explain where the rents come from. It is precisely people with these characteristics who, if not prevented from doing so, would be expected to maximize the amount of risk-taking in buoyant financial markets in order to simultaneously maximize their own compensation. Given the nature of modern unregulated financial markets, these were the worst, rather than the best, kind of people to put in charge.

The answer to the question of why the revenue pool that feeds the bonuses of financial market rainmakers is so high in the boom can be stated succinctly: the increase in financial firm revenues over the past few decades have been generated primarily by speculative asset bubbles and bubble-driven fees rather than by long-term value creation, and secondarily by oligopoly pricing power.

Though other revenue and profit sources helped sustain the recent bubble, their growth would not have been possible in the absence of a strong upward trend in important security prices and the optimistic expectations generated by this trend. For example, expectations of solid returns to all mortgage-based securities in the recent boom depended on excessively optimistic expectations of future residential real estate prices. The excessive risk-taking and rising leverage in the boom create tremendous momentum for the asset price bubbles that generate the capital gains and fees that fuel financial market profits and bonuses. But such risk-taking always causes a financial crisis and subsequent collapse of financial asset prices, and thus of financial firms’ revenue, profit and market capitalization. Value created in the boom evaporates along with

shareholder wealth, but the claims on real goods and services embodied in rainmaker bonuses survive. They thus constitute not a reward for productivity, but an unearned redistribution of wealth from the rest of society to financial rainmakers. They are rent.

Rainmakers do create market value during the bubble. They initiate, identify, exploit and reinforce serial financial asset bubbles. But in order for rainmaker bonuses to be considered as earned and not as rent, one must assume that the increase in the value of financial assets they help create during the boom is long-term rather than transitory. History demonstrates that financial markets move through time in boom-bust cycles around some variable trend. Financial assets are grossly over-valued in the late boom, as demonstrated by the subsequent bust, and under-valued in the worst part of the crash, as demonstrated by the subsequent recovery. Thus, one way to measure the long-term value creation that should determine bonuses in speculative financial booms is to examine value ex post, after the excesses of the boom have been eliminated. However, since the government has consistently bailed out financial markets in recent downturns, even measuring value creation by rainmakers via longer term trends grossly exaggerates their contribution to the economy. Without such interventions, modern financial markets would have been shown to be long-term value destroying on a massive scale.

Floyd Norris showed that an investor who held the stocks in the S&P 500 stock market index and reinvested all dividends would have earned an inflation-adjusted average *annual* return over a 10 year period ending in January 2009 of *minus* 5.1% (Norris 2009). There was thus no financial or non-financial long-term value creation that could possibly justify the huge bonuses and stock options of the era.

The theory that best explains why boom-bust cycles inevitably take place in capitalist financial markets can be found in the work of Keynes, Minsky and Marx.<sup>5</sup> Keynes's theory is built on the core assumption of radical or fundamental uncertainty: the future is not knowable in the present because it does not yet exist and it has not yet been determined. Agents can only guess how markets will evolve in the future and make choices based on these fallible guesses. These choices, made in ignorance, affect the system's future trajectory in an unpredictable, dynamic, path-dependent process. So-called "rational expectations"- or correct expectations

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<sup>5</sup> See Crotty 1994 for a careful explanation of Keynes's theory of financial volatility. For a defense of the proposition that Marx's theory of financial market behavior has a great deal in common with the financial market theories of Keynes and Minsky, see Crotty 1985. However, there is no major role given to perverse incentives in any of these theories.

about the future - on which modern financial economics is based, are not possible because the “fundamentals” of future economic states are undetermined at the moment of choice. It is fundamental uncertainty that creates the open-ended "decision space" within which rainmakers operate.

In a Keynesian world, expectations are formed “conventionally,” normally via extrapolation from the recent past. The longer such expectations lead to decisions that generate satisfactory outcomes, as they do in booms, the greater the "confidence" that agents place in them. In Keynes's theory, confidence is defined as the subjective sense of agent certainty that their expectations are realistic. When a financial boom lasts for some time, agents begin to project its continuance. Given optimistic expectations of future prices, buying securities previously seen as risky will seem reasonable. As the boom proceeds, reinforcing optimistic expectations, buying securities with borrowed money also seems like a sensible decision. This drives the financial boom forward, raising leverage while raining capital gains on investors. The heaviest rain falls on the most aggressive investors, which lures others to mimic their strategies. Objectively risky investment strategies are eventually considered safe. Since every long-term financial boom is accompanied by the widespread belief that we have entered a “new era” in which the forces that ended all previous booms are no longer operative, the current boom eventually comes to be seen as permanent. At the peak of the boom, there is a near-universal belief that high yields previously achievable only by accepting high risk can now be gained safely. For example, in the halcyon days just prior to the outbreak of the Great Recession, millions of people took on mortgage commitments or home equity loans whose payments could be met only if their incomes were secure, interest rates remained low, and housing prices kept rising. And financial firms relied on short-term borrowing to finance the acquisition of long-term, illiquid, risky mortgage-related securities. This helped fuel the boom, but set the stage for an inevitable crash.

The system eventually becomes, to use Minsky’s famous phrase, “financially fragile.” Expected future cash flows based on overly optimistic expectations are increasingly contractually committed by households and financial and nonfinancial firms to financial institutions. Increased reliance on short-term financing makes financial firms especially vulnerable when crisis conditions erupt. Financial booms end when real-sector cash flows - whose growth is constrained by resource availability, technology, and the state of aggregate

demand - can no longer sustain boom-elevated security prices and dangerous leverage positions, and/or when intra-financial-sector commitments cannot be met.

*The central point is that from the perspective of the most realistic theories of financial market dynamics, the value created by boom euphoria, excessive leverage and dangerous risk-taking is “false value.”* Since the ‘false value’ that rainmakers help create is, through its direct and indirect effects, the main source of excessive rainmaker compensation, it cannot be justified as payment for contributions to increased economic efficiency and/or long-term economic growth. These payments are rents.

There has been a significant increase in the market share held by a small number of the largest firms in important financial markets in the last quarter century that has enabled these firms to use substantial market power to increase revenue, profit and rainmaker bonuses. Crotty 2010 presents extensive evidence to support the claim that key financial segments are dominated by a handful of firms with the ability to use market power to raise mark-ups. Pricing-power based on oligopolistic financial market structures and practices has added substantially to the pool of funds created by boom-induced ‘false value’ that are the main source of rainmaker compensation. One *Financial Times*’ editorial argued that: “inadequate competition failed to whittle away large profits – as enormous returns on equity showed – and therefore [failed to reduce] outsize compensation, unlike in other industries” (“Public needs more bank for its bucks,” October 16, 2009). Another insisted that “Banks are rent extractors - and uncompetitive ones at that. Even after paying high bonuses, the banks’ return on equity is extremely high” (“Editorial Counsel of Despair,” April 22, 2010).

## **V. How Are Rainmakers Able to Capture an Exceptionally Large Share of Revenue in Good Times and Bad?**

Given that the compensation system was a serious threat to the interests of shareholders, taxpayers, the survival of the big investment banks, and the reproduction of the financial system, how were rainmakers able to maintain it? Crotty (2010) explains in detail why neither shareholders, top executives, boards of directors, capital markets, government regulators nor market competition forced a more efficient and less risky compensation system on rainmaker financial firms. Here we briefly discuss why shareholders cannot perform this task.



Mainstream financial market theory cannot explain the reproduction over a long period of time of a compensation system structured to allow rainmakers to loot shareholders and threaten the existence of the firm itself because it assumes that financial markets are efficient. Keynesian theory can help solve the puzzle represented by the sustained existence of the rainmaker financial firm because it has no paradigmatic commitment to ‘rational’ expectations and financial market efficiency. Though the data clearly show that existing compensation schemes induce behavior that is inconsistent with objective shareholder interests, *Keynesian theory suggests that in financial booms, shareholders are likely to believe that rainmaker compensation policies are compatible with their perceived or subjective interests.* During the boom, most shareholders, relying on conventionally-determined optimistic expectations (reinforced by the bullish business press), believe that the spectacular capital gains of the period are realistic reflections of buoyant future economic conditions. They therefore may be perfectly happy with investment bank risk-taking practices even though these practices are *objectively* counter to their longer term interests. In the midst of boom euphoria most people fail to understand that their banks are taking excessive risk. Thus, from a Keynesian perspective, the question of why and how rainmaker financial corporations are able to act against objective shareholder interests for years or even decades need not arise: shareholders are usually happy with their banks in the bubble. If you bought Merrill Lynch stock at \$6.50 at the end of 1994, or even at its cycle-peak price of \$14 at the end of 2000, you probably would have been thrilled in late 2006 when the stock reached \$47 (prices are adjusted for stock splits and dividends).

However, a complete answer to the question of why shareholders did not restrain rainmaker greed must incorporate the fact that most of the equity in US firms is held by financial intermediaries rather than individuals or households.<sup>6</sup> In the 1950s households owned 90% of stocks and held their stock for about a decade. By 2007, financial institutions held two-thirds of US stock. The *Wall Street Journal* reports that "18 of the top 20 shareholders at Morgan Stanley and Bank of America and 19 of the top 20 at Goldman Sachs are mutual funds" ("Critics Say Funds Should Do More to Police Corporate Pay," April 5, 2010).

The turnover rate on the New York Stock Exchange exceeded 100% in six of the seven years between 2002 and 2008, hitting 138% in the final year (Securities Industry and Financial Markets Association Fact Book 2009, p. 49). This implies that the time horizon of the average

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<sup>6</sup> See the chapter by Randall Wray in this book.

financial intermediary is well under one year, which helps explain why institutional investors are willing to buy and hold the ‘hottest’ stocks even if they believe they are overvalued - as long as they think the bubble will last for another year or more. In recent bubbles, stocks issued by large, high-risk-taking financial corporations have been among the most buoyant of all, which, along with perverse incentives, helps explain why institutional investors held so much financial-firm stock when the crash hit.

Why do institutional investors have short-term horizons? Crotty (2008) explains that key decision makers in institutional investors such as mutual funds have perverse incentives similar to those of investment bank rainmakers that lead them to buy and hold rainmaker financial firm stock in booms - whether their own expectations are optimistic or pessimistic. Compensation for those who run institutional investment companies rises with assets under management. This encourages firms to seek maximum growth, which in turn requires that they seek a maximum rate of return on assets. Since high returns lead to increased inflows into institutional investment firms, and this increases the size of assets under management, there are good reasons to buy high-risk, high-return assets in the boom. Money market managers “chase whatever’s hot and shun whatever’s not. Those who are the best at this game attract more money in rising markets and lose fewer clients in falling markets...” (*Wall Street Journal*, “Inefficient Markets are Still Hard to Beat,” July 9-10, 2009).

The positive incentives for institutional investors to support risky rainmaker policies in a boom are reinforced by competitive pressures facing these firms, one form of the “destructive competition” that operates in many important markets.<sup>7</sup> Contracts to manage pension fund assets are awarded to firms with above-average returns on assets and may be withdrawn from any firm whose returns are below average for a period as short as six to nine months. Thus, even if the top management of a mutual fund understood that holding shares of rainmaker financial corporations in the boom was likely to lead to large losses at some uncertain point in the future, it would be rational to hold these shares anyway in order to protect against the loss of large contracts and market share. Wall Street is littered with the corpses of firms that anticipated a coming crash too far ahead of the time it actually took place, and lost their customers to firms who continued to ride the bubble. A *Wall Street Journal* article discussed Citigroup CEO Charles Prince’s explanation of the power of destructive competition at the peak of the boom. In his view, the

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<sup>7</sup> The concept of “destructive competition” is discussed in detail in Crotty (1993).

forces of competition were such that Citibank could not stop taking excessive risk even as evidence mounted that a crash was coming. “Mr. Prince said Citigroup could have lost market share or key employees if it veered away from the sorts of bets that so many banks and securities firms were making at the time.’ ‘It would have been impossible,’ he said, ‘to say to bankers, we’re not going to participate ... and expect to have any people left.’” (*Wall Street Journal*, “Prince Shows Shame, Rubin Defiance Former Citigroup Officials Say They, and Regulators, Didn’t See Risks,” April 9, 2010.) This destructive behavior is reinforced by the fact that when booming financial markets eventually crash, as they always do, and all firms lose money, no individual firm will lose contracts as long as their losses are not substantially worse than the industry average.

We conclude that, in the absence of effective government regulation, shareholders will not restrain the excesses of rainmaker compensation schemes.

#### *Why Doesn’t the Chronic Potential Excess Supply of Rainmakers Eliminate Rents?*

The most widely used justification for the award of outsize bonuses to top financial firms operatives is that there is a chronic excess demand for the skills required to be a financial rainmaker; this leads to intense inter-firm competition for their talents. Philippon and Reshef 2009 show that the rainmaker pay premium has been rising since the early 1980s and the demand for financial firm rainmakers has certainly risen rapidly over this period, so there would appear to be at least superficial evidence in support of the chronic excess demand thesis. Yet bonuses were at or near record levels in 2009 and 2010 even though there was a large excess supply of experienced rainmakers. Employment within the investment-banking and securities-dealing industry in August 2010 in New York City was down 34 percent from its June 2007 peak (*Wall Street Journal*, “Finance Jobs Fall in New York State,” September 17, 2010).

The fact is that competition to get access to rainmaker jobs in the long financial boom from the early 1980s through 2007 was fierce. The Katz-Goldin study of Harvard graduates showed that the share entering banking and finance rose from less than 4% in the 1960s to 23% in recent years. The percentage of Harvard graduates who wanted to become investment bankers but were prevented from doing so by the chronic excess supply of candidates must have been substantial. Oyer’s study shows the number of Stanford University MBAs who wanted to become investment bankers was always far greater than the number of jobs on offer. Kaplan and

Rauh (2007) estimate there were about 10,000 rainmakers in large investment banks in 2004, yet over the years of financial-sector growth there must have been at least hundreds of thousands and perhaps millions of qualified students who aspired to be investment-bank rainmakers but could not obtain an entry position. “The new American dream was to make tens of millions of dollars on Wall Street or as a hedge fund manager in Greenwich, Connecticut” (Johnson and Kwak 2010, p. 109). Lewis 1989 states that there were 60 applicants for each of the starting positions at Salomon Brothers the year he entered the firm, that three-quarters of his graduating Princeton class applied for jobs on Wall Street, and that in 1986, 40% of Yale graduates applied to a single investment bank (p. 24). Yet “paychecks at Salomon Brothers spiraled higher in spite of the willingness of others who would, no doubt, do the same job for less. There was something fishy about how supply met demand in an investment bank. ... The money was just there” (1989, p. 49). Thus, the claim that there was always a chronic and substantial excess demand for people who wanted to be investment bankers lacks all credibility.

How can it possibly be that this exploding supply of job candidates with the desire and the qualifications to become future rainmakers did not eliminate or at least sharply reduce the rents associated with rainmaker positions? The most important answer is that the people who run these firms have no incentive to lower rainmaker pay even though a chronic potential excess supply would allow them to do so, because this would lower their own pay. As noted above, under current conditions neither shareholders, top executives, boards of directors, capital markets, government regulators nor market competition can make them do it. However, above and beyond this, there are two barriers to entry that help preserve rainmaker rents in the face of a large potential excess supply of rainmakers. I have not seen these barriers adequately addressed in the literature.<sup>8</sup>

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<sup>8</sup> Huge rainmaker rents cannot be explained by the “Pavarotti effect” discussed in the “economics of super stars” or “winner take all” literature that tries to explain why a few super-talented people earn huge salaries while everyone else in the industry is poorly paid. This model does not fit the market for rainmakers because, while there are “stars” in US investment banking who receive tens of millions of dollars in good years, tens of thousands of investment bankers receive at least a half million dollars annually. The “insider-outsider” literature seems germane because it analyzes situations in which workers within firms resist competition with outsiders by “refusing to cooperate with or harassing outsiders who try to underbid the wages of incumbent workers” (Lindbeck and Snower (2001)). But this theory is focused primarily on production and nonsupervisory workers, not multi-millionaire rainmakers. For example, the policies proposed by Lindbeck and Snower (2001) to alleviate this problem include “restrictions on strikes and picketing and relaxing job security and seniority legislation” to solve the problem (p. 184). Akerlof and Romer (1993) analyzed several cases in which financial firm owners deliberately “looted” their firms into bankruptcy: “bankruptcy for profit can easily become an attractive strategy for owners than maximizing true

First, there appears to be an “apprenticeship” process in investment banks. Investment banks hire more new employees than they need whenever their business is growing. After an initial trial period, those who do not impress their superiors are fired. Those who do well are retained by the firm and assigned to work with more experienced employees. If their progress is sufficiently impressive, they end up apprenticed to firm rainmakers. The ostensible purpose of the long apprenticeship is not only to allow newer employees to learn their trades, but also to convince current rainmakers that they can be trusted to accept important responsibilities in which they put large amounts of bank capital, and therefore rainmaker compensation, at risk. For example, apprentice traders have to demonstrate over a long period that they can be trusted to employ ever larger amounts of the firm’s capital without generating large losses.<sup>9</sup> Aspiring M&A rainmakers have to work their way into a group or team of top firm operatives, then convince the team members that they can eventually generate large volumes of M&A fees while keeping the firm’s clients happy. The same process exists in sales.

Morrison and Wilhelm 2004 emphasize the importance of tacit knowledge and apprentice relations in investment banks during their partnership phase.

Tacit human capital...covers forms of knowledge and skills which do not easily lend themselves to codification or to arms-length exchange. Such skills include a wide range of talents such as advising clients, building relationships, reading market signals [a crucial skill for traders] and negotiating M&A deals which are essential to investment banking. The skills can only be learnt on the job. ... Only a skilled agent can transfer his or her skills to a new hire, typically through a mentoring relationship (p. 2)

The key conclusion from this line of argument is that the only rainmaker candidates firms will consider fully qualified for these important jobs are those already working in financial markets at rainmaker or near- rainmaker positions – *no matter how many hundreds of thousands of potential rainmakers may be available to them.* An important financial executive stated that

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economic values" (p. 2). Their theory has certain elements in common with the theory of the rainmaker financial firm, but it does not attempt to explain the existence and distribution of rents, the key issue here.

The analysis most relevant to the explanation of rainmaker rents may be one Oliver Williamson referred to as the “hold-up” problem (Williamson 1985). Trading and M&A teams generate a high percentage of investment banks’ revenue and profit. Even though these teams were created by the firm, required the firm’s capital to finance their operations, and relied heavily on the firm’s reputation to build their business, the teams’ leaders nevertheless have substantial bargaining power with the bank over team-members’ compensation. If the team leaves the bank to work for a competitor, it can take much of the bank’s profit-generating “assets” with it. The explicit or implicit threat to abscond with the bank’s assets - or “hold-up” the bank - is an important reason why rainmakers get such a large percent of the bank’s rents. Godechot (2008) provides concrete examples of how this process works for trading desks.

<sup>9</sup> “Rogue traders” whose excessive gambling causes huge losses for their firms appear in every financial boom in modern times.

“for each vacant seat there are probably only five people out there who could do it” (*Financial Times*, “Banks’ losses fail to damp bonus season goodwill,” January 15, 2008). When markets are expanding rapidly, there will therefore be substantial competition for these five. Thus, in spite of the large chronic notional or potential excess supply of rainmakers, there may never be a substantial effective excess supply of rainmakers available to bid away the rents.

The peculiar properties of the rainmaker firm influence the way the apprentice system works and help turn it into a means to regulate compensation pools. The firm’s current rainmakers will not allow more new people through the apprenticeship process if that means their own bonuses will be reduced. New traders compete with existing traders for access to the firm’s limited capital base. Strategic considerations on the part of the existing rainmakers will strongly influence the rate at which new members are accepted into and rise within their ranks.

Seasoned rainmakers can control the flow of apprentices through the firm. To slow it down, they can refuse to pass on the tricks of the trade as quickly or effectively as possible, or slow the rate at which the firm’s capital is made available to apprentices. In other words, their bonuses have to be protected in order for the apprentice system to function most effectively - for them. A firm whose goal is to maximize shareholder returns would seek to build up a larger group of rainmakers working for smaller bonuses than would a rainmaker firm whose objective is to maximize bonuses per existing rainmaker. Even when markets crash, firms do not take advantage of the substantial excess supply of rainmakers created through job loss to cut bonuses aggressively. This is because these are not traditional neoclassical or Chandlerian firms seeking, respectively, long-term shareholder value or the reproduction and growth of the firm itself over the long run. These firms are run by rainmakers for rainmakers.

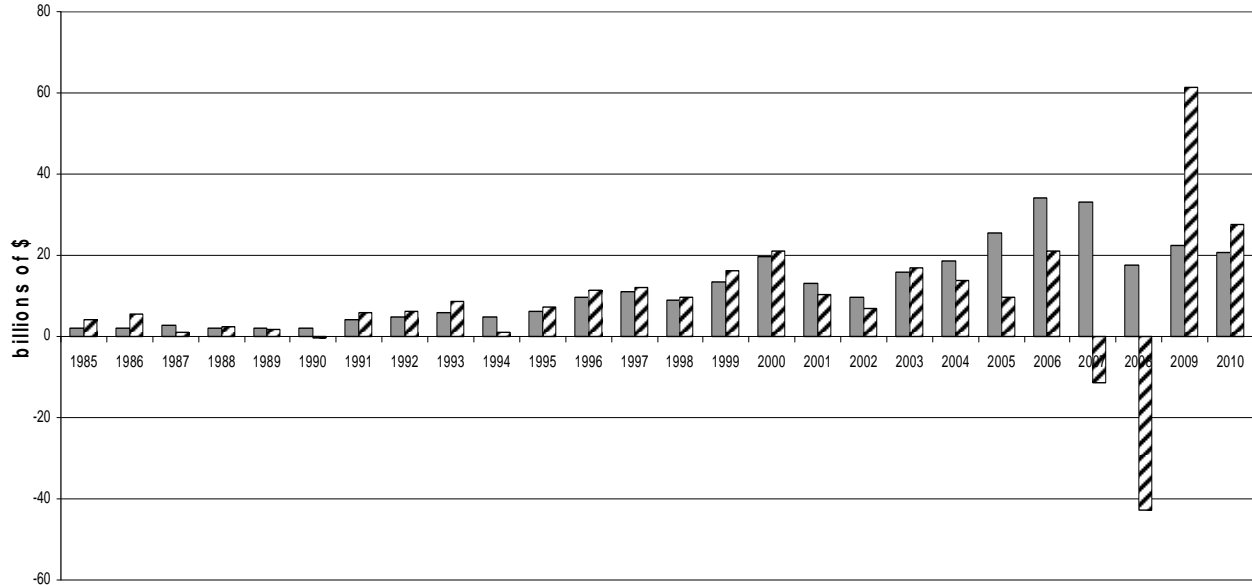
Second, an “old boy” informal hiring policy constitutes a significant barrier to entry. Rainmakers at top financial firms focus their recruiting on a relatively small set of prestigious private colleges and universities from which the current rainmakers graduated and to which they typically remain loyal. A friend who was a rainmaker for one of the country’s largest banks told me that he was the only public university graduate among more than three hundred people with managing-director status in his division. In spite of the occasional token hire from state schools, rainmakers recruit primarily from their alma maters or schools with equivalent prestige, a practice that substantially limits the potential supply of fast-track rainmaker candidates.

## **VI. Conclusion**

Virtually all informed analysts who do not represent the interests of financial firms – and even many who do - agree that the perverse incentive schemes under which the most important employees of large financial institutions operated were a major contributor to the financial crisis and thus to the Great Recession. I have presented evidence that rainmaker bonuses were shockingly large, even after the markets crashed, and that there is good reason to believe they are unearned rents rather than a reward for genuine contributions to long-term economic growth. Not even the severe financial crisis or subsequent massive government intervention to rescue these firms (and thus preserve the jobs of most rainmakers) has affected the practice of paying gigantic bonuses to armies of rainmakers no matter how their firms perform. Since most experienced political observers see little chance that the perverse compensation schemes that helped cause the recent crisis will be banned by government changes in the rules and practices of regulation, we can expect such schemes to help trigger a new financial crisis in the intermediate future.

# Figure 1

## Wall Street bonuses and NYSE firms pre-tax profits



Source: Bonuses are from a NY State Comptroller's Office Press Release (February 23, 2011). Bonus figures for 2009 and 2010 are estimates. Bonuses are underestimated: they do not include unrealized stock options and other forms of deferred compensation

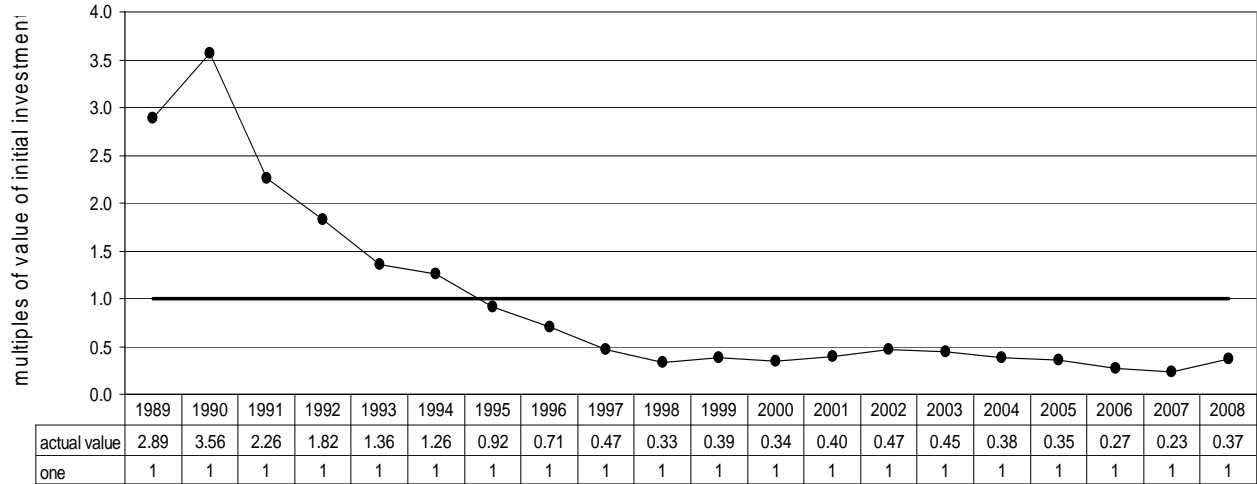
■ bonuses ▨ profits

Note: Profits are from Securities Industry and Financial Markets Association for 1985-2007, and from NY State Comptroller's Office for 2008-2010.



## Figure 2

**Cumulative Inflation-Adjusted Returns for Shares in Top-Five Investment Banks from Date Indicated on Horizontal Axis to March 25, 2009**



Source: Author calculations using data from Compustat. Returns are a simple average of cumulative figures for the individual investment banks. Return definition assumes dividends are reinvested.

Note: Inflation adjustment with the consumer price index for all urban households.

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