

**DESA Working Paper No. 115**

ST/ESA/2012/DWP/115

April 2012

**Financial sector compensation and excess risk-taking—a consideration of the issues and policy lessons***Krishnan Sharma*

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**Abstract**

This paper surveys the ways that the structure and magnitude of financial sector compensation can generate incentives for excessive risk taking. It also highlights the underlying economic and institutional forces that have underpinned and sustained these pay structures, including aspects of corporate governance in financial institutions, regulatory capture by financial elites, the nature of the labour market for finance professionals and the extended economic boom of the 1990s and 2000s. The measures endorsed by the Financial Stability Board and the G20 for sound compensation practices do not go far enough in several areas; a broader set of measures need consideration.

JEL Classification: G1 (General financial markets), G2 (Financial institutions and services), G3 (Corporate Finance and Governance), G28 (Government Policy and Regulation), M52 (Compensation and Compensation Methods and Their Effects), J63 (Turnover, Vacancies and Layoffs)

Keywords: Financial market compensation, financial institutions, excess risk-taking, magnitude and structure of pay, governance of compensation, labour market mobility, regulation

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## **Financial sector compensation and excess risk-taking: A consideration of the issues and policy lessons**

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### **Introduction**

This paper focuses on the issue of compensation-driven incentives generating excessive risk-taking in financial markets. Excess risk-taking, in the context of this paper, is defined as actions that might benefit an individual lender or investor in the short-term, but pose systemic risks to the financial system as a whole. This paper will consider the ways that the structure and magnitudes of financial sector pay can cause excess risk-taking, the underlying economic and institutional forces that have underpinned and sustained them, and the adequacy of existing policies in addressing the impact of financial sector compensation in generating undue levels of economic and systemic risk.

The work here aims to add value in a few ways. First, by pulling together disparate strands of research and analysis to provide an integrated and coherent perspective of the various issues that need to be considered by policy makers at all levels when implementing compensation reforms. In this regard, the research here also draws light on a range of underlying institutional factors that may need to be addressed if compensation reforms are to be effective. In addition, while much of the recent writings regarding financial sector compensation have focused on the pay of bankers, the paper also devotes attention to the impact of institutional investor pay structures on excess risk-taking and suggests possible reforms in this area. Finally, the paper also provides an overview and assessment of the adequacy of the policies implemented to date relating to financial sector compensation and outlines additional measures that deserve consideration.

While the analyses in this paper mainly pertain to issues and developments in the mature economies, they do have relevance for developing countries in couple of respects. For a start, the excess risk-taking that is encouraged by financial sector compensation-structures can impact on the magnitude and volatility of bank and portfolio capital flows to developing countries. In addition, the broad policy lessons for developing countries as they continue down the path of financial development. These issues are elaborated on in the penultimate section of the paper.

Following this introduction, the next section will analyze the ways that financial sector pay can cause excess risk-taking. The following section will look at the underlying economic and institutional factors that may explain the persistence of existing financial sector pay structures and magnitudes. The next section analyzes the policies proposed and/or undertaken in the major economies and suggests additional policies for consideration by policy makers. The penultimate section will outline the lessons for developing countries. The final section will provide broad conclusions.

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1 The author would like to thank Anis Chowdhury, Michael Kunz, Daniel Platz and Hamid Rashid for their comments. He would also like to acknowledge the suggestions provided by Shari Spiegel on the issue of reforming the compensation structures of mutual funds and hedge funds. The views expressed herein are those of the author and not necessarily those of the United Nations.

## **The relationship between financial sector compensation and excess risk-taking**

### *Within the financial system*

A number of factors can be said to incentivize excess risk-taking by financial institutions. Recently, increased attention has been paid to the role of compensation mechanisms in encouraging unduly risky behaviour within the financial system. In particular, excess risk-taking has been argued to have been fuelled by three types of asymmetries in the compensation for lenders, traders, investment bankers and investors. (See e.g. Bebchuk and Spamann, 2009; Thanassoulis, 2009; Crotty, 2009; Stiglitz, 2008 and Berrone, 2008).

- Firstly, there are asymmetries in the treatment of gains and losses. While in most cases there exists a floor on losses made by these professionals, there is no comparable cap on gains. To elaborate, their compensation can only go so low—in its purest form, it would be floored at zero while the gains can be limitless.
- Secondly, there exists an asymmetric imbalance between the term, magnitude and probability of gains and losses. For instance, standard pay and bonus arrangements reward lenders, traders and investors for short-term results even when these results are subsequently reversed. This encourages professionals to take ‘tail risks’ i.e. undertake actions that generate a high probability of gains in the short-term while concealing the risk of a larger loss in the longer-term.
- Finally, there are asymmetric and skewed incentives created by standard equity-based compensation for finance executives, such as stock options. It is argued that these compensation packages have got out of control and executives allowed stock price considerations to excessively drive their incentives. Their remuneration and bonuses depended on short-term profitability that drove up share prices, but did not necessarily strengthen the long-term health of the company.

It has been argued that these asymmetries have led to a divergence of interests between employees and the health of financial institutions at large. Data supplied by Cuomo (2009) finds that compensation for financial institution employees has become unmoored from banks’ financial performance; e.g., bonuses and overall compensation did not vary significantly as profits diminished during the recent financial crisis. Moreover, figures provided by the Office of the New York State Comptroller show that bonuses in Wall Street financial institutions continued to register large positive numbers in 2007 and 2008, despite large losses made by financial institutions.

This disconnect between compensation and bank performance results in a “heads I win” and “tails you lose” bonus system. Similarly, multiple surveys of market participants and experts by Financial Stability Forum (FSF) find that over 80% of participants believe that compensation practices played a role in promoting the accumulation of risks that led to the current crisis (FSF, 2009).

Critics of compensation reform point out that there is no evidence that firms that had longer-term and more accountable compensation structures took less risk than those with high levels of cash and short-term compensation. Bear Stearns and Lehman were known for having compensation structures with high levels of deferrals and a full 5-year vesting period rather than the 2-3 years that many Wall Street firms used. Close to a third of the stock of Bear Stearns was owned by employees at the time that it sank. Moreover, empirical research by Fahlenbrach and Stulz (2009) examined the relationship between bank performance during the 2008-2009 crisis and CEO pay incentives at 98 banks. This found that the CEO’s of these banks lost more than \$30bn on average at onset of the recent crisis, while executives who headed Bear Stearns and Lehman lost close to \$1bn each.

Nevertheless, Bebchuk, Cohen and Spamann (2010) document that many bank CEOs, including those of Bear Sterns and Lehman Brothers, had paid out to themselves huge payoffs prior to the crisis and that these payoffs far exceeded the amounts they lost eventually. In that regard, bank management can be said to have benefitted from short-term compensation that was not tied to long-term performance (Acharya, 2009). Moreover, even accepting the fact that other factors such as inadequate market pricing of risk may have been important, this does not necessarily imply that pay incentives were inconsequential.

Chart 1

**Wall Street Bonuses and Profits** (\$ billions)

Source: Office of New York State Comptroller; New York Stock Exchange; Securities Industry and Financial Markets Association.  
 Note: EMEA EM refers to emerging economies in Europe, Middle East and Africa.

***Specific to institutional investors***

While the asymmetries and skewed pay off systems described above are general across financial systems, there are specific aspects of them that are particularly relevant to institutions on the buy-side, especially mutual funds and hedge funds.

There has in general been less discussion on the implications of asset manager compensation. This is likely because the recent financial crisis was more directly linked to the banking system than to hedge fund or mutual fund behaviour. Such a narrow focus is however short-sighted for a number of reasons. For a start, asset managers are an integral part of the financial system: they have been at the heart of numerous crises over the last two decades, especially those related to emerging market economies. Moreover, institutional investors have become increasingly important shareholders and have been argued to reinforce the risk-taking embedded in the compensation system of the firms, including banks, whose stocks they buy. Hence, perverse incentives and excess risk-taking in buy-side institutes and universal banks can reinforce one another (Rajan, 2005).

Mutual fund managers' fees usually consist of a management fee set as a percentage of net assets (NAV) and possibly a relative performance component, measured against a benchmark or against similar funds. In addition to a base salary, managers generally tend to be rewarded by a bonus based on their performance relative to a benchmark. This fee structure can lead to excess risk-taking at an aggregate level in two respects.

- For a start, portfolio managers are encouraged to increase returns, and thereby assets under management, by whatever means possible, including through undertaking actions that ignore the build-up of tail risks (Crotty, 2009). The impact of this is further perpetuated by another asymmetry borne by empirical evidence that institutional investors suffer smaller percentage losses in their client base in years in which they achieved below average returns than the percentage gains they earn in years of above average returns (Sirri and Tufano (1998). This has been argued to lead to a compensation function that is convex in returns i.e. encourages risk-taking by the individual manager because the upside is more significant than the downside (Rajan, 2005).
- In addition, performance relative to other peer managers matters, either because it is directly embedded in their compensation or because investors are attracted to the best performing funds within an asset class. This can encourage herding behaviour, which provides insurance that the manager will not under-perform his or her peers. Especially during periods when high returns are being earned, herding by institutional investors can generate and enlarge asset bubbles. Thus, while for an individual manager going with the herd may represent a form of risk-aversion, when aggregated across fund managers such behaviour can generate a build-up of economic and systemic risks.

In reality, mutual fund managers are motivated by a mixture of the above considerations i.e. the fear of underperforming the benchmark and the desire to beat the benchmark and undertake greater risks to increase returns. According to the literature, the relative strength of these considerations may depend on various factors including relative ranking (Brown, Harlow and Stacks, 1996), the relative strengths of compensation incentives versus reputational and job loss concerns (Kempf, Ruenzi and Thiel, 2009; Dass, Massa and Patgiri, 2008), and the nature of the larger entities/families that they belong to (Dass, Massa and Patgiri, 2008). Moreover, Rajan (2005) argues that different managers may suffer from each of these distortions to a different extent. The young and unproven are likely to take more tail risk, while the established are likely to herd more.

In practice, both these considerations—i.e. the need to not under-perform the benchmark and the need to perform well enough to increase assets under management—can go hand in hand. This is especially the case during extended bull markets where the amount of funds invested into financial markets is increasing along with the number of investors. In general, though, a key implication from the literature and from meetings held with fund managers and experts seems to be that, in the case of mutual funds, herding behaviour is the most likely channel through which undue systemic or market risks can build up. This is partly owing to the fact that mutual funds, in contrast to hedge funds, are less leveraged and have fewer interlocking relationships within the financial system, for any one or a few of them to cause serious systemic concerns.

The compensation structure of hedge funds differs markedly from mutual funds. Hedge funds typically charge a 2% management fee and 20% performance fee. Hedge fund traders and managers therefore tend to be compensated more on absolute return, while other institutional investors are typically compensated on scale, with performance evaluated vs. a benchmark. Since high returns both raise profits and help increase the size of assets under management, there are strong reasons to take risk in pursuit of high returns in a boom. General partners do not have to return their boom induced profit in a downturn.

Hedge fund fee structures are argued to lead to excessive risk taking due to asymmetric returns in hedge fund fees, i.e. there is an upside monetary gain arising from sharing in investors' profits but no downside penalty when losses are made. This in turn provides strong incentives for hedge fund managers to increase risk and leverage in order to boost returns. Moreover, the higher the percentage of profit shar-

ing, such as a 30% profit sharing fee versus a 20% profit sharing fee, the greater will be the incentive for the hedge fund manager to disregard risk-concerns and focus purely on raising returns. When aggregated across the universe of hedge fund managers, the risk-taking actions encouraged by such incentives may give rise to systemic concerns, not least due to the strong inter-linkages, owing to leverage, between hedge funds and the broader financial system.

However, there are additional features of hedge fund managers' compensation that are purported to mitigate the degree of inherent asymmetry inherent in their pay structures. For instance, performance fees in many hedge funds are subjected to a hurdle i.e. the manager would receive no incentive fee if rates fall below a specified level. The reason for this is that a manager should never be compensated for performing below what an investor would receive if his or her funds were in cash (or some other appropriate passive benchmark). A number of hedge funds are also subject to co-investments and 'high water marks', which also have the aim of curtailing excess risk-taking. A high water mark is applied to a performance fee calculation and means that a fund manager would only earn an incentive fee after past losses are made up and profits net of the loss are positive. High watermarks are intended to link the managers' interests more closely to that of investors and to reduce the incentive for managers to seek volatile trades.

The issue is whether these additional features outweigh the asymmetric compensation structure of hedge fund managers. While they should help mitigate the impact on excess risk-taking, it is doubtful whether they are adequate as they currently stand. For a start, not all hedge funds have hurdles. In addition, high watermarks are not considered to be great checks on hedge fund incentives. This is because managers are often able to close the fund and start new hedge funds (Kombhu, Schuermann and Stiroh, 2007). In essence this a market failure, since managers who are under their high watermark should not be able to raise new funds, but they often are able to, especially when the reason they fall below the high watermark is due to economic conditions rather than individual performance. In addition, based on discussions with investors in hedge funds, the view appears to be that co-investments have not tended to be nearly large enough to counteract the incentives to take excess risk created by the incentive fee structure.

## **Underlying drivers of financial sector pay structures and magnitudes**

### ***Pay structures and magnitudes***

A key point to note here is the distinction between pay structures and pay magnitudes. They are separate but interrelated factors and may reinforce one another in influencing risk-taking.

For pay structures, the purpose is to encourage and reward performance which in turn entails promoting some degree of risk-taking. For example, outcome-based compensation tools such as stock options were introduced with the aim of encouraging executives to take appropriate risks that bring value to shareholders. Similarly, the intended purpose of the bonus system is to arrive at a degree of flexibility in pay according to the financial health of the firm. However, efforts to regulate pay have ironically served to reinforce asymmetric pay structures. In the US, a 1980s law restricting golden parachutes helped spread what had been a rare practice. A 1993 law limiting annual salaries led to bigger stock-option grants, pensions and deferred compensation (Lucchetti and Thurm, 2009).

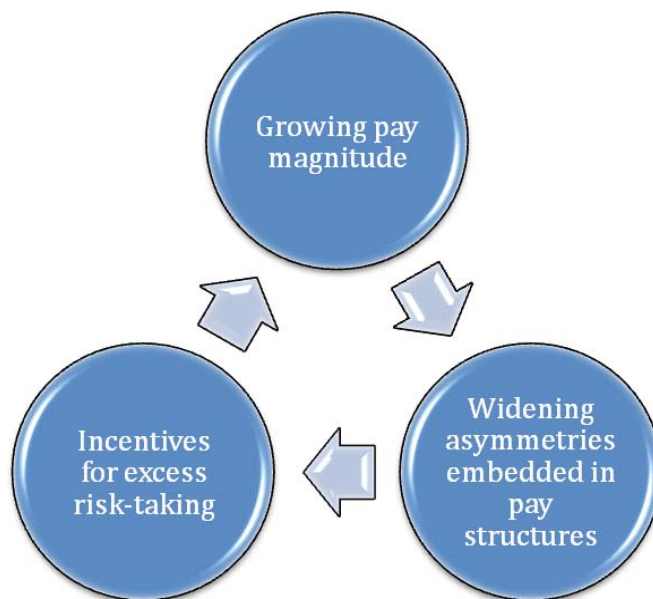
There has been a sharp increase in the levels of finance sector pay in the major financial centres since the 1980s that appears on the surface to be correlated with financial innovation and deregulation. For instance, in the US, Philippon and Reshef (2009) show that the ratio of the average wage of financial market

employees relative to the average wage in other industries was high in the 1920s through the early 1930s where 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 and in 2006 rose to 1.7. The authors conclude that the relative wages of the financial sector workers exhibit a long-term U shape, which they explain as being due to the prominence of ‘other finance’ from the 1980s onwards owing to deregulation. To elaborate, they separate financial employees into credit intermediation, insurance and other finance. Relative wage for other finance hit 4 by 2006. This constitutes commodity traders, investment funds and trusts, venture capital, hedge and private equity funds, and investment banks; a group that is argued to have gained most from financial innovation and deregulation (Crotty, 2009).

Now, it can be argued that pay structures and magnitudes, especially for this ‘other finance’ category, have interacted to increase the incentives for risk-taking. To elaborate, the growing magnitudes of compensation for this sector—particularly variable compensation—should in theory serve to widen the asymmetrical in pay structures, by increasing the size of the gains relative to the losses. In turn, this would increase the incentives for excessive risk-taking. Moreover, it is possible to envisage a self-reinforcing cycle of increasing compensation, widening asymmetries and growing incentives for excess risk-taking since, as long as financial institutions’ profits trend upwards, the undertaking of excessive risks by financial market actors should serve to further increase pay magnitudes (see figure 1). This process should in theory end in the event of a financial market downturn but the evidence from the recent 2008-2009 crisis, as indicated earlier in chart 1, suggests that while compensation did accelerate during the boom, it failed to shrink in line with falling revenue during the bust (Cuomo, 2009).<sup>2</sup>

Figure 1

**Interrelationship between pay magnitudes, pay structures and incentives for excess risk-taking**



<sup>2</sup> The pre-tax profits of investment banks listed on the New York Stock Exchange rose considerably from the mid-1980s to the mid-2000s and were mirrored by a strong increase in overall compensation levels. However, the strong fall in profits in 2007 and 2008 were not followed by similar declines in overall pay levels (Crotty, 2009).



Thus, whereas most experts have been focusing on the importance of reforming pay structures, pay magnitudes are also important drivers of excessive risk-taking. Given the trend rise in the level of financial sector pay, a case can be made that the incentives for excess risk-taking has been growing over time. Pay structures and magnitudes therefore need to be viewed together.

### *Institutional and socio-economic conditions underpinning financial sector compensation*

Over time, therefore, a self-reinforcing cycle of rising financial sector pay, the widening of the asymmetries embedded in pay structures and increasing incentives for excess risk-taking appears to have been generated. The plethora of emerging market crises since the early 1990s and the build up stock market and property market bubbles in a number of developed economies during the last decade suggest a heady risk-taking environment.

The role played by financial sector pay incentives in this were recognized by some writers (see e.g. Montes, 1998 and Sharma, 1999 and various writings by academics such as Stephany Griffith-Jones). However, what has been neglected to date are the institutional and socio-economic conditions that served to underpin and reinforce the magnitudes and structures of financial industry compensation. These include the governance of pay within financial institutions, the growing influence of financial elites brought about by rising concentration in the finance industry, the nature of the labour market for finance professionals, and the impact of an extended and largely uninterrupted economic boom during most of the 1990s and 2000s (see figure 2).

### *Governance of pay in financial institutions*

Standard pay arrangements reward financial sector actors for short-term results even when these results are subsequently reversed. This serves to insulate them from long term losses to the company. Given that this compensation system was a serious threat to the interests of important stakeholders, including shareholders, debt holders, board of directors and, in the buy-side, the original investors, why were financial institutions allowed to maintain it? The reasons most likely include the following:

- Shareholders' interests may in many instances favour incentives for risk-taking that are excessive from a social perspective (Bebchuk, 2009). To elaborate, because bank failure tends to impose costs on the government and the economy that shareholders do not internalize, shareholders' interests may be served by more risk-taking than would be in the interest of the government and the economy. Thus they could benefit from providing bank executives with incentives to take excessive risks.
- Most of the equity in US firms is held by financial intermediaries assumed to be acting in the interest of individual investors. In the immediate post-World War 2 era, households owned most stock and were long-term owners concerned with long-term returns. By 2007, financial institutions held 75% of US stock and held it for a short time. Now key decision makers in these buy-side institutions have, as mentioned earlier, perverse incentives similar to those of investment bank executives and senior management that lead them to buy and hold financial firm stocks during booms, whether their own expectations are optimistic or pessimistic. They are not only short-term shareholders but also shareholders who are incentivised to take excessive risks. They therefore reinforce the risk-taking embedded in the compensation system of the financial firms whose stocks they buy (Crotty, 2009).

- Bank pay incentives have also insulated executives from losses to debt-holders and capital suppliers other than shareholders (Bebchuk, 2009). While the Board of Directors is legally obligated to ensure that corporation operates in the interests of its shareholders, it is generally appointed by the CEO and, in that regard, may reflect his interests. CEOs have failed to correct the excess-risk inducing elements of compensation structures for a number of reasons including inadequate knowledge of complex products and risk assessments and perverse incentives generated by their own pay systems (Bolchover, 2009).
- From a buy-side perspective, Rajan (2005) provides reasons why investors (by which he means the providers of capital to mutual and hedge funds) do not offer their fund managers compensation contracts that restrain the short-term emphasis on returns and associated risk-taking, as well as encourage them to maintain adequate liquidity. For a start, current investors in a fund benefit when new investors pour in because the fund's average costs go down. As a result, according to Rajan, the private gains from attracting new investors through a fund's superior short-term performance exceed the social value, and current investors have too little incentive to restrain managers from focusing on the short run. Moreover, investors may not bear the full cost of the real damage inflicted as their investment managers herd in and out of investments. Finally, even if they wanted to provide their managers with appropriate incentives, investors may not have the ability to do so. For instance, they may not be able to penalize a manager who follows the herd into disaster—the manager can walk away and get a job at another fund, blaming a collective crash for poor performance.

#### *Regulatory capture by finance sector elites*

The increasing power and influence of financial sector elites over regulation and policy making in major trend-setting hubs of global finance like the US may have also played a role in limiting efforts to correct financial compensation structures and magnitudes.<sup>3</sup>

In the context of the US, the growing influence of the finance industry can be argued to be a function of its increasingly concentrated structure.<sup>4</sup> In addition to creating a powerful policy lobby this trend towards greater financial concentration also facilitated the growing levels of profits and magnitude of pay. For example, Crotty (2009) illustrates that the explosion of bonus payments coincided with an explosion in assets, net revenue and profit of large investment banks; especially from 1997 to 2006. Similarly, Turner (2009) argues that the very high levels of pay in the financial sector arise from a market failure that provides large rents to a small group of players.<sup>5</sup> At the same time, according to Crotty (2009), the opulent fee structures of hedge and private equity funds suggest the absence of price competition.

The growing power of the financial elites in the US was reinforced by the ideological paradigm that has been in place since the 1980s, and which led to regulatory agencies being controlled by people who believed that modern financial markets should be largely self-regulating. Johnson (2009) compares the hold of the financial oligarchy on US policy with that of elites in developing countries. The growing influence of

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3 The arguments here are consistent with a larger body of literature on regulatory capture theory pioneered by George Stigler.

4 Kaufman (2009) shows that since 1990, the share of US financial assets held by the ten largest US financial institutions has risen from 10 to more than 50%.

5 According to Crotty, the fact that this did not trigger a wave of new entrants to the business is due to the economies of scale and scope, that underlie the oligopoly market power of the big firms, constituting barriers to entry that insulate the dominant firms from competition from new entrants.

finance over public life, politics and academia is also illustrated by Augar (2009). The point here is that this elite may have had an influence over the nature or deregulation and may also conceivably present an obstacle to efforts to reform skewed pay incentives.

#### *Nature of labour market for finance professionals*

A set of theories views compensation as the competitive outcome from the labour and product markets. A justification for the excess pay of high-achieving professionals in the financial sector has been chronic excess demand. This however conflicts with the findings of Oyer (2006) who sees a chronic excess supply of qualified labour wishing to work in the financial sector.

Crotty (2009) attempts to resolve this paradox by focusing on a key segment of high-revenue-generating professionals in the finance sector whom he terms 'rainmakers'. He points out that despite there being a potential excess supply of applicants for finance sector jobs, this does not affect the wages of the influential group of 'rainmakers' due to an apprenticeship system within firms (implying the 'effective supply' of qualified applicants for rainmaker jobs is far lower) and barriers to entry into this category of professionals brought about by an informal 'network-based' hiring policy and recruitment from a few prestigious colleges. This, according to Crotty, is partly driven by the vested interest of keeping pay levels high. In this regard, Crotty argues that a significant part of the pay of rainmaker professionals constitutes rent; employing the earlier cited data from Philippon and Reshef (2009), he claims that 30% to 50% of the wage gap between financial and non-financial workers between the mid-1990s and 2006 was due to rent-seeking rather than genuine wealth-creation.<sup>6</sup>

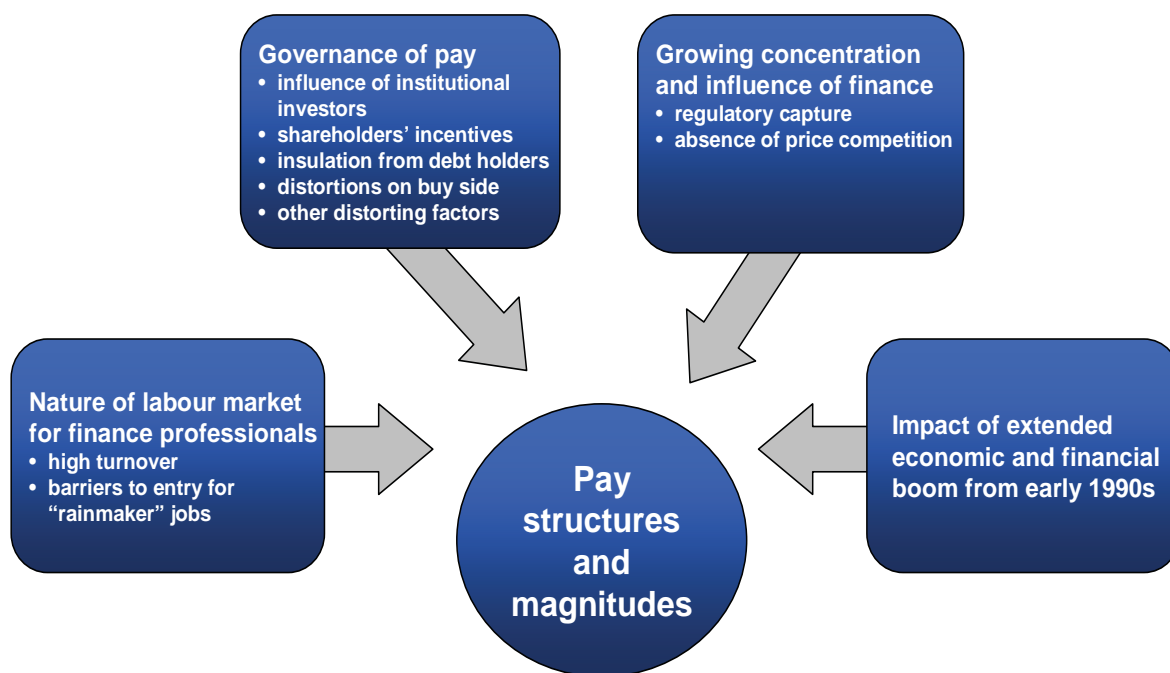
Acharya, Pagano and Volpin (2011) presents a model that links labour market competition for managers with greater short-term pay and excess risk-taking. He argues that the real problem is not the level of managerial pay but the difficulty of rewarding managerial talent when managers can pick projects with tail risk and the market allows them to move across firms before the risk has materialized. Since risky projects have a greater expected return than safe ones, ex ante this induces managers to choose risky rather than safe projects, get a high pay, and then move to another firm where they are going to replicate the same behaviour. An empirical prediction of Acharya's analysis is that in countries and markets where there is greater managerial turnover, firms would take greater risks, other things being equal. They would also reap greater short-term returns, but at the cost of inefficiently large risks.

#### *Impact of flattening the business cycle in the 1990s and the extended economic and financial boom*

The extended period of economic boom, from the early 1990s onwards (which lead some economic commentators to argue that the business cycle had all but disappeared), could arguably have sharpened the impact of pay structures on risk-taking in a number of ways. First, pay asymmetries in the treatment of gains and losses would have been sharper the greater the likelihood of a professional finding another job in the event of being fired for making a loss. Secondly, in financial booms, shareholders, and other categories of corporate actors, have tended to be more likely to believe that compensation practices are consistent with their interests (Crotty, 2009). Third, the extended boom period facilitated the shifting philosophical paradigm mentioned earlier and may have led to a shift in power within financial institutions from risk-managers towards risk takers.

<sup>6</sup> These dynamics are consistent with the 'insider-outsider' theory of labour markets, which suggests that it is possible to have a situation of excess supply of labour and high wages at the same time (see e.g., Lindbeck and Snower, 2002)

Figure 2

**Socio-economic and institutional factors underpinning financial sector compensation****Policies to Reform Compensation*****Existing Policies***

This section critiques the policies that have been proposed and/or undertaken in the major economies to mitigate the impact of financial sector compensation on excess risk-taking. We shall use as the benchmark here the Financial Stability Forum's (FSF) *Principles for Sound Compensation Practices* and their *Implementation Standards* that were endorsed by the G20 Leaders at their Summits in London in April 2009 and Pittsburgh in September 2009. These can be grouped into the following categories: effective governance of compensation; effective alignment of compensation with prudent risk-taking; and effective supervisory oversight and engagement by stakeholders. Moreover, the Financial Stability Board (FSB) periodically publishes a peer review report that shows how its member jurisdictions (mainly G20 countries) are performing in terms of implementation of the principles and standards.

A comprehensive list of the Principles and Standards (9 in total) can be found in the FSB's 2011 Thematic Review on Compensation, *Peer Review Report* (FSB, 2011). Below are listed some of the key measures:

- *Reforms to pay structures.* The international compensation standards agreed by the G20 in Pittsburgh in 2009 were aimed at addressing the asymmetries inherent in existing pay structures in the finance sector. They called for, first, banning multi-year bonus guarantees which encourage financiers to take risks regardless of their longer-term implications; second, the deferring of 40% to 60% of bonuses for several years (at least 3 years) so that they can be clawed back in years when profits are negative. The purpose is to make compensation payout schedules sensitive to the time horizon of risks.
- *Aligning of compensation with firms' financial performance.* As mentioned earlier, skewed and asymmetric pay structures have led to compensation levels becoming unmoored from firms' financial performance (as backed by data from Cuomo, 2009). The FSF Principles and Standards

- therefore called for compensation systems to link the size of the bonus pool to the overall performance of the firm. Bonuses should diminish or disappear in the event of poor firm, divisional or business unit performance. They also attempt to better align employee compensation systems with the financial performance of firms through calling for a big part of bonuses, such as more than 50%, to be paid in shares or share-linked instruments that would be subject to restrictions.
- *Aligning compensation with risk-management.* The FSF proposed promoting ex ante adjustment of compensation for risk-taking. The proposal is for compensation to be adjusted *ex ante* for all types of risk, including difficult to measure risks such as liquidity risk and reputation risk. Another suggestion, being implemented in the US, is to link banks' pay plans to payments made into governments' deposit insurance schemes.
  - *Strengthening governance of compensation.* The FSB Principles and Standards propose that significant financial institutions should have a board remuneration committee as an integral part of their governance structure and organization to oversee the compensation system's design and operation on behalf of the Board of Directors.

According to FSB's 2011 *Peer Review Report*, the relevant authorities in member jurisdictions of the FSB have made good progress towards implementing the Principles and Standards. A total of 13 of the 24 FSB member jurisdictions have implemented all 9 Principles and Standards, while five other jurisdictions have implemented all but one or two standards.

The results have been apparent in some areas. For example, the deferring of bonuses has been evident in leading financial institutions on Wall Street.<sup>7</sup> Deferred compensation, combined with the weak performance of investment banking, is argued to have led to cash bonuses falling by an estimated 14 percent in 2011 (Braithwaite 2012). However, as illustrated earlier in chart 1, the fall in bonuses has been significantly less than the reduction in profits of securities firms in New York, which is estimated to have amounted to about 50 percent in 2011, indicating that remuneration remains unaligned with the financial performance of the firm (Office of the New York State Comptroller, 2012).

Indeed, while the implementation of the Principles and Standards are an important step forward, it is relevant to ask how far they go towards addressing the source of the problem. A critique of these efforts would include the following points:

- The measures proposed to date do not adequately address some of the institutional and socio-economic conditions listed earlier that have served to underpin and reinforce the magnitude and existing structures of finance sector pay. Over the medium term, measures to tackle increased concentration within the finance sector and address issues pertinent to the labour market for finance professionals may be necessary to prevent growing pay magnitudes when economic conditions improve. As pointed out earlier, excessively high rewards can, through sharpening the asymmetric treatment of gains and losses, increase the degree to which pay structures incentivize excess risk-taking.
- The usefulness of calling for a greater proportion of compensation to be paid in shares or share-linked instruments would depend on the restrictions that are imposed. In the past, other measures to link pay to equity, such as stock options, were misused and generated incentives towards greater short-termism for the concerned employees. As will be proposed later, it may in practice be more prudent to align compensation with a mix of different instruments so as to align the interests of employees with shareholders and other stakeholders in the firm.

<sup>7</sup> According to the FSB's 2011 *Peer Review Report*, the US has implemented almost all of the proposed Principles and Standards. The remaining gaps are in the area of disclosure. See Annex B in FSB's 2011 *Peer Review Report*.

- On the issue of strengthening the governance of compensation, the proposals do not tackle underlying issues relating to the need to structure pay incentives that take into account losses to all stakeholders, including debt-holders, and the importance of also addressing difficulties within institutional investors, relating to the problems investors face in disciplining investment managers as outlined by Rajan (2005).
- The policies do not directly address specific distortions created by buy-side pay structures that were discussed earlier. Indeed much of the debate on compensation in the financial sector has focused on fees paid to investment bankers, with less discussion on the implications of asset manager compensation.

### *Additional measures that deserve consideration*

As mentioned above, a number of the underlying factors that have sustained and reinforced compensation structures and/or magnitudes and their impact on excess risk-taking have not adequately been dealt with. Given this, a number of additional proposals deserve consideration as they may go some way towards addressing the compensation issue in a more comprehensive manner. These are outlined under the below headings.

#### *Linking executive compensation to a larger base of securities and other variables*

Bebchuk (2009) argues that pay arrangements have led to executives being insulated from losses to capital suppliers other than shareholders. To correct this, he suggests that executive compensation be tied not only to a company's stock performance, but also to the long-term value of the firm's other securities, like bonds. That would encourage executives to be more conservative about using borrowed money to juice returns to capital, because it would expose them to the losses that leverage can exert on all the firm's investors. Indeed, a thoughtful mix of performance metrics should include not only stock prices, but individual performance assessments, adherence to risk management and measures that account for the long-term soundness of the firm. If these measures were implemented, Bebchuk argues that direct regulation of bank activities could be less tight than it should be otherwise be.

#### *Linking pay to capital requirements, including counter-cyclical banking regulation*

The idea of linking compensation to banks' capital requirements is attracting further discussion. This is in many ways an extension of the FSB's principle of aligning compensation with firms' financial performance. In fact, the Bank for International Settlements (BIS) has approved rules whereby banks will be blocked from paying dividends to shareholders or bonuses if their capital levels fall below a minimum threshold. The ban would apply if banks failed to maintain a yet-to-be-determined buffer above a new regulated minimum (Jenkins and Masters, 2009).

Tackling the issue from another angle, it has been argued that, when assessing the risk posed by a bank, regulators should take into account the incentives generated by its pay arrangements. Where they encourage risk-taking, regulators should monitor the bank more closely and consider raising its capital requirements. Suggestions have also been made for raising capital requirements in proportion with speculative activities, which are generating large bonuses (Katz, 2009). In this regard, it has been pointed out that sufficiently robust capital requirements for big banks would also nudge riskier activities towards smaller, more lightly regulated, safe to fail financial institutions.

Going an extra step further is the suggestion for aligning deferred compensation, as proposed by the FSB, with the idea of counter-cyclical banking regulation. As noted earlier, periods of economic boom

heighten excess risk-taking among all categories of financial actors. One way of addressing this could be to curb the magnitude of compensation during the boom and use this to build up bank capital that would be of use during the downturn. In good times, a large part of profits is paid out as bonuses; by being taken out of banks it is therefore not used to increase their capital. When a crisis comes, bail-outs usually occur to help recapitalize the banks, which are ultimately paid by the tax-payers. The solution is that bonuses be accumulated in an escrow-like account, similar to a pension fund; these could be cashed only if, after a period equivalent to a full economic cycle, profits from the relevant transactions remained positive. If losses arose, bonuses would be scrapped, and the funds added to banks' capital. This may actually be in the long-term interests of the banks themselves (Griffith-Jones, 2009).

#### *Regulating employee turnover*

Policies to defer bonuses could help address the high employee turnover issue highlighted by Acharya, Pagano and Volpin (2011) and its impact on the relationship between pay and risk-taking. In addition, Acharya's own recommendation is for policy makers to limit managerial mobility or equivalently increase managerial loyalty. For instance, compensation of a manager who switches to a new employer can be taxed at a higher rate. In addition, Tett (2009) suggests having some rules governing the extent to which institutions can poach professionals and undermine existing contracts, with parallels being drawn to professional soccer where the governing organization, Fifa, has some rules governing transfers, which has restricted such practices. The rationale is that it is sometimes better to impose some individual constraint for the better of the entire system and, moreover, such rules could lead to greater corporate loyalty and employment stability.

#### *Less direct methods of curbing compensation*

Addressing the increased level of concentration in the financial sector could in the longer term serve to curb the magnitude of financial compensation in a couple of ways. The first could be through reducing the lobbying power of the financial oligarchy which could scupper a number of the other reforms mentioned here. Second, and perhaps more important, passing measures to curb the size of financial institutions may lead to them being allowed to fail in times of crises. As a result, both creditors and shareholders will have an incentive to aggressively monitor these institutions, demanding better transparency and pay practices that align the incentives of employees with those of the firm.

#### *Reforms to pay structures of institutional investors*

As mentioned earlier, herding behaviour is the main avenue through which mutual funds can generate undue systemic and market risks. While it is neither possible nor necessarily desirable to eliminate herding behaviour completely, attempts could be made to contain it through reforming the terms of the compensation structure typically facing mutual fund managers.

One way to do this could be through encouraging more widespread adoption of performance incentive fees in the mutual fund industry. Dass, Massa and Patgiri (2008) argue that during the bubble in the US stock market, in the 1990s, highly incentivised fund managers moved against the general trend and did not herd with the rest of the mutual fund industry. Only a small proportion of mutual funds in the US use incentive fees (i.e. a reward structure that makes management compensation a function of investment performance relative to a benchmark), while more use them in Europe.

This leads to the question of whether the expansion of formula-based performance incentives would be an appropriate compensation structure for mutual funds. The problem with incentive fees is their asym-

metrical nature which encourage excessive risk taking. However, in the case of mutual funds, the impact of this greater risk-taking is unlikely to give rise to the systemic concerns associated with hedge funds due to the lesser levels of leverage and interlocking relations evident in the mutual fund industry. Moreover, in the US, there exists regulation decreeing that all mutual funds that use incentive fees have a fixed component of fees, as well as a variable component that must be symmetrical around a benchmark. In other words, mutual fund incentive fees in the United States are typically on a ‘fulcrum basis’– providing equal rewards and penalties (Elton, Gruber and Blake, 2001). Fee structures, like the fulcrum, can serve to contain herding and encourage mutual fund managers to allow for more tracking error and undertake more contrarian strategies, while reducing the asymmetric incentives associated with performance fees. It should be noted that the fulcrum does not fully solve the problem of asymmetric incentives associated with performance fees but enforcing it arrangement across a wider set of firms may be worth considering as a compromise that balances the actions of herding and risk-taking.

Given the size of the mutual fund industry and the fact that they manage the money of retail investors, it may be necessary for the fulcrum fee to be accompanied by rules regarding co-investments and/or claw backs to reduce the asymmetric incentive fee structure. During discussions with fund managers and experts, it was suggested that the performance incentive fee should take into account returns over a three year period. According to the proponent, a lengthened performance appraisal period together with an enforced percentage co-investment into the fund by the manager would have the effect of curbing the incentive to increase risk-levels.

Overall, therefore, our proposal is for a reform of the terms of the fee structure of mutual fund managers that incorporates a combination of a fixed fee, a performance fee plus cap, a lengthened period over which this performance fee is assessed, and some form of co-investment and/or claw back arrangement.

With respect to hedge funds, the concerns are with asymmetric and convex payments systems that provide strong incentives for managers to increase risk and leverage in order to boost returns. As explained earlier, the mitigating features of hurdles, high water marks and co-investments may not sufficiently offset the impact of this pay structure. According to some experts, with whom discussions were held, consideration also needs to be given to measures that require that a significant proportion of the performance fee of hedge fund managers be reinvested into the fund and ‘clawed-back’ in years when losses are made. The benefits are that this will hold back some of the earnings during boom periods, so that it can be used to cover losses during down periods, thus reducing the asymmetry implicit in the performance fee. Such a measure would also increase the manager’s co-investment in the fund which, as was pointed out earlier, tends to be inadequate.

In sum, therefore, there needs to be a re-think of the structure of hedge fund and mutual fund managers’ fee structures. These could be achieved through a combination of self-regulatory measures and formal regulation.

## **Relevance and Lessons for Developing Countries**

As mentioned at the outset, this paper deals primarily with issues and developments in the advanced industrialised economies, with particular relevance to the Anglo-American financial systems of the US and UK. However, it does have relevance to developing countries, given the growing levels of capital flowing from these financial centres to emerging economies during the past two decades.



A significant proportion of these capital flows have been subject to volatility. Emerging markets have been particularly vulnerable during a period of falling interest rates, when capital supplied by bankers and investment managers has often rapidly receded. Moreover, given their lesser degree of transparency and liquidity, they have been particularly exposed to contagion and herding by mutual fund managers. The incidence and effects of herding have been evident in numerous emerging market crises. Borenzstein and Gelos (2003) provide results that suggest that mutual funds do herd together in emerging markets. According to their research, the number of funds moving in the same direction for a given country was approximately 8% greater than would have been expected had they acted independently. There is also evidence of excess risk-taking by hedge funds having destabilized emerging markets, especially currency markets.

Reforms to financial pay structures and magnitudes may therefore be viewed as being an important tool in efforts to limit the volatility in private capital flows to emerging markets. Taking this point further, it may be argued that financial sector compensation reforms could serve as an effective complement to capital controls by emerging economies. Indeed, given institutional pressures to liberalize the capital account in some countries, it is all the more important to pass measures to address the incentives that enable bankers and institutional investors to generate instability and systemic concerns at national and international levels. It may therefore be in the interests of emerging markets to, in international forums, press for better incentives along the lines of some of the policies related to financial sector compensation that have been recommended.

There are also numerous lessons for developing countries as they deepen and reform their financial sectors. The G20 proposals also apply to their developing country members. More broadly, though, the crisis has raised doubts as to the efficacy of known and existing models of financial sectors in the advanced economies. In this regard, the lessons conveyed by this study would be in a range of areas including:

- Development of banking sector with appropriate governance and pay incentives;
- Development of institutional investor base with appropriate governance and pay settings;
- Fostering mutually compatible pay incentives throughout the financial sector;
- Curbing excessive concentration in the financial sector through competition/anti-trust policies;
- Ensuring an efficient and well-functioning labour market for finance professionals;
- Having appropriate counter-cyclical measures that curb pay magnitudes during booms, using the replenish banks' capital.

## Summary and Conclusions

On balance, the asymmetries and skewed pay-off systems inherent in the structure of financial sector compensation are widely believed to generate incentives for excess risk-taking. At the same time, it can be argued that pay structures and magnitudes have interacted to increase the incentives for risk-taking. The rising magnitudes of financial sector pay—especially variable pay—witnessed in major financial centres since the 1980s, likely served to amplify their asymmetrical nature by increasing the magnitude of gains relative to losses. Thus, pay structures and magnitudes need to be viewed together.

Despite recognition of the perverse incentives generated by financial sector pay structures and magnitudes, little has been done to address this issue. The underlying institutional and socio-economic factors underpinning financial sector compensation include the governance of pay in financial institutions, regulatory capture by financial sector elites, the nature of the labour market for finance professionals, and the impact of the flattening of the business cycle in the 1990s and most of the 2000s.

The policies that have been endorsed by the FSB and the G20 are welcome but also raise questions in a number of respects. They do not go far enough in several areas, including strengthening the governance of compensation, addressing perverse incentives created by institutional investor pay structures, and examining some of the institutional factors referred to earlier, including financial concentration and labour market issues. The paper proposes consideration of a broader set of measures that deserve consideration by policy makers if financial compensation reform is to be effective in the medium term. These include linking compensation to a larger base of securities and other variables, regulating employee turnover, aligning compensation with counter-cyclical banking regulation and addressing the level of concentration in the finance sector. Greater attention also needs to be given to re-thinking the compensations incentives facing mutual fund and hedge fund managers.

From the perspective of developing countries, curbing excess risk-taking should help reduce the volatility of inward private capital flows, especially portfolio flows and bank lending. There are also many lessons for developing countries as they reform their financial sectors, including putting place appropriate governance and pay incentives, curbing excessive concentration in the financial sector and having an efficient and well-functioning labour market for finance professionals.

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