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EXECUTIVE COMPENSATION AT FANNIE MAE AND FREDDIE MAC

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“In the early 1990s, Freddie Mac promoted itself to investors as ‘Steady Freddie,’ a company of strong and steady growth in profits. During that period the company developed a corporate culture that placed a very high priority on meeting those expectations, including, when necessary, using means that failed to meet its obligations to investors, regulators and the public.”

Report of the Special Examination of Freddie Mac, Office of Federal Housing Enterprise Oversight, Dec. 2003, p. i.

“Characteristics of [Fannie Mae’s] culture include... an executive compensation structure that rewarded management for meeting goals tied to earnings-per-share, a metric subject to manipulation by management.”

Report of Findings to Date: Special Examination of Fannie Mae, Office of Compliance, Office of Federal Housing Enterprise Oversight, Sept. 17, 2004, p. i.

Financial economists long have advocated tying top executives’ pay to the performance of their firms. Michael C. Jensen and Kevin J. Murphy summarize the results of years of intensive academic study of the managerial-agency problem in a 1990 *Harvard Business Review* article, “CEO Incentives: It’s Not How Much You Pay, But How.” Jensen and Murphy emphasize that CEOs respond to incentives, and executive compensation is first and foremost an incentive system. If shareholders want executives to act as if they own the firm, executive compensation should vary with firm value. In practice, this means that top executives’ pay and personal wealth should be tied explicitly and substantially to the stock price or some accounting-based metric that might bear on the stock price over time.

Stock- and option-based executive compensation swept across the corporate landscape both in the United States and abroad during the 1990s, as corporate boards attempted to align the

interests of managers with those of shareholders. The privatized, publicly-traded housing government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, were no exceptions. Indeed, Congressional reform legislation in 1992 (Federal Housing Enterprises Financial Safety and Soundness Act) mandated “pay for performance” as a substantial component of GSE executives’ total compensation.

The original advocates of pay for performance expected that firms easily could induce executives to create shareholder value by providing heavily stock- and option-based compensation packages. These expectations may have been too optimistic. What financial economists call “high-powered incentive” structures sometimes create new distortions that can be as harmful as the managerial-agency problem they seek to eliminate. Jensen, Murphy, and Eric G. Wruck (2004) admit that “...while executive compensation can be a powerful tool for reducing the agency conflicts between managers and the firm, compensation can also be a substantial source of agency costs if it is not managed properly (p. 98).”

Flawed executive-compensation plans may have caused or exacerbated many of the recent corporate-governance scandals. The consequences of improperly managed executive-compensation arrangements extend beyond the executives themselves, to the firm’s shareholders, employees, and other stakeholder groups. When the firms involved are government-sponsored enterprises that have grown so large as to pose systemic risks to the financial system, the consequences of improper executive incentives are amplified. The critique of Fannie Mae’s corporate governance delivered in September 2004 by the Office of Federal Housing Enterprise Oversight (OFHEO) reinforced the point revealed in Freddie Mac’s own internally discovered governance crisis of June 2003: Executive incentives were poorly aligned not only with stakeholder groups but potentially also with shareholders’ long-run interests.

This article describes the misaligned incentives in the executive-compensation schemes at Fannie Mae and Freddie Mac. We argue that the problem at the stockholder-owned housing GSEs potentially is worse than it is in the average S&P 100 firm because the GSEs are different in terms of their financial structure, the flexibility of their business models and financial-reporting systems to respond to executive incentives, and the range of stakeholder groups that have legitimate interests in their governance. Yet, executive-compensation plans at the GSEs are composed of a large stock- and earnings-based component that is benchmarked to financial institutions that are different from Fannie and Freddie. More appropriate and targeted performance goals—such as limiting interest-rate risk and meeting affordable-housing goals—also are part of GSE executive-compensation plans, but they make up a much smaller component of bonus awards.

The design of executive compensation is central to the governance of the GSEs. In our view, the relationship between executive-compensation arrangements at the GSEs and their well-documented earnings-management abuses has not received adequate attention in the discussion of possible GSE reforms.

Whether Congress chooses to embark on a transition to true GSE privatization or moves toward a stricter, more bank-like regulatory regime, a focus on executive compensation will remain critical for successful reform. If a political consensus ever emerged in favor of privatization, it would be important to remove incentives for GSE managers to maximize the value to shareholders of the “implicit guarantee” during the transition. The best way to prevent last-minute increases in risk would be to eliminate top management’s incentive to maximize current shareholder wealth at the expense of taxpayers.

On the other hand, if privatization remains politically impossible, increased regulatory control over some aspects of executive compensation could strengthen the safety and soundness of the GSEs. Bank regulators can constrain bank executives' compensation in some circumstances, which limits management's incentive to take excessive risk. If GSE supervisors had authority over compensation plans similar to that exercised by bank regulators, the risks posed by the enterprises to financial stability could be greatly reduced.

To be sure, an increase in supervisory control over Fannie Mae's and Freddie Mac's executive compensation might increase the confidence of market participants in the government's implicit guarantee of GSE liabilities. Wallison (2004) argues that further entrenching supervision would make privatization less feasible. However, we contend that supervisory control over compensation is necessary to prevent excessive risk taking whether GSEs remain under government supervision indefinitely or are set on the path to privatization.

THE EVOLUTION OF THE GSE BUSINESS MODEL: MOVING FROM OFF TO ON BALANCE SHEET

Perhaps the most contentious aspect of the GSEs' current operations is their exploitation of a perceived implicit guarantee of their senior liabilities by the U.S. Treasury. The perceived guarantee allows them to issue large amounts of unsecured debt cheaply in order to increase both their assets and their leverage. Frame and White (2004) describe in great detail the housing-finance activities of Fannie Mae and Freddie Mac and the privileges they enjoy; we do not repeat them here. However, one aspect of the recent evolution of the GSEs' business models that does call for emphasis here is the choice they face between intermediating mortgage flows on or off their balance sheets. On-balance-sheet intermediation consists largely of a GSE issuing senior unsecured debt in capital markets and then using the proceeds to fund investments in mortgages

or mortgage-backed securities (MBS). Equity provides about 3.50 percent of the funds for GSEs' on-balance-sheet mortgage financing; unsecured debt provides most of the rest. The GSEs are able to fund their highly profitable operations primarily with unsecured debt both because the assets are of high quality and investors perceive an implicit guarantee of GSE senior liabilities by the Federal Government.

In contrast to on-balance-sheet intermediation, off-balance-sheet intermediation consists of providing a guarantee to investors of timely repayment of principal and interest from an issue of MBS. In the guarantee business, the GSE sheds interest-rate risk. Only when mortgages or MBS stay on the balance sheet do the GSEs retain interest-rate risk. Whether the intermediation of mortgages is on or off the balance sheet, the GSE absorbs the credit risk.

The on-balance-sheet business of both GSEs grew much faster than the off-balance-sheet business during the 1990s. Rapid growth of on-balance sheet business allowed the GSEs to take advantage of their access to cheap financing. As we discuss further below, the fact that the GSEs' current stock- and option-based executive-compensation plans were put in place at about the same time that the GSEs' decade of rapid balance-sheet expansion began is worth noting.

Of course, the residential-mortgage market itself has grown rapidly—at a compounded annual rate of 8.6 percent in the decade through June 2004. Yet the GSEs have retained an increasing share of this expanding market. The off-balance-sheet business grew at a 5-percent annual rate in the 10 years through June 2004, while the on-balance-sheet business grew at a 17-percent annual rate—much faster than the mortgage market itself.

While the GSEs pursued high growth in the on-balance-sheet business, they also maintained high leverage. Fannie Mae held core capital of about 3.65 percent on June 30, 2004. A typical U.S. depository institution with the same portfolio of assets would be required to hold

core capital equivalent to at least 5 percent of assets under bank regulators’ so-called “leverage ratio.” The shifting business mix during the 1990s toward on-balance-sheet business with high leverage highlights the ability of GSE executives to take advantage of perceived profit opportunities when given the incentives to do so.

In sum, there is little question that the housing GSEs’ growth—particularly on their balance sheets—has been very rapid in recent years. At the same time, the GSEs operate with much higher leverage than a typical bank, even if the bank held an identical portfolio of assets. As we discuss below, their high leverage and importance in the mortgage-finance market of the GSEs create a need for enhanced supervision and control over executive-compensation plans, even during a possible transition to privatization.

THE NEED FOR REGULATION OF THE GSEs: NEGATIVE EXTERNALITIES AND DEBTHOLDERS’ COLLECTIVE-ACTION PROBLEM

Why are the GSEs regulated today, and why might more stringent oversight be justified in the future? We contend that there are two basic reasons for government oversight of the GSEs. First, there may be costs associated with a GSE’s failure that shareholders do not adequately take into account—so-called negative externalities. The GSEs’ importance to the mortgage market in particular, and the financial system more generally, has grown enormously in recent years. The disruptive failure of a housing GSE—however remote the possibility—could interrupt the flow of credit to the mortgage market, constraining many households’ housing choices. Failure of a GSE also might threaten financial stability, possibly through extensive bank and thrift holdings of over \$1 trillion of GSE debt. However, GSE shareholders

on the verge of losing their investments would have inadequate financial incentives to limit losses on GSE assets.

Negative externalities are perhaps the most formidable obstacle to complete, credible privatization of the GSEs. It is, of course, also the source of the market's perception of an implicit guarantee of GSE liabilities. The undeniable economic logic of a future government bailout of some kind, in turn, justifies government oversight now to contain the expected cost of the contingent liability.

The second reason for government oversight of the GSEs is the fact that the thousands of holders of GSE debt today need a delegated monitor to overcome a “collective-action” or “free-rider” problem. In fact, some 7,400 U.S. commercial banks—95 percent of all banks—hold some GSE debt today. Thousands of other domestic and foreign financial institutions, non-financial private investors, mutual funds, and foreign governments hold GSE debt also. No single holder of GSE debt owns more than a trivial fraction of the outstanding debt. Thus, the collective-action problem among GSE debtholders is acute. This would be most apparent and critical in the event of a GSE default or restructuring that required creditor decision-making.

The basic delegated-monitor argument for regulation of banks is laid out in Dewatripont and Tirole (1994), where the authors outline their “representation hypothesis” of bank regulation. Market discipline of a firm with many small, dispersed, uncoordinated debtholders may provoke a market panic. Among uninsured banks, a panic starts with runs on individual distressed banks, which then spread contagiously to unrelated and sometimes healthy banks. History shows that unchecked banking panics can disrupt the credit and payments mechanisms of an economy, the hallmarks of financial stability.

For GSEs, a panic would begin as a funding-liquidity crisis, with negative implications for the intermediation of residential-mortgage credit and for the liquidity of debtholders' (notably banks') portfolios. A market panic that spread from Fannie Mae to Freddie Mac, or vice versa, probably would not harm the payments system because the Federal Reserve easily could liquefy banks via the discount window or open-market operations. However, it certainly would interrupt the flow of funds to the mortgage market. Such an interruption would matter because home-mortgage borrowing has constituted almost half of all flows of credit to the domestic non-federal, non-financial sectors of the U.S. economy during the last 20 years, according to the Federal Reserve's Flow of Funds accounts.

A single dominant debtholder can, in principle, overcome the collective-action problem if the "delegated monitor" assumes a substantial financial exposure itself (hence facing a financial incentive to perform due diligence, even while "free riders" do not). A privately owned dominant monitor would exert tremendous influence over a GSE but might act to the detriment of small debtholders or other stakeholders. For example, abuse of its dominant market position by the New York (Bankers') Clearinghouse during the Panic of 1907 was a major factor leading to the establishment of the Federal Reserve System in 1913. Thus, the first link between a need for a delegated monitor and government regulation is the desirability of avoiding undue market power accruing to a private, profit-maximizing entity.

As noted, a delegated monitor must have a financial incentive to monitor effectively. In the case of banking, the government's guarantee of the stability of the banking system—whether explicit or implicit—serves to underpin the government's incentive to monitor bank safety and soundness. Supervision is an investment in controlling contingent liabilities.

We believe a similar argument applies to the GSEs. The government’s financial exposures to the GSEs appear in several forms. Most significantly, the government is exposed in the form of an implicit guarantee of GSE senior debt due to the fear of financial instability were government support not forthcoming in a crisis. Indirect exposures exist through insured bank and thrift holdings of GSE securities and through large-bank dealings with the GSEs in OTC derivatives markets. Direct exposures exist in the form of the Federal Reserve Bank of New York’s credit exposure to the GSEs on Fedwire (the large-value payments system), and in the form of the GSEs’ \$2.25 billion open line of credit at the Treasury.

The key insight of the representation hypothesis as it applies to the GSEs is that significant government financial exposure to the GSEs allows GSE debtholders effectively to delegate the task of carrying out due diligence to a government supervisor. Delegated monitoring with significant financial exposure transforms the regulator from a bureaucratic overseer with little at stake into a risk manager facing a large contingent liability. The scale of that liability is very difficult to control, however, because the GSE has considerable flexibility and discretion in how it operates. This suggests that governance of the GSEs and protection of taxpayers’ interests might benefit from greater supervisory control of executive compensation.

CORPORATE GOVERNANCE AND EXECUTIVE COMPENSATION IN REGULATED FINANCIAL INSTITUTIONS

Van Order (2000) contends that GSEs and banks should be seen as competing models of government intervention into the financial system —“dueling charters,” in his words. A qualitative similarity exists between insured banks and implicitly guaranteed GSEs. In both cases, government guarantees make the charters viable. Likewise, government supervision limits the cost of providing the guarantees, while the contingent liabilities, in turn, fortify the

government's incentive to provide effective oversight. Van Order's micro-economic analysis of banks and GSEs, together with the rationale for regulation sketched above, provides an appropriate framework for analyzing executive compensation at the GSEs.

To be sure, the rights and responsibilities of corporate shareholders and debtholders usually are strictly segregated, with no obligation for one class of claimant to consider the interests of other classes. However, this demarcation historically has been blurred in the governance of U.S. banks. Macey and O'Hara (2003) point out that, after World War I, U.S. courts supported a fiduciary duty imposed on bank directors to indemnify debt claimants. This was the era of "double liability" for banks in some states, meaning that bank shareholders could be required to pay in additional capital if a bank was on the verge of default.

A modern example of the extra duty that bank owners owe to debtholders (and depositors' representative, the supervisor) is the framework of Prompt Corrective Action (PCA) regulations incorporated in the Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991. Similar provisions for GSEs were incorporated in the Federal Housing Enterprises Financial Safety and Soundness Act of 1992. The PCA framework allows regulators effectively to seize control of banks before their equity is exhausted—a "taking" that has been upheld in court.

The current discussion about extending "bank-like supervision" to the GSEs includes more than giving the GSE supervisor a seat at the boardroom table, of course. But we believe this is an important aspect of increased GSE supervision because the board of directors determines executive-compensation arrangements which, in turn, determine how the firm will be run. A firm's "corporate culture" includes not just strategic direction and risk-taking decisions, but also the design of financial-reporting systems and the integrity of internal controls.

Economists call executive-compensation packages that entail high sensitivity of an executive's annual pay and personal wealth to changes in the company's stock price (or related performance measures, such as earnings per share) "high-powered incentive contracts." Conversely, executive-compensation packages that are largely insensitive to changes in the company's stock price (or other performance measures) are termed "low-powered incentive contracts."

Financial theory suggests that optimal executive-compensation arrangements at publicly held corporations depend on the operations, financial structure, market opportunities, size, and public purpose (if any) of the firm (John and John, 1993; John, Saunders, and Senbet, 2000; Adams and Mehran, 2003). In particular, top executives should face greater sensitivity of pay to performance, the:

- Less transparent is the firm's business model;
- Lower is the firm's leverage;
- Weaker or more variable is the firm's cash flow;
- Greater are the firm's growth opportunities;
- Smaller is the firm's size (market capitalization); and
- Less important are non-shareholder stakeholders in the firm.

The logic behind each criterion for designing optimal executive compensation is quite intuitive.

- **Transparency of the business model** The GSEs' business models are quite transparent, as their top officers frequently stress publicly when arguing that their firms do not pose significant systemic risks to the financial system. Their two business lines—investment portfolio and guarantee business—are straightforward. Their assets consist almost exclusively of unencumbered (unpledged) marketable securities, which could be valued and sold quite easily. Thus, the high degree of transparency of their business model should result in a minimal emphasis on high-powered incentives, which are needed most when the information asymmetry between insiders and outsiders is very large.
- **Leverage** The GSEs operate with high leverage, even compared to banks. John and John (1993) explain theoretically why high leverage should decrease the pay-for-performance sensitivity of a firm's executive compensation. Adams and Mehran (2003) find empirical evidence that option pay is less at banks than at other, less-levered firms. In effect, leverage itself is a high-powered incentive device; executive compensation should not amplify the risk-taking incentives already present. Thus, on this criterion, GSE executive compensation should be relatively low-powered.
- **Cash-flow variability and availability** A firm with highly variable cash flows, like one that is not transparent to outside investors, needs to focus executives' efforts on generating sustainable creation of value by giving them powerful performance incentives. The GSEs' businesses and cash flows are relatively stable—that is what allows them to operate with high leverage, after all. Thus, executive compensation should be low-powered on this account. Because cash flows are available to pay cash salaries almost without fail, there is less need to provide deferred compensation in the form of stock or options.

- **Growth opportunities** A firm that is valued by investors primarily for the investments it may make in the future needs to provide entrepreneurial incentives to its executives. The GSEs' growth has been decelerating for some time, and they appear near the saturation point in terms of the share of the conforming-mortgage market they can profitably intermediate. As Warren Buffett and other former and current investors who assign extremely low P/E ratios to the GSEs have concluded, the fastest growth of the GSEs is behind them. Executive compensation should be low-powered on the basis of the GSEs' relatively small growth opportunities.

- **Firm size (market capitalization)** The larger is a firm's market capitalization, the more difficult it is to provide the CEO with a meaningful equity stake in the company. For this reason, high-powered incentive contracts are more expensive for larger firms. The GSEs' market capitalizations are large, so their executive compensation should de-emphasize pay for performance on this ground.

- **Importance of stakeholders other than shareholders** Perhaps the most compelling reason of all for the GSEs to de-emphasize high-powered executive-compensation contracts is that relevant and important stakeholder groups extend far beyond shareholders. As we discussed above, GSEs are like banks in that they may pose externalities to the financial system and the economy. Moreover, the GSEs' explicit public mission to support the housing-finance market means that their reason for existing extends beyond the maximization of shareholder wealth. To fulfill this public mission, the GSEs must remain safe and sound—i.e., officers and directors should take into account debtholders' and taxpayers' interests in avoiding insolvency.

The GSEs arguably fall near the low-powered end of the scale on *every* compensation criterion noted here. That is, optimal executive-compensation arrangements at the GSEs should entail a smaller role for stock and options than at the average publicly owned corporation. Yet, Fannie Mae and Freddie Mac compensate their top executives with notably high-powered incentives. In 2003, for example, Fannie Mae CEO Franklin D. Raines received a base salary of

about \$1 million, an annual bonus of about \$4.4 million, and long-term compensation awards in the form of stock and options of almost \$15 million. At the end of 2003, Mr. Raines owned outright Fannie Mae stock worth \$17.4 million, while he owned options exercisable within 60 days to control an additional \$113 million of Fannie Mae stock. Given the significant role of earnings-per-share targets in determining his eligibility for the annual bonus award, Mr. Raines' compensation package (including changes in the value of his Fannie Mae stock and options) predominantly consists of high-powered incentives. Executive-compensation arrangements are similar at Freddie Mac.

The boards of directors at Fannie Mae and Freddie Mac were not solely responsible for designing inappropriate executive compensation, however. Congress enshrined pay-for-performance in the 1992 reforms of the GSEs' chartering acts. Fannie Mae's charter act, for example, requires that a "significant portion of... compensation... be based upon performance." According to Fannie Mae's 10-K, executive compensation should "maintain comparability" with executive-compensation plans at "peer institutions." As implemented, this means the company's compensation committee targets cash compensation (*i.e.*, salary and bonus) at approximately the 50th percentile of the distribution of other large financial-services companies, and total compensation (cash plus stock-based awards) at approximately the 65th percentile.

We believe that the GSE regulator (OFHEO) should have a greater ability to constrain executive compensation. A basis for intervention is suggested in the legislative history of the Fannie Mae Charter Act, in Senate Report No. 1123 (May 15, 1968):

...it is the intent of the Committee that the regulatory powers of the Secretary will not extend to the FNMA's internal affairs, such as personnel, salary, and other usual corporate matters, *except where the exercise of such powers is necessary to protect the financial interests of the Federal Government or as otherwise necessary to assure that the purposes of the FNMA Charter Act are carried out* [italics added].

While this statement of the intent of Congress is consistent with greater regulatory oversight of the GSEs' executive-compensation plans, legislation (12 USC 4518(b)) explicitly prohibits the Director of OFHEO from setting a "specific level or range of compensation."

There is some movement on the executive-compensation front already. OFHEO's proposed corporate-governance reforms, published in the Federal Register of April 12, 2004, include a requirement that Fannie Mae's and Freddie Mac's executive compensation be "appropriate and reasonable," rather than merely "appropriate and comparable."

OFHEO is proposing to... [add] language that would prohibit compensation in excess of what is appropriate for these government-sponsored enterprises, in addition to what is reasonable (as the section currently reads) and consistent with their long-term goals. The addition of this language is intended to underscore the impropriety of compensation incentives that excessively focus the attention of management and employees on short-term earnings performance....

The proposed compensation requirement in no way detracts from the obligations of board members and management to meet their responsibilities to shareholders, but reflects the attention that needs to be paid as well to other important considerations in directing the course and conduct of an Enterprise. (Federal Register, Vol. 69, N. 70, Monday, April 12, 2004, pp. 19126-29)

OFHEO recognizes that the public has a right to demand from GSEs, like banks, a higher standard of corporate governance.

CONCLUSIONS

Borrowing restrictions and higher capital requirements could, in principle, counter the most obvious signs of aggressive risk-taking by GSEs. But blunt restrictions are unlikely to prevent smart, stock- and option-fueled managers from reaching a risk-return trade-off they believe maximizes shareholder wealth—as well as their own. From a public-policy perspective, the crucial task is to recalibrate managerial incentives to decrease the large risk appetite of the owners of a highly leveraged financial institution that is perceived by many capital-market participants to enjoy a government guarantee of its liabilities. Thus, corporate governance—and executive-compensation arrangements in particular—should be an important component of the reform agenda. In turn, the GSEs’ safety-and-soundness regulator—who is essentially the debtholders’ and taxpayers’ representative—must be admitted to the GSEs’ boardroom in a way that is atypical of an ordinary publicly held company. This intrusion into the board’s oversight of executive-compensation plans is justified given the GSEs’ public purposes and their large potential cost to taxpayers.

Recent proposed amendments to OFHEO’s corporate-governance framework for the GSEs would allow the regulator to require compensation to be “reasonable and *appropriate*” rather than merely “reasonable and *comparable*.” Authority for OFHEO to participate actively in the setting of GSE executive compensation would be fitting either as part of an enhanced supervisory regime or as part of a transition to privatization.

In the wake of OFHEO’s investigations into Freddie Mac’s and Fannie Mae’s accounting practices, there are signs that GSE owners and directors have begun to appreciate how important executive-compensation arrangements are in establishing the firms’ cultures and setting an appropriate “tone at the top.” There is no guarantee that GSE shareholders and directors will

follow through, however. Prudent public policy requires greater supervisory control over executive compensation at the GSEs, which would follow a precedent set in banking.

Where does this leave privatization? We believe any viable plan to privatize the GSEs must explain: a) how the negative externalities surrounding a GSE failure would be effectively minimized by private market discipline alone, and b) how the tens of thousands of dispersed GSE debtholders could exert effective market discipline without creating episodes of uncoordinated, contagious, and disruptive liquidity crises in GSE debt markets. Any transition to privatization should include government oversight, including strong supervisory control over executive-compensation plans.

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