Promoting bank stability through compensation reform: lessons from Iceland

Jay Cullen* & Gudrun Johnsen**

I. Background

We have been asked to contribute a paper to this session of the INET conference, which is entitled: "What type of financial regulation stands a chance of working?" This is the background note to our presentation, which addresses the possibilities of future reform in the realm of incentives at banks; specifically, regulating bankers' pay.

One of the key themes to emerge from the Global Financial Crisis (GFC) was that excessive risk-taking by bankers and traders at financial institutions had been encouraged by incentives embedded in their compensation packages. Indicatively, the IMF (2014) concluded recently that: "There is broad consensus that excessive risk taking by banks contributed to the financial crisis … [and] that incentive structures at some financial institutions played an important role." Of course, it was not simply at senior levels that poor compensation incentives were present; there were also behaviour-distorting incentives across all levels of financial intermediation, which combined to create huge distortions at the macro-level (Black 2012). Perhaps the best example may be found in the chain for US mortgage origination, in which poor incentives in individual contracts subsisted at virtually all levels of issuance and trading – yet the travails of this market were merely symptomatic of a wider breakdown of incentive-based risk management throughout the financial system (FCIC 2011).[1]

Notwithstanding the presence of poor incentives at various levels at financial institutions, it has been the compensation incentives of senior bankers that have been cited – arguably with much justification – for the risk-taking behaviour which characterised the pre-GFC banking business. Official reports[2] have led these claims, although their conclusions are supported by a considerable number of theoretical and empirical studies resulting in well-developed literatures in economics, as well as in law and finance, on this topic (we discuss these in the next section). Whilst there are some differences in their focus, a large proportion of these studies point to a strong relationship between executive compensation and excessive institutional risk-taking[3] – characterised by both an increase in asset risk and in short-termist business strategies – since the adoption of excessive risk resulted in huge

[1] On the widespread nature across the financial sector of poor incentives in compensation systems the US Financial Crisis Inquiry Commission (FCIC), commented: "This was the case up and down the line—from the corporate boardroom to the mortgage broker on the street" (FCIC 2011).

[2] For example, the EC De Larosiere Report comments that: "Remuneration and incentive schemes within financial institutions contributed to excessive risk-taking by rewarding short-term expansion of the volume of (risky) trades rather than the long-term profitability of investments."; The US Financial Crisis Inquiry Report comments that: "Compensation systems—designed in an environment of cheap money, intense competition, and

[2] For example, the EC De Larosiere Report comments that: "Remuneration and incentive schemes within financial institutions contributed to excessive risk-taking by rewarding short-term expansion of the volume of (risky) trades rather than the long-term profitability of investments."; The US Financial Crisis Inquiry Report comments that: "Compensation systems—designed in an environment of cheap money, intense competition, and light regulation—too often rewarded the quick deal, the short-term gain—without proper consideration of long-term consequences. Often, those systems encouraged the big bet—where the payoff on the upside could be huge and the downside limited"; and the UK Turner Review comments that: "There is a strong prima facie case that inappropriate incentive structures played a role in encouraging behaviour which contributed to the financial crisis." The Icelandic Special Investigation Commission (2010) similarly concluded that the excessive credit growth, which was marked by ever increasing risk, was not in line with "long term interests of a healthy banking institution, however strong incentives, i.a. induced by the design of the banks' incentive schemes, were present which encouraged and supported the excessive growth and risk taking … The SIC is of the opinion that the financial supervisory authorities should have realized that these incentives were present in the system and there was every reason to be alarmed due to the excessive credit growth."

[3] Naturally, we shall also address later in the presentation those studies which do not support this conclusion.

*Lecturer in Banking Law at The University of Sheffield, School of Law **Assistant Professor of Finance at the University of Iceland Business School and Affiliated Researcher at the Department of Private Law, University of Oslo

financial reward.[4] Short-termism in these compensation contracts was manifested in several ways, but especially through the award of performance-based bonuses which prioritized return on equity (RoE) as a performance-measurement metric, and through the increased award of stock options at banks to managers, the use of which may encourage short-term strategic horizons (Chen et al 2006). Further, there is strong evidence that following the deregulation of financial services industry in the UK and US, banks utilized much greater levels of stock option-based compensation, a consequence of which was greater risk-taking across the banking system, as these forms of compensation incentives were common to all large banks (FSA 2009). Of course, the theoretical justification for the use of these forms of award is to reduce agency costs generated by the separation of ownership and control in the modern corporation, notably highlighted by Jensen & Meckling (1976), although the success of this approach, and the design of compensation systems in achieving it, is open to question, particularly in light of the heightened dangers posed to the financial system by excessive risk-taking, identification problems in establishing a causal link between actions and performance, and room to manoeuvre for bankers to meet targets set for them in incentive contracts.

On the basis of studies purporting to demonstrate a link between excessive risk and private incentives – and also perhaps with a nod to political sensibilities concerning the role of banks in causing the post-2008 global recession – there has been large-scale reform to the structure and composition of bankers' compensation incentives since the GFC, with the general aim of reducing the capacity for bankers to engage in excessive risk-taking. These reforms are at various stages of implementation in developed Western financial centres, with some jurisdictions implementing much deeper reforms than others. This itself raises two of the main challenges facing regulators in this area: firstly, to create a level-playing field for employees of institutions which operate at the supranational or multi-jurisdictional level in what is now undoubtedly a global business sector; and secondly, to discourage a 'race-to-the-bottom' amongst regulatory jurisdictions hoping to attract banking business. Moreover, we shall argue that the dangers posed by inappropriate incentives have arguably not been eliminated – or at least sufficiently marginalised – by recent reforms to compensation, either in the EU or the US, and we therefore believe that further reform will be necessary if the stability of the financial system is to be safeguarded.

The purpose of this paper is to evaluate the reform program in relation to bank compensation, as well as comment on alternative forms of compensation reform recommended by respected law and finance scholars, and, tentatively suggest how further reforms are required if one is to safeguard financial stability. In doing so, we rely on empirical work which focuses on the incentive problems which contributed to the Icelandic banking collapses, and the various reform measures which have been adopted in Iceland to reduce short-termism at financial institutions. These collapses were, in relative terms[5], by far the largest experienced during the GFC, and the background stories of disastrous decision-making driven largely by poor incentives we contend offer important lessons on both the causes of financial fragility and solutions to moderating the power of incentives to generate that fragility.

The paper is organized as follows. In the following section, we survey some of the main literature on the topic of executive compensation incentives and risk-taking. We also discuss some very recent research on the potential contribution of flawed compensation incentives at banks to behaviour which led to the GFC. In Section III, we undertake a brief case study examining the incentive problems which led to the Icelandic banking collapse which draws on empirical research performed by an official investigatory team. In Section IV, we provide an overview of reforms to the composition of senior banker compensation packages in the major global financial regions, as well as discussing

[4] The relative size of the compensation awards is not relevant to this discussion but it is widely acknowledged that the rewards at financial institutions for top executives were massive. For example, between 2002 and 2007, the proportional cost of compensation at US investment banks and investment banking divisions of large financial institutions rose from 31 percent to 60 percent of gross revenues (Clementi et al 2009).
[5] The assets of the Icelandic banks which collapsed equalled approximately 11 times Icelandic GDP in 2008.

Icelandic reforms in this area. In Section V, we make some tentative recommendations for further reform to senior bankers' pay, in light of the empirical and theoretical findings presented earlier in the paper. Section VI concludes.

II. A Brief Literature Review on the Structure of Compensation & Risk-Taking Incentives

A tremendous growth in research on executive pay in publicly-listed firms has been witnessed over the last two decades which has greatly increased our understanding of pay practices in listed companies. It must be noted at the outset, however, that a weakness in the current analysis is that the vast majority of this research concentrates almost exclusively on the contractual and incentive arrangements of CEOs and the boards of corporations. Research on this issue takes the view that compensation contracts are endogenously determined through bargaining power based-interactions between the CEO, the remuneration committee, and the board of directors, where CEO outside options, monitoring capacity of the board and compensation consultants may have significant impact. It therefore neglects the largely hidden design of compensation contracts of employees at marginally lower levels of organizations and how much impact those incentives may or may not have on their levels of production, even where those members are very senior (so-called 'C-level staff'). Many important questions regarding the effects of incentive pay on behaviours' of C-level staff and by implication on operational outcome therefore remain unanswered, as the main problem with measuring the effects of compensation still remains that of *identification*. As a result, compensation arrangements are associated with a large number of observable and unobservable variables, derived from both firm and employee characteristics. This makes it very difficult to interpret any observed correlation between executive pay and firm outcomes as evidence of a causal relationship. For example, CEO pay and firm performance may be correlated because compensation affects performance, because firm performance affects pay, or because an unobserved firm or CEO characteristic affects both variables. This problem is particularly precarious in banks. For example, the performance of an account manager, whose primary responsibility is to extend loans for the longer term and the quality of her production can only be fully assessed as the loan has fully matured, paid off or sold off. However, the *overall* success of the lending practice cannot be determined in isolation from other variables such as the funding environment, which is out of the control of the credit officer or account manager.

Notwithstanding these observations, research on compensation in both banks and non-financial firms suggests that incentives such as stock options and earnings-based performance bonuses may increase risk in several ways. For example, there appears to be a link between incentive compensation and the manipulation of earnings and/or other benchmarks; it has been found that earnings-based bonus plans incentivize earnings management (Healy 1985; Holthausen et al. 1995). Evidence exists that firms manipulate the disclosure of information around CEO option awards, delaying the release of good news and accelerating the disclosure of bad news (Bartov and Mohanram 2004; Aboody & Kasznik 2000; Yermack 1997). CEOs paid in equity may persist with projects which are not long-term efficiency-increasing in order to prop-up short-term equity valuations (Benmelech et al. 2010). In a similar vein, equity-based incentives may encourage managers to continue to expend firm resources to manipulate the stock price upwards over the short-term (Peng & Roell 2008; Goldman & Slezak 2006) whilst there is positive relationship between introduction of higher proportions of equity incentives and subsequent increases in firm risk (Chen et al 2000). Where top-level compensation is structured to guard against market risk, and not idiosyncratic risk, CEOs have incentives to favour projects with high levels of market risk, leading to herding in investment behaviour and consequently excessive aggregate risk levels across the economy (Acharya & Bisin 2009). A series of studies also document a positive correlation between CEOs' equity incentives and earnings manipulation (Cheng & Warfield 2005; Bergstresser & Philippon 2006; Burns & Kedia 2006; Efendi et al. 2007; Johnson et al. 2009). Whilst there is disagreement about

which part of CEOs' of variable pay is the culprit, with some studies linking manipulation to option incentives, and others linking manipulation to stock holdings, the underlying finding is that equity awards lead to manipulation.[6] Moreover, empirical research confirms a link between litigation risk and compensation incentives. Talley & Johnsen (2005) and Roell & Peng (2008) document a non-linear relationship between variable pay and litigation risk of the firm, demonstrating a sensitivity of share of total pay in the form of variable pay to be positively and statistically significantly related to increased probability of litigation risk of the firm (as incentive pay (as share of total pay) is increased by 10% the probability of litigation increases by 3%).

In the case of banks, the risks inherent in compensation contracts may lead to particularly destabilising trends, due mainly to their high leverage, and the interaction between equity-based compensation awards and capital structure. Despite the tenets of modern finance theory, in which a highly leveraged corporation is as stable as an equity-funded corporation (the so-called "debt-equity irrelevance proposition theorem" (Modigliani & Miller 1958)), leverage axiomatically magnifies the effects of changes in trading positions and will lead to higher profits (or losses) relative to unleveraged positions in the event of price movements: "[e]quity-based awards, coupled with the capital structure of banks, tie executives' compensation to a highly levered bet on the value of banks' assets" (Bebchuk & Spamann 2010, 247). On this basis, Minsky noted many years ago that managers at banks rewarded through stock options have strong incentives to expand the balance sheet of their institutions by increasing leverage (Minsky 1986).[7] In the absence of any downside risk – for example, sanctions for failure or any deferral/clawback mechanisms relating to compensation – bank management has strong incentives to increase leverage to chase profits (Blair 2011).[8] Furthermore, the use of stock options and other forms of managerial 'discipline' (such as the threat of takeover and board monitoring of managerial performance) increase the likelihood of higher leverage (Berger et al 1997). On this basis, it is perhaps to be expected that the higher the stock-option wealth within financial firms the higher the bankruptcy risk of that firm (Armstrong & Vashishtha 2012). In contrast, in situations where top bankers receive a greater proportion of their remuneration in salary and bonuses rather than stock options, they are less likely to take high risks (Palia & Porter 2004).

This may be especially the case where markets are exhibiting signs of over-exuberance, and unsustainable rises in price levels (often referred to as asset 'bubbles'). There is a considerable body of research which demonstrates clear links between asset prices and the supply of credit (Borio & Lowe 2002; Minsky 1982; Detken & Smets 2004). There is also a strongly evidenced link between increases in risk-taking by banks and the various stages of the leverage cycle, during which banks' capital structures become less robust, thanks to investor (and banker) expectations of future price increases which appear to justify lower collateral demands (Bhattacharya et al 2011; Geanokoplos 2010; Minsky 1986). An indirect implication of this notion – that increasing bank leverage may cause asset price inflation – (Fostel & Geanakoplos 2013), is that leverage that drives an asset bubble also feeds into the size of stock-based compensation for bank executives (Cullen 2014), if the stock market or markets in which banks trade become 'inflated'. Research further demonstrates that bank

[6] The evidence for a connection between equity incentives and accounting irregularities is not entirely unanimous. Erickson et al. (2006) find that executives' equity incentives are unrelated to accusations of accounting fraud by the SEC, while Armstrong et al. (2009) find that CEO equity incentives have, if anything, a modestly negative effect on restatements, SEC enforcement releases, and class action lawsuits.

[7] Indicatively, Minsky notes: "[a]s holders of stock options, bank management is interested in the share price, on the exchanges, of their bank's shares. The price of any stock is related to the earnings per share, the capitalization rate on earnings of the bank's perceived risk class, and the expected rate of growth of such earnings. If bank management can accelerate the growth of rate of earnings by increasing leverage without a decrease in the perceived security of the bank's earnings, then the price of shares will rise..." Hyman P. Minsky, Stabilizing an Unstable Economy 262 (2d ed. 2008).

[8] "Financial firms, their investors and their employees have an incentive to take on greater risk via leverage because the incidence of returns and losses, from their perspective, is not symmetric. Firms get high fees, employees take home huge bonuses and shareholders get dividends in good years, when portfolio values rise, but they rarely have to give back any previously paid dividends when portfolio values decline. The downside risk falls on others…"

executive compensation contracts encourage risk-taking to profit from a speculative stock price rises "even if a later date share prices collapse … [and] … stock-based compensation rises in speculative markets" (Bolton et al 2005). On this basis, managers of financial institutions have incentives to increase the speculative component of stock prices and increase short-term returns (Bolton et al 2006), especially in euphoric markets where collateral constraints have been relaxed. Of course, there may also be significant individual benefits for managers to expand their banks' balance sheets, as compensation will normally increase with size. Further, there are implicit benefits in managers targeting increasing bank size: if the bank becomes so large that it cannot be allowed by regulators to fail, this will be reflected in (lower) funding costs, which itself will generate an equity premium, and lead to increased managerial compensation (Demirgüç-Kunt and Huizinga 2010).

In the context of the GFC, a good deal of research suggests that incentives at high levels played a significant role in increased risk-taking in the financial sector, especially as competition in the banking sector became much more fierce.[9] For example, in the period 2000-2006, contractual risk-taking incentives at large banks in the US were altered to incentivise an expansion of banking business into new growth opportunities created by deregulation and the explosion of debt securitization, one of the consequences of which was increased leverage. In fact, at the largest US banks with strong growth opportunities and a history of highly aggressive risk-taking incentives, compensation contracts were not moderated at all to remove incentives for risk-taking (DeYoung et al 2013). In this context, the increased use of risk weight optimization (RWO), facilitated through sustained financial innovation since the mid-1990s, allowed banks to adopt 'hidden' leverage via non-traditional financial instruments which reduce the impact of trading positions on cash-flows (Blundell-Wignall & Atkinson 2012), but also fed into profits and therefore compensation plans. These trends were mirrored across the banking sector; at the Swiss bank UBS, for example, management increased significantly the securitization of mortgage assets, and at the same time, the bank began to retain a large proportion of these collateralized debt obligations (CDOs) on its balance sheet.[10] This had profound consequences in the context of executive and trader compensation (Clementi et al 2009). Because these CDOs were rated highly (normally AAA), the bank did not have to find any additional capital to fund these assets. Moreover, bankers at UBS (and other large banks) had serious incentives to grow the balance sheet as large as possible as, in the absence of capital charges, these securities delivered huge profits as banks earned pure *alpha* on these instruments, and thereby increased RoE.[11] As executive bonuses at banks were determined by reference to their RoE, the size of bankers' compensation was linked directly to the size of its CDO positions. In this vein, other studies show, *inter alia*: a positive association between risk-taking and the sensitivity of CEO wealth to return volatility (Suntheim 2010)[12] and a positive relationship between the sensitivity of CEO compensation to short-term earnings per share (Bhattacharyya & Purnanandam 2010).[13]

The focus on RoE as a performance-measurement metric became commonplace in the pre-GFC ultra-competitive banking environment. This translated into significant shareholder returns: for

[9] Raghuram Rajan, now governor of the central bank of India warned of these risks in 2005, three years before the most devastating phase of the GFC and was scorned. See Rajan (2005).

[10] From holding virtually zero CDOs in February 2006, the UBS CDO desk held over $50 billion of CDOs by September 2007.

[11] Examples of other banks ramping up their CDO warehousing include: Citigroup, which issued $28 billion of CDOs in 2005, $33 billion in 2006, and $40 billion in 2007; and Merrill Lynch, which issued $27 billion in 2005, $54 billion in 2006, and $38 billion in 2007. AIG, a non-bank, had written $500 billion on credit default swaps (CDS) against CDOs and the fees they earned on these CDS were booked as income, inflating executive pay (Clementi et al 2009).

[12] Finding that "[b]anks which endowed their CEO with high risk taking incentives performed worse in the period after the Lehman collapse in terms of accounting performance…[and]…over time bank risk has been positively correlated with CEOs' risk taking incentives."

[13] Finding that "[t]he composition of risks assumed by U.S. commercial banks underwent a dramatic transformation over the years leading up to the financial crisis: between 2000 and 2006 idiosyncratic risk dropped by almost half while systematic risk doubled. These patterns, more pronounced in banks with heavy involvement in residential mortgage lending and securitization, were accompanied by higher earnings per share performance. Their managers…earned significant amounts through compensation plans heavily geared to short-term earnings."

example, RoE increased at large UK banks from 1% in 1989, to 38% by 2007 (Haldane 2012). This environment was characterised by, amongst other things, much increased leverage and a large expansion in the size of executive compensation packages. However, whilst a focus on RoE incentivises leverage for the reasons just discussed, RoE used in isolation is a poor proxy for long-term performance, as it may mask longer-term risks (Haldane et al 2010), as it does not take into account operational, credit or liquidity risks.[14] Indicatively, commenting on the stock and bonus incentive structures at Bear Stearns and Lehman Brothers prior to the GFC, Bebchuk and Fried note: "Such a design of … compensation provides executives with incentives to seek improvements in short-term earnings figures even at the cost of maintaining an excessively high risk of large losses down the road" (Bebchuk & Fried 2010). Other research points to similar conclusions, finding, for example, that bank managers with relatively high equity incentives are more likely to engage in earnings management (although only when capital ratios were closer to the regulatory minimum) (Cheng et al 2010); and that asset write-downs during the GFC were more strongly related to asset volatility in highly leveraged financial institutions: there was "a positive and significant interaction between [firm risk] and leverage" (Chesney et al. (2011)[15]. Further, there was a greater need for government assistance for firms with compensation incentives that promoted higher risk-taking (Gande & Kalpathy 2013)[16]; and higher volumes of share sales and low volumes of share purchases by bank CEOs than would be expected if in the pre-GFC era banks were being managed with long-term performance in mind (Bhagat & Bolton 2010).[17]

III. The Failure of the Icelandic Banks: A Brief Case Study

A rare opportunity to test the hypothesis that equity compensation incentives lead to excessive risks and misreporting arose following the GFC, in the case of failed systemically important financial institutions in Iceland. Some 97% of Iceland's banking sector collapsed in 2008; following this, the Icelandic Parliament commissioned a Special Investigation Commission (SIC), charging it with producing a forensic report on how Iceland's banking sector failed. Armed with the theoretical and empirical predictions discussed in the literature on compensation theory and executive incentives, the SIC team set out to map the design of incentive structures prevalent in the build-up to the collapse. Naturally, in a sector of such complexity, there were many obstacles in documenting a link between compensation and risk in the Icelandic system, hence it was particularly difficult to pinpoint whether bonus pay had a causal effect on the build-up of excessive risk exposure in loan portfolios[18] and the banks' subsequent demise. Indeed, aside from executive pay, the plethora of potential incentives present in all banking organizations – including incompetence, ignorance, bet-for-resurrection mentalities, career-mindedness[19], lack of good corporate governance, 'groupthink'[20] or criminal

[14] "For a given return on assets (RoA), higher leverage mechanically boosts a banks' ROE. The decision by many banks to increase leverage appears to have been driven, at least in part, by a desire to maintain ROE relative to competitors … virtually all of the increase in the ROE of the major UK banks during this century appears to have been the result of higher leverage. Banks' return on assets – a more precise measure of their productivity – was flat or even falling over this period."

[15] Finding that "stock holdings can induce substantial risk-taking incentives, qualifying common beliefs regarding the central role of stock options [and] only asset incentives explain asset risk-taking of U.S. financial institutions before the 2007/08 crisis";

[16] Finding that "those firms where CEOs had the highest risk-taking incentives, as measured by high levels of vega, received federal financing for a longer period of time."

[17] In a sample of 14 large US financial institutions between 2000 and 2008, the CEOs of these banks, as a group, bought shares in their respective banks 73 times, yet sold their shares 2,048 times. The value of the shares bought was $36 million, yet the shares sold totalled $3.46 billion.

[18] About half of all loans extended by Landsbanki parent company were in the form of bullet loans, and more than half of the loan portfolios were extended to holding companies. (Johnsen 2014: 131-6)

[19] On this, see Avgouleas and Cullen (2015)

[20] Psychologists' explanations of how motives affect behavior should not be neglected, such as the desire to reciprocate or the desire to avoid social disapproval. Armin and Fehr (2002) show that monetary incentives may backfire and reduce the performance of agents and/or agents' compliance with rules.

intent[21] – makes any explicit link difficult to demonstrate. However, thanks to virtually unconstrained access to data, legal documents, and bankers' testimony, the evidence collected by the SIC indicates *strongly* that incentive pay – as well as psychological factors such as bounded rationality and groupthink – played a significant role.

Evidence for the behaviour-changing effects of incentive-pay in the Icelandic banking sector is documented in Johnsen (2014). For example, even prior to the privatization of the major banks in Iceland (which was only completed in 2000) instruments had been set up in relations to bankers' variable pay that had the effect of misreporting equity levels (SIC Volume 3, 2010: 60). Option grants to staff were inappropriately hedged both in Landsbanki and Bundadarbanki (which later merged with Kaupthing) through off-shore special purpose vehicles (SPV), which were under the control of the banks' management. In the case of Landsbanki, initially these SPVs were funded by Landsbanki itself. The SPVs, in return, went to the stock market to buy shares in Landsbanki, with consequent effects on the share price of the parent company, particularly as management exercised control over the timing of when those shares were bought and sold. A forward contract was set up between Landsbanki and the SPV to cover the funding costs of the SPV. The intent was that as the options vested, the SPV would sell Landsbanki its shares back at strike price, at no "extra cost" to the bank, since options would only be exercised in the event that the share price had risen, and the bank was now hedged against a rise in the share price. The fact that the bank was still exposed against its own downside risk was ignored, as the SPV would never be able to repay the loan if the shares of Landsbanki fell in value, let alone if the bank became insolvent. The risk of the SPVs investment in the shares of Landsbanki therefore remained on the bank's balance sheet, despite the fact that they should have been deducted from the equity base according to IFRS accounting standards. Axiomatically, the equity cushion in the case of these SPV holdings was non-existent in this regard. As funding conditions tightened in 2006, funding of these SPVs was moved from Landsbanki to rival banks, Glitnir, Kaupthing and Straumur. In return, Landsbanki issued a banker's guarantee against the default of the SPVs. The bankers' handling of the credit allocation to the off-shore firms in all three banks was generally marked by circumvention of the banks' lending processes and 'ever-greening'[22]. According to evidence collected by the SIC, corporate governance and credit management processes were mostly sidestepped: the loans were either granted between credit committee meetings, granted or extended by only one manager, or if presented to the board's credit committee, they were discussed at the end of the meeting under "other issues", without any introductory material or substantive backing (Johnsen 2014).

There is very strong evidence that these holding structures were designed to improve the outward perception of the bank's equity levels, and in particular to boost compensation payments. In the case of Landsbanki, as the bank collapsed, 13.4% of shares in Landsbanki were held in eight different SPVs or trusts, which were set up with the same purpose of holding shares of Landsbanki to hedge employee call options in the bank (SIC Volume 3, 2010: 60-9). The eight SPVs combined were the second largest owner of Landsbanki shares and one of them, Empennage Ltd, was among the 20 largest owners in Landsbanki according to the Moody's Company Profile in June 2007 (Moody's 2007). The former in-house counsel in Landsbanki testified to the SIC of having been asked by management to collect proxies from the off-shore entities to cast a vote on the bank's remuneration policy at the annual general meeting in 2007, which awarded large compensation packages to top executives; he duly did so (SIC Volume 3, 2010: 68-9).

Similar practices were present in Glitnir and Kaupthing. Glitnir's employees had borrowed the equivalent amount of 17% of Glitnir's equity base to buy shares in the bank. The employees enjoyed

[21] Of course, many banks have been investigated for egregious conduct during both the pre- and post- GFC periods. A group of Icelandic bankers have been sentenced by the Supreme Court to serve up to 6 years imprisonment for market manipulation and reckless lending practices. More cases are pending against them.
[22] 'Ever-greening' refers to a revolving credit arrangement where the borrower continually renews the debt financing in place rather than allowing the debt to ever reach maturity.

exceptional funding terms, often better than the sovereign and the bank itself. No collateral was requested to back these loans, apart from the shares themselves (loan-to-value 100%) and, at times, put options were issued by the bank, leaving staff virtually risk-free from market movements and repayment of the loan (SIC Volume 3, 2010: 33-9, 44-5). Kaupthing employees received similar terms: favorable lending terms and put options on the underlying shares in Kaupthing. Auditors of Kaupthing pointed out that IFRS standards demanded the equity base to be written down in line with put options issued. In response, Kaupthing management requested staff members to issue 10% personal guarantees against the loans, instead of staff receiving put options to hedge against drop in the shares, the underlying collateral. Again, no collateral aside from the shares themselves was requested. The board of Kaupthing passed a resolution to exempt staff members from the personal guarantee a week before the bank collapsed (SIC Volume 3, 2010: 78-83).[23] Kaupthing staff members and management, who took part in the stock purchasing program were the owners of the shares, and received dividends accordingly.

There is also compelling evidence that equity awards in the major Icelandic banks were issued capriciously by bank boards, with little thought to performance. For example, records obtained from Landsbanki showed that options were not being used for bargaining purposes to lure staff to the bank or retain them, but rather distributed by the CEO and Chief Human Resource officer, who simply informed key employees (by the dozen) to inform them that they would be granted equity options in the bank. New equity was issued in relation to option grants, which aroused suspicion in the SIC that equity had indeed been issued without any original investor backing the issue. The SIC found that rival banks had funded the equity and the issuing bank carried all the risk of its own equity. In effect, there was a cartel operating at the centre of the Icelandic banking sector – not fixing prices or supply in the classic sense, but agreeing to reciprocal funding arrangements in order to support their aggregate equity levels. In the event, as credit conditions worsened considerably in 2008, when staff members tried to exercise their options as the options vested, management of the bank tried to influence staff not to exercise, issuing announcements stating that the exercise of these rights would be harmful for the bank. Staff at this point became required to obtain management approval to exercise options, permissions which were, not surprisingly, refused (SIC Volume 3, 2010: 61).

Thanks somewhat to this manipulation, from 2004-2007, variable compensation as a share of total pay in the Icelandic banking sector grew from 35% to 90%. Total pay levels grew too, providing increasingly wider wage distribution at the major banks. The 10% of the top earners in Landsbanki received about 30% of total salary expenses of the bank in 2004, but close to 55% in 2007. Over a similar period, wage distribution was stable in Kaupthing throughout, as 10% top earners received 50% of all salary expenses, ranging between 20-30% of reported net operating income in the bank during 2004-2008. Perhaps ironically, of all the years under investigation, the most lucrative one for the bankers in Kaupthing and Glitnir in terms of highest cash bonuses paid, was 2008, only four months before the banks collapsed (as bonuses were paid out for half-year's-results). The most financially rewarding year for the top 1% of earners at Landsbanki was 2007, although the CEO of Landsbanki also received his largest cash bonus paid in 2008 (SIC Volume 3, 2010: 32, 50, 74).

Among several evidences of misreporting of banks' returns collected by the SIC, was an incidence in Landsbanki, in 2008, concerning a loan portfolio comprised of so-called total-return-swaps.[24] A third of the bank's half-year profits that year were due to a valuation between market terms of funding and

[23] This resolution was annulled by the Supreme Court in 2012. See Icelandic Supreme Court Case nr. 215/2011 ruled on May 10th 2012 Delia Kristin Howser vs. Kaupthing hf.

[24] A total return swap is an agreement between two financial institutions (banks, hedge fund) who agree on splitting the credit risk between them, were one party takes credit risk on the other financial institution, while that other institution takes credit risk on a firm which doesn't have credit rating e.g.. IFRS standards allow for mark-to-market valuation both on the credit side of the swap as well as on the funding side of the swap. Allowing to count the rise in the price of the loan to the ultimate borrower towards revenues as well as the difference in the favourable terms of borrowing it receives through the TRS marked to its current funding terms in the market,. (SIC Volume 2, 2010: 63) (see also IAS 39).

funding terms of a total return swap. At the time, the bank accounted for $56 mln in revenue due to this mark-to-market funding difference, but refunded the TRS on June 30th at terms that would have left the bank with only $6 in revenues for this item. There was no mention of this in the banks' accounts as IFRS accounting standards require (SIC Volume 2, 2010: 65-7). This example underpins further the difficulty in assessing performance in banking. One tiny mis-step – deliberate or not – in the valuation of assets and bootstrapping of yield curves to value, or investment in complex, illiquid financial assets and the adoption of large exposures, can translate into significant losses or significant gains for the firm as a whole, with very little change in reporting or the degree of manipulation required.

IV. Existing legal reforms to compensation packages

At this point, it becomes necessary to outline the progress of reform programs undertaken across Western jurisdictions in the context of bank executive compensation. These programmes have been inspired by the 'Principles for Sound Compensation Practices', issued by Financial Stability Board in 2009 (FSB 2009). The Principles include:

> (i) The firm's board of directors must actively oversee the compensation system's design and operation;
> (ii) The firm's board of directors must monitor and review the compensation system to ensure the system operates as intended;
> (iii) Staff engaged in financial and risk control must be independent, have appropriate authority, and be compensated in a manner that is independent of the business areas they oversee and commensurate with their key role in the firm;
> (iv) Compensation must be adjusted for all types of risk;
> (v) Compensation outcomes must be symmetric with risk outcomes;
> (vi) Compensation payout schedules must be sensitive to the time horizon of risks;
> (vii) The mix of cash, equity and other forms of compensation must be consistent with risk alignment;
> (viii) Supervisory review of compensation practices must be rigorous and sustained, and deficiencies must be addressed promptly with supervisory action; and
> (ix) Firms must disclose clear, comprehensive and timely information about their compensation practices to facilitate constructive engagement by all stakeholders.

The Principles set the tone for post-GFC regulatory reform to compensation structures although as we noted in our introduction, reform programs are at different stages of development. To highlight the dichotomous progress in these areas, one simply has to compare the reform agendas in the EU and the US, respectively. EU regulators have been extremely proactive in designing prescriptive rules on bankers' compensation since 2008, viewing reform to executive compensation at banks as pivotal in reducing the risk of future financial crises and have implemented wide-ranging legal changes to compensation structures, despite some opposition from Member States.[25] In contrast, in the US, very few mandatory changes to the structure of executive compensation at banks have been made, although virtually all US financial institutions follow the FSB Principles.

The following subsections outline the reforms made in the major Western jurisdictions – the EU and US – before we analyze reforms to bank executive compensation in Iceland which, we argue, provide some useful guidance on further reform which other jurisdictions would do well to follow.

[25] For example, the UK Government launched a legal challenge at the European Court of Justice against the plan to cap variable compensation at EU banks. The legal challenge was dismissed in November 2014.

EU Reforms

The Fourth Capital Requirements Directive (CRD IV)[26] aimed "to implement international principles and standards at Union level by introducing an express obligation for credit institutions and investment firms to establish and maintain, for categories of staff whose professional activities have a material impact on the risk profile of credit institutions and investment firms, remuneration policies and practices that are consistent with effective risk management."[27] The CRD IV compensation rules are purposely wide-ranging and designed to catch all categories of staff that hold senior management positions or whose activities designate them a "material risk taker".[28] There were anticipated difficulties in defining the term "material risk-taker"; to this end, technical guidance was issued in December 2013 by the EBA to determine how to apply the term "material risk taker" to bank staff:

(i) If the individual's total remuneration exceeds €500,000 per year. However, an individual earning up to €750,000 may be excluded from the cap if it is determined by the employer that the individual is not, in fact, taking or managing risks. Further, an individual earning between €750,000 and €1 million may be excluded from the cap if the exclusion is approved by the national regulator, and an individual earning €1 million or more may be excluded from the cap if the exclusion is approved by the EBA itself; and/or

(ii) If the individual is part of the 0.3% of staff with the highest remuneration in the institution or firm; and/or

(iii) If the individual's remuneration bracket is equal to or greater than the lowest total remuneration of senior management and other risk takers.[29]

To the groups of employees referred to above, CRD IV contains prescriptive rules on the structure of their compensation. The basic principles are as follows:

(i) **Limits to compensation as a proportion of capital** - total variable remuneration should not limit the capacity of the financial institution concerned to strengthen its capital base;[30]

(ii) **Cap on variable compensation** - There is a default position that variable compensation must be capped to the same level as fixed compensation (1:1), although with shareholder approval, a ratio of 1:2 will be permitted. Obtaining shareholder approval in this context requires a super-majority – a 66 per cent majority from shareholders representing a quorum of at least 50 per cent of the voting shares or, if that quorum is not achieved, then a 75 per cent majority is needed[31];

(iii) **Bonus structure** - Up to 25 per cent of the bonus may be paid in long term instruments valued on a discounted basis (which will result in a ratio of greater than 1:2). These instruments must be deferred for at least five years to be eligible for the discount. If a bank chooses to pay more than 25 percent of a bonus in these instruments, any excess will not benefit from the discount;[32]

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[26] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC [2013] OJ L176/338.

[27] Directive 2013/36/EU Para 62.

[28] CRD IV defines 'Identified Staff' as: "senior management, risk takers, staff engaged in control functions and any employee receiving total remuneration that takes them into the same remuneration bracket as senior management and risk takers, whose professional activities have a material impact on their risk profile." See Directive 2013/36/EU.

[29] European Banking Authority, Final draft regulatory technical standards on criteria to identify categories of staff whose professional activities have a material impact on an institution's risk profile under Article 94(2) of Directive 2013/36/EU, December 16, 2013, http://www.eba.europa.eu.

[30] CRD IV Article 94(c)

[31] CRD IV Article 94(g)(i)-(ii)

[32] CRD IV Article 94(g)(iii). The European Banking Authority ('EBA') published guidelines on the applicable discount rate to bonuses paid in long-term instruments in March 2014, taking into consideration inflation rate, risk and appropriate incentive structures

(iv) **Restriction and deferral of variable compensation** - At least 50 per cent of the variable remuneration must consist of shares or equivalent instruments which reflect the credit quality of the institution as a going concern or which can be converted to equity in adverse circumstances (for example, contingent convertible bonds).[33] Moreover, at least 40 per cent of the variable remuneration must be deferred over a period of not less than three to five years. Where the variable remuneration component is of a particularly high amount (in the UK, for example, this is currently set at £500,000), at least 60 per cent must be deferred;[34] and

(v) **Clawback of variable compensation** - All bonus payments remain subject to malus and/or clawback, in certain circumstances.[35]

US Reforms

There has arguably been a profound lack of legally-binding reforms made to compensation at financial institutions since the GFC. In the main, Federal agencies were empowered by the Wall Street Reform and Consumer Protection Act of 2010[36] ('Dodd-Frank') to implement these changes in a piecemeal manner, although some of them were directly enacted. As of writing, the various Federal agencies with oversight of the financial sector are still to agree any final rules on the structure of bank executive compensation[37], although there is a general recommendation to limit "excessive compensation, fees, or benefits" or compensation that "could lead to material financial loss" at certain systemically significant financial firms.[38]

The specific areas tackled by legal provisions thus far are listed below

(i) **The Proxy Statement -** Dodd-Frank s.953 requires that companies' annual proxy statements provide an explanation of the relationship between executive compensation and the firms' financial performance, as measured by share price appreciation, dividends and distributions. The explanation must be transparent and give shareholders a clear opportunity to compare executive compensation to firm performance over the relevant period. The proxy statement must also declare whether or not individual employees are permitted to hedge the value of stock they own. Companies must also report the median value of the total executive compensation at their firm (excluding the CEO), and the ratio of pay between the CEO and the median pay of all other employees.

[33] CRD IV Article 94(l)
[34] CRD IV Article 94(m)
[35] CRD IV Article 94(n)
[36] Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub, L. No. 111/203 (July 21, 2010) Pub. L. No. 124 Stat. 1376.
[37] Under Dodd-Frank § 956, the SEC and the other six federal regulators are required to jointly prescribe rules concerning executive compensation at financial institutions. Under a 2011 SEC proposed rule, covered financial institutions are required to make disclosures under regulations issued by the SEC and other regulatory agencies that will enable shareholders to determine whether compensation to executive officers employed by or affiliated with the covered financial institution constitutes excessive compensation or compensation that could lead to "material financial loss to the covered financial institution." Section 956(b) prohibits certain types of compensation arrangements that encourage "inappropriate risks by covered financial institutions."
So, for example, the proposed rules require a three-year minimum deferral period for at least 50 percent of the annual "incentive-based compensation" for "executive officers" at certain financial institutions (§248.205(b)(3)(i) of the rule as proposed by the SEC). However, as of now, no final rule has been published, and is unlikely to be agreed upon before October 2015.
[38] §956 of the Dodd-Frank Act authorizes the Federal Reserve and/or the SEC to adopt rules in relation to executive officers, employees, or directors of "covered financial institutions" to limit "excessive compensation, fees, or benefits" or compensation that "could lead to material financial loss to the covered financial institution." The term "covered financial" includes most financial institutions (banks, investment banks, credit unions, broker-dealers, etc.) that have assets in excess of $1 billion. Dodd-Frank Act § 956 (codified at 12 U.S.C. § 5641).

(ii) **Shareholder empowerment** - Dodd-Frank mandates a periodic shareholder vote on named executive officer compensation (so-called 'say-on-pay'), in which shareholders must ratify the pay of named executive officers. Shareholders must also approve payments on severance of employment (so called 'golden parachutes').[39] However, whilst there is a legal requirement that the votes themselves be carried out, these votes do not bind the board of directors, and are not to be construed as capable of over-ruling the board. Accordingly, these shareholder votes are not to be construed as creating any additional fiduciary duties for directors to follow. The 'say-on-pay' votes may also not limit the power of shareholders to include executive compensation proposals for inclusion in proxy materials.[40]

(iii) **Clawback** - Dodd-Frank s.954 (amending the Sarbanes-Oxley Act 2002 s.304), allows for the clawback of compensation paid to certain executives at financial firms. SOX s.304 allowed for the clawback of any compensation received by the CEO or the CFO arising in the 12 months following the misreporting of financial information, along with any profit from stock sales during this period. SOX s.304 also required that the CEO or CFO or firm be guilty of misconduct in order for clawback to operate[41] and may only be invoked by the SEC.[42] Dodd-Frank expands both the range of employees this clawback may be invoked against and the time-span over which the power may be invoked. On this basis, s.954 requires that issuer firms devise and disclose clawback policies to reclaim any excess compensation paid to *any* current or former executive officers on the basis of a financial misstatement, and expands the period that clawback may operate in from one year to three years following the date of the original misstatement. "Excess" compensation in this context refers to the difference in the level of compensation between what the executive was paid and what he/she would have been paid absent the misstatement.[43] Clawback will only operate in the event of material non-compliance with federal securities law financial reporting requirements. The fact that this does not extend to cases where apparent strong financial performance is later revealed to have been based upon an imprudent assumption of risk or persistent market inefficiencies may be a potential weakness with the legislation. This is especially the case because the recommendations on deferral of variable compensation in the US are rather vague, with a simple requirement that any deferral period be adjusted "to reflect actual losses or other measures or aspects of performance that are realized or become better known during the deferral period."[44]

Further miscellaneous rules in relation to compensation at financial firms mandated under Dodd-Frank and recently enforced by the SEC include:

[39] Dodd-Frank § 951 which amends § 14A of the Securities Exchange Act 1934 to require companies to conduct a shareholder advisory vote on specific executive compensation not less frequently than every three years.
[40] On this basis, shareholders may include proposals for compensation packages for senior executives and board members in the proxy statement although, of course, these proposals are not binding.
[41] This was confirmed by the courts in SEC v Jenkins, 718 F. Supp. 2d 1070, 1074-77 (D, Ariz. 2010).
[42] Neer v. Pelino, 389 F. Supp. 2d 648, 657 (E.D. Pa. 2005). This has in practice occurred very rarely. See Markham (2007).
[43] Senate Report No. 111-176, *The Restoring American Financial Stability Act 2010*, 135.
[44] Incentive-Based Compensation Arrangements: Proposed Rule, 76 Fed. Reg. 21,170, 21,180 (Apr. 14, 2011). No Final Rule has been released on the structure of compensation at banks. US Federal agencies expect to issue final rules and guidance on certain aspects of compensation by October 2015 in relation to, *inter alia*, clawback (Dodd-Frank § 954) and requiring financial institutions to link 'pay to performance'(Dodd-Frank § 953(a)); however, there is no established timetable for further mandatory changes to the structure of incentive pay. *See* SEC, Agency Rule List, Fall 2014, *available at* http://www.reginfo.gov/public/do/eAgendaMain?operation=OPERATION_GET_AGENCY_RULE_LIST&currentPub=true&agencyCode=&showStage=active&agencyCd=3235&Image58.x=32&Image58.y=21.

(i) Stock exchanges must adopt listing standards providing that the members of the compensation committee meet enhanced independence standards comparable (but not identical) to what is required for audit committee members under SOX. These compensation committees may only select compensation consultants, legal counsel, or other advisers in compliance with independence standards established by the SEC, and enhanced disclosure is required regarding the use of compensation consultants and any conflicts of interest;[45] and

(ii) In the event of bank failure, the FDIC is empowered to retrieve all payments made to senior executives two years prior to the start of the resolution process, if the senior executive concerned is "substantially responsible" for the firm's failure.[46]

Icelandic Reforms

As we shall see, much of the program of reform to Icelandic financial markets reflects (and indeed presaged) that of the EC and beyond. Under the European Free Trade Agreement (EFTA) Iceland is obliged to adopt all European Directives into Icelandic law, so much of the Icelandic reform program will eventually mirror progress at the European Community level (for example, CRD IV), albeit with special local amendments. Some of the most profound reforms to financial institutions focus on stock manipulation. There is now a clear ban on funding third party purchases of own shares and a limitation imposed on banks holding their own stocks (although with the permission of the Financial Supervisory Authority (FME) banks may hold their own shares in their treasury for a period of up to three months (articles 28 & 29, law nr 161/2001)).[47] These reforms will, naturally, place a brake on the capacity of bankers to manipulate equity ratios to benefit from, amongst other things, higher compensation.

There have also been direct changes to the rules governing incentive pay at Icelandic financial institutions. These rules apply not only to banks, but also to mutual funds and insurance companies. Parliamentary legislation (Law on Financial Undertakings, 2010) granted implementation powers to the FME which introduced reforms via regulatory instrument, which came into force in June 2013.[48] A major difference between the EC and Icelandic reform programs is that the main provisions of the FME regulations apply to *all* employees, not simply those in senior positions (defined in the EC, for example, as 'material risk takers').

The main themes of the regulations on bankers' compensation implemented in Iceland are:

(i) **Cap on variable pay** – annual variable pay can be no more than 25% of total annual salary, and calculated without any bonus. No regulatory restrictions are put forth on the nature of the payment; cash, restrictive stock grants, options or other forms of instrument are permitted provided that the market value of the instrument when earned is limited to the 25% cap;

(ii) **Clawback and payment deferrals** – at least 40% of annual allocated variable compensation must be deferred for a minimum of three years. If bonus payments are 10%

[45] SECURITIES AND EXCHANGE COMMISSION (Release No. 34-68639; File No. SR-NYSE-2012-49) January 11, 2013, Self-Regulatory Organizations; New York Stock Exchange LLC; Notice of Filing of Amendment No. 3, and Order Granting Accelerated Approval for Proposed Rule Change, as Modified by Amendment Nos. 1 and 3, to Amend the Listing Rules for Compensation Committees to Comply with Securities Exchange Act Rule 10C-1 and Make Other Related Changes.

[46] Dodd–Frank Act § 210(s)(1), 124 Stat. at 1514; Orderly Liquidation Authority, 76 Fed. Reg. 16,324, 16,338 (proposed Mar. 23, 2011).

[47] Icelandic Law on Financial Undertaking nr. 161/2001 available in Icelandic at http://www.althingi.is/lagas/144a/2002161.html

[48] Rules on bonuses in Icelandic financial institutions issued by FME available at: http://www.fme.is/media/frettir/04.07.2011Reglur-um-kaupaukakerfi,-undirritadar.pdf

or less of annual salary (without the bonus) no deferral of bonus payments is required. All bonus payments remain subject to malus and/or clawback, in certain circumstances;

(iii) **Heightened oversight** – Incentive schemes are subject to initial approval of the FME and any subsequent changes to those schemes must to be reported to and approved by the FME. Three different assessments are submitted annually to the board and the FME by the risk management officer, the internal auditor and the compliance officer, respectively, of whether the incentive scheme meets regulatory objectives, internal rules, or whether it introduces excessive risk-taking, encourages illegal behaviour or attempts to circumvent rules and legislation. The three assessing officers and their staff are all exempt from the incentive scheme in place;

(iv) **RORWA obligatory performance metric** – at least 35% of performance is to be measured by reference to Return on Risk Weighted Assets (RORWA). Other performance indicators are decided by the board of directors who should be heavily engaged in formalizing the incentive scheme and oversee its execution;

(v) **Constructive ambiguity** - mandatory annual review of incentive schemes is stipulated by the regulations, in order that changes may be made to the schemes throughout the cycle to address such aspects as the market environment, strategic focus, and any emerging or imminent risks. This allows for a 'constructive ambiguity' in the design of incentive schemes to prevent bank employees from exploiting (or 'gaming') the system, as rules and targets may vary from one year to the next. Incentive schemes are therefore seen as a management tool rather than a profit sharing tool;

(vi) No bonus pay if bank is not returning a profit – Should the bonus payment prevent the firm from turning a profit, or if it prevents the firm to strengthen its equity base by the requirement of the FME, no bonus payments should be paid out. Thus, in many ways, this is the intellectual twin of the Capital Conservation Buffer imposed on financial institutions under Basel III (BCBS 2010);

(vii) The Board of Directors at financial institutions are excluded from any type of incentive pay – members of the board of directors must be paid only in salary.

The adoption of the FME regulation on bonus pay, into law, is currently being debated at the Icelandic Parliament, Althingi. Judging from the bill under discussion, some diversions can be found from the current regulation described above. An increase in the cap on bonus pay is likely to be in line with CRD IV, namely 100% of annual salaries. Employees responsible for oversight are allowed, according to the bill, to be granted incentive pay.

V. Recommendations for reform

We shall now make some tentative proposals for further refinement of executive compensation incentives at banks, informed by EU, US and Icelandic reforms. We shall also consider the respective merits and disadvantages of other suggested reforms made beyond the legislative and policymaking communities.

We favour direct reform for several reasons, but the most significant is that a considerable body of research suggests that corporate governance reform itself (in terms of altering structures or introducing new processes) cannot prevent excessive risk in the banking sector (Avgouleas & Cullen 2014). In fact, there is scant evidence that corporate governance has weakened over the last 30 years; instead, most indicators show that governance has considerably strengthened over this period (Holmström & Kaplan 2001, Hermalin 2005, Kaplan 2008). Moreover, some studies since the GFC to show that banks with 'good' corporate governance and remuneration systems ie. those in which

shareholder and manager interests were most aligned, performed worse than other banks during the GFC, and suffered the most losses (Fahlenbrach & Stulz 2011) We cannot therefore envisage that addressing any perceived flaws in the traditional approaches to corporate governance and pay-setting – such as strengthening shareholder rights and advocating more extensive use of 'performance-based pay' as conceived prior to the crisis – can possibly offer constructive solutions to inform future reform.

We are also of the view that regulators ought to following the Icelandic example, and introduce so-called 'constructive ambiguity' into compensation plans at banks, as a rational and disciplining force on incentives to game compensation systems. The term 'constructive ambiguity' in the context of financial markets is normally used to discuss the lack of specificity given by a Lender of Last Resort regarding the scope and extent of its bailout policies, with the aim of instilling market discipline and encourage private sector solutions in preventing excessive risk which may lead to the need for public rescue. In the case of compensation, regulators may use regular reviews of pay plans and practices to prevent bankers from consistently manipulating those plans to their advantage, which is achievable thanks to their superior knowledge of the environment. In fact, instilling any ambiguity about what metrics will decide bonus pay in the near future may be constructive by preventing gaming, a commonly identified weakness of incentive pay, and result in superior efficiency in compensation (Ederer et al 2014). Experiences in the banking sector prior to – and since – the GFC, reveal that bankers (and their lawyers) are adept at manipulating and/or distorting information concerning performance and the risks attached to banks' investments. Ensuring that targets which determine compensation awards are not static will help ensure that the incentives to focus on particular measures of performance are marginalised. Under such systems, there is arguably less likelihood that preferences based upon prevailing financial conditions (as happened in the pre-GFC era with incentives linked to RoE) will become institutionalised in compensation practices across the industry, which itself may lead to herding in such areas as institutional capital structure and bank investments, and potential financial instability.

On this basis, we hope that the following recommendations will address some of the shortcomings of current and proposed reforms to executive pay at banks which may not prove sufficient to curb excessive risk-taking and that, indeed, many of the more 'tried and trusted' reforms, such as increasing equity incentives in pay packages, are likely to have perverse consequences from a financial stability perspective. We further hope to address worries about the potential complexity of future compensation packages by setting clear and unambiguous brightline rules to govern the composition of bankers' pay. In so doing, we also hope to combine the best of all possible solutions into workable and efficient solutions to the issue of executive compensation at banks, from the standpoint of moderating excessive risk, and reducing potential costs to society at large.

Recommendation 1: Mandatory Deferral periods of 7-10 years for all variable compensation

As outlined above, deferral requirements are common in each of the jurisdictions we have examined, and reflect general industry practice.[49] Although deferral of compensation in banks in the US is not mandatory, the adoption of the FSB Principles by large US banks means that, in practice, deferral of variable remuneration is standard. Deferral provides greater links between pay and performance for two reasons: firstly, it disincentivises the manipulation of earnings or excessive risk adoption by senior managers to capture short-term rewards (Romano & Bhagat 2009) and it becomes less attractive for bankers to target higher investment risk because the threat of default in the intervening deferral period may wipe out any equity-based gains in the intervening years before payout; and secondly, it allows

[49] Further, banks in both the EC and UK are required to have deferral periods inbuilt into executive compensation systems. However, as shall be outlined in the remainder of this chapter, these deferral periods are arguably not long enough.

for the effects of the financial cycle to be smoothed out, reducing the possibility that excessive compensation awards are captured on the basis of inflated asset prices or other direct manipulation. Under the so-called "informativeness principle" (Holmström 1979), the compensation of managers ought to be linked to a measure of performance which is as informative as possible about managerial effort. On this basis, where longer-term measures are harder to manipulate and are more informative (as is the case in the banking industry), managers' pay should also be long-term, if it is to be efficient. Deferral of compensation goes some way to solving this problem.

However, in spite of the very welcome introduction of deferral requirements into bank compensation, we argue that current recommended/mandatory deferral periods (3-5 years) are not long enough to prevent the adoption of excessive risk. On the basis of the empirical work done on the Icelandic banking collapse, and the considerable research undertaken into the duration of the financial cycle, the available evidence suggests that the length of deferral recommended by regulatory agencies, and the somewhat limited circumstances under which clawback may operate, may not be sufficient to entirely capture the financial cycle 'window'. This implies that deferral requirements may not provide sufficient protection against the re-emergence of short-termism or, indeed, inappropriate incentive structures. In the EC and Icelandic jurisdictions, which have expressly legislated for this, the deferral period is a mere three-to-five years and only 40 percent of variable compensation must be deferred.[50] In the context of credit cycles, which are naturally intertwined with the performance of banks and which may persist for a decade or more, three years does not seem a long-term horizon.[51] Research indicates that 'short-term' financial cycles may last for up to nine years (Hilbers et. al. 2005), whilst 'medium-term' cycles may last anything up to 30 years (Drehmann et al 2012). Naturally, deferral periods will assist in mitigating the effects of increased risk within a sector or institution, but it is clear that certain risks may take many years to manifest – certainly over timeframes longer than three years. Furthermore, there are inconsistencies in relation to whether a deferred equity plan which does not cover a significant period of time would increase a focus on the long-term, because there would remain a large period of time under which the incentives of senior executives would be the same as with a non-deferred plan (Spindler 2011).

Clawback policies – which in the main have similar aims to mandating deferral – are also recommended in Iceland and the major Western financial centres. However, there are significant practical constraints imposed on retrieving remuneration that has already been awarded as an ex-post adjustment (FSA 2010), particularly if these payments were made a significant time previously. Clawback also only operates in narrowly prescribed contexts; specifically, in the cases of proven manipulation or accounting restatements. On this basis, clawback powers could not be exercised to retrieve compensation granted on the basis, for example, of the use of excessive leverage, or excessive investment risk. Moreover, there is nascent evidence that the use of clawback may encourage earnings manipulation; specifically, there is a correlation between clawback and an increase in 'real transactions management, ('RTM') which is a method of artificially boosting earnings. RTM boosts profits over the short-term, but after three years, the pattern reverses (Chan et

[50] For example, under CRD IV are all EU banks required to defer compensation for 'three-to-five years', which is replicated under the UK Remuneration Code (Principle 12(g)). However, in practice, in the case of the UK, most large banks defer bonus payments for just three years. Commenting on this in the UK context, Andrew Tyrie, chair of the UK Parliamentary Banking Standards Commission, noted: "Without much closer alignment of rewards to the maturity of the risk, the structure of remuneration will remain seriously flawed … Fundamental reform is going to be needed to ensure the structure of remuneration can stand the test of a financial and business cycle, incentivising resilience – not excessive risk or poor standards … It will be up to the regulator to get on with the job." See Sam Fleming, 'Bank of England is urged to clamp down on bank bonuses' *Financial Times* (London, March 4, 2014), http://ft.com. Further, in the US, regulatory proposals would require only the 'top' executives at large financial firms to defer half of all of their incentive-based compensation and there is no mandatory requirement for them to paid in the form of equity compensation. See Incentive-Based Compensation Arrangements: Proposed Rule, 76 Fed. Reg. 21,170 (Apr. 14, 2011).

[51] Indicatively, Ferrarini et al. note: "this restriction appears somewhat arbitrary; three years is not a particularly long horizon in terms of long-term performance" (Ferrarini et al 2010).

al 2015).[52] We therefore contend that the many drawbacks of enforcing and implementing clawback could be solved by forcing banks to defer variable compensation for much longer periods than currently mandated.

On this basis, we recommend that mandatory deferral periods of 7-10 years are implemented.[53] Seven-to-ten years has been selected because this strikes the appropriate balance between reigning in risk and allowing the financial cycle to 'smooth out' equity and asset prices and financial performance measurements. Whilst investment risks may take years to emerge, arguably most would become apparent within a time-frame of a decade or so. This lengthened time horizon therefore ought to capture tail-risk and prevent managers from profiting from the effects of a major credit boom, or from short-term accounting manipulation. It would also reduce the need for clawback which, as we have noted, poses many practical difficulties if invoked.

Recommendation 2: Increased use of non-equity instruments for variable compensation

We recommend that deferred payments ought to be comprised of instruments which incentivise longer-term investment horizons, rather than the tried, tested and failed approach of virtual wholesale reliance on equity-based payments. Theory suggests, of course, that where agents derive much of their utility from financial compensation, the most efficient way to contract is to provide them with incentives to align their financial interests with those of their principals. In practice, this has been achieved through the use of equity-based awards (for example, direct share grants or bonuses based on share price performance), and/or stock options. There is a well-developed literature which demonstrates a strong positive link between the use of performance-related pay and shareholder returns (Jensen & Murphy 1990; Boschen et al 1995), and over the past two decades, the use of equity-based compensation was encouraged – including at large banks – across Western jurisdictions by regulators and even legislation. In the US, for example, there is explicit tax-favourable treatment for equity incentives[54], whilst in the UK and EU, regulators of financial institutions have consistently lauded the benefits of the use of equity instruments as compensation.[55]

However, as we have noted previously in the case of Iceland, relying on equity payments presents many difficulties, particularly the manipulation of equity. The banking sector has witnessed extreme forms of RWO, and use of SPVs, designed to circumvent capital regulation. Moreover, perhaps more dangerously, as we have already noted, equity payments incentivise leverage. Balachandran et al (2010) find that approximately 60% of the compensation of named executive officers at US banks comprised equity-based pay. Whilst there is some comfort to be had from the increased capital requirements of Basel III, and the strengthening and/or introduction of binding leverage ratios across

[52] In this context, the authors of the study hold that Dodd-Frank's mandatory clawback could be "of dubious value and may actually be counterproductive in its encouragement of management practices, like reduced R&D, that can compromise the long-term competitiveness of a firm."

[53] This mirrors calls in the UK by the Parliamentary Commission on Banking Standards which reported in July 2013, and recommended the following: "much more remuneration [ought] to be deferred and, in many cases, for much longer periods of up to 10 years [and] more of that deferred remuneration to be in forms which favour the longterm performance and soundness of the firm, such as bail-in bonds." See Report of the Parliamentary Commission on Banking Standards, *Changing Banking For Good (Vol. I),* HL 27-I; HC 175-I (2013) (hereinafter UK Parliament, *Changing Banking for Good*) 9. Mark Carney, Governor of the Bank of England, has also argued that banks must look to defer at least some part of senior managers' bonuses for a period of greater than five years, commenting that: "We [the Bank of England] would rather see more deferral, more equity and this ability to take it back when those risks come to light." Remarks of Mark Carney cited in Shannon Stapleton, 'UK to look at longer deferral for banker bonuses – Carney', REUTERS, January 15, 2014, http://uk.reuters.com.

[54] The incentive function of executive compensation is recognised by the elimination of corporate income tax deductions for executive salaries in excess of $1million, since the limitation applied only to non-incentive-based remuneration. See I.R.C § 162 (m) (2006).

[55] For example, the UK FCA Remuneration Code requires pay to senior employees at banks and other financial institutions to comprise *at least* 50% equity-based compensation, such as shares, share-linked instruments and equivalent non-cash instruments (FCA, 2014).

certain jurisdictions, increasing equity requirements may simply not prove sufficient in the presence of high complexity, extreme opaqueness of ownership structures and cross-border financial transactions. In this environment, the temptation and the opportunity to misreport on equity levels to capture compensation (or other incentives such as job retention[56]) remain strong.

We therefore contend that equity-related incentives ought to comprise no more than 50% of the total proportion of incentive compensation. There are undoubted benefits in seeking to align the interests of agents with their principals, but the large-scale reliance on equity-based pay – especially in combination with the use of performance targets such as RoE – arguably poses incentives to manipulate equity levels and/or increase leverage. Novel mechanisms to give effect to incentive pay – such as bail-in bonds – ought to be further considered as alternatives.

Recommendation 3: Reducing reliance on RoE

In tandem with the previous recommendation, we recommend that banks are forced to move away from using equity-linked metrics with which to judge performance. There have been several recommendations – from scholars in particular – which are designed to mitigate the wholesale reliance on stock prices which is currently exhibited in the calculation of variable compensation. In effect, levels of variable compensation are normally determined by reference to such standards as equity prices, earnings per share, and RoE. Two options, in particular, to reduce the focus on such metrics – each of which differs in terms of the mechanisms employed but remains quantitatively assessable – are worthy of discussion: requiring variable compensation to be linked to either RORWA or a market-determined risk perception.

(i) Return on risk-weighted assets (RoRWA) or Return on Assets (RoA)

As noted above, Icelandic regulations now require banks to compensate employees in some proportion on the basis of the relevant banks' RoRWA. RoRWA is calculated as profit after tax for the year divided by average risk weighted assets, which is itself based on a risk based measure of assets. RoRWA is therefore calculated differently to RoA, which has been suggested by other high-profile regulators – in particular, Andy Haldane of the Bank of England – as a potential alternative to RoE in determining variable compensation. Unlike RoRWA, RoA – much like the leverage ratio in the context of capital requirements regulation – strips out the effects of risk-weighting of assets in banks' portfolios. The use of either RoRWA or RoA reduces the incentives for senior executives to concentrate not simply on the returns generated for shareholders, but on the returns generated by assets under management (Haldane 2012), and each provides a snapshot of the efficiency of the use of firm capital to generate returns, and on this basis, whether leverage is being used optimally.[57] It has been noted by several scholars that most of the extreme returns witnessed in the banking sector in the 2000s were a result of higher leverage, rather than more efficient use of capital (Bebchuk &

[56] For discussion on this, see Avgouleas & Cullen (2015).

[57] RoA records what level of earnings are generated from invested capital (assets). RoA varies substantially according to the industry concerned. Most corporations are funded by debt and equity. The RoA figure reveals to what extent and how effectively the corporation is earning net income from the money it has to invest. The higher the RoA number, the better, as this indicates the corporation is earning more money on less investment. For example, Company X has £50 million in assets and £10 million in income, giving it an RoA of 20percent; Company Y has £100 million in assets and income of £100 million, it has a RoA of 10 percent. In this example, Company X is earning more income per unit of assets, and is therefore using its capital more efficiently. In relation to banks, it is difficult (but not impossible) to magnify RoA through leverage, as although asset levels can be magnified massively by increased borrowing, RoA will not change unless the assets bought through borrowing are relatively more profitable.

Spamann 2010; Guo et al 2010; Haldane 2012; Moussu & Petit-Romec 2014). On this basis, a focus on RoRWA or RoA in determining compensation, rather than on RoE would have resulted in much lower compensation for senior executives at financial institutions prior to 2008, and arguably less risk.[58] Moreover, a focus on either RoRWA or RoA would preserve some degree of market discipline, because the RoRWA/RoA of corporations – even banks who hold immense asset volumes – are relatively easy to measure and report on.

Focusing on RoRWA or RoA alone is not, of course, a silver bullet. Where compensation is deferred, and linked to a firm's long-run stock price or financial returns, payouts vary with the riskiness of firm assets. In a situation where the incentives to target RoE become much less pronounced, the optimal way for bankers to maintain high levels of pay becomes targeting increased levels of asset risk, rather than manipulation of the capital structure of the firm (Chason 2013). On this basis, if banks begin to switch to compensation plans which explicitly target RoRWA/RoA, the portfolio of assets held by financial institutions may become riskier, or they may engage in greater levels of asset substitution, making them harder to monitor. RoRWA/RoA incentives are positively related to risk levels and, moreover, very risky firms are characterised by higher ratios of asset turnover (Cheng 2013). Focusing on RoRWA or RoA in isolation may therefore incentivise increased risk in the composition of bank asset portfolios, especially on the upward curve of the credit cycle, because as asset values increase, assets become more profitable, and collateral constraints are relaxed (Minsky 1986) or sophisticated bankers/lawyers find ways to stretch collateral to use for further asset purchases (Geanakoplos & Zame 2010).[59]

Another unwelcome consequence of incentivising a focus on either RoRWA or RoA is that it implicitly encourages securitization of assets. Securitization as a means of risk transfer and/or diversification is not, in of itself, an unwelcome development; in fact, when used appropriately, it is an extremely valuable risk management tool. However, securitization of assets increases a bank's RoRWA/RoA by shrinking its balance sheet which, of course, facilitates greater leverage. In the context of the GFC, the BCBS notes that "Accounting sales treatment was seen by some as providing originators/sponsors with additional incentives to securitise … if an originator was able to achieve off-balance sheet accounting treatment, the removal of balance sheet assets improved certain financial ratios, such as the leverage capital ratio or return on assets" (BCBS 2011). Embedding a focus on RoRWA/RoA in compensation contracts may therefore provide unwelcome additional incentives to securitise which have little to do with the efficient allocation of resources and risk, especially as the underpricing of risk in the securitization market (albeit to achieve capital relief) is regarded as a key driver of the GFC (Brunnermeier & Pedersen 2009; Diamond & Rajan 2009).

In terms of the appropriate measure of risk to use in these calculations, we submit that RoA would, on balance, is to be preferred. Despite the conceptual similarities between the two measures, embedding a focus on RoRWA would arguably provide further incentives for bankers to engage in forms of risk-weighting manipulation which characterises modern banking and capital management. It is apparent that, despite the dangers created by risk weight optimization (RWO) and asset substitution highlighted by the GFC, banks are still heavily engaged in these practices in order to increase their reported capital levels (Blundell-Wignall & Atkinson 2012; Blundell-Wignall et al 2013). Further, in benign economic conditions most assets pay off and banks book capital gains based on (today's) high asset prices. Of course, this feeds into RWA models and will tend to reduce the overall reported risk of a banks' asset portfolio. These dangers would arguably be more potent under the RoRWA incentive

[58] Haldane calculates that a focus on RoA rather than on RoE in the financial sector would have seen annual CEO pay at the top US banks rise from an average $2.8 million in 1989 to $3.4 million in 2007, rather than to $26 million (Haldane 2012).

[59] This problem is made worse in exuberant markets. Indicatively, Turner notes: "…[If] irrational exuberance pushes the price of assets to irrationally high levels, mark to market accounting will swell declared profit in an unsustainable way. A significant element of trading book profits recorded in the years running up to the crisis proved in retrospect illusory. These illusory profits were however used as the basis for bonus decisions, and created incentives for traders and management to take further risk" (Turner 2009, 49).

system, because additional incentives for bankers to manipulate risk-weights will arise. In contrast, a compensation system based (to some degree) on RoA – which is based on aggregate asset returns – regardless of the portfolio composition, would not carry the same incentives to engage in RWO or asset substitution (although of course, the same dangers we highlight above – those of increased asset turnover, higher average asset risk and increased use of securitization would remain).

For these reasons, we would recommend that, in common with the Icelandic proposals, a proportion of 35% of variable compensation at banks should be determined by reference to either RoRWA or RoA. In our view, this provides an appropriate balance between the various forms of incentive compensation, without exposing banks unduly to the increase in asset risk that a singular focus on RoA as a performance-determining metric may have provided.

(ii) Market indices beyond RoE and RoA

A basket of recommendations which has gained substantial support from academics and commentators following the GFC has been to require the pay of senior bank executives to be linked to range of financial indices beyond the rather wholesale reference to share prices currently favoured in bank compensation packages. A switch in focus of variable compensation calculation to include an appraisal of wider considerations, it is argued, will link individual returns to market perceptions of risk in investment strategies, as these risks are not always captured in the stock prices of the corporations concerned and certainly not in the absence of significant deferral periods. These measures are designed to act as ex ante incentives to reduce the risk in bank portfolios and funding sources, complimenting ex post measures such as bank creditor bail-in regimes to restore greater levels of market discipline to the banking sector.

On this theme, there have been several suggested mechanisms. Since one of the cardinal channels through which banks may become distressed is the employment of excessive leverage (Avgouleas & Cullen 2015) and losses originating from banking collapses are not always internalized (Avgouleas & Goodhart 2015) a favoured solution by many commentators has been to require managerial compensation at banks to be contingent upon the perceived risk of default by their corporations. To achieve this, regulation could require that the compensation of CEOs (and, presumably, other top-ranking corporate executives) be comprised of debt, rather than equity, which would effectively restrain executives' risk-taking by making their compensation contingent on the firm remaining solvent. This would theoretically reduce the incentives to engage in higher risk-taking, because higher risk carries a relatively increased threat of bankruptcy (Bebchuk & Spamann 2010; Tung 2010). Further, this could help alleviate the natural problem of debt-holder monitoring in banks, especially as deposit-guarantee schemes may largely nullify the incentives to monitor bank behaviour. Moreover, debt-linked payments made in proportion to the debt-equity ratio of the firm concerned may be more efficient than simple equity-based pay because they not only incentivise solvency-preservation but also link individual payments to the value of the firm in bankruptcy (Edmans & Liu 2011). Obviously, in the case of banks, these ratios may reach gargantuan levels, and paying managers in this way might help avoid the significant losses that were imposed on bondholders during the GFC.

Alternatively managerial payoffs could be linked to the firm's CDS spread: Empirical analysis suggests that linking executive compensation to the risk of default will reduce firm riskiness (Bolton et al 2011). To implement this, deferred bonuses of senior bankers would be placed in a standalone fund by their institution(s) and then paid out under a pre-specified formula determined by reference to the deviation of their banks' CDS spread relative to the average of other banks' spreads of comparable size and complexity. On this basis, the higher the relative default spread (and, by proxy, the riskier the firm), the lower executives' variable compensation. A further mechanism suggested by Raviv and Landskroner (2009) might be to introduce an additional element of variable compensation into bank executive pay packages, the level of which would be determined by the asset risk of the

bank. The executive would still be awarded with equity-based compensation, but if the asset risk of the bank fell outside a pre-determined range, this element would be forfeited. Whether aggregate asset values had fallen out of this range would be determined by whether the value of the firm's assets exceeded the value of its liabilities at the maturity of the variable compensation. Arguably this new form of compensation would motivate the executive to take a manageable level of asset risk because of the implied relationship between the asset risk of the bank and individual compensation levels.

In our view, these mechanisms will not solve the issues associated with market-based compensation systems. Whilst the proposals are certainly not without advantages over current systems, it remains abundantly clear is that market-based compensation systems have largely failed to rein-in excessive risk-taking. Each of the proposals relies on the market pricing mechanism to some degree to inform their design. Based on experience prior to the GFC, indirect regulation of this kind would appear to be a flawed approach to regulating compensation, in particular because market inefficiencies might prevent the appropriate moderation of executive compensation based on the metrics discussed. In the context of the use of CDS spreads, for example, it is clear, for example, that in the run-up to the GFC, bank CDS spreads were not immediately indicative of distress amongst the portfolios of financial institutions. Whilst financial instability began to increase rapidly (calculated based on equity to market value of assets) in the final quarter of 2006, it was not until the third quarter of 2007 that CDS spreads began to react (Flannery 2010).[60] Further, in the case of compensation linked to asset risk, it is clear that asset prices are not always indicative of potential financial instability. The proposal outlined by Raviv and Landskroner, for example, would require that as well as option-based compensation paid which increases with bank asset values, an additional "compensation in the form of a fixed payment … is paid upon maturity if the value of the firm assets is between two upper thresholds." 6). In this way, during euphoric economic conditions, the executive is incentivised to avoid investment in assets beyond an upper threshold of risk, which will theoretically prevent bankers from beefing up their compensation by moving into riskier asset markets as the credit cycle progresses. However, it is arguable that in such conditions, adopting even moderate levels of 'asset risk' - such as investing in highly-rated residential MBS – would not reduce the potential for instability, because in boom times the markets asset prices are not always precise indicators of risk-levels. MBS, for example, were *not* viewed by the market as high-risk; in fact, most of the MBS products purchased by banks which eventually turned toxic were low-yield, low-risk securities (Acharya & Richardson 2009). For these reasons, it would appear that trusting market-based mechanisms to regulate elements of compensation systems may not result in sufficient incentives to reduce risk, and additional regulation is therefore warranted.

Recommendation 4: Capping variable pay at 50%

Finally, we recommend that the EU mandatory cap on variable pay across banking institutions be maintained. This has been perhaps the most contentious regulatory proposal in relation to bankers' pay to arise from the GFC in Europe. We argue that the default position that variable compensation must be capped to the same level as fixed compensation (1:1 – in other words, 50%[61]) ought to be

[60] Lewis recounts in his *tour de force* that hedge fund managers were incredulous at the market's failure to price evident instability in mortgage markets into the CDS spreads of financial institutions dealing in MBS in the summer of 2007. For example, the manager of hedge fund Scion Capital LLC, which made over $800 million shorting US subprime mortgages, noted: "[For a long time] I was in a state of perpetual disbelief. I would have thought that someone would have recognized what was coming before June 2007. If it really took that [long] to cause a … realization, well, it makes me wonder what a 'Wall Street analyst' really does all day" (Lewis 2010, 198).

[61] Under CRD IV, up to 25 per cent of any bonus may be paid in long term instruments valued on a discounted basis (which in the case of a shareholder approved compensation package could result in a ratio of greater than

enforced absolutely, with no power for shareholders to ratify higher variable compensation, as is currently permitted under CRD IV. We believe that the European cap (as opposed to the Icelandic cap of 25%) strikes the right balance between prudence and excess, and is unlikely to damage the reputation or competitiveness of the European financial markets, despite some trenchant views expressed to the contrary. Of course, many have argued that an unintended consequence of the cap on variable pay will be an increase in base salaries at financial institutions (Murphy 2013) or, indeed the circumvention of rules on variable pay (for example, through the re-categorisation of forms of compensation as 'allowances'). Each of these developments will, to some degree, break the *supposed* link between pay and performance at European financial institutions. Yet, what is indisputable is that little or no empirical links can be found between a fixed salary model and misreporting or excessive risk-taking. Notwithstanding the deep-seated problems with corporate governance at banks, shareholders retain the power to reign in boards whose fixed salaries they deem 'excessive' and if they are of the view that senior bankers are shirking and/or are simply not 'worth' the salaries they are being paid, they can use their voting powers to object to compensation packages. Very few other industries tolerate such large discrepancies between fixed and variable pay and, considering the potentially toxic combinations of the capital and funding structures of banks, the financial stability risks posed by large institutions, and the high-powered incentives present particularly at senior levels, limiting variable compensation in this way is arguably justified.

Conclusion

In this paper, we have argued that the program of reform to senior bankers' compensation in major Western financial centres is incomplete. In doing so, we have analysed the law and finance literature on efficient compensation incentives, as well as drawing on some of the legislative reforms in the EU and US. We performed a brief empirical analysis of the events which led to the Icelandic bank collapses during the GFC, which exhibited many of the incentive issues associated with the failure of large Western financial institutions, as well surveying the post-GFC reforms to compensation regulation in Iceland. Using the case of Iceland as a benchmark (although not a paragon in this regard), we made some recommendations for further reforms to compensation packages which we hope will guard against the danger that compensation incentives induce excessive risk-taking in the banking sector going forward.

Although many of the reforms implemented to date, particularly in Europe, are a step in the right direction further reforms are needed. Among our policy proposals is the introduction of constructive ambiguity in the design of banker's incentive schemes, such that they should be subject to regular review, reducing transparency in regards to what will determine bankers pay in the later periods. We propose a mandatory 7-10 year deferral of a significant proportion of the variable pay each year. A mix of the nature of payment should be used, with equity based compensation, or derivatives thereof, being no more than 50% of total variable pay. The decision on how much of the bank is funded by equity has to a large extent been moved away from management and into the hands of the regulator. Using performance metrics that management has limited means to influence is therefore somewhat superfluous, hence variable pay should be less dependent on ROE and more focused on the tasks the management can actually influence, which is the return on the assets under management or even return on risk weighted assets. Due to a persistent scope for manipulating risk weights in order to influence the amount of equity funding required, return on total assets is a preferred metric in our view, and serves as an appropriate performance benchmark. We do also agree with the current proposals of the CRD IV of capping bankers' variable pay to their annual income without the bonus, at 50% of total pay.

1:2). These instruments must be deferred for at least five years to be eligible for the discount. If a bank chooses to pay more than 25 percent of a bonus in these instruments, any excess will not benefit from the discount.

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