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Dimensions of the Global Financial Crisis

The Future of Corporate Governance and Regulation

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Synopsis

This paper examines corporate governance and regulation in the context of the current global financial crisis at its peak time in 2008/2009[1].

For the purpose of this study, it is essential to be aware of the market conditions and business models, in which corporate governance and regulation needed to function throughout the last years. Moreover, it is essential to consider the impact of regulation; the financial sector has widely emphasized the rationale of self-regulation, which is generally seen as more cost-effective and preferable to government regulation.

It will be shown that a complex web of interrelated failures in both corporate governance and governmental regulation not only caused, but also prolonged the crisis. Examining the function and weaknesses of corporate governance adds an important perspective to the search for the causes. It reveals the ability of companies (in the financial sector) to effectively use the freedom associated with self-regulation, as it likewise defines an area for possible government regulation in the short and long term. Examining government regulation on a national[2] (US) and international level demonstrates that not only failures in corporate governance, but even more a number of imprudent government regulations were fundamental for the financial debacle. In addition, recent government interventions and draft proposals predict the danger of overregulation and the implementation of further imprudent policies.

In order to discuss the role of self-regulation and government regulation in the context of the global financial crisis, the last chapter establishes a chain of reasoning, which mainly refers to the findings of this paper; it is complemented with considerations regarding the special nature of the financial sector and the future role of government regulation. It is shown that the desired balance does and should not only depend on government regulators; but that stability of firms and markets requires sound corporate governance and self-regulation by companies in the financial sector. This approach involves a number of short and long term recommendations for both governments and companies.

[1] The following work is mainly based upon latest literature available as well as governmental initiatives emerging these days, both in order to analyse and deal with the ongoing crisis.

[2] Here in a general sense, not limited to New Zealand. The following primarily refers to the United States of America due to its key role regarding both having caused and dealing with the crisis (2008/2009).

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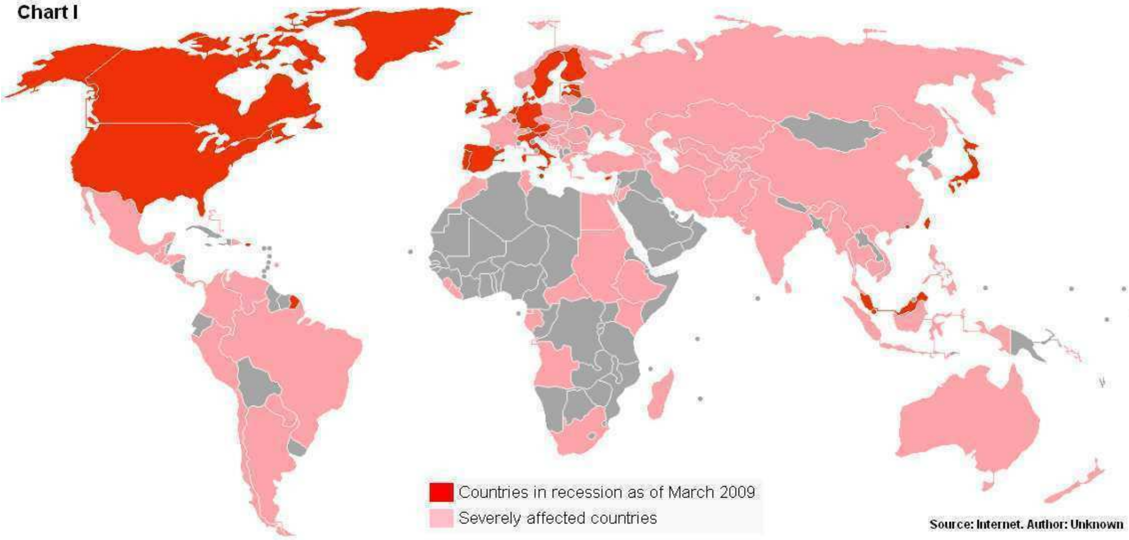
List of Abbreviations[2]

ARRA	American Recovery and Reinvestment Act of 2009
CDO	Collateralized Debt Obligation
CDS	Credit Default Swap
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CFROI	Cash-flow return on investment
CG	Corporate Governance
COB	Chairman of the Board
CRA	Community Reinvestment Act
ECB	European Central Bank
EESA	Emergency Economic Stabilization Act of 2008
EPS	Earnings per share
ERM	Enterprise Risk Management
Fed	US Federal Reserve Bank
GFC	Global Financial Crisis
GSE	Government-sponsored-enterprise
LIBOR	London Interbank Offered Rate
MBSs	Mortgage-backed-securities
OCF	Operating cash-flow
OIS	Overnight Index Swap
OTD model	Originate-to-distribute model
Parag.	Paragraph
ROE	Return on equity
SPV	Special Purpose Vehicle
SIV	Structured Investment Vehicles
SEO	Senior Executive Officer
SRO	Self-Regulatory Organization
SOX	Sarbanes-Oxley Act of 2002
TAF	Term Auction Facility
TARP	Troubled Asset Relief Program

[2] Selective.

Chart I



A. Setting the Basis

I. The Global Financial Crisis

In 2008 and 2009, a large part of the world entered a deep recession.[4] Contributing factors to this crisis included the high oil and food prices, the bursting of a significant housing bubble placed in the US and the following subprime debacle. This led to an ongoing global financial crisis (GFC).[5]

US housing prices had already started to decline in 2006, while the GFC intensified in the third quarter of 2008 with a number of bank collapses, especially that of Lehman Brothers.[6] Growing uncertainty about the true scale and localisation of losses, along with the dramatic downturn of confidence in the financial system's potential to recover, caused a freeze on money markets, harsh falls in equity markets on a global scale, and has ruptured the functioning of global inter-bank markets leading to financial contagion and systematic risks.[7]

The consequences have been so harsh that some of the world's major financial institutions have collapsed[8], whilst others have been taken over by their competitors. In some cases, governments of the wealthiest nations in the world have turned towards extensive bailouts and rescue packages for struggling financial institutions.[9] In fact, the total dimensions that governments have spent on bailouts

[4] World Bank, 2008, p. 2 (Chart I).

[5] Blundell-Wignall/Atkinson/Lee, OECD, 2008, p. 2; Kirkpatrick, OECD, 2009, p. 3.

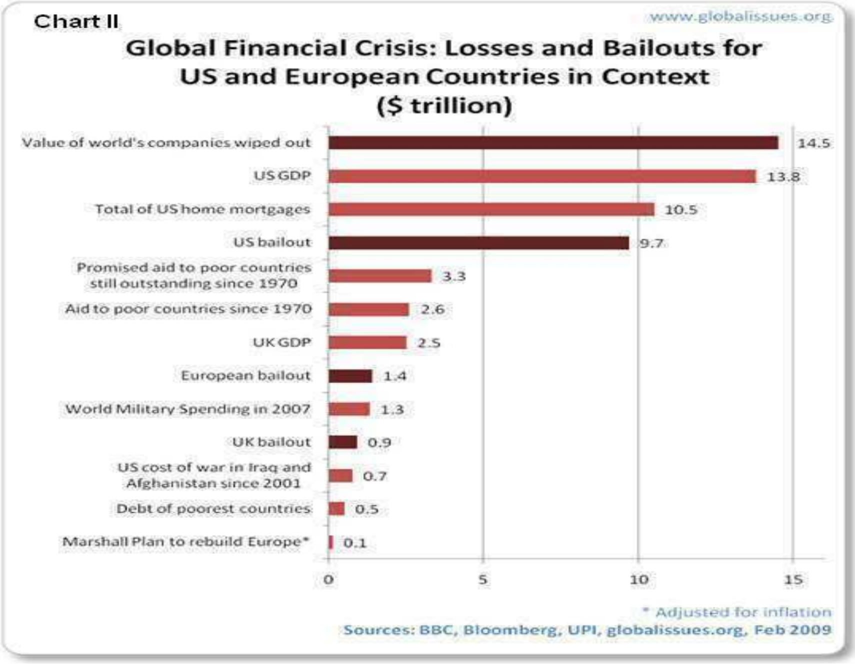
[6] Kirkpatrick, OECD, 2009, p. 4; Anderson/Cavanagh/Redman, IPS, 2008, pp. 1 ff.

[7] "The danger of contagion is particularly acute for the financial sector." See Horsch for details, TU, 2009, p.1 ff.; Wehinger, OECD, 2008, p. 3; Uche, JFRC, 2001, p. 5.7, will be addressed in the final discussion below at D.

[8] The case of Lehman Brothers is important. Cannata/Quagliariello, UB 2009, p. 2.

[9] Bear Sterns have been taken over by JPMorgan with the support of the Federal Reserve Bank, and further financial institutions in both the US (e.g. Citibank, Merill Lynch) and in Europe (UBS, Credit Suisse, RBS, HBOS, Barclays, Fortis) are continuing to raise a significant amount of additional capital in order to finance realised losses on assets. In the UK, there has been a run on Northern Rock, the first in 150 years, ending in the bank being nationalised.[9] In Germany, two state

have skyrocketed.[10] From a world credit loss of $2.8 trillion[11] in October 2008, US taxpayers will spend some $9.7 trillion in bailout packages and rescue plans. European countries have also spent some $2.5 trillion on rescues and bailout packages.[12] $14.5 trillion, or 33% of the value of the world's companies have been destroyed by this crisis (Chart II).



In order to examine corporate governance and regulatory dimensions of the GFC, it is essential to be aware of the market situation that confronted financial institutions over the past decade, and to develop an understanding of the business models in which corporate governance (CG) and regulation had to operate.

1. Housing Market and Mortgage Market Boom

Due to the dotcom bubble of 2001, finance capital transfused from the IT stocks to the housing market.[13] Two reasons led to the real estate boom and helped the US economy to recover: Huge tax cuts during June 2001, which infused demand in the system as well as repeated interest cuts by the US Federal Reserve Bank down to only 1%, led to cash injections in the economy[14]. In return, it helped mortgage lenders lower mortgage rates to attract more customers. Easy terms of contract and low

owned banks (IKB and Sachsenbank) have been rescued, followed by government intervention to bail out other state banks (Berliner Bank and WestLB). Kirkpatrick, OECD 2009. p. 4. Krohn/Gruver, BU, 2009, p. 17.

[10] Furceri/Mourougane, ECO, 2009, p. 14.

[11] In the following always US $, unless cited differently.

[12] Anderson/Cavanagh/Redman, IPS 2008, pp. 2 ff.

[13] Thornton, 2006, p. 22.

[14] Garrison, 2006, p. 4.

mortgage rates fuelled demand in the housing market, right up to excess demand, which caused property prices to move upwards at a great pace [15].

2. Making More Money with Mortgages: Understanding Securitisation and the OTD Model

In order to transform the cash flows (e.g. mortgage rates) from a pool of illiquid assets (e.g. mortgages) into tradable bonds, such as mortgage-backed-securities (MBSs), investment banks conducted the securitisation. This process generates liquidity and, therefore, improves the financial system.[16] It is assumed that securitisation does not harm credit quality, as long as it is transparent and well-priced to all participants along the securitisation chain.[17]

In its most basic form[18], the process includes two phases (Chart III).[19] In phase one, a company with loans or other income-producing assets (the 'originator') defines the assets it wants to be removed from its balance sheet and pools them into what is called the 'reference portfolio.'[20] It then sells this asset pool to an 'issuer,' such as a special purpose vehicle (SPV); this is an entity set up, usually by an investment bank, to buy the assets and materialize their off-balance-sheet treatment.[21]

In phase two, the issuer (SPV) sponsors the acquisition of the pooled assets by issuing tradable fixed-interest securities that are then sold to capital market investors.[22] The investors obtain fixed rate payments from the SPV or trustee funded by the reference portfolio.[23] Usually, the originator maintains the loans in the reference portfolio, receives payments from the original borrowers, and passes them on directly to the trustee.[24] Basically, securitisation stands for an alternative and varied source of finance based on the relocation of credit risk from issuers to investors.[25]

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[15] Ibid.

[16] Advantages: Investors get secured debt tools against unsecured corporate bonds in traditional finance; originate-to-distribute model (OTD) facilitates financial institutions b alance sheets, the result is a decrease in the amount of capital required, which allows the originating financial instituti on to accomplish better risk sharing with the rest of the economy (Jobst, IMF, 2008, p. 48; Purnanandam, UOM, 2009, p. 2; Allen/Carletti/Marquez, 2008, pp. 31–33.); lower cost of funding, which occurs because the securities, backed by the cash flow being securitized, have a higher credit rating than the company itself; get an indirect access to the securities market and benefit from the increased availability of loans due to enhanced liquidity of the issuer (Applabs, 2008, p. 2).
Caprio/Demirguc-Kunt/Kane, 2007, p. 13; Jobst, IMF, 2008, p.48.

[17] Caprio/Demirguc-Kunt/Kane, 2007, p. 13.

[18] "A pass-through securitisation", in Rosen, FRB 2007, p. 3.

[19] Jobst, IMF, 2008, p. 48.

[20] Sell off-debt = more capital, see Amadeo, 2008, parag.2,3; Rosen, FRBC, 2007, p. 1.

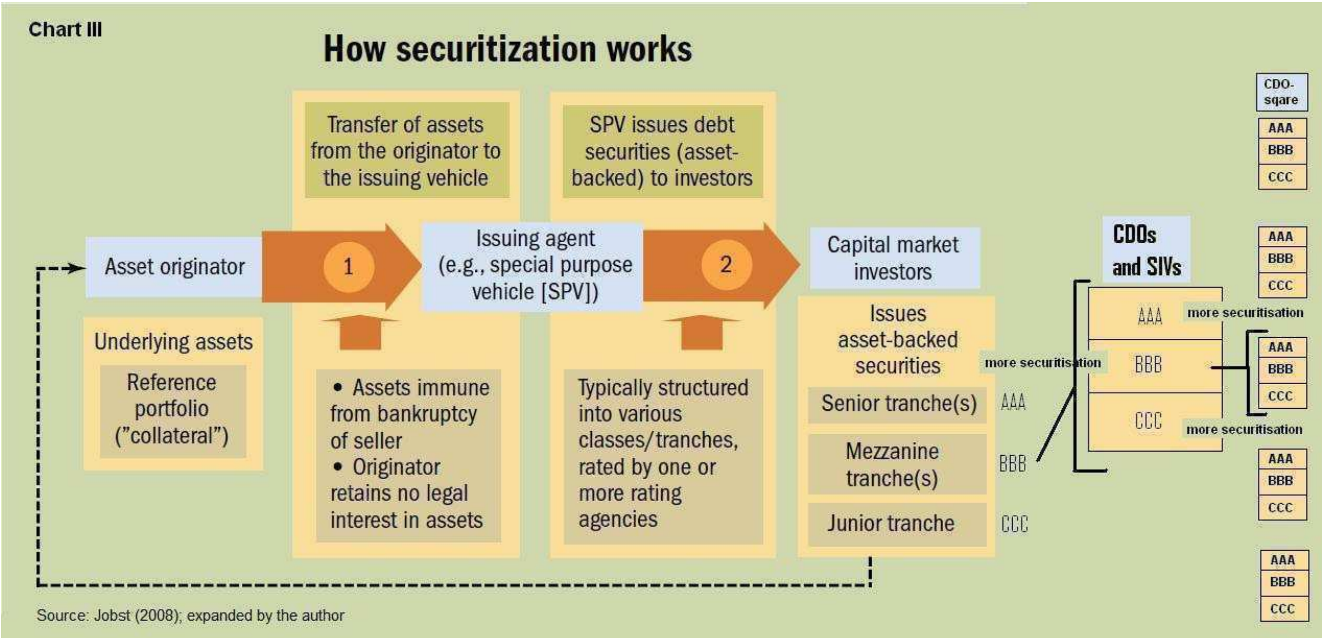
[21] In more detail, see below, at A.I.3.: Jobst, IMF, 2008, p. 48.

[22] Ibid, p. 2.

[23] Jobst, IMF, 2008, p. 48; Rosen, FRBC, 2007, p. 4.

[24] Deloitte, 2005, pp.1 ff.; Jobst, IMF, 2008, p. 48.

[25] Ibid; Rosen, FRBC, 2007, p. 4.



After having said that, the structure of a typical securitisation is even more complex. Innovative investment bankers cut the reference portfolio into slices of, for example, MBSs, so called tranches, which were bundled in structured investment vehicles (SIVs), initially validated by a credit rating agency and then sold to security buyers, i.e. investors in the secondary securities and derivative markets.[26] The nexus between particular tranches and the underlying asset pool was often unclear.[27] Furthermore, financial products are highly sensitive to changes in underlying asset quality,[28] which has become apparent during the subprime crisis:

As mentioned above, credit agencies assign each bundle of loans[29] to a number of risk categories and supply a numerical risk assessment for each of them. Every tranche has a different rank of risk exposure from one another. There is generally a senior ("A") rank of securities and one or more mezzanine or junior subordinated classes ("B," "C," etc.) that function as protective layers for the "A" class: The senior classes have the first claim on the cash that the SIV receives. In the case that the underlying asset pool becomes deficient to make payments on the securities, i.e. when loans default within a portfolio of loan, the higher-level tranches will still get paid, subordinated ranks will not.[30] Because of this cascading effect between tranches, this arrangement is often referred to as a "cash flow waterfall."

[26] For example, in the form of pension and mutual funds.
[27] Caprio/Demirguc-Kunt/Kane, 2007, p. 13.
[28] Jobst, IMF, 2008, p. 49.
[29] Slices, tranches, asset classes.
[30] Breitenfellner/Wagner, Uni Passau, 2009, pp. 5 ff.; Noia/Micossi, 2009, pp. 18 ff.

Furthermore, a third party, normally an investment bank, could purchase debt or securities issued by the SIV and cut them again into Collateralized Debt Obligation (CDO) that once more creates waterfalls of further layered and structured claims against the SIV's underlying pool of assets[31]. In order to make higher tranches even safer, banks insured the top ones for a small fee; this is called a credit default swap (CDS). This generated an enormous scale of interconnectivity between banks and other insurers all over the world, and is an important reason why some financial institutions are "too big, to fail."[32]

In sum, the so-called OTD model[33] and securitisation brought "great economic benefits," and this is "one reason why the U.S. economy has been so robust in the last five years."[34] Nevertheless, this business model suffers from the following major problems.

3. Problems

First, complex derivates multiplied from CDOs to CDOs of CDOs (i.e. CDO-squares), and so on (Chart III). It became nearly impossible even for the issuer and its credit rating agency to validate the financial product.[35] Since mortgage bonds are stacked, the bottom-rated tranches take the first loss, resulting in an enormous growth of losses: For instance, CDOs buy the bottom 30% of other bonds; the result is that the lower 30% of the mortgage bond becomes 100% of this CDO. This CDO is then rated once more (even with AAA, BBB, etc.), before being sold, bundled and rated again in another CDO. This is how losses begin to multiply.[36] This is also the reason, why it is now so difficult to collect all the information regarding the actual worth of these bonds, "[...] it's an informational nightmare,"[37] facing government plans to buy up toxic assets.

Second, the issuer of the CDO receives a commission and management fees for the duration of the CDO. The opportunity to make considerable money from originating and securitizing loans, coupled with the nonexistence of any residual liability, encourages originators to pursue loan volume rather than loan quality.[38]

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[31] Allen/Carletti/Marquez, 2008, p. 3; Giesecke/Kim, SU, 2009, p. 2; Caprio/Demirguc-Kunt/Kane, 2007, p. 15; Wessel, 2007, parag.2 ff. The SIVs issue short- and medium-term debt rather than the longer-term debt of most CDOs, Rosen, FRB, 2007, p. 4.

[32] This high interconnectivity is not limited to the financial market. For further information, see below in the context of "Contagion" at D.I.

[33] Originate-to-distribute model.

[34] Allen/Carletti/Marquez, 2008, p. 3; Jobst, IMF, 2008, p. 48.

[35] Mason/Rosner, SSRN, 2007, pp.1 ff.; Ashcraft, FRBNY, 2008, p. 38.

[36] Good illustration by S. Gandel, in *Time Magazine,* 'Annual special issue,' March 23, 2009, pp. 18–19.

[37] Andrew Lo, director of MITs Laboratory for Financial Engieering, *Time Magazine,* 'Annual special issue,' March 23, 2009, pp. 18–19.

[38] Caprio/Demirguc-Kunt/Kane, 2007, p. 15.

Third, creating CDOs from other CDOs generates massive trouble for accounting, permitting large banks to shift debt off their balance sheets by pooling their debt with other financial institutions.[39]
This has not only allowed financial institutions to hide their losses,[40] but also to bloat their earnings,[41] which has the critical effect of doubling potential losses book-wise.

Fourth, the root dilemma with securitisation is that "outsourcing the funding side of an originator's balance sheet undermines its incentives to monitor the quality of the loans it originates."[42] Troubled loans turn into the assets and concerns of someone further down the transaction chain.[43] As the demand for highly rated tranches increased and securitisation became more complex and less transparent, underwriting incentives weakened because underwriters and credit rating agencies practiced little real due diligence.[44]

Fifth, banks' board of directors were unable to oversee and effectively manage risks.[45] The increased role undertaken by securitisation and financial engineering overexerted the technical competence of executive and non-executive directors alike.[46] Also, the 'growth at any price' mentality in the investment banking culture often implied the replacement of top risk managers by people from a sales background, which led to negligence in risk oversight and crisis prevention. UBS is often cited as a good example of how the board of a leading European bank ultimately lost touch with key parts of the business.[47] In addition, "compensation systems in commercial and investment banking paid large bonuses tied to short-term profits, and encouraged managers to take excessive risks."[48]

Sixth, a large number of regulations and policies before and especially after 2004 established a too friendly regulatory setting, both for extremely leveraged mortgages and for securitisation structures based on them. For instance, the Community Reinvestment Act and related legislation between 1995 and 2005 reduced underwriting standards and increased availability of credit, which led to a considerable growth of homeownership in the US.[49] International regulations, like the Basel Accords, facilitated off-balance-sheet activity and allowed banks to reduce their capital requirements through securitisation.[50]

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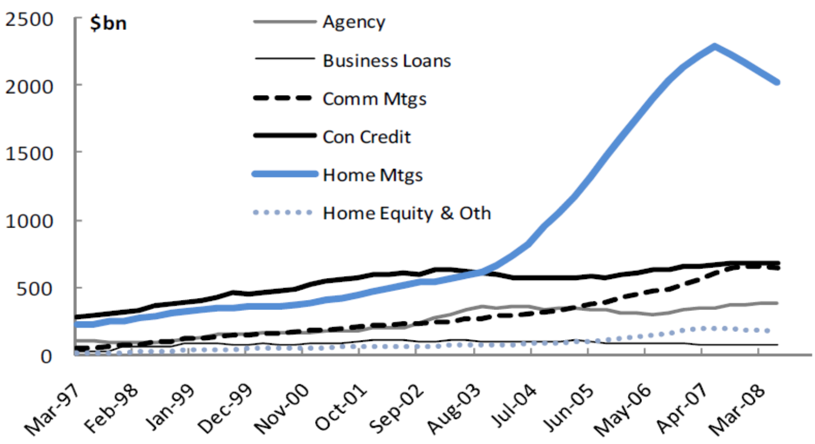
[39] See above A.I.2.a.; Purnanandam, UOM, 2009, p. 2.
[40] Actuaris, 2008, Kneuer, p. 11.
[41] Attwood, CM, 2007, parag 15.
[42] Ibid; Caprio/Demirguc-Kunt/Kane, 2007, p. 12.
[43] Collyns, IMF, 2008, pp. 1 ff.; Caprio/Demirguc-Kunt/Kane, 2007, p. 12.
[44] Caprio/Demirguc-Kunt/Kane, 2007, p. 15.
[45] Kirkpatrick, OECD, 2009, pp. 2 ff.; Barker, IOD, 2009, p. 1.
[46] Barker, IOD, 2009, p. 1.
[47] Blundell-Wignall/Atkinson/Lee, OECD, 2008, p. 11; Barker, IOD, 2009, p. 1.
[48] The corporate governance dimension is a central part of this paper and will be discussed below; Caprio/Demirguc-Kunt/Kane, 2007, p. 16.
[49] Wallison, EM, 2009, parag. 9.
[50] The regulatory dimension is also a central part of this paper and will be discussed below; Caprio/Demirguc-Kunt/Kane, 2007, pp. 16 and 34.

Finally, mortgage lenders took advantage of these regulations and shifted their focus from the prime lending market to a less ventured market of subprime mortgages. Mortgage loans were made available to people with low-income, known as 'subprime borrowers,' whose repayment ability was strongly doubtful.[51] By 2007, the MBS market rose to more than $2 trillion (Chart IV).[52] Yet higher volumes were accompanied by lower quality and severe mispricing of risk[53].

Chart IV ABS issuers, home mortgages and other loans



Source : OECD, Datastream.

4. Triggering Event for GFC

The rate of default on these (subprime) mortgages increased tremendously fast.[54] Due to the following fall in house prices, even prime homeowners who could effort to pay their mortgage interests defaulted and tried to sell their houses. Former excessive demand in the market was substituted by the excess supply of houses. This oversupply led to a huge decline in housing prices. With the fall in demand for houses, demand for mortgages also decreased.[55] Once the price of mortgages fell, complex financial products, such as mortgage-backed-securities (MBS), which derived from mortgages, dropped too.[56] Form then on, neither investment banks could sell their worthless financial products, nor the investor, nor found the mortgage lender a buyer for its mortgages. As a result, markets froze and effectively became "illiquid," giving rise to a full blown GFC.[57]

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[51] Purnanandam, UOM, 2009, pp. 1 ff.
[52] Blundell-Wignall/Atkinson/Lee, OECD, 2008, p. 7.
[53] Caprio/Demirguc-Kunt/Kane, 2007, p. 15.
[54] Lim, JARAF, 2008, p. 12; Lim, JARAF, 2008, p. 10; Flynn, RM, 2008, parag. 15.
[55] Krohn/Gruver, BU, 2009, p. 16.
[56] Lim, JARAF, 2008, p .8.
[57] DebtConsolidationCare, 2009, parag. 16; Flynn 2008.

The causes of the GFC are multi-layered and complex.[58] Taking into account the above-mentioned considerations, we can spot national[59] and international failures throughout all economic and regulatory levels: naive and shortsighted borrowers of loans, reckless lenders, haughty bankers and managers, foolish investors, incompetent rating agencies and overchallenged boards of directors paired with inadequate government policy and weak international supervision.

In order to define a base for revealing corporate governance and regulation in the context of the GFC, the next section introduces the modern understanding of regulation, particularly the distinction between self- and government regulation.

[58] Barker, IOD, 2009, p. 1.

[59] Here in a general sense, not limited to New Zealand, but mainly to the US. Compare the terms 'domestic' and 'municipal law'.

II. The Theoretical Context of Regulation

1. Modern Understanding of Regulation

In both common law and civilian legal systems, regulation has traditionally been thought of as part of the state function, i.e. legal rules that applied to everyone, and were applied by the courts.[60] In the 1980s, however, new interactions between the private and public sectors became apparent, and it was realized that regulation is more complex as it occurs in companies, large organizations, committees and professions.[61] Regulatory power is even more dispersed in our time, and self-regulation is attractive to various parties.[62] As a result, the notion of a 'decentred understanding of regulation' is softening the traditional state perception.[63] In modern theory, two considerations have to be taken into account. First, regulators are confronted with the challenge to find the correct balance between inaction and activism of punishing breaches. The concept of 'responsive regulation' basically says that governments should be responsive to the conduct of those they seek to regulate, and in deciding whether a more or less interventionist response is required.[64] Second, government intervention is often justified due to market failures, which typically occur when market transactions give rise to spillover effects (externalities) on third parties, or when there is information inefficiency in the market.[65] Thus, regulation addresses not only economic goals, such as monopolies, public goods, externalities, information deficits, coordination and planning; but also non-economic ones, like distributional justice and community values.[66] Based on these considerations, regulation addresses its goals mainly through government regulation and self-regulation.[67]

2. Definition

Just as theories of regulation evolve over time and are not unified, there is also no fixed definition of the term 'regulation.'[68] On the one end of the spectrum, regulation can be thought of as a set of rules pronounced under statute. This is a simplistic and narrow definition as it excludes process, actors and

[60] Ibid, p. 16.
[61] Highly globalized industries, dominance of multinational companies that engage in significant business activity in many countries and whose products are distributed and marketed worldwide; public-private partnerships, etc.
[62] Advantages and disadvantages discussed below at A.II.4.; Uche, JFRC, 2001, p. 5.6.
[63] Black, 2001, p. 110.
[64] Pyramid model of enforcement sanctions, see Ayres/Braithwaite, 1995, p. 38. Critics for its weak theoretical grounds, and for not questioning the objective of regulation, see Barton, 2008, p. 2. Even advancing notion to 'really responsive regulation', Baldwin/Black, LSE, 2007, pp. 1 ff.
[65] Uche, JFRC, 2001, p. 5.2.
[66] Barton, 2008, p. 16.
[67] "Formal, informal regulation and self-regulation," Porket, IEA, 2003, p. 1. The term self-*regulation* is inherently slippery and imprecise, combining two apparently conflicting ideas.
[68] Hertog, 1999, p. 223; Currie, UTS, 2005, p. 2.

differences between regulations from other bodies of rules.[69] On the other end, regulation may include any mechanism of social control and influence. Whilst this approach is less legalistic, it includes all law; and is, therefore, too wide to define the area of regulation that is subject to this paper. A definition by Black (2001) was already found to be valuable in another area,[70] and may help within our context. Thus, regulation is understood to be "the international, goal-directed, problem-solving attempts at ordering undertaken by both state and non-state actors."[71] Just as state-run bailouts, rescue plans and legislative efforts are addressing the roots and dealing with the ongoing GFC,[72] the private sector and especially financial companies are reconsidering their CG mechanisms and standards for the same reason.[73] Accordingly, the goal of regulation is not to be detrimental to markets, or rather it is often necessary to bring markets into existence and to maintain them.[74] It is also not only put into effect by the state, but it also includes self-regulation by non-state actors. The central point of regulation is the interaction between regulator and policies, law, and regulated and affected parties.[75] So understood, this paper includes legislative responses to the GFC but also economic instruments, CG mechanisms and self-regulation.

3. Government and Self-Regulation

Taking into account the definition by Black and its underlying theories, regulation "undertaken by the state" refers to government regulation and intervention, which includes all of the government-imposed restrictions and requirements on people, firms and organizations.[76] Another form of decentred regulation "undertaken by non-state actors" is self-regulation. This is possible in areas where a group can organize itself in order to control the behaviour of its members.[77]

Self-regulation, therefore, involves non-government organizations (SROs),[78] specific sectors or industries that impose regulation on the collective and those who accept its authority.[79] Whilst it is not exclusively dependent on the state,[80] self-regulation can also "occur in the three traditional components

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[69] Barton, 2008, p. 11.
[70] Even though in the areas of energy and natural resources, see Barton, 2008, p. 13.
[71] Black, J. (2002) 'Critical reflections on regulation,' cited in Barton, 2008, p. 13; similar in Black, OECD, 2001, p. 2.
[72] Government regulation, see below at C.
[73] Self-regulation and corporate governance, see below at A.II.4.iii. and B.
[74] Barton, 2008, p. 17.
[75] Ibid, p. 14.
[76] There are, of course, different definitions of each type, but this is beyond the scope of this paper. Deardorff's Glossary of International Economics; Government intervention: "[…]part of government regulation, foremost affect economic activity, resource allocation […]".
[77] Barton, 2008, p. 28.
[78] Self-regulatory organization; Carson, WB 2009, p. 3.
[79] Barton, 2008, p. 28.
[80] Ibid, p. 28; Sheng, 1997, parag. 4.

of legislation, enforcement and adjudication", and can be as complex as government regulation.[81] Means of how SROs can 'self-govern'[82] are generally trade associations, codes of conduct or technical industry standards, for instance standard-form contracts.[83]

However, even self-regulation is partly dependent on the government, which aims to ensure that SROs remain 'responsive' to the public interests.[84] For instance, the government may require self-regulation, approve industry codes of practice, exercise oversight and control over SROs, or may coerce self-regulation by threatening formal government regulation.[85]

4. Advantages and Disadvantages

i.) Government regulation can protect public interest, and might be advisable for achieving social goals and to fight externalities.[86] An example of this is the environmental pollution, where statute-backed regulation may reduce both information and enforcement costs.[87] Regulation by the state as a third party has the advantage of ensuring the maintenance of the separation of power,[88] and can grant a balanced law-making process, since a point of view other than that of the industry will be considered.[89]

Other authors point out the benefit of standardisation, the psychological effects of restoring trust and ex ante regulation to avoid moral hazards.[90] The latter are of particular importance regarding the stabilization of the financial sector and the current crisis management.[91]

Nevertheless, government regulation is criticized for being inflexible, expensive and "tending to write inefficient rules."[92] The latter is stated mainly because of its nature as a third party lacking sector-specific knowledge, which leads to an information problem. In contrast, the capture theory states that regulatory agencies and objectives can be captured by the industry, by interest groups or other political

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[81] Barton, 2008, p. 29; Swire, OSU, 1998, p. 7.

[82] Self-regulation is a part of regulation, see the definition above; self-governance or internal self-regulation are covering the "self" component, meaning the part can be determined by the companies or industries themselves (self-govern).

[83] The Federal Act on Stock Exchanges and Securities Trading ("SESTA"). SESTA grants exclusive competences of self-regulation and enforcement to Swiss stock exchanges, see: <http://www.finma.ch/archiv/ebk/e/publik/refer/pdf/20070704_01_e.pdf>.

[84] See above A.II.1., concept of "responsive regulation."

[85] Barton, 2008, p. 29.

[86] "Social regulation," Uche, JFRC, 2001, pp. 5–6. Public-interest-theory: Protect the public and provide people with all relevant information necessary for decision-making, see Peltzman/Levine/Noll, 1989, pp. 1 ff.; Sheng, 1997, parag. 11.

[87] Ogus, 1995, pp. 107–108

[88] Uche, JFRC, 2001, pp. 5–6.

[89] Reconsidering the 'capture theory,' that argument may not hold when the judiciary is 'captured' by the industry; Pitofsky, 1998, p. 1 ff.

[90] E.g. , in the case of rescue packages discussed below at C.Ii.2.; Zingales, UC, 2009, p. 8–9.

[91] Beales, R. 'AIG bailout example of moral hazard', available at: <http://www.livemint.com/2008/09/17234549/AIG-bailout-example-of-moral-h.html>.

[92] Becht/Bolton/Röell, ECGI, 2005, p. 122.

participants they are supposed to regulate.[93] Furthermore, studies found little evidence that "government regulation, especially in the form of state intervention, is generally beneficial to the public,"[94] Moreover, market mechanisms are often able to compensate for inefficiencies.[95]

ii.) Self-regulation has been criticised mainly due to the variety of interests that influence its standards. While the regulation process often excludes input from third parties, it may not always cover all concerns in the industry.[96] It may also lack sufficient enforcement power compared to government regulation. Finally, the traditional concern regarding self-regulation has been that the industry could harm outsiders by generating a cartel, monopoly or otherwise exercising its market power.[97]

On the other hand, the literature emphasises the benefits of self-regulation. It generally offers a more flexible and faster way of setting standards and integrates sector-specific knowledge of those involved in the industry.[98] As a result, self-regulation standards may be able to mitigate the above-mentioned information problem, which in turn enhances the industry's reputation.[99] Finally, it is more cost-effective, since the costs for the government are naturally much lower without enacting laws and maintaining its large-scale enforcement.[100] Besides, adopting self-regulation reduces the likelihood of government regulation, so that the cost for the industry may therefore be lower than the expected cost of complying with state-imposed directives or laws.[101]

iii.) According to that, regulation in the financial sector has widely emphasized the rationale of self-regulation, which is generally seen as more cost-effective and preferable to government regulation.[102] The role of CG in this sector is, therefore, even more important in terms of both adopting proper standards for the company and the industry itself, as well as complying with the few rules the state may have imposed. Facing the current GFC, it was claimed that the financial sector had relied too much on deregulation and that companies were not able to make use of the 'freedom' associated with self-regulation.[103] Following up this allegation in order to define an area of possible future regulation, the next chapter reveals important failures in CG and discusses how companies, notably their board of directors, should address them.

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[93] Critique on the public-interest theory by Stigler, 1971, pp. 3 ff. Peltzman also presents a modification of this model in an earlier paper from 1976.

[94] Friedland, 1962, pp. 1–16; For "Regulatory Process and Price Cap Regulation," see Ros, NERA 2003, pp. 270 ff. For patents, see Mansfield, 1981, pp. 907 ff.; Hertog, 1999, p. 232.

[95] Hertog, 1999, p. 231.

[96] Uche, JFRC, 2001, p. 5,7.

[97] Swire, OSU, 1998, p. 10.

[98] Ogus, 1995, p. 98.

[99] Very detailed in Bartle/Vass, UOB, 1998, p. 35 ff.

[100] "Administrative cost," see Swire, OSU, 1998, p. 5.

[101] Swire, OSU, 1998, p. 9.

[102] Another era of "self-" or "soft-touch regulation," see Buiter, VOX, 2009, parag. 1.

[103] Carson, WB 2009, p. 31; Buiter, VOX, 2009, parag. 1; Ingves, IMF, 2004, pp. 1 ff.

B. Corporate Governance

I. Introduction

The next section disambiguates CG. Considering that conflicts of interest lie at the very heart of CG, I will shortly present the fundamental principal-agent problem. Different CG systems and related codes and standards are shaping the cost and benefits of CG in general.

1. Disambiguation: Corporate Governance

Farrar (2008) used the etymology of 'Corporate' and 'Governance' to sketch the helpful metaphor of "steering a ship, while holding its course and taking care of good order."[104] Facing this obvious notion of CG as 'captaining a ship,' it is much more difficult to determine a clear-cut and generally approved definition:[105]

Traditional views on CG are narrow, focusing on legal relations between managers and shareholders.[106] Broader definitions extend the boundaries of governance to consider the role that various stakeholders have in influencing the firm's behaviour.[107] Others focus on 'performance versus conformance' stating that the "shareholders' desire is generally to make as much money as possible, while conforming to the basic rules of the society embodied in law and local customs."[108]

Recently Mallin (2007) defined CG and brought together a number of key characteristics. Generally, CG refers to the structures and processes of the direction and control of corporations.[109] It shall (i) guarantee an adequate system of control within an organisation leading to the safeguard of assets; (ii) prevent any individual from having too much power and influence; (iii) set up a proper relationship between a firm's management, the board of directors, shareholders and stakeholders; (iv) make sure that the organisation serves the best interests of the shareholders and other stakeholders, and (v) promote increased transparency and accountability. According to that, complex relationships inside and outside the company, so-called conflicts of interest, lie at the very heart of CG.[110]

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[104] The Latin words *gubernare* or *gubernator* = steering a ship; the French word *gouvernance*= control; Farrar, 2008, p. 3. For the description of the term *corporation*, see Smith/Walter, 2006, p. 74.

[105] Mason/ O'Mahony, JCC, 2008, p. 31; Grandmont/Grant/Silva, DB, 2004, p. 5.

[106] Ibid; Solomon/Solomon, 2004, pp.54 ff.

[107] "Stakeholdertheory."[…] a set of relationships between a company's management, its board, its shareholders, and other stakeholders"– OECD Principles 2004, p. 2. Like employees, customers, financiers, suppliers, purchasers, auditors, corporate regulators, the community at large and the government. CCH, NZ, 2004, p. 5; Mason/O'Mahony, JCC, 2008, p. 31.

[108] One of the oldest definitions by Milton Friedman, Spedding, 2008, p. 347; Robert/Monks/Minow, 2008, p. 28; Ioana/Rodica, 2004, p. 204; CCH, NZ, 2004, p. 5.

[109] Mallin, 2007, pp.1 ff.

[110] Biswas, 2008, p. 8.

2. Principal-Agent Problem

The basic dilemma in CG is how "suppliers of finance to corporations assure themselves of getting a return on their investment."[111] This problem is the consequence of separation of ownership and control in modern corporations.[112] It arises in situations characterized by asymmetric information between the principal (owner) and the agent (manager).[113] The agent is usually better informed than the principal and as a result has an incentive to cheat and maximize only his personal benefits, thereby possibly damaging the principal.[114] The economic difficulty is to ensure that the agent acts in the interests of the owner.[115] The shareholder is the owner because he bears the risk of the firm's performance and is thus the 'residual claimant,' while the stakeholders obtain returns depending on their contract.[116] Hence, the solution to the principal-agent problem is first and foremost to design a contract that gives the agent highly powered incentives so that his interests are the same as those of the principal, so that the manager acts as if he were the owner.[117]

Taking into account these theoretical considerations as well as the above-mentioned survey on the GFC, one can argue that one of the main causes of the subprime mortgage collapse and the following GFC was a fundamental principal-agent problem: Bankers are supposed to manage the funds they receive from the shareholders. However, bonuses and large incentive mechanisms caused bankers to forget about the shareholders' interest and at the same time ruined companies and even distressed whole economies. The challenge now is to create monitoring mechanisms to ensure that the manager acts in a manner that maximizes long-term profit, which is assumed to be the only interest of the owner and a precondition for the efficient allocation of the firm's resources.[118] However, efforts to mitigate principle-agent problems are costly,[119] and the approach itself has been criticized for leaving out major dimensions of CG.[120] Furthermore, the importance of the principal-agent problem depends on the CG system in which it occurs.[121]

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111 See above B.I.1.; Definition by Shleifer/Vishny, 1997, pp. 737 ff; Boersch, 2007, p. 14.

112 Macey/O'Hara, 2003, p. 95.

113 Boersch, 2007, p. 14; Falaschetti, FSU, 2008, p. 9.

114 Macey/O'Hara, 2003, p. 95; Boersch, 2007, p. 14.

115 Boersch, 2007, p. 14; Macey/O'Hara, 2003, p. 95.

116 Ibid, p. 14.

117 Other factors reduce the principal-agent costs: market for managers, competition in product markets and capital markets. Macey/O'Hara, 2003, p. 95. Executive compensation is a central function of the board of directors, which will be discussed below at B. II. 5.

118 Board composition, executive compensation and related issues will be discussed below at B. II. 3. and 4.

119 Agency costs refer to the decline in the firm's value due to the agent's behaviour, which are in divergence with the owners (see below at B. I. 4.). Biswas, 2008, p. 3.

120 E.g., employees, creditors, suppliers, other firms, and the larger public; often not clear who is the principal and who is the agent. Macey/O'Hara, 2003, p. 95; Boersch, 2007, p. 14; Falaschetti, FSU, 2008, p. 9.

121 The CG systems of the advanced economies can be roughly categorized into stakeholder/insider and shareholder/outsider system. Adding the "Collective capitalism/Asian model" by saying that it was influenced by the German and the US systems. Farrar, 2008, pp. 528–529; Boersch, 2007, p. 14; Gregory, DM, 2001, p. 7.

3. CG System and Standards

First, in stakeholder systems ownership is concentrated. The principal-agent problem is less urgent, since majority owners have powerful devices to monitor and control the management.[122] This is different from dispersed ownership and therefore less powerful investors in shareholder systems.[123]

Second, these two systems also differ in the role they allocate to markets and financial institutions in channeling savings to investment.[124] Shareholder systems are usually market-based, whereas stakeholder regimes are bank-based financial systems.[125] Third, mechanisms available to ensure economic efficiency are generally divided into those internal and external to the company.[126] The internal mechanisms of primary interest are the board of directors (board) and the equity ownership structure of the company.[127]. External mechanisms are the market for corporate control and the legal system[128] In shareholder systems, the centre control mechanism is the market for corporate control, which is supposed to encourage managers to act in the interest of the investor because a poorly performing company runs the risk of becoming the target of a hostile takeover.[129] In stakeholders systems, the concentration of ownership and less developed financial markets leads to internal control by insiders or stakeholders with a privileged position and superior information.[130]

Finally, globalisation, the reduction of barriers to trade and investment, as well as progress in technology influenced national CG systems and led to the coming out of various codes, standards and frameworks (Chart V).[131] Usually, compliance with these CG related standards is not mandated by law, even though few codes linked to stock exchange listing requirements may have an obligatory effect (SOX, NASDAQ).[132] The reason for its fractural implementation seems to be the above-mentioned voluntary and varying character (Chart VI).[133]

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[122]Boersch, 2007, p. 16; Macey/O'Hara, 2003, p. 95.

[123] "Free riding," see below; Boersch, 2007, p. 14; Berglöf/Claessens, 2006, p. 128.

[124] Shareholder systems are normally market-based, whereas stakeholder regimes are bank-based financial systems. Anglo-American/shareholder and German/Japan/Stakeholder – Demirguc-Kunt/Levine, WB, 1999, p. 2; Boersch, 2007, p. 16; Biswas, 2008, p. 16.

[125] Anglo-American/shareholder and German/Japan/Stakeholder – Demirguc-Kunt/Levine, WB, 1999, p. 2.

[126] Denis/McConnell, 2005, p. 252; similar Goergen/Manjon/Renneboog, 2005, p. 285.

[127] Furceri/Mourougane, ECO, 2009, pp.1 ff.; Denis/McConnell, 2005, p. 252.

[128] This issue is beyond the scope of this paper. Denis/McConnell, 2005, p. 252.

[129] Boersch, 2007, p. 16.

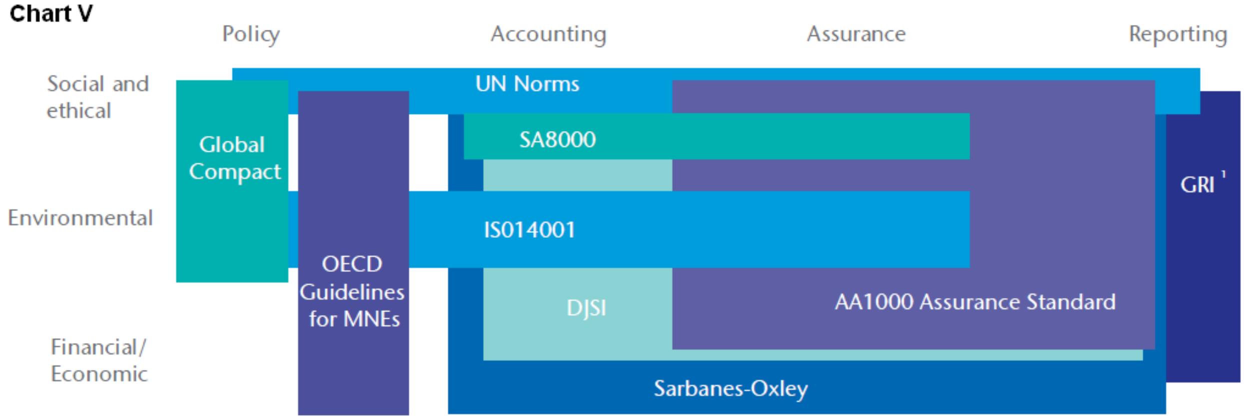
[130] Ibid, Macey/O'Hara, 2003, p. 95.

[131] Farrar, 2008, pp. 532 and 537; Khanna/Kogan/Palepu, RES, 2006, p. 90; Vitols, SSRCB, 2004, p. 1; Odenius, IMF, 2008, p. 13.

[132] NASDAQ Rules on CG 2004, SOX 2002, section 100 ff.

[133] WBCSD, 2005, p. 6.

Chart V



1 – The GRI Guidelines also refer to the accounting phase of activity since a company can only report on things that it measures.

Chart VI

CODE	GOVERNANCE			LEGAL STATUS			GUIDANCE			PERFORMANCE		
	Business-led	Public-policy led	Multi-stakeholder led	Voluntary	Mandatory	Legal linkages	Broad policy	Formal guidelines	Technical spec.	Non-financial only	Links to financial	Forward-looking
UNGC			✓	✓			✓			✓		
AA1000			✓	✓				✓	✓		✓	✓
ISO	✓			✓				✓	✓	✓		
GRI			✓	✓				✓			✓	✓
OECD		✓		✓ [1]		✓		✓				
SA8000			✓	✓ [2]				✓	✓	✓		
Sarbanes-Oxley					✓	✓					✓	✓
DJSI	✓			✓					✓		✓	✓
UN Norms		✓			✓ [3]	✓	✓					

1 – Mandatory for 38 adhering governments but voluntary for companies.
2 – Compliance with local and national law is required for companies.
3 – A restatement of existing international law which is binding, but itself is not a Treaty but rather a UN document that makes recommendations on obligations for companies.

Made by WBCSD Accountability and Reporting Working Group (2005)

4. Costs and Benefits of CG

As mentioned above, CG refers to the structures and processes of the direction and control of corporations, while it has a number of additional tasks inside and outside the company itself.[134] This is associated with economic benefits but also costs.

i.) The implementation of CG involves the costs based on the lack of information about the agent's activities (principal-agent problem), and as a result the expenses of monitoring and analyzing the

[134] See above B. I. 1.

management's performance (solution).[135] Whereas a recent study by Rashid (2008) found that the benefits outweigh the costs, "agency costs are higher in developing market compared to a developed market."[136] Those include expenses in audit, remuneration and nomination committees, hiring of a board of directors and costs in determining and enforcing policy rules.[137] The substantial collection of information and implementation of monitoring systems is particularly difficult for dispersed investors in a shareholder system, as the costs of monitoring are too high for a single investor[138].

ii.) As for the benefits, it is widely believed that good CG contributes to stability and growth of companies, markets and economies.[139] If implemented properly, CG improves access to capital, attracts first-class evaluations and financing on improved terms.[140]. Furthermore, it enhances firm performance by creating greater leadership, oversight and strategic direction, improved information channels, work processes, and better compliance and liability.[141] Another important element of CG is its ability to foster competitive markets.[142] Given the central problem of the current GFC, namely the loss of confidence among banks, Ioana and Rodica (2004) found recent studies to have demonstrated that CG is a central issue to restore confidence in capital markets and for long-term economic growth.[143] As regards this issue, Wymeersch (2008) stated that CG is the most important factor in fostering companies and markets stability, which in turn is an essential element of financial stability and a crucial factor in solving the present GFC.[144]

5. Summing up:

A clear shape of CG is hard to define, since it differs between individual firms, countries and systems. In addition to it, various codes, standards and frameworks exist but are mostly voluntary.

Despite its costs, CG is a significant factor in providing firm and market stability. Sound CG also benefits companies' growth and performance. Particularly, the capability of CG in restoring market confidence is most important, as far as the ongoing credit freeze in interbank markets is concerned. Finally, the subprime mortgage collapse is partly rooted in principal-agent problems; the challenge is

[135] Biswas, 2008, p. 6.
[136] Rashid, VU, 2008, p. 5.
[137] Abor/Adjasi, UGBS, 2007, p. 115.
[138] The solution to this problem is the 'efficient market hypothesis' (EMH asserts that financial markets are efficient), which suggests that the small shareholder will free ride on the judgements of larger professional investors. Reyes, UCA, 2007, p. 32; Macey/O'Hara, 2003, p. 97; Abor/Adjasi, UGBS, 2007, p. 115.
[139] Karasneh, IMF, 2006, p. 5; Gugler, 2001, p. 21.
[140] "The CG rating of the individual company remains the most important criterion for institutional investors […]" Ioana/Rodica, 2004, p. 206; Karasneh, IMF, 2006, p. 5.
[141] Fatheldin/Karasneh, 2005, pp.391 ff.
[142] Monopolistic companies raises excessive profits, circumvent transparency and accountability, oppose policy reforms. Ioana/Rodica, 2004, p. 206; Karasneh, IMF, 2006, p. 5; Karasneh, IMF, 2006, p. 21.
[143] Ioana/Rodica, 2004, p. 206; similar Erbiste, AMRO, 2005, pp. 1 ff.
[144] Wymeersch, FLI 2008, p. 13.

to create monitoring mechanisms that ensure that the manager acts in a long-term profit maximizing manner. In this regard, the board of directors is the primary CG mechanism.

II. Failure of Internal Control: Board of Directors and Enterprise Risk Management

The board of directors (board) as a mechanism of internal control is established in most corporations in the world and in all CG systems.[145] Whilst the board's responsibilities are to hire, fire, monitor, and compensate management, its primary function is risk oversight and therefore should not be involved in day-to-day Enterprise Risk Management (ERM).[146] The board must ensure that the ERM processes designed and implemented by executives and risk managers are adapted to the directors' corporate strategy and are working as arranged.[147] Besides, the board is responsible for promoting a culture of risk-adjusted decision-making throughout the company.[148] Directors should generally act with an eye towards maximizing shareholder value, while they owe them fiduciary duties.[149]

In the context of the present GFC and the declining global economy, the risk oversight function of the board has been most important and challenging.[150] This responsibility is inherent in the role that the boards perform in determining a business strategy that generates long-term shareholder value and is of particular importance to financial institutions.[151] Due to the fact that large integrated financial institutions by definition take risk,[152] the goal of ERM is not to eliminate that risk. Rather, the aim is to manage it efficiently, so as to provide stakeholders of the company with long-term returns commensurate with the risk. ERM must be deeply rooted in sound CG, which in turn relies on its central internal mechanism, namely the board of directors[153].

1. Failures

Against the background of the GFC, it was shown that companies were facing risks from the financial markets such as SIVs, CDOs, derivated and leveraged products, which are "more complex, interrelated and potentially disastrous than ever before."[154] Consequently, the financial turmoil has revealed severe shortcomings in practice, regarding both internal management and the role of the board in overseeing ERM systems at a number of financial institutions:[155]

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145 Denis/McConnell, 2005, p. 252; PWC/CBM 2008, p. 2.
146 Tonello, TCB, 2008, p. 1; Kirkpatrick, OECD, 2009, p. 5; Denis/McConnell, 2005, p. 252; Naclerio/Garcia-Linares, CB, 2009, parag.6. "An effective ERM process identifies short and long term risks faced by the company that could harm its value or threaten its existence." See Bermuda Report, 2009, parag. 12.
147 Wachtel/lLipton/Rosen/Katz, LLP, 2008, p. 1 ff.
148 Ibid.
149 Tonello, TCB, 2008, p. 1; Kirkpatrick, OECD, 2009, p. 5; Denis/McConnell, 2005, p. 252; Naclerio/Garcia-Linares, CB, 2009, parag. 6.
150 Wachtel/lLipton/Rosen/Katz, LLP, 2008, p. 1.
151 Tonello, TCB, 2008, p. 1.
152 CRMPG, 2008, pp.71–72.
153 Ibid.
154 Wachtel/lLipton/Rosen/Katz, LLP, 2008, p. 1.
155 Stulz, CRFE, 2008, pp. 10, 17, 22; Kirkpatrick, OECD, 2009, p. 7.

a.) The OECD Steering Group on CG (2009) examined that companies made strategic decisions to keep tranches of CDOs that lie far above the companies' understanding of the risk inherent in such instruments.[156] They also failed to take appropriate steps to control or mitigate those risks. In some cases, "boards were not aware of such strategic decisions and had not established control mechanisms to oversee their risk appetite."[157] In other cases, boards have in fact contributed the wrong decisions.[158] For example, a SEC report 2008 noted that "Bear Stearns' focus on MBSs was increasing for several years and was already beyond its internal limits, thus, representing a significant concentration of mortgage risk."[159]

b.) Furthermore, managers and directors were short of understanding and control over their balance sheet growth and liquidity needs.[160] For instance, they failed to properly assess the exposures to off-balance sheet vehicles, such as SIVs, SPEs, etc.[161] With regard to liquidity risks, the warnings were often uttered before the financial downturn in 2008. Directors of Northern Rock acknowledged that they had read the FSA Report, which drew explicit attention to liquidity risk.[162] Again, boards had missed to mitigate the risks and had not put in place mechanisms to monitor the implementation of strategic decisions, such as balance sheet growth.[163]

c.) Stress testing[164] as an effective risk management tool has been insufficiently consistent and was not an central part of the management culture of financial institutions.[165]

d.) Even if ERM systems were functioning in a technical sense, the transmission of information through effective channels often failed.[166] A recent study by KPMG in 2008 noted that out of 1000 audit committee members only 46% were very satisfied with the process of identifying critical business risks.[167] Only 36% were very satisfied with the risk report they obtained from the management.[168] Another case in point is that the UBS risk committee was alerted to substantial subprime losses in the first Quarter of 2007, whereas the senior bank management only appreciated the

[156] Kirkpatrick, OECD, 2009, p. 8.
[157] Ibid.
[158] Ibid, p. 8.
[159] SEC, Report, 2008, p. ix.
[160] Kirkpatrick, OECD, 2009, p. 8.
[161] Ibid, p. 8; see above A. I. 3.
[162] FSA, Report, 2008b.
[163] Kirkpatrick, OECD, 2009, p. 8.
[164] *Stress testing* is a form of testing that is used to determine the stability of a given system or entity. BIS, 2005, p. 3. This issue will be discussed below at B. II. 3. d. iii.
[165] BIS, 2005, p. 1; Kirkpatrick, OECD, 2009, p. 10.
[166] Kirkpatrick, OECD, 2009, p. 8.
[167] KPMG, 2008, parag.1–8.
[168] Ibid.

severity of the problem in late July 2007.[169]. Hence, the scale of the debacle did not become evident to the board until August. The transmission of information is clearly a CG issue.

e.) A significant problem at several banks was the lower prestige and status of risk managers compared to people from a sales background. The above-mentioned SEC Report 2008 also noted a "closeness of risk managers to traders suggesting a lack of independence."[170]

f.) Last but not least, the board sets the compensation of senior executive officers.[171] Remuneration and incentive systems encouraged managers to take excessive risks and led them to focus primarily on short-term management[172].

Failures of CG mechanisms led in large parts to incredible monetary losses for all participants in the current financial downturn and are raising, inter alia, questions about a director's liability.[173] After that, this paper examines issues around board composition and executive compensation in order to address the above-mentioned failures.

2. Directors' Duties

a. Fiduciary Duties

In the early 2000s, the enormous bankruptcies and criminal malfeasance of Enron and WorldCom, as well as smaller corporate scandals, such as Adelphia Communications, AOL, Arthur Andersen, Global Crossing and Tyco, have already served as catalyst for legislative and regulatory changes. The Sarbanes-Oxley Act 2002 (SOX) is exemplary, which attempted to restore credibility to the US CG system by drafting stricter rules on performance and the independence of the external auditor, assigning higher levels of fiduciary responsibilities to the board and also by proposing new rules aimed at enhancing the quality of financial disclosures by companies.[174]

At present, recent lawsuits have been challenging the proper exercise of directors' fiduciary duties in connection with large investments, transactions and complex financial instruments.[175] For instance, claimants in the Ambac Financial Group litigation filed in New York Federal Court accused the board of failing to exercise reasonable and careful supervision over management practices and the control of firm financial operations, and to keep themselves informed on how the firm was conducting business.[176] Claimants particularly faulted that directors broke their fiduciary duties by insufficiently

[169] Kirkpatrick, OECD, 2009, p. 11.
[170] SEC Report 2008; Credit Suisse in FSA, Report, 2008a.
[171] Tonello, TCB, 2008, pp.3 ff.
[172] Kirkpatrick, OECD, 2009, p. 12. Compare principal-agent-problem above at B. I. 2.
[173] Naclerio/Garcia-Linares, CB, 2009, parag. 2.
[174] Dionne, CR, 2005, p. 1.
[175] Naclerio/Garcia-Linares, CB, 2009, parag. 2.
[176] Ambac Financial Group, Inc. Securities Litigation; Naclerio/Garcia-Linares, CB, 2009, parag. 4.

showing in its public statements to what extent the company was at risk to the subprime mortgage crisis.[177]

Despite the fact that CG rules are not embraced in a global mandatory framework and directors' duties are mainly regulated by individual nations, most jurisdictions impose fiduciary duties, essentially the duty of care and duty of loyalty.[178]

Duty of loyalty requires that a director must be independent and demonstrate absolute loyalty to the company's shareholders.[179] One way "to comply with this duty is to disengage from transactions that involve a conflict of interest", or so called 'self-dealing' transactions.[180] The notion is that directors are dealing with 'themselves' or in their own interests, and could therefore not reach an agreement that was in the best interest of the firm. Since a prohibition on self-dealing can be impractical, especially for smaller firms, most jurisdictions permit self-dealing transactions approved by a non-interested decision maker (non-interested directors, shareholders).[181]

Duty of care means that a director must exercise due diligence in the decision making process.[182] He must ascertain as much information as possible on the issue and be able to prove that he has considered all reasonable alternatives.[183]

Despite these fiduciary duties, business decisions might be protected from claims of breaching fiduciary duties by the business judgment rule.[184] When directors can demonstrate that they have acted in good faith,[185] with all due loyalty and possible care, the courts will not second guess their decisions.[186] Additionally, state corporate statutes in general, corporate certificates and bylaws allow firms to indemnify directors for various mistakes.[187]

b. Directors' Duties and the GFC

While liability protection is partly guaranteed, the "protection has never been without limits for the reckless."[188] Following the initial question about how these duties and rules apply to participation in the derivative market and related complex financial instruments, a clear answer is hard to find. Judges,

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177 Naclerio/Garcia-Linares, CB, 2009, parag. 4.
178 Monk/Minow, 2008, p. 233; Dionne, CR, 2005, p. 1.
179 For further information, see Monk/Minow, 2008, p. 233.
180 Black, OECD, 2001, pp.2–3.
181 Ibid.
182 Monk/Minow, 2008, p. 233.
183 Ibid.
184 Melbinger LLP, 2006, p. 13. ; Hansell, 2003, p. 127; Monk/Minow, 2008, p. 233.
185 "The duty of good faith has also long existed implicitly in the case law – for example, in the formulation of the business judgment rule and in fiduciary obligations that can only be explained by that duty, such as the duty not to knowingly cause the corporation to violate the law." Eisenberg, DJCL, 2005, p. 1 (abstract).
186 Monk/Minow, 2008, p.233; Melbinger LLP, 2006, p. 13.
187 See Naclerio/Garcia-Linares, CB, 2009, parag. 29.
188 Naclerio/Garcia-Linares, CB, 2009, parag. 30.

jurors, claimants and directors may consider a number of criteria. The following list is not intended to be exhaustive.

First, if companies decide to buy a small amount of MBS or similar products, the degree of exposure would be very small, and the board would probably not even have been informed.[189] Directors cannot be severely criticized for failing to raise questions prior to problems occurring or before they were informed. However, the opposite may be true, when CDOs became central elements of profit and a core aspect of business.[190] Second, in cases where the director has missed to attend meetings about crucial financial issues, or has not participated through telephone or other means, or has not studied materials submitted before meetings, such a board member may have breached the duties of care and loyalty. Third, individual skills and education of board members might be taken into consideration.[191] A leadership position and associated responsibilities for a single board member may occur due to extraordinary expertise, for example in financial aspects.[192] The development of new financial tools during the last ten years obliged all participants and monitors to improve their knowledge in those areas. Fourth, the use of leverage and associated debt as part of a company's capital structure was to be monitored by the board in order to carry out their duties.[193] Finally, even if board members honestly believed that financial activities carried out were in the best interests of the firm, courts and jurors could still be convinced that something more was required on behalf of stakeholders.[194] Since involved jurors were possibly exposed to those business decisions themselves, they may feel less sympathetic to decision makers and their monitors.

These challenges on directors' duties notwithstanding, the business judgment rule is still on hand, and most companies have adopted measures to protect their directors.[195] The primary judicial reaction to lawsuits against directors will continue to be the shareholders' permission to exercise their self-help remedy of a vote to replace the board[196].

Whilst courts are giving considerable deference to boards in financially stressful situations, such concerns are not without limit.[197] Three recent cases during the credit crunch involved acquisitions of (former) venerable financial institutions, thereby questioned the board's duties. Acquisitions of Bear Stearns by JPMorgan, Merill Lynch by Bank of America, and Wachovia by Wells Fargo were

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189 Ibid, parag. 34.

190 See for managers duties: Phillips, BU, 2008, p. 328: "The decision to continue underwriting subprime mortgage-backed securities even as the risks of a mortgage meltdown appeared clearer over time suggests that some investment bank managers may have breached their fiduciary duties." Naclerio/Garcia-Linares, CB, 2009, parag. 34.

191 Ibid: Monk/Minow, 2008, p. 233.

192 Ibid, parag. 34.

193 Melbinger LLP, 2006, p. 13. ; Hansell, 2003, p. 127.

194 Naclerio/Garcia-Linares, CB, 2009, parag. 34.

195 Ibid; Bergen, TCB, 2009, p. 1.

196 Naclerio/Garcia-Linares, CB, 2009, parag. 34.

197 WillkieFarr&Gallagher, 2009, p. 5.

challenged on the grounds that directors breached their fiduciary duties of care by hastily agreeing to the transaction and entering into burdensome deal protection provisions.[198] Despite the fact that Delaware court decisions made early in 2008 were rejecting stockholder challenges due to marketplace disruptions,[199] the three decisions in Merrill Lynch, Bear Stearns, and Wachovia confirm, however, that courts will nevertheless actively investigate rash decisions before giving directors the benefit of the business judgment rule.[200]

According to that, the board has a clear role of "reviewing and guiding corporate strategy and risk policy", as well as make sure that proper ERM are established.[201] As shown above, the ability of the board to deal with investment banking and complex financial products in order to fulfill their duties is strongly challenged. This raises, inter alia, questions about the board's composition, the director's independent status and competence.

3. Board Composition

In practice, the structure, composition and exact role of boards varies significantly between individual companies and CG systems.[202] In formal terms, boards can have one or two tiers.[203] One-tier boards are typically composed of executive directors, who are the managers, and non-executive directors, who are the monitors. However, this separation is softened, and one-tier boards are often closely connected to the management. A case in point is that it has been quite common that the chairman of the board and the CEO are often the very same person.[204] A two-tier board consists of a management board, which is overseen by a supervisory board. Since supervisory directors are excluded from exercising management functions, the boards are more separated.[205]

However, both types of boards can be more or less 'captured' by management or dominated by blockholders.[206] One important explanation is that CEOs have substantial authority regarding the selection of directors. CEOs also have better information, and directors usually only have small

[198] Ehrenhaus v. Baker, 2008 NCBC 20 (N.C. Super. Ct. Dec. 5, 2008); In re Bear Stearns Litigation, Index No. 600780/08; County of York Employees Retirement Plan v. Merrill Lynch & Co., Inc., *et al.*
C.A. No. 4066-VCN; WillkieFarr&Gallagher, 2009, p. 1.

[199] Especially when only one bidder was at hand. See Wayne County Employees' Retirement System v. Corti, *et al.,* C.A. No.3524 (Del. Ch. Ct. July 1, 2008) (Chandler c.); In re BEA Sys. Inc. Shareholder Litig., C.A. No.3298 (Del. Ch. Ct. March 26, 2008) (Lamb, V.C.).

[200] Ehrenhaus v. Baker, 2008 NCBC 20 (N.C. Super. Ct. Dec. 5, 2008); In re Bear Stearns Litigation, Index No. 600780/08; County of York Employees Retirement Plan v. Merrill Lynch & Co., Inc., *et al.*
C.A. No. 4066-VCN.

[201] Kirkpatrick, OECD, 2009, p. 10.

[202] Becht/Bolton/Röell, ECGI, 2005, pp.23 and 56.

[203] Ibid.

[204] This issue will be discussed below at B. II. 3. e.

[205] Most countries have either one or the other system, but in France companies can choose.

[206] Becht/Bolton/Röell, ECGI, 2005, p. 56: "For example, it is common that the supervisory board is staffed with former members of the executive board, friends of the CEO or the blockholder."

financial stakes in the company.[207] In order to avoid the "problem of capture," traditional CG recommendations emphasize the role of "independent directors." In general, those are non-executive or supervisory directors who have no relation to the company other than their directorship, and no relation to the management or blockholders.[208]

a. Independent Directors

i.) Indeed, outside or independent directors[209] are seen as superior monitors because their careers are not entirely bound by the company's CEO, and as a result they are capable of taking decisions opposing the management without being afraid of losing their positions or future compensations (monitoring effect theory).[210] Whilst the underlying rationale of boardroom independence is easy to comprehend, it is not difficult to find inconsistencies in this logic.[211] On the one hand, directors who have no relations to a firm may lack the knowledge or information to be effective monitors.[212] This was bitterly proven by the present GFC. On the other hand, directors might be independent by definition, but they still rely on the CEO[213]. Due to the nature of the selection process for board members, the management often has a strong informal influence on the appointment of the members of the board.[214] Finally, the monitoring effect theory does not apply well to concentrated ownership structures:[215] A large controlling shareholder in place requires not only the board's independence of the CEO, but also independence of the controlling shareholder.[216] In companies with concentrated ownership, independent directors must defend the interests of minority shareholders against both CEO and blockholders[217].

ii.) Major research on boards is empirical, and the results regarding the effects of independent directors on firm performance and risk management are diverse and sometimes contradictory.[218]

Rosenstein and Wyatt (1990) supported the monitoring effect theory by stating that the announcement of independent board appointments in the Wall Street Journal was typically followed by a positive

[207] Becht/Bolton/Röell, ECGI, 2005, p. 23.

[208] The different defintions of "independent" varies strongly: Exemplary are Rule 4200 of The NASDAQ Stock Market, available at:<http://www.nasdaq.com/about/CorporateGovernance.pdf>. "*Independent director* means a person other than an executive officer or employee of the company or any other individual having a relationship which, in the opinion of the issuer's board of directors, would interfere with the exercise of independent judgement in carrying out the responsibilities of a director […]"

[209] "Traditional classification in insider/independent directors." Markarian/Parbonetti, CGIR, 2007, p. 1224.

[210] Dionne, CR, 2005, p. 5.

[211] Barker, IOD, 2009, p. 1.

[212] Ibid, p. 2; Becht/Bolton/Röell, ECGI, 2005, p. 23.

[213] Ibid.

[214] Denis/McConnell, 2005, p. 252.

[215] Becht/Bolton/Röell, ECGI, 2005, p. 23; Wymeersch, FLI 2008, p. 10.

[216] Wymeersch, FLI 2008, p. 10; Becht/Bolton/Röell, ECGI, 2005, p. 23, 42.

[217] Becht/Bolton/Röell, ECGI, 2005, p. 23, 42; Dionne, CR, 2005, p. 5.

[218] Markarian/Parbonetti, CGIR, 2007, p. 1224.

market reaction.[219] Similarly, MacAvoy and Millstein (1999) discovered that board independence is positively linked to accounting-based measures of company performance,[220] while Cotter et al. (1997) pointed out that firms with a majority of independent directors achieve higher returns.[221] Beasley (1996) and Dechow and Sloan (1996) proved that a higher level of independent directors on the board reduces the probability of fraudulent information in the company's financial statements.[222] Finally, Klein (2002) and, similarly, Fields and Keys (2003) stated that there is great support for independent directors providing better-quality monitoring and advisory functions to the company.[223]

Empirical findings on board independence are diverse, and a significant part has concluded evidence against the monitoring effect theory. For instance, Bhagat and Black (2002) and, more recently, Hayes, Mehran and Scott (2004) found no connection between a company's performance and the independence of its board members.[224] In fact, Kim et al. (2006) found that more insiders and dependent directors on the board might contribute to better performance, as was illustrated by empirical evidence related to private equity.[225] Similarly, Mak and Roush (2000) examined boards of IPOs in New Zealand, and showed that firms with more severe agency conflicts tend to have a greater proportion of independent directors.[226]

Other papers investigate the ambitious linkage between board composition and the company's risk management activity.[227] While Borokhovich et al. (2004) found that interest rate derivatives usage increases with the average of outside directors on the board,[228] Mardsen and Prevost (2005) analysed listed New Zealand companies and stated that the existence of such directors had no effect on the company's risk management policy.[229]

iii.) In sum, the findings on board independence are not consistent, and the relationship between board composition and firm performance is far from being clear. Analysis of board roles and composition may need to go, therefore, beyond the traditional distinction of independent as opposed to non-independent.

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[219] Dionne, CR, 2005, p. 5.; Rosenstein/Stuart, JFE, 1990, pp. 190–191.
[220] MacAvoy/Millstein, JACF, 1999, pp. 8 and 20.
[221] Cotter/Shivdasani/Zenner, JFE, 1999, pp. 217–218.
[222] Beasley, TAR, 1996, pp. 465 ff.; Dechow/Sloan/Sweeny, CAR, 1996, pp. 35–36.
[223] Klein, JAE, 2002, pp. 375 ff., found that firms with independent boards are less expected to manage their earnings by reporting irregular accruals. Field/Keys, TFR, 2003, pp. 1 ff.
[224] Bhagat/Black JCL 2002, p. 231 ff.; Hayes/Mehran/Schaefer, WP, 2004, p. 2 ff.
[225] Kim/Black/Jang, JLEO, 2006, pp. 366 ff.
[226] Mak/Roush, JBR, 2000, p. 147 ff.
[227] Dionne, CR, 2005, p. 5.
[228] Borokhovich *et al.,* JFR, 2004, pp. 199 ff.; Grantley/Tower/Van Der Zahn/Neilson, AROA, 2008, pp. 56 ff.
[229] Mardsen/Prevost, JBFA, 2005, p. 255 ff.

b. Firm Complexity

A recent paper by Markarian and Parbonetti (2007) examines how firm complexity does influence board composition.[230] According to it, "the type and level of firm complexity affects the skills and knowledge needed by corporate boards, which in turn is affecting the composition of such boards in search of an optimal CG system." As in other comparable studies investigating differences in board composition, a "one size fits all" approach for board structure is also viewed as suboptimal by Buchholtz et al (2005).[231]

Accordingly, Markarian and Parbonetti distinguish between internal and external firm complexity: (i) Internal complexity refers to sophisticated technology or processes that are difficult for the non-expert to understand.[232] Investment banking culture and complex financial products, such as CDO-squares or the OTD Model, are cases in point for an internal complex business. Such firms demand much more from directors than simple independence. Proper internal control and ERM oversight by the board must be associated with specific business knowledge by insiders, business experts or support specialists.[233] Externally complex firms (ii), on the other hand, have relatively straightforward internal business models on the basis of largely understood technology and organisational processes.[234] In particular, community influentials may be helpful in a tricky external environment, e.g. owing to regulation or a high media profile.[235] According to that, a greater accent on independent non-executives on the board is desirable.

However, it is evident that an emphasis on independence is not appropriate in every situation. The insufficiency of independence per se as the overall criterion for the best board composition has long been understood by smaller firms, which seldom choose a non-executive director on the grounds of independence alone.[236] Taking into account the fundamental weakness of CG leading to the GFC, namely a deficient understanding of (internally) complex businesses by managers and directors, boardroom composition should not only rely on independence but also competence and professionalism.[237]

[230] Markarian/Parbonetti, CGIR, 2007, pp. 1224 ff.
[231] Inter alia, Buchholtz *et al.,* JoM, 2005, pp. 405 ff.; Markarian/Parbonetti, CGIR, 2007, p. 1227.
[232] Markarian/Parbonetti, CGIR, 2007, p. 1224.
[233] Barker, IOD, 2009a, p. 2.
[234] Ibid, p. 1; Markarian/Parbonetti, CGIR, 2007, p. 1227.
[235] Markarian/Parbonetti, CGIR, 2007, p. 1227; Barker, IOD, 2009a, p. 1.
[236] Barker, IOD, 2009a, p. 1.
[237] Ibid.

c. Board Competence and Financial Knowledge

The debate on the topic of board competence started with two official CG reports (1997/1998),[238] both documenting the importance of the board's independence and also recommending financial expertise for board members considering their central function in monitoring the company's performance.[239] A recent set of laws, like the SOX and the NYSE, do not require the board as a whole to have financial knowledge but its directors sitting on the audit committee, e.g. SOX section 103.

Whilst a large number of papers studied the effect of the director's independence, less research exists on the value of the board's competence and professionalism.[240] However, it was often asserted that bank boards lack banking and sector-specific experience.[241] Research by Guerra and Thal-Larsen (2008) assumed that at eight major US financial institutions two thirds of the board had no banking background.[242] To make matters worse, several directors without any financial knowledge used to sit on highly technical board committees, such as audit and risk.[243] Further papers investigated the 'financial knowledge characteristic' of directors and supported the proposition that financial board members added value to the company. Guner et al. (2004) discovered a positive linkage between the existence of a commercial banker in the board and the company's debt level.[244] They propose that commercial bankers offer the financial knowledge required to allow the company to contract more debt. Lee, Rosenstein and Wyatt (1999) found that positive abnormal returns related to the addition of outside director are higher when the latter has a financial background.[245] Agrawal and Chadha (2005) confirmed the benefit of having outside financial directors on the board.[246] They found that the likelihood of earnings restatement is lower in companies having independent board members with accounting or finance experience. While the mentioned literature on the board's financial knowledge has focused largely on the earnings management problem[247], a recent study by Dionne (2005) investigated the effect of the board's financial knowledge regarding risk management policy.[248] Financially educated and experienced directors have a superior understanding of the complex financial tools used in risk management transactions.[249]

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238 California Public Employees' Retirement System Corporate Governance Market Principles (CalPERS) 1997; National Association of Corporate Directors (NACD) Blue Ribbon Commission Report 1998; Dionne, CR, 2005, p. 7.
239 Dionne, CR 2005, p. 7.
240 Kirkpatrick, OECD, 2009, p. 22.
241 Ibid.
242 Guerra/Thal-Larsen, 2008.
243 Kirkpatrick, OECD, 2009, p. 22.
244 Burak/Malmendier/Tate, NBER, 2004, pp. 1 ff.
245 Lee/Rosenstein/Wyatt, IREF, 1999, pp. 421 ff.
246 Agrawal/Chadha, JLE, 2005, pp. 371 ff.
247 Is a strategy "used by the management of a company to deliberately manipulate the company's earnings so that the figures meet a pre-determined target", see <http://www.oppapers.com/essays/Earnings-Management/120504>.
248 Dionne, CR, 2005, p. 8.
249 Ibid, pp. 7 and 29.

Even though not a 'cure-all solution', sector-specific competence and financial knowledge is believed to be the boardroom characteristic that will be most functional in navigating companies towards sustainable value creation and avoiding overlarge risks.[250] Other board characteristics shaping board composition include CEO-Chairman duality and the size of the board. In addition to that, the transmission of information and the use of tools, like stress testing, are practical matters in ERM.

d. CEO-Chairman Duality

Many CEOs also hold the position of Chairman of the Board (COB). This was the case in almost 80% of large US companies in the 90s.[251] The personal union of CEO and COB is viewed by many as giving CEOs superior control at the cost of other parties, including directors.[252] In order to mitigate the resulting problems, many observers of CG have called for a prohibition on the CEO serving as COB [253]. However, empirical research results in this area are mixed.

On the one hand, Yermack (1996) applied a sample of 452 companies listed in the annual Forbes magazine rankings of the 500 major U.S. public companies between 1984 and 1991, concluding that companies are more valuable when the CEO and board chair positions are separate.[254] Brown and Caylor (2004) created a 'Gov-Score', which is a combined measure of fifty-one factors encompassing eight CG categories.[255] By linking the Gov-Score to operating performance, valuation, and shareholder payout for 2,327 companies, they stated that the separation of CEO and CBO has a positive effect on firm performance. On the other hand, Brickley et al. (1997) found little evidence that combining or separating positions affects corporate performance.[256] In contrast to the previous mentioned empirical work, their evidence suggests that the costs of separation are for most large firms larger than the benefits.[257] Adams et al. (2009) concluded that the separation and combination of positions is part of a 'natural succession process.'[258] Thus, a CEO who performs well is rewarded with more influence within the organisation, e.g. by giving him the chairman position as well.[259] In fact, Adams et al. (2005) and Brickley found that measures of CEO influence are not systematically related to firm performance.[260]

[250] Barker, IOD, 2009a, p. 2.
[251] Adams/Hermalin/Weisbach, ECGI, 2009, p. 25.
[252] Ibid. Beside the proportion of independent directors on a board, this duality was also seen as a component that characterizes board independence in general.
[253] Biswas, 2008, p. 9; Yermack, JFE, 1996, pp. 185 ff.; Brown/Caylor, ISS, 2004, p. 1.
[254] Yermack, JFE, 1996, pp. 185 ff.
[255] Brown/Caylor, ISS, 2004, p. 1.
[256] Brickley *et al.,* JCF, 1997, pp. 189 ff.
[257] Ibid, pp. 189.
[258] Adams/Hermalin/Weisbach, ECGI, 2009, p. 25.
[259] Ibid.
[260] Adams, RFS, 2005, pp. 1403 ff.; *Brickley et al.;* JCF, 1997, pp. 189 ff.

While the research results are miscellaneous, studies are consistent with the view that CEOs holding the COB position appear to have enhanced power over corporate decision-making.[261] Based on above-mentioned considerations, however, this relation is neither necessarily causal nor inexpedient.[262]

e. Size of the Board

Modifying the size of the board involves a trade-off between the information that directors bring to boards versus the coordination costs and free rider problems raised by their additions.[263] According to Biswas (2008), limiting board size is believed to improve company performance because the benefits of larger boards (increased monitoring) are outweighed by the poorer communication and decision making of larger groups.[264] Consistent with this notion, Anderson et al. (2004) demonstrated that the cost of debt is lower for larger boards, presumably because creditors consider these companies as having more effective monitors on their financial accounting and business processes.[265] Brown and Caylor (2004) showed that companies with board sizes of between six and fifteen have higher returns on equity and higher net profit margins than companies with other board sizes.[266] However, a general answer is not applicable as board size largely depends on company size, function and characteristic.[267]

f. Transmission of Information

The transmission of information is a clear CG issue, as already mentioned above. This and the need for independent and effective ERM can be promoted by having a position, such as Chief Risk Officer (CRO), with a "strong reporting relationship"[268] that emphasizes the importance of the function. Nevertheless, the reporting relationship is not sufficient by itself. Moreover, companies should establish an ERM committee led by the CRO**,** whose meetings are frequently attended by at least one board member with distinctive risk oversight competence.[269] This ERM committee has the advantage of operating with managers involved in day-to-day business, while any risk related issues and concerns can be discussed at the executive, board and lower organizational levels.[270] At the same time, this committee may evaluate the functioning and implementation of corporate compliance measures, such

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[261] Goyal/Park, JCF, 2002, pp. 49 ff.; Adams, RFS, 2005, pp. 1403 ff.; Boone, AFA, 2006, p. 1.
[262] Adams/Hermalin/Weisbach, ECGI, 2009, p. 25; Brickley *et al.;* JCF, 1997, pp. 189 ff.
[263] Patro/Lehn/Zhao, UOP, 2003, p. 1.
[264] Biswas, 2008, p. 9.
[265] Anderson/Mansi/Reeb, JAE, 2004, pp. 340–341.
[266] Brown/Caylor, ISS, 2004, pp. 6–7.
[267] Raheja, JFQA, 2005, p. 1.
[268] CRMPG, 2008, pp. 72–73; Brancato/Tonello/Hexter *et al.;* TCB, 2006, p. 6.; Critical Pagach/Warr, NCSU, 2008, pp.1 and 17.
[269] Brancato/Tonello/Hexter *et al.,* TCB, 2006, p. 6.
[270] Ibid.

as the strength of existing codes of conduct and the anonymity of whistleblowing, to encourage constructive criticism and avoid reputation losses.[271]

g. Stress Testing

In the face of the GFC, stress testing has been insufficiently consistent and was not an integral part of the ERM culture at a number of financial institutions.[272] It is an important metric in measuring risk at financial institutions and has central implications for financial markets. The accumulation of information about 'worst case events' should lead to better informed decision-making, while the undesirable consequences of these events may therefore be reduced.[273] In addition, a proper and comprehensive conduct of stress tests including a wide range of possible scenarios is supposed to stabilize both financial institutions and the whole market.

The basic idea is that financial institutions choose one or various 'worst case scenarios' and then evaluate their portfolio against the stresses incorporated in the selected scenario(s). After that, it is possible to draw conclusions based on the resulting loss levels in relation to capital, earnings, or other sources of such losses, as well as the expected returns and similar determinants.[274]

However, this approach is limited as it assumes underlying markets, economic conditions, and other factors. Stress tests have been criticized for being idealistic, too time-consuming, not strenuous enough, or for using unlikely correlations, thereby impairing their reliability.[275]

Therefore, one should consider additional ways of conducting stress tests and gaining relevant information. CRMPG (2008) suggests the use of so called "reverse stress tests":[276] The jumping-off point is the assumption that over a short period of time a bank enters a very large multi-billion dollar loss. The stress test would then work backwards in order to identify how such a deficit could occur. This identification process includes the market and business conditions, parameters and exposures during "stress." If the theoretic loss proved to be significant, it is likely that the traced sequence of events producing such a loss already points to risks inherent in the company. This procedure might help institutions to address risks that are usually not covered by normal stress tests. Different sorts of similar worst case analyses are therefore becoming an integral part of the ERM frameworks of banks and securities companies.[277] In a complex financial environment, where companies are facing new risks and global challenges, stress testing impresses with its "flexibility, comprehensibility and the

[271] Rothschild, SSRN, 2005, p. 1; Tonello, TCB, 2008, p. 4.
[272] BIS, 2005, p. 1; BIS, 2000, pp. 1 ff.
[273] BIS, 2005, p. 15.
[274] CRMPG, 2008, pp. 84–85.
[275] Ibid.
[276] Ibid.
[277] BIS, 2005, p. 2.

responsibility that it presents to the board and the management to discuss the risks that a company is currently facing."[278]

Recent stress tests were conducted by the Fed and other bank supervisors in February of this year and included the simultaneous and comprehensive assessment of the capital held by the 19 biggest US banks.[279] The US government's report states that while ten of them require a combined $74.6 bn in additional capital to withstand a deeper recession. According to Federal Reserve Chairman Ben Bernanke, "the results released today should provide considerable comfort to investors and the public."[280]

h. Summing up

First, the GFC reveals a number of CG failures in internal managements and the part of the board in supervising ERM. As a result, the proper exercise of directors' fiduciary duties is in question. Boards have an important responsibility to oversee and review company's strategy and risk guidelines, as well as to establish proper ERM.[281] While the business judgment rule is still on hand, most companies not only have adopted measures to protect their directors, but courts also give considerable deference to boards in financially stressful situations. However, deference is not without limit, as three recent US cases have shown[282].

Second, the optimal board composition (structure, size, CEO/COB duality, directors' independence and qualification) generally differs significantly from business complexities (internal, external), business size, CG systems and further individual factors of the company and its environment. In addition, the literature provides little common ground between models, research approaches and results. Moreover, the literature largely points out the complexity of the issues.

Third, CEO-COB duality is only advisable on rare occasions. Studies are consistent with the view that CEOs holding the COB position appear to have enhanced power over corporate decision-making. This linkage is neither necessarily causal nor inexpedient as it might be part of the 'natural succession process.'

Fourth, the transmission of information and effective ERM can be promoted by the establishment of an ERM committee and a CRO position with reporting relationship.

Fifth, stress testing is an effective ERM tool that improves decision-making and reduces undesirable consequences of worst case scenarios.

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278 Ibid.

279 Under TARP: <http://www.scribd.com/doc/15065844/US-Banks-Stress-Tests-7-May-2009>.

280 <http://www.federalreserve.gov/newsevents/press/bcreg/bernankescap20090507.htm>.

281 Kirkpatrick, OECD, 2009, p. 10.

282 See above B. II. 2. b.

Sixth, a limited board size is generally preferable. The optimal size of a board, though, is difficult to determine, as it depends on individual firm size, function and characteristics.

Seventh, empirical findings on *board's independence* are mixed, and the relationship between board composition and firm performance is far from being clear. Hence, we took a look beyond the traditional (independent/non-independent) characteristics. Considering the introduced distinction between internal/external firm complexity, along with the above-mentioned deficient understanding of (internally) complex businesses by managers and directors, boardroom composition should not only rely on independence, but rather competence and professionalism.[283]

Finally, boards need to understand a company's business strategy from a forward-looking perspective. Sector-specific competence and financial knowledge is believed to be the boardroom characteristic that will be most functional in navigating companies towards sustainable value creation and avoiding overlarge risks, for instance those leading to the GFC.[284]

4. Executive Compensation

Whilst executive compensation is another core responsibility of the board, improperly designed remuneration programs are widely believed to have encouraged excessive risk-taking by financial firms and companies.[285] Due to the perception that boards are better informed and more capable of determining executives' compensation, i.e. aligning executives' objectives with those of shareholders, this issue was for the most part spared from regulation. Apart from that, it has a long history of being targeted by populist attacks following market declines and scandals.[286] The present financial turmoil has again heated up the emotions surrounding executive remuneration towards its categorization as the "most important CG failure" leading to the GFC.[287]

[283] Barker, IOD, 2009a, p. 1.
[284] Ibid; Taylor, RCCG, 2009, p. 12: "assessing risk was too difficult".
[285] Tonello, TCB, 2008, p. 5.
[286] Bhagat/Romano, YLER, 2009, p. 4; Becht/Bolton/Röell, ECGI, 2005, pp. 24, 58; Denis/McConnell, 2005, p. 252.
[287] Bermuda Report, 2009, parag. 1 and 2.

a. Criticism

Executive compensation has been criticised for encouraging short-term managerial behaviour, excessive risk taking and for not being linked to firm performance.[288] First, executives may be paid little, but the compensation can be structured to allow a superior payoff when periodic profits are high, as opposed to when they are low.[289] Meaning that, the characteristic level of reimbursement during good and bad times might not be very munificently, but its composition would de facto promote short-term oriented and risky activity. Second, a CEO's pay might be extremely high on average, but not significantly higher when the corporation performance well than when it does poorly.[290] Executives would then be overpaid, yet lack the financial incentive to take on many risks. Third, a boiling effect in the debate had that many CEOs of high profile banks and companies, which were at least partly responsible for the financial debacle, were given enormous remuneration just prior and even after their financial distress were announced.[291] This reflects the concern that incentive systems led to unsustainable balance sheet positions and "rewards of failure."[292]

b. Examples

i. Three popular examples of 'pay without and performance' and 'rewards of failure' are Countrywide Financial's Angelo Mozilo, Citigroup's Charles Prince, and Merrill Lynch's Stanley O'Neil.[293] (1) Shortly before Countrywide Financial announced a write-down of earnings by an amount of \$388 m in 2007. Mr Mozilo had already sold \$127 m in stock options.[294] Additionally, the former CEO received \$102 m in compensation plus \$157 m in exercised stock options for 2007, plus \$58 m parting payments and a pension in 2008.

(2) Charles Prince, the former CEO of Citigroup, received \$25.9 m in 2006.[295] Then, in 2007, because of Citigroup's subprime lending, there was a write-down of \$24.1 bn.[296] Shortly after that, in the same year, Prince declared his resignation as CEO of Citigroup.[297] He left with a partition package of \$40 m. By the end of 2007, the market price of the stock of Citigroup had shrunk by 45%.[298]

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[288] According to Lucian Bebechuk, Alan Greenspan, and Jack and Suzy Welch and others, the culprit in the excessive compensation (i.e. pay without performance) are the independent directors of public corporations. See Bicksler, IJDG, 2008, p. 295.

[289] Becker, CM, 2009, parag. 1.

[290] Ibid.

[291] Bermuda, Report, 2009, parag.2.

[292] Kirkpatrick, OECD, 2009, p. 12.

[293] Detailed by Bicksler, IJDG, 2008, p.297; Kirkpatrick, OECD, 2009, p. 14.

[294] New York Times August 2007, available at: <http://www.nytimes.com/2007/08/26/business/yourmoney/26country.html?_r=1&hp=&pagewanted=all>.

[295] Bicksler, IJDG, 2008, p. 297.

[296] Ibid.

[297] Euromoney November 2007, 'Timeline of Charles Prince,' available at:<http://www.euromoney.com>.

[298] Bicksler, IJDG, 2008, p. 297.

(3) Stanley O'Neal was the CEO at Merrill Lynch in 2006 where he obtained payments of $91 m. In 2007, Merrill Lynch, however, had a subprime mortgage write-down of $14.1 bn, and O'Neal retired within days.[299] Upon his parting, he received $160 m in stock and benefits. In 2007, the market price of the stock of Merrill Lynch decreased by 41%. In January 2008, Merrill Lynch unveiled an additional depreciation of $8.4 bn, making up an entire write-down of $22.5 bn regarding the subprime mortgage disaster.[300]

ii. Furthermore, the case of AIG is remarkable in many aspects. First of all, AIG obtained $170 bn in taxpayer bailouts and in the fourth quarter of 2008 posted a loss of $62 bn, the biggest one ever for any company.[301] However, in March 2009, AIG announced that it already paid out total bonuses of up to $450 m for its financial division and bonuses of up to $1.2 bn for the entire company.[302] As a result, an intensive public debate, the so called "populist outrage" began,[303] and was followed by a bill to tax bonuses paid to employees of certain recipients of Troubled Assets Relief Program ("TARP") funds at a 90% tax rate.[304] This unique legislative response by the US House of Representatives is under discussion for its potential "long-term dangers inherent in the Government dictating details of private sector pay practices and retroactively invalidating binding contracts through confiscatory taxing of a targeted group."[305]

iii. In all of the companies and cases cited above, there was apparently a huge disconnection between actual corporate performance and executive payments.[306] Nevertheless, empirical and theoretical research is not comprehensive, and the apparent causality, which is discussed heatedly throughout the public at the moment, is in fact less straightforward.[307]

c. Empirical and Theoretical Research

Studies supporting a defective link between pay and performance illustrate that in the last twenty years executive compensation has grown significantly faster than corporate earnings and, in some cases, has rewarded decisions that turned out to be detrimental to long-term holders.[308]

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[299] MSNBC October 2007, available at:<http://www.msnbc.msn.com/id/21549196>.
[300] Bicksler, IJDG, 2008, p. 297.
[301] Bebchuk, AIG, 2009, parag. 1 ff.
[302] MacDonald, 2009, parag. 23 ff.
[303] For instance, Senator Grassley suggested that "compensation recipients should follow the Japanese example and come before the American people and take that deep bow and say, I'm sorry, and then either do one of two things: resign or go commit suicide." Available at:<http://rawstory.com/news>.
[304] Cleary Gottlieb, HLS 2009, p. 1.
[305] This issue will be discussed in B. II. 4.; Cleary Gottlieb, HLS 2009, p. 1.
[306] "[…] compensation excesses are not limited just to the financial service sector." , see Bermuda Report, 2009, parag. 1.
[307] "[…] and, most, important, , there, is, no, persuasive, evidence, that, the, structure, of, CEO, compensation, played, an important, roll, in, either, the, dot-com, or, housing, bubbles.", Becker, CM, 2009, parag. last.
[308] Tonello, TCB, 2008, p. 5.

i. For example, an analysis published in 2008 by the Wall Street Journal along with ERI Economic Research Institute shows that the median salaries of the top executive of 500 corporations increased by 20.5% from a year earlier compared to a corporate revenue growth of only 2.8%.[309] Furthermore, in 2007, the average value of bonuses coupled with performance fell by 18.6%, whereas overall CEO total pay grew by 1.4% to an average amount of $1.41 m. This occurred as a result of compensation components that did not depend on corporate performance.[310] Other studies regarding European banks indicated that the fixed salary accounted for 24% of CEO remuneration, annual cash bonuses for 36%, and long term incentive awards for 40%.[311] This might still leave significant incentives for short-term managerial behaviour and risk taking.[312]

ii. Against this, a study of a number of US banks revealed that top executive compensation averaged only 4–6% of overall payment with stock-related rewards staying at very high levels.[313] In this context, it is remarkable that UBS, a financial firm with signifying losses, had designed a compensation program according to which long-term incentives accounted for some 70% of CEO payment, and at what the CEO is forced to collect and keep shares worth five times the total of the previous three years' average cash component of entire remuneration.[314] Similarily, Lapido et al. (2008) found that the concrete sum of stock owned by the top executive in a number of European banks was well beyond 100% of the yearly fixed remuneration.[315] Finally, Kirkpatrick (2009) cited a forthcoming paper by Nestor Associates, stating that "collapsed financial institutions had a CEO with high stock holdings so that they should normally have been risk averse, whereas the ones that survived had strong incentives to take risks"[316].

iii. Of course, such data might be ambiguous since what matters for incentives is the exact composition of the remuneration.[317] In addition, further research in CG is required to determine the real situation regarding the GFC and remuneration in major banks and corporations.[318] The different views and findings notwithstanding, regarding the precise extent of compensation failures in the GFC, it is

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[309] ERI, 2008; Tonello, TCB, 2008, p. 5.
[310] Nash, FT, 2008, parag. 2 ff.; Tonello, TCB, 2008, p. 5.
[311] Lapido, 2008, pp.1 ff.; Kirkpatrick, OECD, 2009, p. 14.
[312] Kirkpatrick, OECD, 2009, p. 14.
[313] Ibid.
[314] Ibid, p. 13.
[315] Lapido, 2008, p. 55; Kirkpatrick, OECD, 2009, p. 14.
[316] Kirkpatrick, OECD, 2009, p. 14. However, traditional stock holdings are now criticised for fostering short-term incentives, which is why it is now recommended to rely on restricted stock holdings. This issue will be discussed below at b. II. 5. D. iv
[317] Kirkpatrick, OECD, 2009, p. 14.
[318] Ibid.

consensus that excessive risk-taking by some financial firms was boosted by improperly designed incentive-based compensation and that "rewards of failure" were a widespread practice.[319]

iv. Because of the enormous attention now given to this issue, directors from all industry sectors should also be mindful of their responsibility to create remuneration programs which grant sustainable long-term wealth for all shareholders[320]. According to that, the following section discusses important considerations that have to be taken into account by the board in order to design executive compensation, prevent future failures and encounter the public and political outrage.[321]

d. Response: Directors and Committees

In order to understand how boards carry out their duties, it is important to recognize that most board functions are performed by committees.[322] The delegation of different board functions to diverse committees means a separation of tasks and functions within boards. Insofar, the issue of executive remuneration is generally delivered to the compensation committee. In addition, the audit committee is a key component of the CG structure and becomes aware of the issues. In this regard Kirkpatrick (2009) and the KPMG survey noted that "while oversight of remuneration policies may generally fall within the duty of the compensation committee, audit committees are turning their attention to the risks associated with the company's incentive compensation structure."[323] Laux (2009) even assumes that "the task of setting CEO pay is delegated to a compensation committee, while the oversight task is delegated to an audit committee." [324]

The Governance Center (2008) recommends that compensation-related committees, particularly audit and risk, review their companies' remuneration policy both to strengthen the concept that compensation reflects performance and to introduce forms of accountability for any risk-taking that is unjustified based on the approved long-term business strategy.[325] Apart from that, the board's ultimate responsibility is to balance principles of pay for performance against the need to participate effectively in the market for human capital.[326] "The key is a proper mix of risks and rewards."[327] In particular, directors and committees should consider a number of factors, measures and compensation reforms. The following list is not intended to be exhaustive:

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[319] Tonello, TCB, 2008, p. 5; Bebchuk, PG, 2009, parag. 5.

[320] Bermuda, Report, 2009, parag. 3.

[321] Response of Regulators, see below at D. II. 1.

[322] Laux, SSRN, 2008, p. 3.

[323] KPMG, 2008, parag. 10; Kirkpatrick, OECD, 2009, p. 16.

[324] Laux, SSRN, 2008, p. 5.

[325] Tonello, TCB, 2008, p. 6.

[326] Ibid.

[327] Kay/Puttten, 2007, p. 5.

i. Setting up a connection between the variable components of the remuneration structure and the economic objectives of the company is often complicated.[328] Committee members should be entirely aware of the effects of each single component of the pay package (i.e., base, bonuses, equity-based incentives, benefits and perquisites, deferred compensation, and severance) of the whole compensation structure. In this context, they should also be first convinced that the balance between the base salary and further components is appropriate, before deciding that the proposed effects of the variable components of remuneration cannot be misused by managers to pursue self-seeking behaviours.

ii. Proper measurement of corporate performance is the basis to make sure that it is well rewarded and that assessment periods are long enough to verify whether business decisions were, in fact, successful in creating sustainable shareholder value.[329] Hence, compensation considerations should cover a wide array of financial and non-financial performance metrics and targets. Financial metrics may include operating cash-flow (OCF),[330] cash-flow return on investment (CFROI),[331] and other measures of economic value. Traditional financial metrics, such as return on equity (ROE) and earnings per share (EPS), are often criticized for being vulnerable to effects by revenue and expense recognition or manipulation through stock buybacks at the end of the period.[332] Non-financial or operational metrics include product quality improvements, compliance principles, customer satisfaction data, and other reputation measuring units.[333] The intelligent mix of metrics, measure units and targets of the compensation structure encourages management to safeguard all of the corporation's objectives and business strategies.

iii. Disclosure is an unwelcome topic not only for directors, since it might lead to a potential loss of competitive advantage value.[334] Nevertheless, remuneration-related committees should discuss disclosing performance targets to shareholders, particularly if such targets are required to comprehend the compensation program.[335] Again, the challenge for the board is to find a balance between transparency and strategic needs.

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[328] Ibid, pp.4–5; Tonello, TCB, 2008, p. 6.

[329] Tonello, TCB, 2008, p.6; Kay/Puttten, 2007, p.4, 5.

[330] "Operating cash flow is the cash generated out of the revenues, excluding costs associated with operating expenses." See:<http://www.investopedia.com/terms/o/operatingcashflow.asp>.

[331] "A valuation model that assumes the stock market sets prices based on cash flow, not on corporate performance and earnings." See: <http://www.investopedia.com/terms/c/cfroi.asp>.

[332] "Revenue and expense recognition is the process of identifying and recognizing the sources of revenues or expenses. The criteria involved in these processes include measurability, relevance, and reliability."
See: <http://jobfunctions.bnet.com/abstract.aspx?docid=86574>; Nyiramahoro/Shooshina, GU, 2001, p. 46.

[333] Tonello, TCB, 2008, p. 6.

[334] "Despite the value of secrecy in extending a competitive advantage and protecting intellectual property, some firms actively direct attention toward their capabilities. This may stimulate rivals' efforts to erode the advantage." Coff *et al.,* 2008, p. 2.

[335] "Disclosure as a competitive advantage." See. <http://www.workinfo.com/Free/Downloads/188.htm>.

iv. Compensation in the form of stock and stock options is generally proven to be a highly effective mechanism for aligning manager and shareholder interests.[336] However, recent studies and the present GFC have shown that traditional stock and stock options encourage managers to focus on short-term stock price results, and undermine long term and sustainable business goals.[337] Therefore, compensation plans should consist only of restricted stock and restricted stock options[338]. In particular, compensation programs should include, first, the adoption of stock retention policies combined with the requirement for top executives to hold a significant share of equity after ending their service for the company and until – or even throughout – their retirement.[339] Second, compensation programs should contain stock option plans in which the options vest only upon meeting certain long-term performance goals unconnected to the present stock price.[340] Finally, committees should again consider transparency and disclosure of formal guidelines on incentive-based compensation to shareholders.

v. Furthermore, boards and committees have to take into account the balance between compensation rewards (e.g. housing and relocation allowances, use of corporate jets or limousines, etc.) within the company itself, as well as compared to other corporations. This must be analysed by the committees to ensure overall fairness.[341] For an inside comparison, they may conduct wealth accumulation analyses and studies on the relationship between top executive compensation and the salary levels of other employees. For an outside comparison, benchmarking is a common practice that can give guidance in determining the appropriate compensation structure.[342] Nevertheless, committees should draw independent and individual conclusions regarding their specific company and business-related circumstances.[343]

vi. The compensation arrangement should contain claw-back provisions to avoid situations in which executives are financially insulated from the consequences of acting against the best long-term interests of the company.[344] According to Rappeport (2008), approximately 350 firms reportedly adopted some sort of this claw-back provision atthe end of 2008 and the beginning of 2009, respectively, which is in insulated contrast to only 14 firms implementing such arrangements just four

[336] Bhagat/Romano, YLER, 2009, p. 5.

[337] "An important result is that managers will always cheat sooner with stock options than with a cash equivalent remuneration consisting of stocks." See Chesney/Gibson, SSRN, 2005, p. 1; Tonello, TCB, 2008, p. 6.; Bolton/Xiong/ Scheinkman, ECGI, 2005, p. 1; Bhagat/Romano, YLER, 2009, pp. 5 ff.

[338] Bhagat/Romano, YLER, 2009, 'headnote'.

[339] Brill, TCE, 2008, p. 3.

[340] Bermuda, Report, 2009, parag. 11; Tonello, TCB, 2008, p. 6; Kay/Puttten, 2007, pp.71 ff.

[341] Tonello, TCB, 2008, pp.6–7.

[342] Ibid, p. 7.

[343] "There is no magic formula." Barker, IOD, 2009c, p. 3.

[344] ICGN, 2008, p. 4.

years ago.[345] In particular, such arrangements may "recover bonuses or other incentive-based rewards when the company determines that the executive, without informing the board and submitting the issue to the review and approval of the compensation committee, willingly or knowingly made a business decision that is inconsistent with the board-approved business strategy."[346] More than the existing claw-back provision under SOX Section 304, those compensation arrangements should apply to all high ranking executives, not just to the CEO and CFO.[347] Claw-back provisions at the corporate level can be implemented through formalized policies, through the compensation program itself or through employment contracts.[348] For example, boards must decide to whom and to what extent the provisions will apply. Even more important is the question, under which circumstances claw-back provisions are to be triggered and how far back the provisions should apply.[349] At a minimum, compensation programs should contain that in cases of evidently aborted performance, executives lose redundancy payments and accelerated vesting benefits.

vii. Another popular suggestion within compensation reforms are the so called say-on-pay procedures, a non-binding vote of shareholders to approve a company's compensation programs.[350] Supporters claim that in order to avoid negative publicity and a loss of credibility, directors are forced to either comply with the shareholder vote or to convince shareholders that the existing executive compensation program of the firm is appropriate.[351] Thus, the latter requires board members to be more specific and analytical in their decisions and the disclosure of documents.[352]

Critics claim that directors' decisions might be second-guessed by shareholding groups with limited knowledge of the challenges of the job market and compensation-related complexities, such as the above-mentioned measurements, metrics and comparisons.[353] There is also the concern that shareholders will be eventually satisfied if the firm's profitability and stock performance are suitable, regardless of the level of executive pay.[354]

viii. Furthermore, it is certainly challenging for the board to *integrate the company's ERM* process with the executive compensation structure.[355] As already mentioned above, ERM searches for short

[345] Rappeport, 2008, p. 1 ff; Tonello, TCB, 2008, p. 7. According to Heineman, HLS, 2009a, parag. 18: "Again, this requirement reflects an existing trend. Per 2008 proxy statements, 27 of the Dow 30 companies had clawback provisions."
[346] Tonello, TCB, 2008, p. 7.
[347] Bermuda, Report, 2009, parag. 9.
[348] Sharfman, CGA, 2009, p. 6.
[349] Ibid.
[350] Deloitte, 2009, p. 2.
[351] Bermuda, Report, 2009, parag. 10.
[352] Brill, TCE, 2008, p. 2.
[353] See above B. II. 3. d. ii.
[354] Bermuda Report, 2009, parag. 10.
[355] Ibid, parag.12.

and long term risks threatening the firm's value or even its existence.[356] Once those risks are detected, the board should study the firm's executive compensation structure looking for weak points relating to those risks. Exemplary perils in the executive compensation structures from an ERM perspective were already discussed above and contain among others:[357] very low salaries and high annual bonuses; one-sided performance measures favouring only quantitative achievements regardless of the "quality" of earnings, risks undertaken, etc.; too high financial targets may encourage a too high risk-taking; also huge (unrestricted) stock option grants are revealed to be risky.[358]

ix. Provisions granting that an executive will receive certain significant benefits in the case of his departure are primarily a measure of corporate protection.[359] Proponents emphasize that golden parachutes make it easier to employ and hold top managers, to ensure an executive's objectivity about the firm during the takeover process, and to discourage takeover attempts by increasing the cost of a takeover.[360] Scholars also stress that strong shareholders – not weak ones – tend to offer protections that are popularly characterized as indications of too much managerial power.[361] According to the latter, critics' claim that executives are already well compensated and forced to be objective through their fiduciary duties.[362] Finally, the cost of such golden parachutes in takeovers would be too small to be relevant for the outcome. Against the background of the current economic turmoil, such provisions are widely associated with "rewards of failure" and should be implemented to some degree.

ix. Compensation policy should also contain the clear prohibition of any action that could be interpreted as an attempt to circumvent either the spirit of the law, accounting rules, or stock exchange listing standards.[363] Finally, the board should implement additional safeguards in the above-mentioned case of CEO-COB duality, since it becomes more difficult to objectively monitor the executive's own performance.[364]

x. In sum, the board and its committees are facing potentially harmful and complex risks in designing executives' compensation. By identifying and discussing those issues, the last sections have also shown that directors and committees should consider (1) a number of important factors, such as companies' and managers' objectives, overall fairness, disclosure, integration of ERM, claw-back provisions, golden parachutes and shareholder say, as well as (2) the use of available measurement

[356] See above B. II.
[357] See above B.II.1. and, 3.
[358] See above B.II.5. D.iv; Bermuda, Report, 2009, parag. 12.
[359] Gompers/Ishii/Metrick, QJE, 2003, pp. 107, ff.;<http://www.investopedia.com/terms/g/goldenparachute.asp>
[360] Often part of a Poison 'Pill strategy'. Rocap/Ginsburg, TN, 2004, pp. 1 ff.
[361] Falaschetti, FSU, 2008, p. 2.
[362] Narayanan/Sundaram/Anant, UMBS, 1998, pp. 1 ff.
[363] Tonello, TCB, 2008, p. 7; Bhagat/Romano, YLER, 2009, p. 1.
[364] See above B.II.3.e.

tools and metrics, such as OCF, CFROI, or forms of stress testing;[365] both in order to meet their responsibility towards shareholders, to prevent future failures and to encounter the current public and political outrage.

5. Interim Conclusion

In conclusion, we found that not only remuneration packages and issues around the board structure, but first and foremost lacking board competence failed to prevent the crisis. Boards should improve identified weaknesses through several measures, such as limitations in board size, the proper use of ERM tools and CEO-COB duality. Above all, not only independence but also sector-specific knowledge of directors is most important in establishing a sound internal CG mechanism.

CG and therefore companies have also failed to make use of the freedom offered by the rationale of self-regulation in the financial sector. Industries, companies and especially directors should carefully review their attempts to align managers with shareholders' interest, and reassess crucial risk oversight in the above-mentioned manner and scope. In this regard, the last chapter has also revealed the capacity of a professional and well composed board to address these weaknesses in CG. Since stability of firms and markets is an essential element for maintaining macroeconomic stability, governance of these companies is apparently the most important factor towards achieving this goal. A proper and swift reaction by companies to correct their failures will reduce the likelihood of future crises, and might also avoid lawsuits as well as a situation where governments are trying to regulate core issues of the private sector. Before examining government regulation and interventions during the crisis, especially in response to executive compensation,[366] the next chapter will a priori demonstrate that not only failures in CG but even more so imprudent government regulations and policies are the main roots of the emergence of the GFC.

[365] As a more general tool, examined above. See Barker, IOD, 2009b, p. 1.

[366] Below at C.II.1.

C. Government Regulation and Intervention

I. Regulatory Failures leading to the GFC

While the GFC was described as a "crisis of capitalism," others claim the opposite by stating that the roots are "ill-considered government regulation and intervention in the private economy."[367] Taking into account chapter A.I., "The Global Financial Crisis," I have already mentioned a number of national and international policies causing the GFC. The following section takes a clarifying look at these and other failures in the regulatory environment.

1. With regard to regulation on a national level, the connection between the role of the US government in the housing market and the resulting worldwide financial crisis is in the centre of the discussion.

a. The Community Reinvestment Act (CRA) was originally enacted in 1977. It declared that "serving community needs had to be done within the context of safe and sound lending practices." While CRA was invoked quite rarely, this changed in 1993.[368] In order to fight discrimination against aggravated granting of credits to minorities, the Clinton Administration's "American Dream Policy" tried to spread homeownership to lower income groups.[369]

The new policy tried to set up objective criteria for determining whether a bank was meeting the standards of the CRA. It was then necessary for banks to demonstrate that they had in fact "made the requisite loans, not just that they were attempting to find qualified borrowers."[370] In this context, one of the "new standards required the use of 'innovative or flexible' lending practices to address the credit needs of lower income borrowers."[371] Hence, an act that was originally meant to animate financial institutions to use "safe and sound practices" in lending, now required them to relax lending standards.[372]

However, the fact that "low-income or subprime borrowers received mortgage loans that they could not afford" is only one reason and cannot solely explain the large dimension of defaults of mortgages.[373] Moreover, CRA regulations between 1995 and 2005 reduced underwriting standards allowing loan-to-value ratios higher than 20%[374] and increased the availability of credit, which led to a

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[367] Wallison, EM, 2009, parag. 1.

[368] Probably due to media and political attention to a Boston Federal Reserve Bank study of 1992, concluding "discrimination, by, loan, officers." The methodology of the study has since been questioned by Wallison, EM, 2009.

[369] Purnanandam, UOM, 2009, pp. 1 ff; Blundell-Wignall/Atkinson/Lee, OECD, 2008, p. 5.

[370] Wallison, EM, 2009, parag. 9.

[371] Ibid; Hossain, UC, 2004, p. 57.

[372] Wallison, EM, 2009, parag. 9, 10.

[373] Ibid.

[374] "The ratio of the fair market value of an asset to the value of the loan that will finance the purchase. Loan-to-value tells the lender if potential losses due to nonpayment may be recouped by selling the asset. For instance, if a borrower

considerable growth of homeownership in the US. This was naturally accompanied by a high demand in the housing market, which doubled home prices between 1995 and 2007.[375] The inevitable consequence of these relaxed underwriting standards was their spread to other markets, including the prime mortgage market.[376] This encouraged an enormous increase in mortgage loans, speculation in house markets, and it ultimately led to the bubble in housing prices.

b. Both Fannie Mae and Freddie Mac are government-sponsored-enterprises (GSEs), which became two of the biggest financial institutions of the world.[377] The reason why Fannie and Freddie could grow without restriction and accumulate a mortgage portfolio of $1,5 trillion by 2008 was, again, that the US government tried to spread homeownership.[378] As long as Fannie and Freddie plausibly proved that they were supporting the interests of low income homebuyers, they could avoid new regulations.[379] For example, in 1997 the Department of Housing and Urban Development discerned that the GSEs "are disqualifying borrowers with low income, limited wealth, and poor credit histories […], whereas other lenders serve these groups."[380]

Following this report, Fannie and Freddie changed their underwriting standards to allow loans with criteria that they had rejected before. This fostered the gradual decline in lending standards which had begun with the revised CRA regulations in 1993 and proceeded with Fannie and Freddie's efforts to demonstrate the US Congress that they were meeting their "American Dream Policy."

While Fannie was offering a 97% loan-to-value mortgage in 1997, it waived down payments entirely in 2001. By 2007, Fannie and Freddie were required to show that 55% of their mortgages were low-income loans and 25% were purchases of credits to very-low-income borrowers.[381] The lowering in underwriting standards is apparent in the financial disclosures of Fannie and Freddie.[382] From 2005 to 2007, both purchased around $1 trillion in subprime loans, which represents about 40% of their mortgages during that period[383]. Freddie's data illustrates that it acquired 6% of its subprime loans in 2004; this jumped to 17% in 2005, and 32% in 2007.[384] Fannie bought 73% of its subprime mortgages during these three years.[385]

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wants $130,000 to purchase a house worth $150,000, the LTV ratio is $130,000/$150,000 or 87%." See:<http://www.investorwords.com/5642/loan_to_value.html>.

[375] Flynn, RM, 2008, parag. 15.

[376] Wallison, EM, 2009, parag. 9.

[377] Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC).

[378] Wallison, EM, 2009, parag. 15.

[379] "Fannie Mae and Freddie Mac were encouraged to expand and buy MBSs […]" Taylor, RCCG, 2009, p. 12.

[380] Temkin, 1999, pp. 1 ff.

[381] Fannie Mae, Report, 2007, p. 5; Wallison, EM, 2009, parag. 17.

[382] Wallison, EM, 2009, parag. 25.

[383] Fannie Mae, 2008, pp. 1 ff.; Freddie Mac, 2008, pp. 1ff.; Wallison, EM, 2009, parag. 20.

[384] Freddie, Mac, 2008, p. 30.

[385] Ibid, pp.29–30.

These large scale subprime mortgage purchases also affected the rest of the market; for instance, by taking market share from private issuers and increasing competition for these loans.[386] The higher demand also raised the value of subprime mortgages, which again led to the acceptance of unqualified applicants and a decrease in the market for conventional loans.[387] Between 2003 and 2006, the amount of subprime loans in the mortgage credit market increased from 10.1 % to 32.7%, plus the share from Fannie and Freddie (approximately 15–20%).[388] Because of unprecedented default rates in the period between 2007 and 2009, the costs linked with these mortgages, e.g. bailout program, rescue plans etc., will be borne by US taxpayers and are partly the result of US lawmakers who failed to implement prudent regulatory structures for Fannie and Freddie.[389]

c. In some US states residential finance laws contributed to the default of mortgages and worsened the crisis.[390] In certain states homeowners are allowed, without penalty, to refinance a mortgage whenever interest rates dropped or home prices increased to a point where there was significant equity in the home.[391] This enabled them to take out any equity accumulated in the home between the initial financing transaction and any subsequent refinancing. As a result, this "cash-out refinancing allowed homeowners to treat their homes like savings accounts, drawing out funds through refinancing in order to spend on home improvements, debt consolidation, and other consumer goods."[392] By the end of 2006, 86% of all home mortgages were "cash-out refinancing."[393] This meant that when property prices fell, there was little equity behind the mortgage and frequently little motive to continue payments on the mortgage. As a consequence, prime and subprime homeowners walked away from their homes and defaulted on their mortgages.

This was encouraged by other state-based regulations. For one thing, defaulting homeowners in certain states are not personally liable for paying the difference between the value of the home and the principal amount[394] of the mortgage obligation ("without recourse").[395] Alternatively, efforts to enforce homeowner payments are burdensome, so that mortgage contracts allowed the lender to waive

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[386] Wallison, EM, 2009, parag. 21.
[387] The latter lined from 78.8% of all mortgages in 2003 to 50.1% at the end of 2006. See Wallison, EM, 2009, parag. 21: "C*onventional loan* is any mortgage which is not guaranteed or insured by the federal government." See also: <http://www.finweb.com/mortgage-loan-education/conventional-loans-pros-and-cons.html>.
[388] Joint Center for Housing Studies, 2008, p. 39; Wallison, EM, 2009, parag. 21.
[389] Wallison, EM, 2009, parag. 22.
[390] Gros, 2008, parag.1 ff.
[391] Utt, 2008, at fn 25.
[392] Ibid, at fn 25; Wallison, EM, 2009, parag. 29.
[393] Joint Center for Housing Studies, 2008, p. 37.
[394] The amount borrowed (such as the face value of a debt security), or the part of the amount borrowed which remains unpaid (excluding interest), here also called *principal.* See: <http://www.investorwords.com/3841/principal_amount.html>.
[395] Utt, 2008, at fn 25; Wallison, EM, 2009, parag. 24.

this burden in exchange for an immediate foreclosure and sale.[396] A future regulation may at least require a penalty for the right of refinancing homes or a change in state laws towards the right of recourse in certain circumstances of default.[397]

d. Taylor (2009) and Noia et al. (2009) have empirically and theoretically shown that "monetary policy was too loose."[398] In particular, the US central bank, led by Federal Reserve Chairman Alan Greenspan, kept interest rates[399] very low for a long period of time to take the edge off the recession of the early 2000s.[400] This had a number of consequences: First, it encouraged banks to borrow credit from the government, and as a result pumped liquidity into the economy. Second, it deterred investors traditionally buying treasury bills from the Fed. Those were than investing in alternative financial products such as CDOs. Third, it helped mortgage lenders lower their mortgage rates to attract more customers. In sum, low Fed interest rates resulted in a "disinvestment and overconsumption; fuelled excessive demand in the housing market, which led rapidly rising housing prices and ultimately to the housing bust."[401]

Facing the GFC, Taylor tries to keep track of possible global connections and delivers evidence that interest rates at several other central banks also deviated from the "historical optimum."[402] For example, Spain is the country with the largest deviation from the optimum, while it also had the biggest housing boom.[403] At the other end of the spectrum is Austria with the "smallest deviation and the smallest change in housing shares."[404] Nevertheless, it remains unclear empirically whether these low interest rates at other central banks were influenced by the decisions of the US Federal Reserve, or vice versa.[405]

e. Finally, US tax policies were in part exacerbating the problem of homeowners taking equity from their homes.[406] On the one hand, "interest on consumer loans of all kinds, such as cars, credit cards, or other purposes, is not deductible for federal tax purposes."[407] On the other hand, interest on home equity loans is deductible regardless of the function of the loan or the use of the funds.[408] In

[396] Wallison, EM, 2009, parag. 24.
[397] Ibid, parag. 26.
[398] Interest rates below historical experience. Taylor, RCCG, 2009, p. 3; similar Noia/Micossi, 2009, p. 10.
[399] Or federal fund rates.
[400] Generally due to the Dot.com bubble burst and 9/11. Garrison, 2006, p. 4: "The 2001 recession, worsened by the 9/11 attacks, sparked many concerns […] about a credit crunch. As a result, the Fed cut rates three times in seven weeks. There was no serious credit crunch […]" Cited in Noia/Micossi, 2009, p. 10.
[401] For empirically arguments, see Taylor, RCCG, 2009, pp.3–4; Garrison, 2006, p. 4.
[402] He described this historical optimum as the "Taylor Rule." Taylor, RCCG, 2009, pp. 3, 4, and 7.
[403] Measured by the change in housing investment as a share of GDP. Taylor, RCCG, 2009, p. 7.
[404] Taylor, RCCG, 2009, p. 7.
[405] Ibid, p. 8–9.
[406] Lysandrou, FT, 2009, parag. 2 ff.; Wallison, EM, 2009, parag. 28.
[407] Wallison, EM, 2009, parag. 31.
[408] Ibid.

consequence, homeowners are animated not only to make use of loans against their homes' equity in favour of other types of borrowing, but also to take out equity from their homes "for paying off credit cards or other loans, or to use this capital for private and even business purposes."[409] These tax provisions, similar to the residential finance laws, led to little equity behind mortgages and therefore enhanced the possibility of default and foreclosures in an economically challenging environment.

2. On an international level, the Basel Accords on international bank supervision and related regulation are blamed for not being tight enough and even for "requiring banks to manipulate their balance sheets."[410]

a. In 1988, the G-10 founded the Basel Committee and created the Basel I Capital Accord on international bank supervision.[411] The wider purpose was to strengthen the stability of the international banking system, and to set up a fair and a consistent international banking agreement to decrease competitive inequality amongst international banks. In order to allow some elasticity in the distribution of capital, the core achievement was the implementation of a standardized system of assigning bank assets to different risk classes.[412]

Since capital can act as a buffer against negative shocks, more capital should be held against the chance of losses from riskier assets.[413] Based on this assumption, the riskiest assets have to be backed by no less than 8% capital, whilst the safest assets are labeled with a risk weight of zero.[414]

In this scheme, commercial credits were given a risk weight of 100%, whereas residential mortgages were considered half as risky, with a risk weight of only 50%.[415] As a result, banks have to hold only 4% capital against the value of a residential mortgage. Additionally, asset-backed securities rated AAA were given 20% risk weight, so that only 1.6% capital is required for a bank to hold AAA-rated MBSs.[416] These provisions encouraged banks to hold mortgages in favour of commercial loans and turn their portfolios of mortgages into a AAA rated MBS portfolio.[417]

Capital requirements by Basel I might have been adequate if the mortgages hab been of high quality or if the rating agencies had properly assigned the risk of default. But as the decline in lending and

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[409] Ibid.

[410] Beville, FSLR, 2008, p. 38; Cannata/Quagliariello, UB, 2009, pp. 1 ff.

[411] The Bank for International Supervision (BIS) provides the Basel committee on Bank Supervision. See: <http://www.investopedia.com/articles/07/BaselCapitalAccord.asp>.

[412] Risk weighted assets (RWA). See Caprio/Demirguc-Kunt/Kane, 2007, p. 34.

[413] Gersbach, VOX, 2009, parag. 2; Wehinger, OECD 2008, p. 5–6.

[414] Wallison, EM, 2009, parag. 29.

[415] Caprio/Demirguc-Kunt/Kane, 2007, p. 35.

[416] See above A.I.

[417] Wallison, EM, 2009, parag. 29.

underwriting standards continued and property prices were still moving upwards ("ballooning"),[418] these Basel capital requirements became more and more insufficient. Even if it were accurate to consider residential mortgages as less risky than commercial loans, the lack of bank capital behind mortgage assets became obvious when the housing bubble deflated.[419] In addition, the creation of 'off-balance sheet vehicles,' such as SIVs or SPEs, permitted "banks to circumvent minimum capital requirements established by Basel I, and encouraged them to move risky assets to those weakly regulated entities."[420]

b. The Basel II Accord issued in 2004 is more complex than Basel I and rests on three mutually reinforcing pillars: "(1) minimum capital requirements; (2) supervisory review of banks' capital adequacy; and (3) strengthened market discipline of capital adequacy."[421] The new accord became effective in the beginning of 2008 and therefore did not play a major role in the financial crisis[422], but was supposed to overcome some of abovementioned problems.[423]

For example, "risks from 'off-balance sheet vehicles' have to be integrated into a more wide-ranging and model-based calculation of capital requirements, but other loopholes exist."[424] In particular, Basel II still permits financial institutions to decrease their capital requirements regarding large-scale securitisation[425]. "The Basel committee also continues to insist on the 4% and 8% minimum ratios of capital to risk-weighted assets, without any rationale for why either level is appropriate." [426] Therefore, the Basel Accords were proven to be one reason for the explosion of MBSs after 2004[427].

Finally, while the Basel Accords may limit risk taking ex ante to some extent, it can cause perverse incentives in the event of an asset shock.[428] Once the price of an asset is reduced, banks have the incentive to shift it off of their balance sheets in order to keep minimum capital levels. However, as banks sell more assets, the market price decreases again. The result is that while banks must maintain capitalization, every bank still has the incentive to maximize returns by entering into increasingly risky transactions. This generates a "negative feed back loop that far outweighs the initial shock and simply requires banks to manipulate balance sheets to maintain adequate collateralization." [429].

[418] An excessive demand in houses, due to a, number of policy incentives and complex banking business models detailed, see above A.
[419] Wallison, EM, 2009, parag. 29.
[420] Above at A.I.; Wehinger, OECD 2008, p. 6.
[421] Caprio/Demirguc-Kunt/Kane, 2007, p. 29.
[422] Noia/Micossi, 2009, p. 24.
[423] Caprio/Demirguc-Kunt/Kane, 2007, p. 34.
[424] Wehinger, OECD 2008, p. 6.
[425] Ibid.
[426] Caprio/Demirguc-Kunt/Kane, 2007, p. 29, 34.
[427] See above A.I.; Even, when Basel II became effective in 200, this provision was widely anticipated before the banks (capital charge still 35%), and was either way allowed by Basel I too.
[428] Beville, FSLR, 2008, p. 37.
[429] Ibid.

3. Summing up

The previous chapter has clearly shown that not only failures in CG but at the same time an imprudent regulation have caused the subprime and credit crisis, and eventually the GFC. Over the last years and decades, several residential, tax, finance and monetary policies pursued by the US and other countries, as well as important banking regulations on an international level, are straight involved in the rise of a housing bubble, a decrease in the consistency of mortgages, and a cutback of home equity and bank capital that would have shielded the financial system in the event of a collapse of the bubble and the following global consequences. As a result, not only a new regulation but even more so the careful and prudent correction of existing regulatory failures is crucial in order to manage the crisis and prevent future ones.

II. Government Intervention and Regulatory Responses to the GFC

This chapter investigates how governments and regulators, notably in the US, are managing the crisis. While the first part focuses on the regulatory response to the CG issue of executive compensation, the second part examines further interventions during crisis management.

1. Executive Compensation and Regulation

It was already examined that improperly designed executive compensation encouraged excessive risk taking and short-term management, therefore playing a role in the emergence of the GFC.[430] Although companies and boards have a number of instruments at hand to design proper executive compensation, several policy responses were adapted and proposed in order to deal with this issue.

While the US has already established laws dealing with excessive pay, the Europe Union is only "on their move to limit executive compensation."[431] In April 2009, the EU commission recently issued two sets of non-binding recommendations on remuneration in financial services and on directors' pay in all quoted companies. "These EC guidelines will be accompanied by a proposed set of rules forcing companies to disclose their remuneration policy and the pay, including bonuses and stock options of executive and non-executive directors."[432] However, it is still left to the individual countries to establish proper legislation if necessary. Current utterances sound that "France is the first European country to impose a law curbing bonuses and stock options for executives of companies receiving aid from the state."[433] The discussion between the governing parties in Germany is, however, still about to "find common ground." Recently, even China's government disclosed that it had set limits on executive pay for 2008 at state-owned financial companies, "the latest effort to address public concern over pay at companies controlled by the country's government."[434]

a. Due to the fact that the US has a pioneering role in limiting executive pay, recent occurrences provide interesting cases and related legislative efforts to deal with the public outrage and excessive compensation. Historically, there have been only some regulatory limitations on remuneration, most of which were detailed disclosure rules.[435] The reluctance to regulate the payment structures has been

[430] See above B.II.4.a.
[431] Saltmarsh, New York Times, 2009.
[432] Gow, D. "EU issues guidelines to end excessive executive rewards", on guardian.co.uk, Friday 24 April (guardian.co.uk).
[433] <http://www.directorship.com/france-imposing-limits-on-executive-pay>.
[434] Dean, 2009, parag. 1 ff.
[435] Bermuda, Report, 2009, parag. 13.

widely viewed as appropriate since directors are supposed to be better informed and more capable of determining reasonable incentives and rewards for executives.[436]

However, that historical deference in director decisions regarding executive compensation evaporates. Following the CG debacles during the Enron and WorldCom in 2002, the US attempted to regulate the amount of payment to senior executives through section 304 of SOX. According to that, if a non-private firm is required to prepare its financial statements as a result of misconduct, the company's CEO and CFO must reimburse the firm with any bonuses or other incentive-based or equity-based payments received by the executive during the 12-month period following the publication of the financial statements.[437] In practice, however, the SOX provision has been invoked rarely, and has not acted as an important deterrent[438].

As another example, in 2006, the SEC adopted some much more comprehensive disclosure rules relating to executive remuneration practices by non-private companies: the so called summary compensation table in a company's SEC annual report or proxy statement.[439] Under these regulations, public firms have to disclose not only the amount and type of remuneration paid to its CEO, CFO and the three other most highly-compensated officers, but also the criteria used to design compensation structures and the degree of the correlation between the firm's executive compensation programs and corporate performance[440].

In February 2009, the US Congress imposed solid executive compensation limitations in connection with the current federal government bailout program.[441] Since the initial Emergency Economic Stabilization Act of 2008 (EESA) was passed last year, there have been various sets of executive compensation restrictions based on a number of programs offering government financial assistance.[442] Pursuant to the Troubled Asset Relief Program (TARP), the Generally Available Capital Access Program and the Exceptional Financial Recovery Assistance Program cover large banks receiving so-called "exceptional assistance," and other financial institutions applying for capital are having, inter alia, their salaries limited to $500,000.[443]

More recently, the American Recovery and Reinvestment Act 2009 (ARRA) was signed into law by President Barack Obama on 17 February 2009 and includes extensive new restrictions on the

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436 See above B.II.4.
437 SOX 2002, section 304.
438 "The lack of apparent activity prior to 2007 due to: 1. Takes years to identify, investigate and file potentially fraudulent activity. 2. SOX, 304 to recapture compensation received by CEOs and CFOs prior to July 20, 2002. See: <http://www.law.com/jsp/ihc/PubArticleIHC.jsp?id=1202421589570>.
439 SEC. See:<http://www.sec.gov/answers/execomp.htm>.
440 Bermuda, Report, 2009, parag. 13.
441 Troubled Asset Relief Program (TARP).
442 PearlMeyer&Partners, 2009, pp.1 ff.
443 Orol, 2009, parag. 6.

compensation arrangements of financial institutions participating in TARP,[444] leading to a new era of external oversight and regulation of executive compensation practices.

b. Exemplary US ARRA for entities benefiting from TARP

The new legislation rewrites the "Executive Compensation and Corporate Governance" Section 111 of the former EESA and directs the Treasury Department to establish standards and promulgate implementing regulations. TARP recipients may repay TARP funds without a waiting period, so that, if the amount be repaid, the restrictions on executive compensation described below would generally cease to apply.[445] Taking into account the "responses of directors and committees," the following section outlines (critically and exemplary) the new US legislation in response to excessive compensation:

i. According to §§ 111(a)(3) and (b)(1), affected by this act are all entities that have received or will receive financial assistance under the TARP, so called TARP recipients. These provisions apply during the period of time the TARP recipient has an obligation outstanding that arises from TARP financial assistance; excluding warrants held by the Federal Government to purchase common stock of the TARP recipient.[446]

ii. Four ARRA provisions[447] refer to both the 'senior executive officers' (SEOs) and to the Top 5, 10, 20 'most highly-compensated employees of the TARP recipient.' Despite the definition of SEO in ARRA, there is no specific rule dictating the method by which the next most highly-compensated employees will be determined. According to § 111(a)(1), an SEO is defined as an "individual who is 1 of the top 5 most highly paid executives of a public company, whose compensation is required to be disclosed pursuant to the Securities Exchange Act of 1934, and any regulations issued thereunder, and non-public company counterparts."

Whilst ARRA takes compensation as reported in the TARP Recipient's annual meeting proxy statement or annual report on Form 10-K (SEC) as a base,[448] it is not clear, whether the same standards will be used to determine the compensation of non-executive employees. In addition, ARRA does not clarify the measurement period for compensation determination. Different approaches are possible: First, the 'current year method' is used in the ARRA provision preventing tax deduction of excessive SEO compensation over $500.000. According to § 111(b)(1)(B) in connection with Section 162 (m) of the Internal Revenue Code of 1986 (Code), the determination is contingent on "the year in which the

[444] As ARRA Section 7001 is amending EESA section 111, ARRA is, in the following, cited: § 111.
[445] Glover, CP, 2009, p. 2.
[446] ClearyGottlieb, HLS, 2009b, p. 1; Morphy, HLSBlog, 2009, parag. 4.
[447] § 111(b)(3)(B), 111(b)(3)(C), 111(b)(3)(ii)(I), 111(f).
[448] SEC 10-K. See:<http://www.sec.gov/about/forms/form10-k.pdf>; ClearyGottlieb, HLS, 2009b, p. 2.

deduction would be taken as reported in the proxy statement or Form 10-K filed after the end of the year."[449] Second, according to the provisions of the Capital Purchase Program (as a part of the TARP) the determination of SEOs compensation is conducted on the basis of the prior year, so called 'look back method.'[450] A third method might be to exercise "target" or expected pay rates at the beginning of the year.[451] Measurement is problematic; since employees exercise stock options, earn bonuses, and receive deferred compensation payouts, the list is expected to change annually.[452]

iii. During the TARP restricted period, no bonus, retention award or incentive compensation, other than restricted stock meeting certain requirements, would be permitted to be paid or accrued by a TARP recipient – § 111(b)(3)(D)(ii). The number and identity of covered employees subject to this restriction differ from the most highly-compensated employee for institutions with less than $25 m of TARP assistance to the five senior executive officers and at least the next 20 most highly paid employees for institutions with more than $500 m of TARP assistance – § 111(b)(3)(D)(ii)(I)-(IV). Several exemptions from these provisions are possible.

First, the prohibition does not apply to any bonus "required to be paid pursuant to written employment contracts executed on or before February 11, 2009, as such valid employment contracts are determined by the Secretary or the designee of the Secretary" – § 111(b)(3)(D)(iii). Unfortunately, the ability to trust to this exemption lacking "such determination, as well as the process of such determination, is not clear."[453]

Second, a grant of restricted stock is permitted if it (1) does not "fully vest during the period" that any TARP obligation is outstanding,[454] (2) does not have a value "greater than 1/3 of total annual compensation of the employee receiving" the grant, and (3) "is subject to any other terms and conditions as the Secretary may determine is in the public interest"[456] – § 111(b)(3)(D)(i). However, the legislation does not make clear how the terms "fully vests" and "total annual compensation" are to be interpreted, and whether other forms of equity compensation and long-term incentives, such as restricted stock units, could qualify for the restricted stock exception.[457]

Finally, §111 does not limit the amount of salary or other vested non-incentive compensation (e.g. pensions) permitted to be paid by TARP recipients.[458] This might have inadvertent implications that help neither the Treasury nor the TARP recipient and its shareholders. It will encourage TARP

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[449] ClearyGottlieb, HLS, 2009b, p. 5; Morphy, HLSBlog, 2009, parag. 4.
[450] Morphy, HLSBlog, 2009, parag. 5.
[451] Deloitte, 2009, p. 1.
[452] Ibid; ClearyGottlieb, HLS, 2009b, p. 2.
[453] ClearyGottlieb, HLS, 2009b, p.3, 4.
[454] Other than warrants, § 111(a)(5).
[456] ClearyGottlieb, HLS, 2009b, p. 3.
[457] Ibid; Bermuda, Report, 2009, parag. 10; Morphy, HLSBlog, 2009, parag. 6.
[458] ClearyGottlieb, HLS, 2009b, p. 3.

recipients to widen their focus on vested non-incentive compensation, and employees to migrate to less regulated competitors.

iv. Similar to the above-considered and recommended claw-back clauses, §111(b)(3)(B) of ARRA applies to any bonus, retention award or incentive compensation paid to any SEO or any of the next 20 most highly-compensated employees based on "statements of earnings, revenues, gains, or other criteria that are later found to be materially inaccurate."[459]

v. No golden parachute is allowed to be paid to an SEO or any of the next five most highly-compensated employees of any TARP recipient – § 111(b)(3)(C). According to ARRA, a golden parachute is an amount payable "for departure from a company for any reason, except for payments for services performed or benefits accrued – §111(a)(2). First, the scope of the term "any reason" is vague; read plainly, "it would include payments for terminations of employment resulting from death or disability."[460] Second, the exemptions for "benefits accrued" and for "payments for services performed" raise the question if accrual for accounting purposes is adequate or if some other standard, such as a vesting requirement, applies.[461]

vi. TARP recipients must establish a board compensation committee of independent directors to review employee compensation plans – §111(c)(1). The committee would be required to meet at least semiannually to discuss and evaluate risks posed to the TARP recipient by its compensation plans – §111(c)(2). For private companies that received $25 m or less of TARP assistance, the board of directors as a whole is allowed to carry out these duties – §111(c)(3).

vii. The board of directors of each TARP recipient is required to adopt a company-wide policy on excessive or luxury expenditures (as identified by Treasury), including excessive costs on transportation services, entertainment, office and facility renovations, and other events or activities that are not "reasonable expenditures for staff development, reasonable performance incentives, or other similar measures conducted in the normal course" of the TARP recipient's business operations – §111(d).[462]

viii. Another CG rule for companies receiving TARP assistance requires submission to an annual, non-binding, say-on-pay shareholder vote to approve compensation packages for the SEO as disclosed pursuant to SEC rules[464] – § 111(e). It was not clear if this requirement will apply to upcoming annual proxies or only after regulations have been issued. However, a letter requesting clarification on timing

[459] See above B.II.4.d.; Deloitte, 2009, p. 1.
[460] ClearyGottlieb, HLS, 2009b, p. 3.
[461] Bermuda, Report, 2009, parag. 10; ClearyGottlieb, HLS, 2009b, p. 3.
[462] Morphy, HLSBlog, 2009, parag. 16.
[464] Deloitte, 2009, p. 2.

was submitted to the SEC,[465] which issued guidance on February 26, 2009 confirming a say-on-pay vote is required this year.

ix. § 111(b)(4) constitutes a further provision related to CG, in particular corporate compliance. According to that, the CEO and CFO of each TARP recipient must provide written certification of compliance with Section 111 of EESA. Public firms provide the certification to the SEC together with their annual filings, and non-public firms give the certification to Treasury – §111(b)(4). It is again not clear whether the public company certification may be required in the forthcoming proxy statement or annual report on Form 10-K.[466] TARP recipients should, as a consequence, think what types of internal mechanics can be implemented to maintain these certifications.

x. As mentioned above, §111(b)(1)(B) states that, during the TARP period, each TARP recipient will be subject to the provisions of section 162(m)(5) of the Code "as applicable." The latter averts a tax deduction for compensation of more than $500,000 paid to any SEO by a company, selling more than $300 m of assets through their participation in the TARP auction purchase program.[467] Taking into account the turn of approaches by the US Treasury since EESA was initially passed from 'purchases of troubled assets themselves' to 'direct investment in equity' of banks, it is unclear whether the ARRA means to expand the application of section 162(m)(5) to TARP recipients in current TARP programs not involving auction purchases.[468] Hence, it could be read to pick up TARP recipients of over $300 m in any type of financial aid under TARP.

xi. Finally, wider provisions intend to shape better compensation programs. § 111(b)(2) in connection with § 111 (3)(A) want to set up limits on compensation in order to eliminate incentives that encourage unwarranted risk taking.[469] According to § 111(b)(3)(E), companies under TARP assistance are required to prohibit compensation programs that encourage the manipulation of reported earnings in order to enhance the compensation of any employee.

xii. Summary

TARP, ARRA and related regulations are covering a large number of above-mentioned CG recommendations regarding executive compensation.[470] Specifically that boards, SEOs and high rank officers implement considerations on bonuses, incentive compensation, retention and departure awards; on whether remuneration generates unnecessary risk; on "claw-backs" of pay for financial misstatements. CEOs also have to certify the firm's compliance with the new approach, which is coupled with policies on luxury expenditures, and a few disclosure standards.

[465] By the Chairman of Senate Committee on Banking, Housing, and Urban Affairs Feb 20, Deloitte, 2009, p. 2.
[466] See above (2) "most highly-compensated."
[467] Morphy, HLSBlog, 2009, parag. 18; ClearyGottlieb, HLS, 2009b, p. 5; Heineman, HLS, 2009, parag. 1 ff.
[468] ClearyGottlieb, HLS, 2009b, p. 5.
[469] Ibid, p. 4.
[470] See above B.II.4.d.

Finally, the US legislation from February 2009 dealing with excessive compensation is more about procedure than about substance,[471] and "does not impose any cap on the total pay, rather only influence its form,"[472] while giving most companies a large scope of self-government.[473] Nevertheless, recent events, such as the unprecedented AIG debacle and the following legislation, as well as further bill proposals, are already calling for stricter rules on executive compensation.

c. The AIG Debacle: Following and Proposed Legislation

Four bills are predicting possible future legislative efforts that may ultimately have unhelpful effects on several companies, even beyond the financial industry.[474]

i. AIG

As mentioned above, AIG received $170 bn in taxpayer bailouts, while at the same time declaring that it already paid total compensation bonuses up to $1.2 bn.[475] Shortly after the announcement, on March 19, 2009, the House of Representatives quickly approved a bill (H.R. 1586) imposing income tax on bonuses paid in, or after, January 1, 2009, to employees or former employees of covered TARP recipients at a rate of 90% – Section 1(a), (b) H.R. 1586. "The bill contains retention payments, incentive payments and other bonuses that are in addition to amounts payable at a regular periodic rate for services performed."[476] According to Section 1(c)(1) H.R. 1586, the term 'covered TARP recipient' includes "entities that received capital infusions under EESA in the aggregate exceeding $5 bn and their affiliates – Fannie Mae, Freddie Mac and their affiliates – and any partnership if more than 50% of the capital or profits interests of the partnership are owned (directly or indirectly) by entities mentioned above."[477] A repayment of outstanding TARP amounts or the return of bonuses paid will prevent the imposed tax, Section 1(c)(2) H.R. 1586.

The "AIG bonus tax," as it was labeled in the media,[478] is widely criticised for its "potential long-term dangers inborn in the government dictating details of private sector pay practices and retroactively invalidating binding contracts through confiscatory taxing of a targeted group."[479] According to

471 Heineman, HLS, 2009a, parag.1.
472 Bebchuk, PG, 2009, parag.2.
473 Heineman, HLS, 2009a, parag.1.
474 ClearyGottlieb, HLS, 2009a, p.1.
475 See above B.II.4.b.; MacDonald, 2009, parag.23 ff.
476 ClearyGottlieb, HLS, 2009a, p.5.
477 Ibid, p.6.
478 For instance NZ Herald, available at: <http://www.nzherald.co.nz/wall-st-meltdown/news/article.cfm?c_id=1502755&objectid=10563111>; Henchman, TFF, 2009, p. 2.
479 This issue will be discussed below. "The current legislative impulses, however, raise systemic risks that pose a far greater danger than the issues sought to be addressed by them." Cleary Gottlieb, HLS 2009, p. 1.

Heineman (2009), "H.R. 1586 is nonsensical as a matter of policy," since it "undermines the credibility of public regulation and the importance of sound policy responses to the crisis."[480]

In particular, criticism of H.R. 1586 on constitutional grounds refers to the following sections of the U.S. Constitution:[481] First, the Bill of Attainder Clause of Art.I, Sec.9 forbids "legislative acts [...] that apply to [...] easily ascertainable members of a group in a way as to inflict punishment on them without a judicial trial." Since this clause requires the naming of a small group of individuals, the class of financial executives affected by the legislation under consideration "is too large to fit reasonably into that category." [482] Second, the Ex Post Facto Clause of Art.I, Sec.9 prohibits laws that "in effect impose a penalty or the deprivation of a right which, when done, was lawful." However, this clause has been held to cover only criminal laws, not taxes.[483] Third, the Contracts Clause of Art.I, Sec.10 forbids states to pass any law "impairing the Obligation of Contracts." This argument was disposed, as its own terms apply only to state government actions, not federal power.[484] Finally, the Due Process Clause of the Fifth Amendment protects individuals from federal deprivation of "life, liberty, or property, without due process of law." Nevertheless, such a claim would be unlikely to prevail due to the traditional judicial understanding of that clause and to the fact that it is not clear whether contract rights would be held as a species of property, or whether taxes count as a taking of private property.[485]

ii. Further Legislation

Further legislative efforts were proposed and fitted into the current public and legislative "activism:"[486] First, another recently introduced tax bill (S.651), the so-called "Compensation Fairness Act of 2009," wants to amend the Internal Revenue Code of 1986 to impose an excise tax of 70% on excessive bonuses paid by companies receiving TARP assistance – Section 2(e)(1)(B), (C) S.651. It also limits deferred remuneration generally to $1 m per year[488] – Section 3(a)(5)(A) S.651.

Second, H.R. 1664 or "Pay for Performance Act was proposed to amend ARRA and was passed by the House Committee on Financial Services on March 25, 2009."[489] Most importantly, it would delete the exemption for binding contracts from ARRA's prohibition on bonuses payable to SEOs and the top 20 most highly-compensated employees – §111(b)(3)(D)(iii)[490]. H.R. 1664 adds prohibitions on executive

[480] Heineman, HLS, 2009a, parag. 7.
[481] A detailed analysis of H.R.1586, is beyond the scope of, this paper hereto extensive, Henchman, TFF, 2009, pp. 1 ff.
[482] Epstein, TWJ, 2009, parag. 6; Henchman, TFF, 2009, p. 2.
[483] Epstein, TWJ, 2009, parag. 6.
[484] Ibid.
[485] Henchman, TFF, 2009, p. 2.
[486] Even "hysteria." ClearyGottlieb, HLS, 2009a, p. 2.
[488] ClearyGottlieb, HLS, 2009a, p. 2.
[489] Ibid, p.5.
[490] ARRA after amendment through H.R. 1664.

compensation that are not based on performance standards and requires TARP recipients to report the number of employees receiving a certain amount of total compensation – §111(e).

Finally, H.R. 1575 would have given the Attorney General express authority to review any employment contract made by a "recipient entity," and to seek recovery of amounts paid under such contracts and to limit the amounts that can be paid under following contracts.[491]

iii. Negative Implications

While these legislative efforts were proposed to deal with the crisis and its roots, they are also likely to be accompanied by unplanned and harmful implications to employers and employees.

First, there is concern that none of the four recently proposed bills will provide an exemption for existing binding compensation contracts[492]. As mentioned above, the ARRA provision § 111(b)(3)(D)(iii) is limiting "incentive compensation to no more than one third of the total compensation and has an exemption for binding contracts in existence prior to its enactment."[493] The four recent bills, in contrast, have no such exemption; moreover, H.R. 1664 would purposely reverse the ARRA provision for TARP recipients' contractual arrangements.

Second, a number of institutions might be deterred from participating in future economic recovery efforts because of the fear that Congress will change the rules at a future date.[494]

Third, critics state that the "extensively expanded scope" of the new remuneration rules and the considerable flexibility and power granted to the Treasury Secretary in applying the restrictions to serve "the public interest," might also lead to recruitment and retention challenges for TARP recipients.[495] As already above, limitations on compensation programs may cause some employees to seek employment in smaller unregulated or foreign companies that have escaped the worst of the ongoing turmoil. Others, in contrast, claim that the "run away of human capital" from the most battered entities is an exaggerated scenario, and talented managers will be reluctant to seek other employment opportunities.[496] Additionally, TARP recipients are allowed to compensate executives with unlimited amounts in restricted stock that can be cashed out after the government is paid back[497]. This, however, constitutes a fourth concern, since encouraging TARP recipients to repay TARP obligations as soon as they can works against its own primary purpose of providing stability to the financial market and aiding the 'credit freeze.'[498]

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491 However, this bill recently failed in the House of Representatives by roll call vote, See: <http://www.govtrack.us/congress/bill.xpd?bill=h111-1575>.

492 ClearyGottlieb, HLS, 2009a.

493 See above B.II.1.b.iii.; ClearyGottlieb, HLS, 2009a, p. 2.

494 ClearyGottlieb, HLS, 2009a, p. 4.

495 Heineman, HLS, 2009a, parag. 13 ff.; Deloitte, 2009, p. 2.

496 Deloitte, 2009, p. 2.

497 If conditions are met. Bebchuk, PG, 2009, parag. 2.

498 ClearyGottlieb, HLS, 2009a, p. 4.

d. Summing up

On the one hand TARP, ARRA and related regulations enacted at the beginning of this year are mainly procedural, giving most companies a large scope of self-government**.** On the other hand, the controversial "AIG bonus tax" and other proposed laws are predicting the danger of overregulation, since they raise concerns about unintended implications, such as breaches of binding contracts, drain of human capital and other deterring effects. Restrictions and provisions dealing with core CG issues and stipulating details of 'private sector pay practices' may have negative consequences in the long-run for a large number of companies even beyond the financial sector.

2. Other Government Interventions

Despite the fact that several failures in regulation causing the GFC and despite the current danger of overregulation, e.g. in the case of executive compensation, there is, after all, no doubt that immediate action by governments has to be taken in order to cope with a crisis of such enormity.[499] Otherwise, "harsh consequences for the financial system and the global economy are unavoidable."[500] Due to the dimension of the subprime and following GFC, governments seem to be the only actors, which can achieve a major impact from their interventions.[501] While the specific course of government intervention and fiscal policy is subject to ongoing debate and while it differs between countries, the next section focuses mainly on the design of short-term government intervention, which generally aims at stabilizing the financial system.[502]

a. The Role of Central Banks

Central banks responded quickly and massively to the subprime credit crises and the GFC. Interest rates were eased in rapid steps to historical all time lows of 0–0.25% in the US, 0.5% in the UK, and 1.5% in the euro area between the end of 2008 and March 2009.[503]. As soon as typical refinancing tools proved inadequate, central banks expanded their set of instruments: First, in the wake of Bear Stearns' collapse in March 2008, the Fed established the "Primary Dealer Credit Facility and the Term Securities Lending Facility, allowing financially troubled primary dealers to borrow from the Fed against illiquid collateral."[504] Comparable discount windows were set up by the ECB.[505] However, this

499 Breitenfellner/Wagner, Uni Passau, 2009, p. 12.
500 "High risk of inaction." Furceri/Mourougane, ECO, 2009, p. 17.
501 Breitenfellner/Wagner, Uni Passau, 2009, p. 12.
502 Restoring trust is thought to be most important, Clemens/Soretz, UH, 2004, pp. 2 ff.; similar in Zingales, UC, 2009, p. 9. Breitenfellner/Wagner, Uni Passau, 2009, p. 12.
503 Noia/Micossi, 2009, p. 27.
504 Wehinger, OECD, 2008, p. 12; Noia/Micossi, 2009, p. 27.

could neither reduce the risk of fire-sales of assets, nor prevent further large collapses of financial institutions.[506] Considering the roots of the GFC in the subprime market, the trust in collaterals has naturally disappeared.[507] Second, the Fed tried to support loans to consumers and small businesses through direct purchases of commercial papers,[508] asset-backed securities, and other money market instruments.[509] This included acquiring debt of the housing-related GSEs Fannie Mae, Freddie Mac and Ginnie Mae, as well as long-term Treasury securities.[510] As a consequence, the Fed and other central banks were not only asked to intervene directly by means of large bailouts,[511] but have also become the residual supplier of capital to insolvent institutions. It was therefore claimed that "several central banks have lost their independence and become de facto government agencies."[512] In addition, some companies might not only be "too big to fail" but also "too big to save:" [513] A systematic interconnected global company might be located in a rather small country and has reached such enormous size that rescue plans are beyond the capacity of one central bank or fiscal authority.[514]
In such cases a coordinated international assistance is "urgently" required.[515] As to Jean-Claude Trichet, president of the ECB, central banks must overcome their differences[516] and base their universal purpose of economic stability on common fundamental principles.[517]

b. The Role of the State and Rescue Packages

As a rule, "lack of confidence keeps the level of transactions low, and low liquidity will further exacerbate price discovery and undermine trust."[518] In this case, efforts of central banks are not sufficient to "break the vicious cycle."[519] Hence, when the crisis deepened, governments intervened with their resources:[520] US taxpayers are suffering the most and have to pay $9.7 trillion in bailout

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505 European Central Bank; Wehinger, OECD, 2008, p. 12; Noia/Micossi, 2009, p. 27.
506 E.g. IndyMac, WaMu; Wehinger, OECD, 2008, p. 12; Noia/Micossi, 2009, p.27.
507 Wehinger, OECD, 2008, p. 12; Noia/Micossi, 2009, p. 27.
508 An unsecured short-term debt instrument, issued, by a corporation, typically fo, the financing of accounts receivable inventories and meeting short-term liabilities, see:<http://www.investopedia.com/terms/c/commercialpaper.asp>.
509 Noia/Micossi, 2009, p. 27.
510 Ibid.
511 In case of the Fed: $100 bn, for, Bear, Stearns, and, AIG, alone.
512 Duncan Australian Financial, Review, 2004; "The ECB working under tight regulatory constraints has avoided, so far a similar fate" Noia/Micossi, 2009, p. 28.
513 Wehinger, OECD 2008, p. 12.
514 For example, the Icelandic crisis; unfortunately are further considerations beyond the scope of this paper.
515 "Cross boarder banking" detailed, but emphasis on EU UniCredit Group, 2009, pp. 1 ff.; Furceri/Mourougane, ECO, 2009, p. 6.
516 Due to the economic structures in which the central banks are operating.
517 Trichet, ECB, 2009.
518 Wehinger, OECD 2008, p. 12.
519 Ibid.
520 Noia/Micossi, 2009, p. 31.

packages and rescue plans; European countries will spend about $2.5 trillion, while the total amount goes up to $14.5 trillion.[521]

i. In general, two opposite effects have to be taken into account:

First, governments acting as lenders of last resort create lesser incentives for financial institutions to implement sound ERM systems (moral hazard).[522] Moreover, the granting of bailouts interrupts the market mechanism of bankruptcy. The latter makes sure that only those financial institutions that have implemented proper ERM and related assessment systems will survive.[523] Other companies with insufficient financial precautions should fail in order to serve the "allocational efficiency of the financial market."[524] Thus, governments should rescue financial institutions only if bankruptcy costs are above the costs of the bailout. Banks are illiquid but solvent, or of systemic relevance, and should link those efforts with some ex ante regulation and (long-term) costs for the troubled company.[525] Otherwise, bailouts could encourage companies to take them as a "gratis source of funding."[526]

Second, a deterring effect has the "stigmatisation" of companies engaging in government assistance programs."[527] Those companies face the risk of being penalized by depositors with bank runs, by markets through the bidding down of share prices, and may therefore cause what the action was meant to prevent. While such stigmatisation cannot be entirely avoided, governments can reduce this distortion of incentives, for example, through the creation of "attractive assistance programs", so that accepting government help may look as if firms were taking a "good business opportunity".[528]

ii. Therefore, an adequate design of rescue packages or bailout programs seems to be of particular importance. Possible methods of government intervention are:

First, the government can assist banks through purchasing their 'toxic' assets.[529]. Since the current market value of these assets is far below their economic value, only those financial institutions with

[521] NZ$, 7, bn, in, the, next, two, years; Based, on, Feb, 2009, , BBC, , Bloomberg.

[522] Also a principal-agent-conflict: <http://www.borooah.com/Teaching/Post%20Graduate%20Microeconomics/Week%204_Moral%20Hazard.pdf>; Breitenfellner/Wagner, Uni Passau, 2009, p. 13.

[523] Breitenfellner/Wagner, Uni Passau, 2009, p. 13.

[524] Further information at: <http://www.answers.com/topic/allocational-efficiency>; Córdoba, FRBM, 2009, p. 6; Breitenfellner/Wagner, Uni Passau, 2009, p. 13.

[525] Coates, JAR, 2009, p.432; Zingales, UC, 2009, p. 8.

[526] Breitenfellner/Wagner, Uni Passau, 2009, p. 13.

[527] Wehinger, OECD 2008, p. 15.

[528] For example: France explained that banks would then start to increase lending to business and consumers. See Financial Times 10/20 2008.

[529] Idea is to place these assets in a "Bad, bank". This and the issue of nationalism is unfortunately beyond the scope of this paper; however, a good starting point at <http://www.voxeu.org/index.php?q=node/3143> or Noia/Micossi, 2009, p. 38.

major liquidity problems will be eager to sell their assets.[530] Another advantage is that the government itself can profit from the anticipated higher value of these assets in the future.[531]

However, measures involve distributional effects as they typically shift resources from taxpayers to shareholders.[532] In particular, asset purchases face the dilemma of price discovery: On the one hand, if the price paid for toxic assets is high enough to stabilise the banks' balance sheets, then this "overpay" might be against the taxpayer's interest.[533] On the other hand, serving the taxpayer's interest, i.e. buying assets at a very low level, could force the companies into further write-downs and leave them too little capitalised.[534] Apart from the problem of price discovery, the scale and the localization of losses and toxic assets is widely unknown. In addition, even if a full disclosure of losses were to be possible, continuously falling asset prices and economic activity might entail the company's immediate bankruptcy.[535]

A second method of using the funds of a financial assistance program are equity injections. By the end of February 2009, the US government had injected $250 bn into its troubled companies. In Europe, financial assistance was of a similar extent, with the largest payment in Germany (up to €133bn), the Netherlands (up to €49 bn) and the United Kingdom (£37 bn).[536]

The beneficial effects of asset purchases are indirect and proportionately smaller than direct capital injections, whereas the latter is insufficient alone. This is due to the fact that 'asset price falls' destroy capital faster than it can be generated. Hence, the combination of asset purchases in connection with equity injections are considered as a method to stop asset price falls and to break off the vicious circle of "losses generating further asset sales generating further losses."[537]

Finally, government guaranteed debt issuance programs are supposed to restore trust and to reduce the risks of speculations against the bank.[538] With the aim of preventing moral hazard, "such guarantees should be issued against fees or other conditions and be complemented with capital injections rather than guarantees alone."[539] Taking into account the problem of "too big to save," guarantees are an effective tool to set up in advance in order to maintain confidence in the market and prevent bank runs or even further crises.

[530] Breitenfellner/Wagner, Uni Passau, 2009, p. 13.
[531] Ibid.
[532] Furceri/Mourougane, ECO, 2009, p. 6, 20.
[533] Noia/Micossi, 2009, p. 37.
[534] Wehinger, OECD, 2008, p. 15.
[535] Noia/Micossi, 2009, p. 37.
[536] Ibid, pp.25 and 35.
[537] Ibid, p. 36.
[538] Wehinger, OECD, 2008, p. 15.
[539] Ibid.

iii. In sum, the design of a government rescue package for the financial system is very complex and "far from being resolved."[540] It largely depends on its objectives: the stabilisation of the financial market via recapitalisation, the defence of taxpayer interests, and the evaluation of management performance, etc. Unfortunately, some of these objectives are counterproductive, such as recapitalisation and tax payer protection. Besides this distributional effect, rescue packages can produce costs through the misallocations of capital, the distortion of incentives and through moral hazard risks.

Although costs related to bankruptcies are hard to measure, rescue packages should contain a proper combination of intervention methods and avoid principal-agent conflicts such as moral hazard. The latter can be reduced through ex ante regulation and costs for aid recipients. Finally, rescue packages should only be given to companies which are illiquid but solvent, or of systemic relevance.[541]

c. Critics

i. Since diagnosing the roots of the GFC is complex and naturally controversial, the same holds for determining what type of crisis management is adequate. Critics claim that recent government interventions have "prolonged or even worsened the crisis in the US."[542]

A basis for several conclusions was the measure between three-month LIBOR and corresponding three-month overnight Index Swap (OIS), both of which describe unsecured interbank loan rates.[543] Put simply, the difference or the "spread" between LIBOR and OIS is an important measure of risk and liquidity in the money market, i.e. financial stress, and an indicator of the effects of monetary policies on the economy.[544] Given what was stated above, it can be observed that the financial crisis became severe on August 9 and 10, 2007, when money-market interest rates rose significantly; and interest rate spreads, such as LIBOR-OIS, leaped to exceptionally high levels (Chart VII). To reduce this spread, became a key issue of monetary policy.

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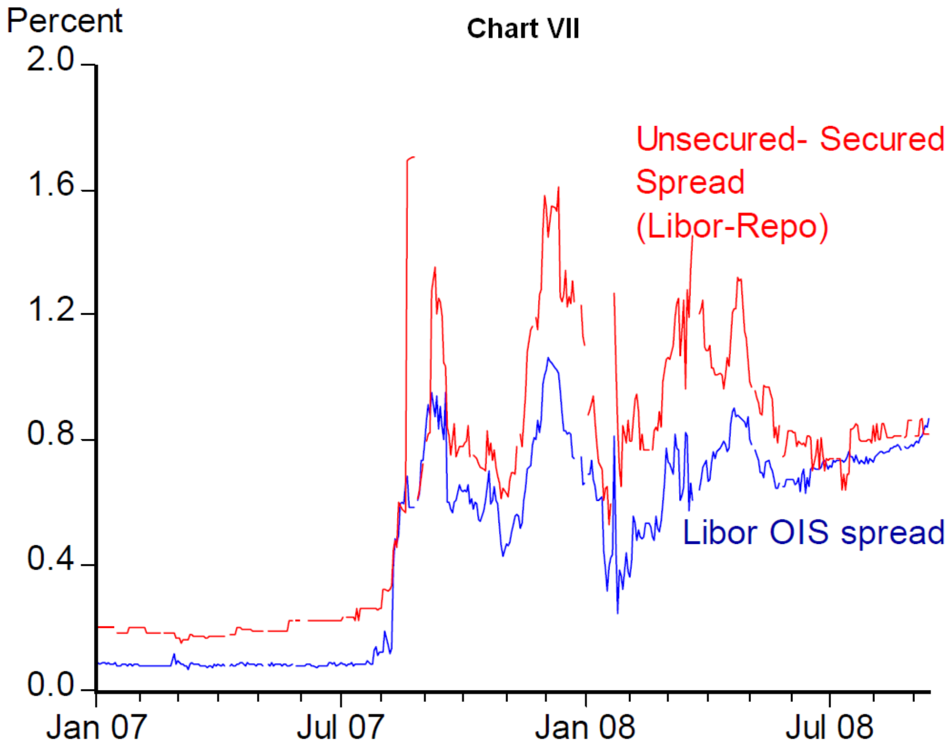
540 Noia/Micossi, 2009, p. 36; Breitenfellner/Wagner, Uni Passau, 2009, p. 13.
541 Ibid., p.14.
542 Wall, Street, Journal, 2/9 2009.
543 London, Interbank, Offered, Rate, (LIBOR).
544 Money market = interbank market. Nesvisky, NBER, 2009, p. 1; Counterparty, Risk, 'Waldman, 2008'.

Chart VII



Source: Taylor (2009) **Counterparty Risk Explained Most of the Variation**

As a result, to identify the cause of this sudden spread was essential in determining the type of policy response:[545] If liquidity was lacking, appropriate measures would provide more liquidity by opening new windows or facilities, or by making borrowing easier through the Fed discount window. If counterparty risk causing the spread in money-market interest rates, then a direct focus on the quality and transparency of the financial institutions' balance sheets would be necessary.[546]

In order to measure risks in the financial market, an empirical study by Taylor (2009) utilized the LIBOR-OIS spread in correlation with other spreads, to finally conclude that liquidity was not the main cause of the financial crisis (Chart VII),[547] rather it was a counterparty risk. According to Taylor, this was initially misunderstood by policy makers. Three examples of government intervention are cited that did not address the problem of counterparty risk but had unintended consequences and therefore prolonged the crisis:[548]

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[545] Taylor, RCCG, 2009, p. 14. See also Wall Street Journal 2/9 2009;<http://www.gop.gov/wtas/09/02/09/wsj-how-government-created-the>; Calomiris, NBER, 1993, p. 1.

[546]Counterparty Risk otherwise known as default risks; is the risk that an organization does not pay out on a credit derivative CDS credit insurance, contract or other trade or transaction when it is supposed to See: <http://www.investopedia.com/terms/c/counterpartyrisk.asp>; Duca/DiMartino/Renier, EL, 2009, p. 4.

[547] Taylor, RCCG, 2009, pp.15 and 22. Exemplary in the case of CDXs: "Knowing your ultimate counterparty's risk then becomes like solving a high-dimension Sudoku puzzle." Haldane, 2009, p. 15.

[548] Taylor, RCCG, 2009, pp. 17–18; Duca/DiMartino/Renier, EL, 2009, p. 4.

First, the Fed established the Term Auction Facility (TAF) in December 2007, in order to ease interest rate spreads in the money markets and enhance the flow of credit.[549] Through these new and other similar facilities, financial institutions could request directly money from the Fed, without using discount windows. Nevertheless, the correlation between funds provided by the Fed and the LIBOR-OIS spread during a certain period of time indicates that TAF and related efforts are largely ineffective.[550] One major reason for that was the rise of counterparty risk, rather than liquidity.[551]

A second early government response was EESA.[552] The main purpose of this package was to grant over $100 bn to individuals and families to boost consumption and the economy.[553] However, consumers spent only little, and the economy was not jump-started. One explanation offers the income theory by Friedman (1953), claiming that temporary, unlike permanent, increases in income do not lead to considerable increases in consumption.[554]

A third recent policy response was the sharp cut of Fed fund rates to 2% in April 2008 from 5.25% in August 2007.[555] Whilst "loose monetary policy" of the early 2000s was already examined as a failure of regulation, which had led to the crisis, recent Fed rate cuts are criticised for "having increased the oil and other commodity prices and so prolonged the financial turmoil."[556] One argument is that during the first year of the financial meltdown oil prices doubled from about $70 per barrel in August 2007 to over $140 in July 2008.[557] In addition, a number of empirical studies provide economic evidence of the relationship between interest rates and oil prices.[558]

Finally, it is to sum that misdiagnosing the problems in the bank credit markets towards liquidity rather than risk resulted in improper government responses and prolonged the crisis. However, this view is has witnessed critcism too,[559] and the underlying research preliminary.[560] Fiscal and monetary actions also largely depend on the state's public finances and economic structure.[561] Further theoretical and empirical research is required to fully understand the complex monetary and fiscal interactions before and during the crisis.

[549] Wall Street Journal,2/9 2009.See:<http://www.gop.gov/wtas/09/02/09/wsj-how-government-created-the>.
[550] Taylor, RCCG, 2009, p.18: till mid Sept, 2008. }
[551] Duca/DiMartino/Renier, EL, 2009, p. 4.
[552] See above C.Ii.1.i.
[553] U.S., Finance, Committee, Staff, Summary, p. 1.
[554] cited in Chao, 2001, p. 12.}
[555] Detailed at:<http://knowledge.wharton.upenn.edu/article.cfm?articleid=1986>.
[556] Taylor, RCCG, 2009, p. 18.
[557] "Whereas, oil, prices, then, returned, to, their, former, level, during, the, mid, of, 2008, , the, damage, of, the, high, oil, prices had, been, done" Taylor, RCCG, 2009, p.1 8.
[558] Helliwell/Padmore, 1985, pp. 1 ff.;Taylor, RCCG, 2009, pp. 20–21; Darrat/Gilley/Meyer, 1996, p. 317.
[559] Christopher Cox, SEC Chairman: "[…] reputational issues and loss of liquidity" were at the root of the crisis. Cited in Noia/Micossi, 2009, p. 27 in fn 16; similar in Coates, JAR, 2009, p. 427.
[560] Taylor, RCCG, 2009, p. 28.
[561] Furceri/Mourougane, ECO, 2009, p. 6.

ii. After a year of these interventions, the crisis abruptly worsened in September and October 2008, becoming a global financial crisis.[562] Particularly in the US, the severe credit crunch hit an economy already suffering from the high oil price and from collapsing housing prices. Many experts claim that the reason for this worsening was the government's decision not to prevent the bankruptcy of Lehman Brothers,[563] whereas others identify the 'lack of clarity' in the US government's bailout program (TARP) and in related problems of uncertainty as the sources of a rapid public loss of confidence during this period.[564]

iii. Another unexpected policy intervention during this crisis was the suspension of short-selling in a number of countries.[565] Australia, for example, was the only developed economy that continued to enforce its ban on covered short-selling of financial stocks for eight month, until the Securities & Investments Commission lifted it on 25 May, 2009.[566] In the US, the SEC introduced a ban on naked short-selling,[567] in order to restore market confidence and prevent further declines in companies.[568]
While such a rule can be justified in the case of "predatory trading" or "severe market stress,"[569] it entails a number of unintended consequences and eliminates advantages of short-selling, such as providing liquidity and better price discovery.[570] Other effects are the curtailment of legitimate short-selling in addition to naked short-selling, and most of all, the ban led to heavy losses for hedge funds and therefore to reduced liquidity, which in turn resulted in increased market volatility.[571] Hence, the suspension of short-selling should be dismissed in most cases.

3. Summing up

Based on these considerations, a large number of methods and policies are advisable in order to respond to the GFC: Companies 'too big to fail' and 'too big to save' need coordinated international assistance by independent central banks and fiscal authorities; stigmatisation of companies in government rescue programs should be averted for the sake of stability; rescue packages should

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562 Noia/Micossi, 2009, p. 25.
563 Ibid.
564 Different, Coates, JAR, 2009, p. 434: "[…] legal uncertainty itself can create a form of shelter from rent-seeking pressures…"; Wall Street, Journal, Feb 9, 2009 <http://www.gop.gov/wtas/09/02/09/wsj-how-government-created-the>; With, event, studies, and empirical evidence: Taylor, RCCG, 2009, pp.21 ff, 26.
565 Australian Securities and Investments Commission ban, See: <http://www.asic.gov.au/asic/asic.nsf/byheadline/08205+Covered+short+selling+not+permitted?openDocument>; similar in Spain, UK.
566 *Financial Times,* Sydney, 25 May 2009.
567 Definition at:<http://www.investopedia.com/terms/n/nakedshorting.asp>; Pedersen, VOXEU, 2008, parag. 1 ff: "critical."
568 Wehinger, OECD, 2008, p. 17.
569 Brunnermeier/Pedersen, JF, 2005, p. 1825 ff; Wehinger, OECD, 2008, p. 17.
570 Detailed, Fabozzi/Clifford, 2005, p. 246.
571 Wehinger, OECD, 2008, p. 17; Pedersen, VOXEU, 2008, parag. 1 ff.

contain a proper combination of intervention methods, avoid moral hazards through ex ante regulation and cost, and should only be given to companies that are illiquid but solvent, or of systemic relevance. While government intervention is necessary to manage the GFC, many critics have already revealed shortcomings that prolonged the crisis and predicted further imprudent regulation and policies: Misdiagnosing the problems in the bank credit markets towards liquidity rather than risk resulted in improper government responses and prolonged the crisis; uncertainty about government interventions is a large contributor to the harsh public loss of confidence during this period; other ad hoc measures, like suspension of short-selling, reduced liquidity, which in turn ended in increased market volatility.

Nevertheless, fiscal and monetary actions largely depend on the state's economic structure, and further research is required. In any case, future interventions should only be taken on the basis of appropriate diagnoses of the roots of the problem and its rationale postulated to the public in clear terms, both in order to maintain or restore confidence and to avoid uncertainty.

By taking into account the previous considerations, governments should first of all correct important regulatory failures that caused the GFC, instead of adopting new incisive regulations or imprudent markets interventions. However, careful policy responses are required in particular to manage the crisis. Companies, and especially their boards, should review their attempts to align managers with shareholders' interest, and reassess their risk oversight systems. A proper and swift reaction by companies to correct their failures will reduce the likelihood of future crises and might also avoid lawsuits and a situation where governments are trying to regulate the core issues of the private sector.

D. Balance: Self-Regulation and Government Regulation

After having shown that both failures in CG and government regulation caused the GFC, I examined related responses, notably by the board of directors and the US government. Facing these failures and the danger of further over- and imprudent regulation, it is important to reconsider the roles of self- and government regulation. To find the perfect balance between these two types of regulation, however, is beyond the scope of this paper, and can probably never be fully achieved. Nevertheless, the last chapter establishes a chain of reasoning that mainly refers to the findings of this paper, and is complemented with considerations about the special nature of the financial sector and the future role of government regulation.

I. The Role of Self-Regulation

To begin with, we found that self-regulation is generally seen as more cost-effective and preferable to government regulation.[572] However, it was stated that "the greater the external consequences of an industrial practice, the less acceptable self-regulation becomes."[573] The underlying fear is the danger of contagion and systematic risk:The World Bank provides a broad definition, saying that contagion is the cross-country transmission of shocks or the general cross-country spillover effects.[574] It refers to the idea that "financial crises may spread from one institution or country to another."[575] Systemic risk refers generally to the risk or probability of breakdowns or losses in an entire system;[576] for instance, when the failure of one particular financial institution threatens the stability of many other institutions.[577]

1. According to that, the special nature of the financial sector is particularly important. The banking industry traditionally handled both the payment-savings and the investment processes.[578] Failure of individual firms in the depositary industry may lead to widespread deposit runs that could overflow to other depositary firms. Modern developments, like the rise in interbank lending and various money market operations largely facilitated by advancements in information technology, have also added to the 'contagion problem'. Furthermore, there has consequently been a constant rise in the entwinement

[572] See above A.II.3.
[573] In contrast "[…] the financial sector had become too complex to be regulated from outside; what was needed was self-regulation." <http://dtfdu.wordpress.com/2009/01/22/the-financial-crisis-and-the-future-of-globalisation>; Uche, JFRC, 2001, p. 5, 7.
[574] Kaufman/Scott, IR, 2003, p.3 72; See: <http://www1.worldbank.org/economicpolicy/managing%20volatility/contagion/definitions.html>.
[575] Ibid; Leitão/Lobao/Manuel, SSRN, 2008, pp. 1 ff.
[576] Kaufman, WB, 2000, p. 9.
[577] Traditional channels of contagion are in financial market are the interbank credit and payment system, while even non-bank markets can be affected; Detailed in Kaufman/Scott, IR, 2003, pp. 371 ff.
[578] Uche, JFRC, 2001, p. 5, 7.

of banks not just with their customers but with other intermediaries as well. Therefore, the failure of a systemic relevant bank or even the failure of a smaller financial institution might have far-reaching consequences for the whole financial system.[579]

Cases in point are not only past crises, but in particular today's GFC has shown that the financial sector has become even more complex, interconnected and diversified: Business models, such as the OTD Model or the securitisation process, changed risk into a tradable bond, which could be bundled in SIVs, sliced, diced into CDOs, re-bundled, for example, into CDO-squares, and then put up for further sale. Other banks provided insurance for these CDO slices and complex financial products, so called derivates or CDSs. All of these efforts created a complex and highly dynamic environment, far above the understanding of credit agencies, boards and even bankers themselves. As credit risk transfer instruments, like the CDSs, passed between participants all over the world, the network chain lengthened, and the financial sector became more diversified and interconnected.[580] While the process of risk distribution is desirable, it naturally does not eliminate risk.[581] The housing bust, the subprime debacle and the following GFC are exemplary.

Insofar, we can state that contagion effect and systematic risks in the financial sector are enormous not only in principle but also with respect to the current GFC. Financial markets are too complex, interconnected, diversified and, first and foremost, too important for the whole system as to be entirely unregulated or left in the hand of SROs only.

2. The rationale of self-regulation is therefore widely doomed in the public debate. This paper underpinned the case against self-regulation by revealing the inability of companies and CG mechanisms to make use of the freedom given to them by the emphasis of self-regulation; additionally, the need for government intervention in crisis management was also emphasized:[582]

a. CG did not serve its purpose to safeguard against excessive risk taking in a number of financial institutions, especially because the boards were unable to effectively manage the risks and are therefore blameworthy of inadequate risk oversight.

b. Information about exposure in a number of cases did not reach the board and even senior levels of management. Transmission of information through effective channels often failed.

c. The culture of investment banking led to lesser standing and status of risk managers in contrast to people from a sales background; that indicates again the underestimation of risk.

579 Ibid, p. 5.8.
580 Haldane, 2009, p. 7; Stark, ECB, 2008, parag. 7.
581 Stark, ECB, 2008, parag. 7.
582 In more detail below at "The role of government regulation."

d. Furthermore, the financial turmoil has unveil rigorous failings regarding both internal management and the function of directors in supervising ERM: Lack of understanding the risk inherent in business models and financial instruments as well as of balance sheet growth and liquidity needs; boards were short of control mechanisms to oversee their risk appetite and failed to take appropriate steps to control or mitigate those risks; in some cases directors agreed a business strategy, but then did not set up proper metrics to watch its functioning.

e. Notwithstanding different views and findings regarding the precise extent of compensation failures, it is consent that excessive risk-taking by some financial firms was boosted by improperly designed incentive-based compensation, generally based on a missing link between pay and performance.

f. According to the directors' fiduciary duties, such as duty of care and duty of loyalty, boards have a clear role of supervising company strategy and ERM, as well as make sure that proper ERM are established. While the business judgment rule is still on hand, not only have most companies adopted measures to protect their directors, but courts are also giving considerable deference to boards in financially stressful situations. However, deference is not without limit, as three recent US cases have shown.

3. Notwithstanding the special nature of the financial market, the revealed failures in CG, and the need for government intervention in crisis management, further findings and conclusions that can be drawn from this paper still provide a number of arguments supporting the role of self-regulation in the financial market:

a. Not only failures in CG, but also a number of imprudent regulations have caused the GFC. Over the last years and decades, several residential, tax, finance and monetary policies pursued by the US and other countries, as well as important banking regulations on an international level, are straight involved in the rise of a housing bubble, a decrease in the consistency of mortgages, and a cutback of home equity and bank capital that would have shielded the financial system in the event of a collapse of the bubble and the following global consequences.

b. In addition to those regulatory failures ex ante, recent government interventions and propositions predict the danger of overregulation and the implementation of further imprudent policies.

At first, executive compensation is a core CG issue that is now subject to a number of regulatory responses, especially in the US. On the one hand, TARP, ARRA and related regulation from the beginning of this year are mainly procedural, giving most companies a large scope of self-government. On the other hand, not only the controversial "AIG bonus tax," but also several proposed laws are predicting the danger of overregulation. There are concerns about unintended consequences in the long-term for a large number of companies, even beyond the financial industry, such as breaches of binding contracts, drain of human capital and other deterring effects.

Second, many critics have already revealed shortcomings in recent government interventions that prolonged the crisis and predict further imprudent regulation and policies: Misdiagnosing the problems in the bank credit markets towards liquidity rather than risk, resulted in improper government responses and prolonged the crisis; uncertainty about government intervention is the sources for a rapid public loss of confidence during this period; other ad hoc measures, like the suspension of short-selling reduced liquidity, which in turn ended in increased market volatility.

c. Furthermore, companies and notably the board of directors do have the capacity to correct revealed failures in CG. The careful implementation of sound CG systems also contributes to the prevention of future crises and avoids the need for government regulation. The following considerations should be taken into account:

First, the transmission of information and effective ERM can be promoted by the establishment of an ERM committee and a CRO position with reporting relationship. Second, stress testing is an effective ERM tool that improves decision-making and reduces undesirable consequences of worst case scenarios. Third, CEO-COB duality is associated with enhanced power over corporate decision-making and is therefore only advisable on rare occasions. Fourth, a limited board size as well as a considerable degree of board independence is generally desirable, but not a panacea. More importantly, internal complex firms, such as financial institutions, require specific business knowledge by insiders, business experts and support specialists. Boards must understand the company's business strategy from a forward-looking perspective. Finally, executive compensation is a highly complex issue of individual firms and a core responsibility of the board and its committees. In order to create remuneration programs which grant sustainable, long-term wealth for all shareholders, they should consider a number of important factors: company's and managers' objectives, overall fairness, disclosure, integration of ERM, claw-back provisions, golden parachutes and shareholder say, as well as the use of available measurement tools and metrics, such as OCF, CFROI or forms of stress testing.

d. Besides the efforts made by boards, many industry initiatives are already underway to improve the current situation, mainly through enhancing transparency and restoring trust; for instance, a European industry working group has compiled the "Industry Good Practice Guidelines."[583] This aims "to achieve sound, consistent and appropriately granular implementation of the Basel II requirements and to enhance clarity and comparability of disclosure by means of a robust and comprehensive disclosure of securitisation-related risks."[584] Finally, claims "were made against the pro-cyclicality of mark-to-

[583] European Industry Working Group, 2008.
[584] Wehinger, OECD, 2008, p. 30.

market or fair value accounting rules and their effect on financial institutions' balance sheets."[585] In order to enhance transparency, the International Accounting Standards Board (IASB) is also working out new rules for off-balance sheet assets.[586]

e. In sum, the role of self-regulation is mainly based on the large number of failures in government regulation that have not only caused the GFC, but already predict the danger of over- and imprudent regulation likewise. Furthermore, SROs and notably the board can and should improve identified weaknesses through several measures, such as proper board composition, limitations in board size, CEO-COB duality, proper use of ERM tools and the design of executive compensation. Above all, not only independence but sector-specific knowledge of directors is most important in establishing a sound internal CG mechanism. Since the stability of firms and markets are essential elements for maintaining macroeconomic stability, governance of these companies is apparently the most important factor towards achieving this goal. This is complemented by another advantage of self-regulation, namely the integration of important sector-specific knowledge of those involved in the industry. Finally, a number of industry initiatives are underway to rebuild investor and public confidence in the financial markets.

[585] Ibid; Georgiades, 2008, pp. 23 ff.

[586] IASB, independent, privately-funded accounting standard-setter based in London, UK; Wehinger, OECD, 2008, p. 31.

II. The Role of Government Regulation

We also found that government regulation is necessary, mainly due to the special nature of the financial market in general, but also due to the need for effective crisis management. The last chapter outlines the role of government regulation in both short-term government intervention and in long-term measures.

1. There can be no doubt that immediate action has to be taken in order to cope with a crisis of such enormity. A number of methods and policies are advisable in order to respond to the GFC: Companies 'too big to fail' and 'too big to save' need coordinated international assistance by independent central banks and fiscal authorities; stigmatisation of companies in government rescue programs should be averted for the sake of stability; rescue packages should contain a proper combination of intervention methods, avoid moral hazards through ex ante regulation and long-term cost, and should only be given to companies which are illiquid but solvent, or of systemic relevance. Finally, future interventions should be made on the basis of appropriate diagnoses of the root problems and its rationale postulated to the public in clear terms, both in order to maintain or restore confidence and to avoid uncertainty.

2. Alongside these immediate interventions, governments should a priori pursue the correction of existing regulatory failures, rather than adopting new regulation. This would tackle the roots of the current GFC and reduce the danger of over- and imprudent government regulation. First, the US and other countries should improve the quality of mortgages through enhancing underwriting standards and the requirement of proper home equity and bank capital. Second, deductibility of equity and commercial loans should be adjusted. Third, governments should return to the set of principles for setting monetary policy and interest rates that historically worked well (Taylor Rule). Fourth, regulation should at least require a penalty for the right of refinancing homes or a change in laws towards rights of recourse in certain circumstances of default. Finally, the Basel committee should increase capital requirements for banks through enhancing minimum rations of capital to risk-weighted assets.

3. These measures must be reconciled with medium- and long-term reforms of the global regulatory environment. Future regulation must have the general objective of strengthening the financial system and should rely on principles rather than drawing up long lists of discretionary measures that are necessarily incomplete.[587] Reforms are naturally facing numerous trade-offs, such as between stability and growth, competition and innovation, or evidently the balance between self- and government

[587] Furceri/Mourougane, ECO, 2009, p. 41; Stark, ECB, 2008, parag. 34 ff.

regulation. Taking into account the great diversity of these dimensions and recommendations dealing with future regulations,[588] this section focuses on three important principles: transparency, risk control, and international cooperation. All of them require a role for government and self-regulation in the financial sector.

a. First, transparency is fundamental in any system that relies on confidence. Reforms should increase transparency in financial reporting, disclosure and financial products. This would reduce uncertainty about the assessment of credit risk and therefore maintain trust and stability. The role of government regulation is likely the creation of mandatory rules, since firms are rarely willing to disclose voluntarily.[589] However, overly tight rules may hurt a firm's competitive position.[590] Additionally, it is noteworthy that competitive pressures will force financial institutions to overcome those restrictions (regulatory arbitrage).[591] A case in point is the creation of SIVs to avoid Basel I capital requirements. Other component in the transparency area are the standardization of disclosure and reporting rules and also improvements in market-to-market or fair value accounting.[592] Since these issues belong to the responsibility of CG in the first place (e.g. disclosure of executive compensation programs, say on pay vote), companies should create transparent and standardized disclosure, reporting and accounting rules to avoid discretionary government regulation.

b. Second, invigorated regulation should also watch risks across the financial system, reduce dependence on improper risks in financing, and avoid disproportionate risk-taking.[593] In order to do so, the G-20 decided that the FSB should collaborate with the IMF to provide early warnings of macroeconomic and financial risks and related actions needed to address them.[594]. Elements of such an authority's mission may include "(1) monitoring large or fast-increasing exposures, such as to subprime mortgages, across companies and markets; (2) assessing the potential for deficiencies in evolving risk-management practices; (3) the analysis of exposures between highly interconnected institutions; and (4) the identification of regulatory loopholes."[595]

Furthermore, a main characteristic of the GFC was the realisation of counterparty and contagion risks, particularly where investment banking is mingled with commercial banking.[596] Their business model helped investment banks to become extremely big companies, and thus in some cases too

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[588] Wehinger, OECD, 2008, p. 18–24: IIF, FSF, US President's Working Group, PWG, EU; OECD, 2009, p. 5; Blundell-Wignall/Atkinson, AUS, 2009, pp. 98 ff; Stark, ECB, 2008, parag. 34 ff.
[589] Zingales, UC, 2009, p. 5.
[590] See above B.II.4.d.iii.
[591] Wehinger, OECD, 2008, p. 32.
[592] Zingales, UC, 2009, p. 6; Wymeersch, FLI 2008, p. 11.
[593] G-20, London, 2009, No. 14.
[594] G-20, London, 2009, No. 15,2; Bernanke, FED, 2009, parag. 20 ff.
[595] Widely based on suggestions made by Fed, cf. Bernanke, FED, 2009, parag. 20 ff.
[596] OECD, 2009, p. 5.

interconnected to fail. However, banks should fail, inter alia, in order to serve the "allocational efficiency of the financial market," and to avoid moral hazard.[597] Hence, there are proposals to disconnect a bank's investment activities from its derivatives' counterparty activities,[598] for example through 'fencing in' strategies for banks to guard and divide them from the more dangerous investment banking industry.[599]

Finally, a new regulatory framework should "more actively promote assessing and reviewing the quality and impact of (new) regulations."[600] In this context, the role of CG and notably of the board towards the implementation of proper ERM systems was examined and is most important, not only in times of crisis but even more so in smooth times when risks are less obvious.[601]

c. Third, the probability of future crises can be lowered by promoting international cooperation. The underlying concern is that financial markets have grown internationally, while regulation remains domestic. Governments and central banks need to advance and implement cross-border standards for prudential supervision and regulation of financial institutions. Presented cooperation between FSA and IMF, as well as the idea of a "single overarching regulator for prudential standards across all financial institutions (the so-called 'twin peaks' model used in Australia), could be a starting point."[602]

Supporters of an international framework emphasize the lower risk of unilateral action, which could be detrimental to competition. Furthermore, cooperation would be essential to guarantee a smooth exit from actions taken during crises management, to get a more robust financial market, as well as to set up mechanisms in order to increase market resilience to shocks[603].

Critics, however, state that government entanglement in financial markets is "dangerous" and may only provide an "illusion of safety." [604] Considering well-known regulatory failures before and during the crisis, I would like to cite the G-20 approach stating that "we [G-20] each agree to ensure that our domestic regulatory systems are strong, but we also agree to establish the much greater consistency and systematic cooperation between countries, and the framework of internationally agreed high standards, that a global financial system requires."[605] However, the exact definition of "high standards" is naturally the crux of the matter.

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[597] See above C.II.2.a.,b.
[598] Jaffee/Perlow, EV, 2008, p. 3.
[599] Wehinger, OECD, 2008, p. 33.
[600] Ibid, p. 32.
[601] Stark, ECB, 2008, parag. 34 ff.
[602] Wehinger, OECD, 2008, p. 33; Blundell-Wignall/Atkinson/Lee, OECD, 2008, p. 100.
[603] Furceri/Mourougane, ECO, 2009, p. 41. 42.
[604] Smelt, NZ, 2009, parag. 6 ff.
[605] G-20, London, 2009, No. 14.

d. This paper has revealed that the *outcome* of this 'quest' does and should not only depend on government regulators, but that stability of firms and markets also require sound CG and self-regulation by companies and the financial industry. In order to find the balance between growth and stability, governments should first and foremost correct existing regulatory failures, encourage the financial sector to adopt prudent and tight self-regulation, while granting companies a large scope to revise existing weaknesses in CG. To achieve this goal, the responsibility and capability of the board is central. In some cases, especially in crisis management, new regulation and government intervention might be unavoidable but should be created carefully, based on appropriate diagnoses of the root problems and principles, such as transparency, risk control and international cooperation. Even the GFC has not changed the maxim "as much government regulation as necessary, but as little as possible."

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