GOVERNANCE IN CRISIS:
A comparative case study of six US investment banks

NeAd Research Note 0109/April 2009
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I. Introduction and key takeouts

In light of the scale and scope of the current financial crisis we are experiencing, the key question from a corporate governance perspective must surely be: could boards of failed banks have done more to prevent the collapse, and if not, what stood in their way? It is of vital importance to know if the boards of the banks that managed to survive the storm—at least until now—were different or “better” in any way than the boards of those institutions that disappeared in forced mergers or outright liquidation.

The main objective of this paper is to provide decision makers, whether bankers, investment managers or regulators with some preliminary insights in answering the above question. Our research does not claim statistical significance or trend identification; rather it is a case study of the six largest investment banks on Wall Street1 and their governance told through the prism of their public disclosures. There are no corporate governance silver bullets that can, on their own, explain failure. What we tried to do is identify certain organisational and people patterns at the very top of the six organisations that might have contributed to their fate as the crisis hit.

Overall, we think that certain patterns of director entrenchment, asymmetric power by one executive leader, non-executive sloth, and inexplicably low levels of expertise in the boards on some of the most complicated business in the world does emerge from our analysis. Because of some of the above characteristics, risk oversight by the boards of failed institutions seemed to have been particularly deficient—even compared to the surprisingly weak role the board seems to play on risk oversight in all US investment banks. Finally, executive compensation and ownership patterns by top executives seem to point to extensive alignment of the latter with long-term shareholder interest. The real question to ask in the future is whether such hard-wired, single-minded alignment to the shareholders—long the holy grail of investor activism—is appropriate for systemically important financial institutions.

These insights need to be further developed and tested. We expect empirical research to follow by Nestor Advisors (NeAd) and others.

We selected six peers that are representative of the US investment banking industry and divided them into two groups. The “survivors” group comprises the Goldman Sachs Group, Inc. (GS), JP Morgan Chase & Co. (JPM) and Morgan Stanley (MS); all of which endured the financial crisis, despite deteriorating investor confidence and the stock market meltdown (see Exhibit 1). The “departed” group includes Bear Stearns (BS) which was acquired by JPM for a rock-bottom price in March 2008, the bankrupt Lehman Brothers Holdings, Inc. (LEH) and finally Merrill Lynch (MER) Companies, Inc. It can be argued that MER falls somewhere between the two groups having ceased to exist as an independent company but having been acquired at a decent price for its shareholders by Bank of America.

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1 JP Morgan Chase is strictly speaking a universal bank. We include it in our sample because it has considerable investment banking and trading operations.
For this research note, we relied exclusively on governance data gathered from the banks’ annual reports, proxy statements, and corporate governance guidelines. We also used various secondary sources. In contrast to our approach in the annual review of the largest European bank boards, we did not conduct any interviews with bank staff. NeAd’s comparative corporate governance study on European banks\(^2\) allowed us to build on methodologies and data gathering approaches that have already been developed. We decided to focus our analysis on the following areas: Director competence and board composition, where we specifically look at relevant industry expertise\(^3\), executive presence, age and various indicators of independence; the oversight of risk management by the board and its role in directing the risk appetite of the bank; and the alignment of interest between top management and shareholders through compensation and ownership incentives. We used data available up to the end of 2007, in some cases going back to 2001.

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\(^3\) We specifically define a “Financial Industry Expert” in Section III.
Exhibit 1: Stock performance of the six peers between January 2004 and January 2009

1. 28 Oct 2008 US Government injects $25 billion, $10 billion, $10 billion of capital into JPM, GS and MS respectively under the Capital Purchase Program as part of the wider Troubled Asset Relief Program
2. 29 Sep 2008 Morgan Stanley raises $9 billion from Mitsubishi UFG Financial Group
3. 24 Sep 2008 Goldman Sachs raises a further $5 billion in fresh capital in public offering
4. 23 Sep 2008 Goldman Sachs receives $5 billion capital injection from Berkshire Hathaway
5. 22 Sep 2008 Morgan Stanley and Goldman Sachs given Federal approval to become bank holding companies
6. 15 Sep 2008 Lehman Brothers files for bankruptcy protection
7. 14 Sep 2008 Merrill Lynch announces agreement of its acquisition by Bank of America
8. 16 Mar 2008 JP Morgan Chase agrees to buy Bear Stearns for $236m
9. 22 Aug 2007 Lehman Brothers announces intention to shut down sub-prime mortgage unit BNC mortgage
10. 20 Dec 2007 Bear Stearns announces its first quarterly loss in its 84-year history
11. 17 Jul 2007 Bear Stearns announces the collapse of two of its hedge funds
12. 6 Sep 2006 Merrill Lynch acquires sub-prime mortgage lender First Franklin
II. Executive Summary: peer governance profiles

In lieu of a summation of our comparative analysis which comprises the main text of this note, we feel that the best way to summarise our findings is to present six brief governance profiles of our peer group.

A. Bear Stearns

Founded as a trading house in 1923, Bear Stearns became a publicly traded company in 1985. Since then the company has been under the leadership of two individuals: Alan C. Greenberg and James E. Cayne, both of whom have spent their entire professional lives at the firm. Greenberg was CEO-Chairman before being succeeded by Cayne as CEO in 1993 and as Chairman in 2001.

It seems to us that the BS board which presided over the company’s demise was highly entrenched and “stale”. BS was the only bank in our group that still used a plurality system which effectively disenfranchises shareholders in challenging the composition of the board. It had the highest average tenure length of non-executive directors (NEDs) at 10.1 years. Average NED age was 68 and two NEDs were over 80 years old. The Chairman/CEO, James ‘Jimmy’ Cayne, was by far the oldest CEO at 73 years of age.

Greenberg and Cayne have been board members since BS became a publicly traded company in 1985 and between them they chaired the two most powerful organs of governance in the firm in its final years: the Board of Directors and the Executive Committee. In contrast to other banks, BS had a significant number of executives on its board (3). In general, we consider this a good thing. The plurality of voices on the board seems to have been complemented by a fairly egalitarian approach to executive compensation, which can be indicative of a team approach among executives. Having said this, Greenberg and Cayne seem to have been running this board of “lifers” for far too long.

Among our peers, the BS board also seemed to have had the most limited role in overseeing risk. It was the only bank that had not established a risk-oversight committee until January 2007.

Whatever went wrong at BS, it was not lack of alignment with long-term shareholder interests, at least at the CEO level. Cayne was a significant beneficial owner of common stock. Holding over 5% of outstanding BS common stock, he was the bank’s third largest owner. We estimate that, out of the six chief executives, he had by far the largest proportion of his net-wealth tied to his bank, and he lost a significant part of it as the bank went down.

B. Lehman Brothers

Founded in 1850 and a member of the New York Stock Exchange since 1887, Lehman Brothers is the oldest investment bank on Wall Street. It suffered a difficult period in the early 1980s and was subsequently sold to American Express in 1984. When American Express spun-off its investment banking operations, Lehman Brothers once again became an independent firm in the early 1990s. Richard S. Fuld has since been the sole CEO-Chairman of LEH.
The Board of LEH was another “stale”, entrenched board with the same individual wielding unchecked power for a long period of time. If not for a recent appointment in 2007, average NED tenure of 9.4 years would have exceeded even that of BS. Average NED age is almost 70. Five NEDs were above the mandatory retirement age set by four of LEH’s peers.

There was a noticeable lack of NED financial industry experts (FIEs) on the board—overseeing one of the most complex balance sheets of our peer group. The often revered Henry Kaufman, formerly of Salomon Brothers, chaired the risk and finance committee. However, he was already over 80 years of age and the committee only met twice throughout 2007.

Fuld had a significant holding of company stock as in the case of J. Cayne; his net worth was highly exposed to LEH’s fortunes. We estimate that Fuld had more of his net-wealth to lose than at least three of his peers.

It is interesting to note that Fuld commanded the highest pay premium over his senior executive colleagues. In 2007, he earned almost three times more than the four most senior executives beneath him did on average. This is one more indication of the enormous amount of power that Fuld wielded within the firm. It might explain, to a degree, his unquestioned authority in at least two failed merger negotiations that could have saved the firm during the last months of its existence. After all, he had been the boss of the board for more than 13 years and a long-term shareholder at that. Nobody could really challenge his devotion to the firm—and in the end he went down with it.

C. Merrill Lynch

Founded in 1914, Merrill Lynch rose to prominence on the strength of its retail brokerage network which numbered over 15,000 at its peak in 2006 and became a publicly listed company in 1971. E. Stanley O’Neal became chief executive of MER in December 2002 and later assumed the role of Chairman after his predecessor, David Komansky, retired in May 2003. A relative late-comer to Wall Street, he joined MER in 1986.

In contrast to the board of the other two departed banks, the MER board had the shortest average NED tenure at 4 years. MER’s average NED age of 62.5 looks much healthier than that of its two departed peers and it had done away with plurality voting since 2007. These traits might have been a factor in the MER board summoning the strength to fire their CEO-Chairman in October 2007, once the significant flaws in the firm’s strategy became abundantly clear.

One of the reasons for these flaws might be that MER had a relatively weak board in terms of financial industry expertise, with only one FIE NED to oversee its very complicated balance sheet. Although its finance committee was the most active in 2007, meeting a total of 12 times, one wonders if the quality of discussion was as high as those of its counterparts at MS and GS. Both met marginally less frequently but had 2 and 4 FIE on their risk committees respectively.

In pointed contrast to the other two departed banks, we estimate that O’Neal also had the least skin in the game, holding on average less than $200 million in company stock—the equivalent of just less than 5-years of his most recent annual remuneration. This is quite remarkable for someone who spent a big part of his professional life with Mother Merrill and might raise questions of alignment with long-term shareholder interest.

4 A 25% stake to Korean Development Bank and up to 50% stake to CITIC Securities in August 2008.
D. Morgan Stanley

Morgan Stanley came into existence in 1935 as a result of the Glass-Steagall Act preventing parent company JP Morgan & Co. from engaging in investment banking and commercial banking operations concurrently. The investment bank was publicly listed as Morgan Stanley Group Inc. on the New York Stock Exchange in 1986.

Phillip J. Purcell, as chief executive of Dean Witter Reynolds oversaw the firm’s acquisition of Morgan Stanley in 1997. He led the bank as CEO-Chairman from 1997 until May 2005. Former President and board member John J. Mack took over in June 2005 having previously left the company in 2001.

The worst performing of the survivors’ group, MS, had a similar board profile to MER in terms of age and NED tenure. One notable difference is the higher number of FIEs on the MS board – three versus one at MER. Moreover, with a CEO-Chairman who was installed mid-way in 2005, there is less of a concern with regards to excessive executive influence as in BS and LEH.

The MS audit committee was one of the more active committees with responsibility for general risk oversight. It consisted of four members, two of whom were FIE. Having said this, it is questionable whether a committee burdened with a heavy compliance agenda can develop a comprehensive view of a very complex business, with a meeting frequency that resembles that of other peer audit committees that do not assume broader risk responsibilities.

Chief executive John Mack has a rather small ownership stake in absolute terms. However, one needs to consider that he only arrived in mid-2005 and has since received bonus payments in the form of restricted equity only. His decision not to take bonuses in both 2007 and 2008 would almost surely have impacted his risk exposure in terms of current and expected individual net-wealth.

E. Goldman Sachs

Founded in 1869, Goldman Sachs became a publicly listed company in 1999 when it initially floated just over 51% of its share capital. Until then it had been a private partnership. Having joined GS in 1974, Henry Paulson became CEO-Chairman in 1999 until his nomination as US Secretary of the Treasury in May 2005. He was succeeded by Lloyd C. Blankfein, then President and COO, who had been with the firm since 1981.

The GS board of “heavy-hitters” contrasted somewhat with that of its peers, many of which seemed to have adopted a policy to seek out the “good and the great” rather than those with significant and relevant financial industry expertise. GS had by far the highest number and proportion of NED FIEs (4 out of 9). In direct contrast to executive entrenchment at BS, the three executive board members were relatively fresh additions to the board.

GS committees are also unique in their inclusiveness. With the exception of one individual who does not sit on the audit committee, all nine NEDs sat on all three board committees. From a risk oversight perspective, this practice might be quite effective in providing NEDs with a comprehensive view of key risks and allowing them to have a collective board view on group risk tolerance and appetite.
The audit committee, whose mandate includes the broad oversight for all risk areas, seems to have been sufficiently large and qualified to handle both the traditional role of audit and compliance as well as that of a standalone risk committee. Moreover, the risk function in GS has a widely-recognised organisational “gravitas”. It yields considerable power over businesses and has a strong voice in the executive committee via the CFO. Finally, tenure at risk management seems to be a quasi-obligatory rite of passage for most future GS leaders.

Like fellow survivor MS, the remuneration of its most senior executives was relatively egalitarian, a testament to GS’s famous “partnership” culture. For 2005 and 2006, chief executive pay was only 31% higher than the next four highest paid senior executives. This, in conjunction with a healthy presence of executives on the board, suggests a balance of power less predicated on the authority of one individual.

F. JP Morgan Chase

JP Morgan, one of the oldest commercial and investment banks in the US was acquired in 2000 by Chase Manhattan Bank, another blue-blood, large commercial and retail bank, giving birth to JP Morgan Chase. The merged company went on to acquire Bank One in 2004 whose then CEO, James Dimon, became President, COO and CEO-designate of JPM. Dimon succeeded William Harrison (Chase CEO since 1999) as chief executive in January 2006 and finally as Chairman in December that year.

JPM had a relatively young board with 9 out of 11 NEDs being active chief executives, presidents or chairmen of various companies. With one executive and one FIE NED on the board, board financial expertise, along with that of LEH and MER is the lowest in the group. However, unlike its departed peers, average NED tenure exceeded that of James Dimon, aged 51, who has been CEO-Chairman and board member for 2 and 7 years respectively. JPM’s remuneration structure was also quite egalitarian.

Moreover, the investment banking business (largest of six business lines) contributed only 25% and 20% of net income in 2006 and 2007 respectively. As such, JPM’s board profile reflects a relatively greater need for members with a capacity to represent the retail and commercial client universe it serves as opposed to the relatively pure investment banking business model of its peers.

JPM is the only bank amongst our peers in which the board had an explicit mandate for risk oversight in its corporate governance guidelines. Moreover, the board set up a separate risk committee in which two important non-executives (R. Lipp and J. Crown) with extensive financial industry experience and large ownership stakes reviewed all areas of risk in a consolidated fashion. This contrasts with MS and GS which still rely on their audit committees to oversee risk management.

III. Main report

A. Director competence and board composition

An effective board is one that is independent, competent, and engaged. The nature and extent of the banking crisis that we are experiencing is prima facie evidence that there was something seriously wrong with the quality of the boards of large investment banks. However, the pervasive nature of the failure suggests that the latter was “not due to “standard” corporate governance weaknesses such as those observed during the Enron crisis. It is not shareholder expropriation and the lack of independence and controls but rather the limited understanding by bank boards of increasingly complex and geographically diverse businesses that is responsible for poor strategic choices. \[6\]

In trying to identify issues related to director competence, we looked at various aspects of board profile among our six peers: independence, financial industry expertise, executive presence and age.

i. Independence

One might ask whether the boards failed in their governance role because they were not independent from management. This appears not to be the case if we use the classic definition of independence used by most European Codes and the NYSE listing requirements. On the basis of NYSE rules, more than 75% of board members were independent in the six banks (see Exhibit 5).

Then, there is the issue of accountability of the board to the shareholders. Were these boards over-entrenched and insulated from the vox populi by using the U.S. system of “plurality” voting? Five of the six banks used the plurality system until a few years ago like almost all other large listed companies in the U.S. However, they were among the first to move to a system of higher board accountability when shareholders started to firmly demand it in U.S. markets. From our sample, only BS maintained the plurality system until the time of its demise. All the other banks amended their Articles to switch to various forms of majority voting for directors in 2006 and 2007. This may indicate that extending such rights to shareholders was not considered a threat by most of these boards—in other words they felt relatively confident of shareholder support.

Another cornerstone of board independence is the separation of the Chairman and CEO positions. The UK Combined Code and most European Governance Codes (and, in several cases, laws) suggest that CEO/Chairman separation is key for the maintenance of appropriate checks and balances within the institution. But in the U.S. this is far from common practice. Only recently have large U.S. companies started to consider separation. In our sample some of the banks did separate the

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7 In plurality voting, the nominees for available directorships who receive the highest number of affirmative votes cast are elected irrespective of how small the number of affirmative votes is in comparison to the total number of shares voted. Majority voting requires that a nominee receives the affirmative vote of a majority of the total votes cast for and against such nominee in the election.
two roles in the past (e.g. BS and JPM) but only during transitional phases. However in recent years, all six banks had combined both positions, as is standard U.S. practice. In early 2008 and a couple of months before its demise, BS had split the roles and the former long-standing CEO, Jimmy Cayne, became Chairman.

An indicator of director independence which does show important variance between survivors and departed is that of the tenure of non-executive directors (NED). In Europe, most best practice Codes will question the ability of NEDs who have very long tenure at a specific board to retain their independence from management, notwithstanding better knowledge of the bank and their experience in overseeing management.

**Exhibit 2: Average non-executive director tenure (in years)**

<table>
<thead>
<tr>
<th>Bank</th>
<th>Tenure (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP Morgan</td>
<td>8.4</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>5.3</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>4.8</td>
</tr>
<tr>
<td>Merrill Lynch</td>
<td>4.1</td>
</tr>
<tr>
<td>Lehman Brothers</td>
<td>9.4</td>
</tr>
<tr>
<td>Bear Stearns</td>
<td>10.1</td>
</tr>
</tbody>
</table>

Taking into account the number of NEDs on each board, the weighted average NED tenure in the survivors group (top 3) was 6.4 years compared to 7.8 years for the departed. In the case of LB and BS, tenures are much longer. In contrast, NED average tenure in the 25 largest European banks is 5.6 years.\(^8\)

Looking further into the tenure of the six CEO-Chairmen, a clear picture begins to emerge. The average tenure of Jimmy Cayne, Dick Fuld and, to a lesser extent, Stan O’Neal as CEO-Chairmen of their respective banks is significantly longer than their counterparts at JPM, GS and MS. Furthermore, taking into account their total board tenure, the leaders of BS and LEH were “board lifers” compared to their peers. To the extent that a powerful CEO-Chairman (and, before that, CEO) can wield a substantial (often undesirable) degree of influence over NEDs, that the unbroken board tenure of the departed leaders is on average over *nine years* longer than their peers strongly indicates that “independence of mind” may have been critically absent in the boards of MER, LEH and BS.

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Another interesting feature: looking at average NED tenure in comparison to CEO-Chairman board tenure, the departed group have CEO-Chairman with longer tenure than their NED peers; almost double in the case of BS. In direct contrast, NEDs sitting on boards of JPM, GS and MS\(^9\) are “more senior” in respect of tenure than their Chairman. While this is not necessarily a best practice trait, it seems to further suggest our emerging view of departed boards in which a very powerful and knowledgeable individual holds sway over a group of entrenched, long-acquiescent NEDs.

The asymmetrical power over long-serving NEDs by the even longer-serving Chairman/CEO is exacerbated by another long-standing US practice that characterises most of our peer boards: the relatively small number of executives serving on these boards in addition to the CEO, as discussed below.

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9 John Mack previously sat on the Board of Morgan Stanley as Chief Operating Officer from May 1997 through to March 2001.
ii. Financial industry expertise (FIE)

Complex banking institutions require a significant number of directors with financial industry expertise on their board. We\textsuperscript{10} and others, including Paul Myners\textsuperscript{11} have argued that one of the most important problems of bank boards is the weak capacity of directors to understand investment banking, a business that has increased in complexity at a pace which is nothing short of extraordinary. If the majority of people sitting around the table do not have the training, experience or stature to challenge management’s view of the future of the business, its risk appetite and tolerance, even the few that do will, in all likelihood, stay quiet. Thus, the number of board members with financial industry experience is important for board dynamics.

A key measure we used throughout the analysis is NED financial industry expertise\textsuperscript{12} (FIE). FIE aims to proxy for a NEDs’ ability in carrying out his or her oversight duties in a highly complex business. NeAd designates a NED as a FIE if he/she has held a senior executive position in a leading bank, other financial institution or financial industry regulator over the past 10 years.

By “leading financial institution” we generally mean banks, insurance companies and large, recognised asset managers in listed markets. We do not include personal investment vehicles, non-executive positions on financial institution boards or persons from private equity backgrounds to whom financial services are not an area of expertise. We recognise some may not strictly agree with our criteria and the implied results. We list all designated NED FIEs in Appendix 1.3.

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\textsuperscript{12} One should distinguish between the NeAd definition of a FIE and the Sarbanes-Oxley Act’s requirement for a financial expert in the audit committee. The latter refers to competence in understanding and analysing financial statements, not knowledge of the financial industry.
Looking at the six investment banks, the departed group is characterised by relatively low NED FIE. Of the survivors group, we would like to draw the reader’s attention to the fact that JP Morgan is a universal bank, a bank which places different demands on the board of directors. Nevertheless, while FIE might be less of an issue in a pure commercial bank with a straightforward business model, we consider it precarious for a universal bank of JPM’s size to have only one FIE on their board.

Our FIE count for the 25 largest European banks in 2008 comes at 3.4 (28% of NEDs) on average notwithstanding their largely commercial/retail profile. The European average score is worst only to that of GS among our peer group.

iii. Executive presence

In principle, boards function better when they include senior key executives in addition to the CEO amongst their members, as stated by the UK Combined Code\(^\text{13}\): “The board should include a balance of executive and non-executive directors (and in particular independent non-executive directors) such that no individual or small group of individuals can dominate the board’s decision taking”.

In general we strongly support this view because: i) broader executive presence brings more information and different points of view to the board; and ii) more executives are directly accountable to shareholders. In the U.S., the general practice is for boards to include very few executives. This is the case with our peer group, as can be seen in Exhibit 5 below.

From our perspective, the GS board is a “better” board than LEH, MER, JPM, and MS which only include the CEO. It should be noted that in the case of BS, Alan Greenberg, one of the four executives was the former CEO and an old board hand with unspecified responsibilities in the organisational structure of the bank, rather than an executive handling day to day business. This brief resembles that of Bob Rubin’s “consigliere” role at Citi.

\(^{13}\) The Combined Code on Corporate Governance at www.fsa.org.
iv. Age

Age is an issue that is not often addressed in corporate governance codes. In most cases this is because it is considered to be part of a nominee’s overall competence and is (or should be) covered by broader “fit and proper” tests. Yet, we believe that an ageing board might present significant risks, which often outweigh the benefits of experience. Indeed, older directors might be less alert to business challenges, further away from the financial sector frontlines, and might have lower sensitivity to their professional reputation and future employability.

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14 In Bear Stearns, we consider Alan Greenberg as being an “executive” director as accepted in litigation before the NY Supreme Court on 4 December 2008.
It is interesting to note that all the survivors, along with the departed MER, set age limits of 70-72 years for board membership in their corporate governance guidelines. In contrast, neither LEH nor BS had such limits. If one looks at the actual age average of board members as shown Exhibit 7, there seems to be a discernible relationship between age and failure: the departed board directors were on average 66.5 years old while those of the survivors are 61.

Moreover, BS and LEH respectively had four and five directors aged above 72 on their board in the departed group, whereas it was uncommon for the survivors to have any. For comparison purposes, the average age of NEDs in the 25 largest European banks is 60, very close to that of the US survivors.

### B. Risk oversight by the board

As previously mentioned, poor risk management practices represent the most compromising business and reputational threat to a financial institution. The key failure in the run up to the crisis was the banks’ inability to properly identify the big risks that they were facing by continuing to leverage their balance sheets, expanding their trading books and using tools such as VaR to measure risks in instruments whose liquidity and credit risk profiles made them unsuitable for VaR analysis.\(^1\)

All of our six peers had, at least on paper, very sophisticated risk management systems and the teams to manage them. Although we have limited information as to their effectiveness and culture, we do know that in some of them over the past few years a free-for-all atmosphere seems to have emerged, replacing any considerations of measured risk appetite. This was the case at BS, as stated in the SEC report on its collapse.\(^2\)

“BS (management) continued to push for increased balance sheet and risk taking authority despite six limit increases since 2001” or “the positions on mortgage-backed securities was occasionally well beyond BS’ internal limits”. However, given the fact that we have limited information on salient issues of risk organisation and governance within their management structure, we limit ourselves to a review of the capacity of boards to oversee risk oversight.

The board’s proper role in the risk management food chain is that of a consolidator of various risk management strands, a function that allows it to develop an effective stance on the global risk appetite and tolerance of the institution. This, in turn, drives the strategic allocation of capital in a business that had been increasingly driven by proprietary “bets” within a growing trading book. In our 2008 comparative corporate governance study on European banks, “defining the company’s risk appetite” was an activity that was ranked as the board’s top priorities by all the banks we interviewed.

\(^1\) For a thorough discussion of failures in understanding risk see A. Turner’s Review (FSA 2009) of the financial system. A detailed analysis of board failures in properly overseeing risk management can also be found in NeAd’s upcoming 2009 study of the 25 largest European bank boards.


Surprisingly and in contrast to most large European banking boards, we find that U.S. banking boards do not seem to view the oversight of risk management and the setting of risk appetite of the institution as a core responsibility of the board. Among our sample, JPM is the only bank to provide a clear mandate for the board as a whole to oversee risk management. This contrast with the other five peers, where it seems that all but the broadest (and most formal) risk related issues do not, in principle, reach the entire board.

Looking at risk committees, JPM is the only bank to have a board committee that focuses exclusively on the oversight of risk management of all types of risks (market, credit, liquidity, and apparently operational—at least as regards the capital requirements consequences) faced by the group, in an integrated way as shown in Appendix 1.2. In addition to its “holistic” mandate, the presence of J.S. Crown, a significant shareholder, as the Chairman of the risk committee might be considered as an additional strength of JPM’s risk committee.

The GS audit committee has responsibility for discussing “management’s assessment of risk oversight” in all areas of risk. The size (eight) and composition (four FIEs) of this committee allows for an integrated approach to risk oversight at the top of the governance pyramid, bringing GS one step closer to JPM. We should also underline the practice at GS of having essentially all NEDs attend all committees. From a risk oversight perspective, this practice might be quite effective in providing NEDs with a comprehensive view of key risks and allowing them to have a collective board view on group risk tolerance and appetite.

On a similar note, the MS audit committee “reviews or discusses (...) policies and procedures for risk assessment and management”. Yet, unlike GS, the small committee size (four) and the low FIE of its members (two) raises doubts. Indeed, one wonders how a limited (both in size and FIE) committee burdened with a heavy compliance agenda can develop a comprehensive view of a very complex business, with a meeting frequency that resembles that of other peer audit committees -which do not assume broader risk responsibilities (see Appendix 1.3).

---

In the departed group, we observed divided mandates between the market and credit risk committees on one side and the operational risk committees on the other side, as was the case in MER and LEH. In LEH’s case, the finance committee, which is responsible for both credit and market risks, met only twice in 2007, as shown in Exhibit 7. 81-year-old and once legendary banker Henry Kaufman chaired this committee at least since 2001. Concerning BS, the board established a risk committee with a full-fledged mandate only a few months before the collapse of two of its hedge funds. Until then, the board as a whole seemed to have a very limited—if any—role in overseeing risk management.

C. Alignment and incentives

Executive compensation in the banking sector has emerged as the most often cited culprit of the crisis, the most scandalous aspect of the ongoing debacle, fuelling considerable media frenzy and popular resentment. And yet, if one looks at the numbers, the world might be barking up the wrong tree. The basic corporate governance requirement of shareholders and, until recently, of regulators19 was that the top management of institutions be aligned with long-term shareholder interest. In the case of our peer group this seems to have been the case.

19 A. Greenspan had very often cited the self interest of shareholders and management of financial institutions as the prime force of market discipline (see, for example op-ed in FT 27/3/09). This of course implies alignment between the two. It seems that A. Greenspan was right as regards alignment.
If one uses return on equity as a measure for corporate performance, we did not find significant discrepancies between executive pay levels and company performance\(^2\). Contrary to public perception, total compensation levels for the top 5 executives seem to have been quite responsive to ROE.

Exhibit 8: Top 5 executive remuneration versus ROE in 2007\(^2\)

Yes, Wall Street executives did receive substantial payouts in recent years, but they also delivered significant returns to shareholders from 2001 to 2007. It is clear now that much of the sky-high earnings in recent years were abnormal, short-run gains that masked a massive increase in underlying risk exposure brought about by increased leverage due to an equally massive under-pricing of risk.

But, contrary to previous governance crises, management does not seem to have short changed shareholders—or, in terms of governance theory—agents did not expropriate principals. Top executives seem to have been aligned with long-term owners, especially so in the case of the departed. The right question to ask is whether management of financial institutions that are systemically important should be fully aligned with shareholders. Regulators, like everyone else, seem to have forgotten that, when it comes to firms that are by definition highly geared due to their maturity transformation function, full alignment with shareholder interest might be the riskiest of all alignments.

---

\(^2\) ROE is what most boards and shareholders used until recently, oblivious of the incentive for management to increase leverage inherent in this metric.

Alignment with performance and shareholder returns was indeed at levels that are not seen this side of the Atlantic. Top executive salaries, averaging only 2% of annual total compensation across the whole peer group in recent years, are very low and contrast with the European salary average of 20-35% of total remuneration. Jimmy Cayne of BS received only $200,000 for most of his tenure (the lowest at 0.8%), while Jamie Dimon of JPM was at the high end, receiving a $1 million annual salary (on average 3.8% of his total pay package) as CEO-Chairman of JPM. Note the contrast with the recent FSA draft principles (March 2009) regarding remuneration policy:

“The fixed component of remuneration should be a sufficiently high proportion of total remuneration to allow the company to operate a fully flexible bonus policy... A measure of the effectiveness of this principle would be the ability of a firm to be able to pay no bonus in a year in which the firm makes a loss”.

Exhibit 9: Chief executive pay versus top 4 senior executive pay

In addition to CEO total compensation, we looked at the difference between the latter and the average total compensation of the four highest-paid senior executive officers in a given bank. The variance between these two numbers might be used as an additional indicator of the concentration of executive power within the firm and its team culture.

The substantial differential in pay levels between Fuld, O’Neal and their respective reports is yet one more indication of a large concentration of power in the hands of the LEH and MER chief executives. The three survivors as well as BS are characterised by relatively low pay differentials in the less volatile years preceding 2007.

---

22 We deal with compensation awarded for performance in a given fiscal year. We do not include dividend payouts vesting of previously awarded restricted stock (units) nor value realised through the exercise of options.

23 2005 and 2006 averages are broadly representative of executive pay since 2001 for all six banks.
In at least two of our departed, BS and LEH, long serving CEOs had built significant stakes as owners of their respective companies. As, the graph below suggests their at-risk wealth was quite high\textsuperscript{24}. In contrast Stan O’Neal had surprisingly low powered incentives for someone who had been at MER for most of his professional life and at the helm for at least seven years.

**Exhibit 10: Chief executive officer total at-risk wealth**

![Graph showing ownership value ($ millions) for CEOs of various companies over different years.]

But a high degree of focus on the share price is not in and of itself an indicator of alignment with long-term shareholder value. To the contrary, it might suggest an unhealthy focus of current compensation on the short-term share price movement. That is why, in addition to the size of individual stock-related wealth we looked for an indication of alignment with long-term shareholder value at the relationship of an executive’s stock holding as a component of his/her personal wealth. Having a significant part of one’s wealth tied in stock over the long-term seems as a decent proxy for a strong incentive to act in the long-term interest of stock holders.

Not having access to individual measures of wealth\textsuperscript{25} for the chief executives of the banks, we used as a proxy for “expected wealth”, the average annual income in the preceding five years.\textsuperscript{26} We estimated total annual income as the sum of annual compensation awards and total dividend income from ownership of company stock.

\textsuperscript{24} Defined as wealth directly influenced by stock performance. Ownership values for CEOs were calculated using information disclosed in annual proxy statements and other SEC filings and the average stock price in the preceding 365 days).

\textsuperscript{25} Forbes only had conservative estimates of wealth for the (then) billionaires Cayne (BS) and Fuld (LEH).

\textsuperscript{26} Whilst going back more than five years may have shed more light on total annual incomes, lacking data for expenditure and investment at the individual level amongst other things, we focus on expected future wealth.
The ratio of total at-risk wealth over income, labelled personal risk exposure indicator (PREI), is calculated by dividing:

\[
\text{Total at-risk wealth (as defined above)} \quad \text{by} \quad \text{Average annual income in the preceding five years}
\]

As it is evident from the graph above, the CEOs of at least two of the departed were fully aligned with the long-term interests with the shareholders of their businesses. By making the wrong decisions and taking the wrong risks they hurt themselves as much as they hurt their shareholders. Indeed, none of the CEOs managed to get out of these asymmetric positions and their wealth suffered seriously along that of other shareholders.

So there seems to have been little else that one could achieve in terms of alignment with long-term shareholder value at the top executive level in most of our peers, including LEH and BS. The questions that we (and regulators) might need to ask in the future are: Should management aim to be so fully aligned with other long-term shareholders? Might one surmise that such levels of alignment with the executive are unhealthy? Should incentives in a systemically important industry be structured in a way that might align executives more with other “stakeholders” such as fixed income investors and other counterparties?

We and many others will be debating the above questions in the immediate future.
IV. Acknowledgements

The basic research for this report was performed by a NeAd analyst team comprising David Risser, Cynthia Mike-Eze, Songtao Ye and Patrick El-Hawa. Intern, Timur Ayurov, assisted in the research effort. Songtao and Patrick prepared earlier drafts of the report while Stilpon Nestor had the final editorial responsibility.
## Appendix 1.1: Board composition and expertise as of 31 December 2007

<table>
<thead>
<tr>
<th></th>
<th>Bear Stearns(^{27})</th>
<th>Lehman Brothers</th>
<th>Merrill Lynch</th>
<th>Morgan Stanley</th>
<th>Goldman Sachs</th>
<th>JP Morgan Chase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td><strong>Composition</strong></td>
<td>4 executives(^{28}); 9 NED of whom 9 Independent</td>
<td>1 executive; 10 NED of whom 10 Independent</td>
<td>1 executive; 10 NED of whom 10 Independent</td>
<td>1 executive; 11 NED of whom 10 Independent</td>
<td>3 executives; 9 NED of whom 9 Independent</td>
<td>1 executive; 11 NED of whom 10 Independent</td>
</tr>
<tr>
<td><strong>Leadership (tenure in years)</strong></td>
<td>CEO (14) Chair (6)</td>
<td>CEO-Chair (14)</td>
<td>CEO (5) Chair (4.5)</td>
<td>CEO-Chair (2.5)</td>
<td>CEO-Chair (2)</td>
<td>CEO (2) Chair (1)</td>
</tr>
<tr>
<td>Board tenure of CEO-Chair (years)</td>
<td>22.5</td>
<td>13.3</td>
<td>6.3</td>
<td>2.5 (^{29})</td>
<td>4.5</td>
<td>7.0</td>
</tr>
<tr>
<td>NED avg. age (years)</td>
<td>68</td>
<td>69</td>
<td>63</td>
<td>60</td>
<td>64</td>
<td>60</td>
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<tr>
<td>Avg. NED tenure (years)</td>
<td>10.1</td>
<td>9.4</td>
<td>4.1</td>
<td>4.8</td>
<td>5.3</td>
<td>8.4</td>
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<tr>
<td>No. of NED financial industry experts (%)</td>
<td>2 (22%)</td>
<td>2 (10%)</td>
<td>1 (10%)</td>
<td>3 (27%)</td>
<td>4 (44%)</td>
<td>1 (8%)</td>
</tr>
</tbody>
</table>

---

\(^{27}\) Bear Stearns data is for the period up to and including 31 July 2007, which better reflects the board composition and characteristics in the period of interest. Warren Spector, Co-COO was forced to resign early August. Michael Goldstein an independent NED, was elected in January 2007, increasing board size from 12 to 13.

\(^{28}\) Includes Alan Greenberg whose only executive duty was to chair the executive committee.

\(^{29}\) James Mack’s previous five-year tenure as President-COO of Morgan Stanley ended in 2001.
## Appendix 1.2: Risk governance as of 31 December 2007

<table>
<thead>
<tr>
<th>Board risk committee 1</th>
<th>Bear Stearns&lt;sup&gt;30&lt;/sup&gt;</th>
<th>Lehman Brothers</th>
<th>Merrill Lynch</th>
<th>Morgan Stanley</th>
<th>Goldman Sachs</th>
<th>JP Morgan Chase</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Finance &amp; Risk</td>
<td>Finance</td>
<td>Audit</td>
<td>Audit</td>
<td>Risk policy</td>
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<tr>
<td>FIE: 1/4 (25%)</td>
<td>FIE: 0/5 (0%)</td>
<td>FIE: 1/4 (25%)</td>
<td>FIE: 2/4 (50%)</td>
<td>FIE: 4/8 (50%)</td>
<td>FIE: 1/4 (25%)</td>
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<tr>
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<td># of meetings: 10</td>
<td># of meetings: 10</td>
<td># of meetings: 4</td>
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</tr>
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<td>Chair: non-FIE</td>
<td>Chair: non-FIE</td>
<td>Chair: non-FIE</td>
<td>Chair: non-FIE</td>
<td>Chair: non-FIE</td>
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<td>Audit</td>
<td>Audit</td>
<td>Audit</td>
<td>Audit</td>
<td>Audit</td>
</tr>
<tr>
<td>FIE: 0/4 (0%)</td>
<td>FIE: 0/4 (0%)</td>
<td>FIE: 0/4 (0%)</td>
<td>FIE: 0/4 (0%)</td>
<td>FIE: 0/4 (0%)</td>
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<td></td>
</tr>
<tr>
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<td># of meetings: 11</td>
<td># of meetings: 11</td>
<td># of meetings: 11</td>
<td># of meetings: 11</td>
<td># of meetings: 11</td>
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</tr>
<tr>
<td>Chair: non-FIE</td>
<td>Chair: non-FIE</td>
<td>Chair: non-FIE</td>
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<td>Chair: non-FIE</td>
<td>Chair: non-FIE</td>
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</tr>
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<td>Market</td>
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<td>Market</td>
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<td>Market</td>
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<td>Market</td>
</tr>
<tr>
<td><strong>Explicit board risk oversight mandate</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

---

<sup>30</sup> Bear Stearns data is for the period up to and including July 31st 2007, which better reflects the board composition and characteristics in the period of interest. Warren Spector, Co-CEO was forced to resign early August. Michael Goldstein an independent NED, was elected in January 2007, increasing board size from 12 to 13.
## Appendix 1.3: NED Financial Industry Experts

### Bear Stearns
- **Frank T. Nickell [RC]**[^31]  
  Chief Executive of Kelso and Company
- **Wesley S. Williams Jr.**  
  Co-Chief Executive of Lockhart Companies

### Lehman Brothers
- **Jerry A. Grundhofer**  
  Retired Chief Executive of US Bancorp

### Merrill Lynch
- **John D. Finnegan [RC]**  
  Chief Executive of Chubb Corporation

### Morgan Stanley
- **Howard J. Davies [RC]**  
  Former Chairman of the Financial Services Authority  
  Former Deputy Governor of the Bank of England
- **Charles E. Phillips [RC]^[32]**  
  Former Managing Director (Investment Banking Division) of Morgan Stanley
- **O. Griffith Sexton**  
  Morgan Stanley Investment Banking until 1995  
  Morgan Stanley Advisory Director since 1995

### Goldman Sachs
- **Claes Dahlbäck [RC]**  
  Former Chief Executive of Investor AB
- **Stephen Friedman [RC]**  
  Chairman of Stone Point Capital since 2006  
  (Chairman of The Goldman Sachs Group management committee until 1994)
- **James A. Johnston [RC]**  
  Former Chief Executive of the US Federal National Mortgage Association (“Fannie Mae”)
- **Edward M. Liddy [RC]**  
  Former Chief Executive of American International Group Inc. (AIG)

### JP Morgan
- **Robert I. Lipp [RC]**  
  Executive Chairman of St. Paul’s Traveller Company

[^31]: Since 2007 when the finance and risk committee was first established.
[^32]: Since election to the Board in 2006.
## Appendix 2.1: Remuneration packages of highest paid senior executive officers

<table>
<thead>
<tr>
<th>Values are in $</th>
<th>Bear Stearns</th>
<th>Lehman Brothers</th>
<th>Merrill Lynch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
<td>250,000</td>
<td>200,000</td>
<td>750,000</td>
</tr>
<tr>
<td>Cash bonus</td>
<td>17,070,746</td>
<td>12,721,154</td>
<td>4,250,000</td>
</tr>
<tr>
<td>Restricted stock</td>
<td>14,838,829</td>
<td>10,081,291</td>
<td>35,000,000</td>
</tr>
<tr>
<td>Options</td>
<td>1,690,425</td>
<td>1,883,077</td>
<td>0</td>
</tr>
<tr>
<td>Annual other</td>
<td>1,083,883</td>
<td>0</td>
<td>153,169</td>
</tr>
<tr>
<td><strong>Annual remuneration</strong></td>
<td>no data</td>
<td>33,850,000</td>
<td>24,885,522</td>
</tr>
<tr>
<td>Dividend income</td>
<td>11,353,412</td>
<td>10,832,893</td>
<td>1,288,243</td>
</tr>
<tr>
<td>Total annual income</td>
<td>45,203,412</td>
<td>35,718,415</td>
<td>41,288,243</td>
</tr>
<tr>
<td>Inflation-adjusted</td>
<td>38,597,157</td>
<td>30,983,269</td>
<td>34,283,935</td>
</tr>
<tr>
<td>5-year average</td>
<td>35,178,293</td>
<td>38,506,948</td>
<td>33,155,683</td>
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<tr>
<td>Senior executive annual remuneration</td>
<td>26,849,270</td>
<td>19,393,730</td>
<td>10,910,704</td>
</tr>
</tbody>
</table>
## Appendix 2.2: Remuneration packages of highest paid senior executive officers

Values are in $ millions

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
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<td>800,000</td>
<td>337,534</td>
<td>600,000</td>
<td>600,000</td>
<td>600,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Cash bonus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>27,160,000</td>
<td>27,243,500</td>
<td>0</td>
<td>14,500,000</td>
<td>13,000,000</td>
<td>8,400,000</td>
</tr>
<tr>
<td>Restricted stock</td>
<td>0</td>
<td>36,179,980</td>
<td>11,476,164</td>
<td>24,444,000</td>
<td>15,679,642</td>
<td>30,147,091</td>
<td>14,500,000</td>
<td>13,000,000</td>
<td>12,600,000</td>
</tr>
<tr>
<td>Options</td>
<td>0</td>
<td>4,019,945</td>
<td>0</td>
<td>16,296,000</td>
<td>10,453,031</td>
<td>7,253,101</td>
<td>1,243,055</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Annual other</td>
<td>399,153</td>
<td>337,295</td>
<td>417,340</td>
<td>426,623</td>
<td>302,477</td>
<td>227,047</td>
<td>356,330</td>
<td>487,858</td>
<td>338,815</td>
</tr>
<tr>
<td>Dividend income</td>
<td>3,191,993</td>
<td>2,971,972</td>
<td>2,472,948</td>
<td>2,179,212</td>
<td>1,684,816</td>
<td>3,867,524</td>
<td>5,526,335</td>
<td>5,046,949</td>
<td>1,091,497</td>
</tr>
<tr>
<td>Total annual income</td>
<td>4,391,146</td>
<td>44,309,192</td>
<td>53,170,024</td>
<td>71,105,835</td>
<td>56,005,771</td>
<td>42,094,763</td>
<td>37,125,720</td>
<td>32,534,807</td>
<td>23,430,312</td>
</tr>
<tr>
<td>Inflation-adjusted</td>
<td>3,646,214</td>
<td>37,833,623</td>
<td>46,121,340</td>
<td>59,043,148</td>
<td>47,820,804</td>
<td>36,514,312</td>
<td>30,827,559</td>
<td>27,780,006</td>
<td>20,324,184</td>
</tr>
<tr>
<td>5-year average</td>
<td>30,552,182</td>
<td>30,828,880</td>
<td>25,765,346</td>
<td>37,626,813</td>
<td>32,970,837</td>
<td>24,088,072</td>
<td>26,774,583</td>
<td>18,279,323</td>
<td>19,189,657</td>
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<tr>
<td>Senior executive annual remuneration</td>
<td>13,455,695</td>
<td>25,999,909</td>
<td>18,611,481</td>
<td>59,125,000</td>
<td>45,751,547</td>
<td>26,834,824</td>
<td>16,541,095</td>
<td>17,654,788</td>
<td>18,256,577</td>
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### Appendix 3: Chief executive officer personal risk exposure indicator (PREI)

<table>
<thead>
<tr>
<th>Values are in $ millions</th>
<th>Bear Stearns</th>
<th>Lehman Brothers</th>
<th>Merrill Lynch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average 5Y total income</td>
<td>35.18</td>
<td>38.51</td>
<td>33.16</td>
</tr>
<tr>
<td>Common stock</td>
<td>731.55</td>
<td>783.13</td>
<td>597.98</td>
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<tr>
<td>Options</td>
<td>0.00</td>
<td>48.54</td>
<td>16.76</td>
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<tr>
<td>Beneficial ownership</td>
<td>731.55</td>
<td>831.67</td>
<td>614.74</td>
</tr>
<tr>
<td>Other</td>
<td>71.94</td>
<td>98.89</td>
<td>100.22</td>
</tr>
<tr>
<td>Total at-risk wealth</td>
<td>803.49</td>
<td>930.56</td>
<td>714.96</td>
</tr>
<tr>
<td>PREI</td>
<td>22.84</td>
<td>24.17</td>
<td>21.56</td>
</tr>
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<table>
<thead>
<tr>
<th>Values are in $ millions</th>
<th>Morgan Stanley</th>
<th>Goldman Sachs</th>
<th>JP Morgan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average 5Y total income</td>
<td>25.17</td>
<td>30.83</td>
<td>25.77</td>
</tr>
<tr>
<td>Common stock</td>
<td>218.05</td>
<td>184.18</td>
<td>123.64</td>
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<tr>
<td>Options exercisable</td>
<td>3.86</td>
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<td>Beneficial ownership</td>
<td>221.91</td>
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<tr>
<td>Other</td>
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<td>39.33</td>
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<td>Total at-risk wealth</td>
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<td>277.75</td>
<td>170.07</td>
</tr>
<tr>
<td>PREI</td>
<td>11.24</td>
<td>9.01</td>
<td>6.60</td>
</tr>
</tbody>
</table>

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33 Beneficial ownership constitutes the ability to exercise within 60 days.
34 Total beneficial ownership of common stock and options.
35 Mostly unvested restricted stock awards and restricted stock units. Also consists of fully vested stock with selling restrictions and in-the-money options that cannot be exercised within 60 days.
36 The PREI is the ratio of total wealth tied to the value of the firm (total at-risk wealth) to average five year total income.
Appendix 4: Chief executive officer annual remuneration premium over top four senior executives

### Values are in $ millions

<table>
<thead>
<tr>
<th>Year</th>
<th>Bear Stearns</th>
<th>Lehman Brothers</th>
<th>Merrill Lynch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief executive officer</td>
<td>n/d</td>
<td>33.80</td>
<td>24.89</td>
</tr>
<tr>
<td>Top 4 senior executive average</td>
<td>26.85</td>
<td>19.39</td>
<td>10.91</td>
</tr>
<tr>
<td>CEO premium</td>
<td>n/d</td>
<td>26%</td>
<td>28%</td>
</tr>
<tr>
<td>Two year average (excluding 2007)</td>
<td>27%</td>
<td>132%</td>
<td>113%</td>
</tr>
</tbody>
</table>

### Values are in $ millions

<table>
<thead>
<tr>
<th>Year</th>
<th>Morgan Stanley</th>
<th>Goldman Sachs</th>
<th>JP Morgan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief executive officer</td>
<td>1.20</td>
<td>41.34</td>
<td>1.20</td>
</tr>
<tr>
<td>Top 4 senior executive average</td>
<td>13.46</td>
<td>26.00</td>
<td>18.61</td>
</tr>
<tr>
<td>CEO premium</td>
<td>-91%</td>
<td>59%</td>
<td>31%</td>
</tr>
<tr>
<td>Two year average (excluding 2007)</td>
<td>45%</td>
<td>31%</td>
<td>39%</td>
</tr>
</tbody>
</table>

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37 The top four highest paid senior executive officers other than the chief executive, as disclosed in proxy statements.