SYMPOSIUM ON BUILDING THE FINANCIAL SYSTEM OF THE 21ST CENTURY

AN AGENDA FOR EUROPE & THE UNITED STATES

TURIN, ITALY • MARCH 26-28, 2009

Draft – January 28, 2009

THURSDAY, MARCH 26

18:00 **GREETINGS**
Hal Scott, Program on International Financial Systems (PIFS), Harvard Law School
Karel Lannoo, Chief Executive Officer, Centre for European Policy Studies

18:10 **KEYNOTE ADDRESS**
Jörgen Holmquist, Director General of DG Internal Market and Services, European Commission
Roel Campos, Partner in charge of Washington office, Cooley Godward Kronish LLP

19:00 Cocktail Reception

20:00 Dinner

21:30-24:00 After-Dinner Cocktails

FRIDAY, MARCH 27

7:15-8:15 Breakfast

8:15-8:25 **WELCOME & OPENING REMARKS**
Hal Scott, Program on International Financial Systems (PIFS), Harvard Law School
Karel Lannoo, Chief Executive Officer, Centre for European Policy Studies

8:25-8:45 **PANEL SESSION**
Topic 1: Global Impact of National Bailouts
Two panelists, one from Europe and one from the U.S., will discuss the relevant issues relating to this topic. Each panelist will make a 5-7 minute presentation.

8:45-10:10 **SMALL GROUP SESSIONS**
Five or six groups, each consisting of 16-18 people, will discuss the issues raised by the panelists. A U.S. and European participant will facilitate each small group. All participants at the group sessions comment on the topic. A recorder for the Symposium will write down the discussion.

10:10-10:20 Refreshment Break

10:20-10:40 **PANEL SESSION**
Topic 2: Crisis Management and Resolution: What is the Respective Role of the Central Bank and the National Treasuries
See above note for the format of the Panel Session.

10:40-12:15 **SMALL GROUP SESSIONS**
See above note for the format of the Small Group Sessions.

12:15-13:30 Lunch
KEYNOTE ADDRESS
Michel Prada, Former Chairman, Autorité des Marchés Financiers (AMF)

13:30-15:00 **PANEL SESSION – PLENARY DISCUSSION ONLY**
Topic 3: Failures and Challenges of Risk Management in the Financial Sector
Four panelists, two from Europe and two from the U.S., will discuss the relevant issues relating to this topic. Each panelist will make a 5-7 minute presentation. This panel presentation will be followed by plenary group discussion.

15:00-17:45 Free Time

18:00-19:00 Cocktail Reception

19:00 **KEYNOTE ADDRESS**
Alessandro Profumo, Chief Executive Officer, UniCredit

20:00-21:30 Dinner

21:45-24:00 After-Dinner Cocktails

SATURDAY, MARCH 28

7:15-8:15 Breakfast

8:15-9:15 **PRESENTATION & DISCUSSION**
Topic 1: Global Impact of National Bailouts
A plenary discussion chaired by two participants, one from the U.S. and one from Europe. A recorder will present a synthesis of the discussions from the small group sessions of the previous day.

9:20-10:20 **PRESENTATION & DISCUSSION**
Topic 2: Crisis Management and Resolution: What is the Respective Role of the Central Bank and the National Treasuries
See above note for the format of the Presentation and Discussion.

10:20-10:30 Refreshment Break

10:30-11:30 **PRESENTATION & DISCUSSION**
Topic 3: Failures and Challenges of Risk Management in the Financial Sector
See above note for the format of the Presentation and Discussion.

11:30-13:00 Closing Lunch

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BUILDING THE FINANCIAL SYSTEM OF THE 21ST CENTURY:
AN AGENDA FOR EUROPE & THE UNITED STATES

TURIN, ITALY • MARCH 26-28, 2009

SYMPOSIUM REPORT

PROGRAM ON INTERNATIONAL FINANCIAL SYSTEMS, HARVARD LAW SCHOOL
CENTRE FOR EUROPEAN POLICY STUDIES



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AN AGENDA FOR EUROPE & THE UNITED STATES
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AN AGENDA FOR EUROPE & THE UNITED STATES
TURIN, ITALY • MARCH 26-28, 2009

THURSDAY, MARCH 26

18:30 Cocktail Reception – UniManagement Executive Learning Center

19:10 **GREETINGS** – UniManagement Executive Learning Center
Anna Simioni, Chief Executive Officer, UniManagement
Hal Scott, Director, Program on International Financial Systems (PIFS), Harvard Law School
Karel Lannoo, Chief Executive Officer, Centre for European Policy Studies (CEPS)

19:15 **KEYNOTE ADDRESS** – UniManagement Executive Learning Center
Jörgen Holmquist, Director General of DG Internal Market and Services, European Commission
Roel Campos, Partner in Charge of Washington Office, Cooley Godward Kronish LLP

20:00 Dinner – Fondazione CRT, next to UniManagement Executive Learning Center

21:30-24:00 After-Dinner Cocktails – UniManagement Executive Learning Center, 3rd Floor

FRIDAY, MARCH 27

7:15-8:15 Breakfast – The Golden Palace Hotel
(Panelists and Reporters please sit at reserved tables for planning meeting)

8:15-8:25 **WELCOME & OPENING REMARKS** – UniManagement Executive Learning Center
Hal Scott, Program on International Financial Systems (PIFS), Harvard Law School
Karel Lannoo, Chief Executive Officer, Centre for European Policy Studies (CEPS)

8:25-8:45 **PANEL SESSION** – UniManagement Executive Learning Center
Topic 1: Global Impact of National Bailouts
Europe Panelist: Peter Tils, Chief Executive Officer, Central and Eastern Europe, Deutsche Bank AG
U.S. Panelist: Stefan Gavell, Executive Vice President and Head of Regulatory and Industry Affairs, State Street Corporation

8:45-10:10 **SMALL GROUP SESSIONS** – UniManagement Executive Learning Center

Group/*Room*	*Facilitator*	*Reporter*
1	Michel Maquil, Alastair Sutton	Andrew Kuritzkes
2	Arnaud de Bresson, Christine Farnish	Piero Cinquegrana
3	Dagmar Linder, Marco Onado	Emily Altman
4	Ginevra Bruzzone, Larry Uhlick	Karel Lannoo
5	Javier Arias, Nickolas Reinhardt	Eric Morgan de Rivery

10:10-10:20 Refreshment Break

10:20-10:40 **PANEL SESSION** – UniManagement Executive Learning Center
Topic 2: Crisis Management and Resolution: What are the Respective Roles of the Central Banks and the National Treasuries?
Europe Panelist: Fabio Recine, Senior Expert Financial Supervision, European Central Bank
U.S. Panelist: Hal Scott, Director, Program on International Financial Systems (PIFS), Harvard Law School

10:40-12:15 **SMALL GROUP SESSIONS** – UniManagement Executive Learning Center

Group/*Room*	*Facilitator*	*Reporter*
1	Larry Uhlick, Richard Kaye	Andrew Kuritzkes
2	Staffan Jerneck, Nick Collier	Piero Cinquegrana
3	Simon Gleeson, Terri Vaughan	Emily Altman
4	John Houston, Scott White	Karel Lannoo
5	Dominique Graber, Charles Ilako	Eric Morgan de Rivery

12:15-13:30 Lunch – UniManagement Executive Learning Center, 3rd Floor
KEYNOTE ADDRESS
Michel Prada, Former Chairman, Autorité des Marchés Financiers (AMF)

13:30-15:00 **PANEL SESSION – PLENARY DISCUSSION ONLY** – UniManagement Executive Learning Cntr.
Topic 3: Failures and Challenges of Risk Management in the Financial Sector
Europe Panelist: Antonio Garcia del Riego, Managing Director, Banco Santander
Europe Panelist: Renzo Traversini, Solutions Business Development Manager, SAS Italy
U.S. Panelist: Philipp Härle, Partner, McKinsey & Company Inc.
U.S. Panelist: Andrew Kuritzkes, Partner, Oliver Wyman

15:00-17:45 Reporters Meeting – UniManagement Executive Learning Center, 3rd Floor

15:00-17:45 Free Time – Please sign up for the walking tour of historical Turin

15:30-17:30 Walking tour of Turin – Please meet in lobby of Golden Palace Hotel

18:00-19:00 Cocktail Reception – UniManagement Executive Learning Center

19:00 **KEYNOTE ADDRESS** – UniManagement Executive Learning Center
Alessandro Profumo, Chief Executive Officer, UniCredit

20:00 Walk to Ristorante Il Cambio

20:10-21:30 Dinner – Ristorante Il Cambio

21:45-24:00 After-Dinner Cocktails – UniManagement Executive Learning Center, 3rd Floor

SATURDAY, MARCH 28

7:15-8:15 Breakfast – The Golden Palace Hotel
(Chairs and Reporters please sit at reserved tables for planning meeting)

8:15-9:15 **PRESENTATION & DISCUSSION** – UniManagement Executive Learning Center
Topic 1: Global Impact of National Bailouts
Europe Chair: Stefano Micossi, Director General, Assonime
U.S. Chair: Charles Ilako, Partner, PricewaterhouseCoopers

NO BREAK – PLEASE REMAIN IN ROOM

9:20-10:20 **PRESENTATION & DISCUSSION** – UniManagement Executive Learning Center
Topic 2: Crisis Management and Resolution: What are the Respective Roles of the Central Banks and the National Treasuries?
Europe Chair: Edouard de Lencquesaing, Senior Advisor, Paris Europlace
U.S. Chair: Nickolas Reinhardt, Senior Policy Advisor, Fleishman-Hillard

10:20-10:30 Refreshment Break

10:30-11:30 **PRESENTATION & DISCUSSION** – UniManagement Executive Learning Center
Topic 3: Failures and Challenges of Risk Management in the Financial Sector
Europe Chair: Christopher J. Bates, Partner, Clifford Chance, LLP
U.S. Chair: Pietro Penza, Partner, Financial Services, PricewaterhouseCoopers

11:30-13:00 Closing Lunch – UniManagement Executive Learning Center

13:00 Bus Transportation to Turin Airport – Please meet in the Golden Palace lobby at 12:50





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AN AGENDA FOR EUROPE & THE UNITED STATES

TURIN, ITALY • MARCH 26-28, 2009

Valentina Allotti	Department of Corporate Legal Affairs, Assonime
Emily Altman	Private Investor
Javier Arias	Head Representative of the European Affairs, Banco Bilbao Vizcaya Argentaria
Rym Ayadi	Senior Research Fellow, Centre for European Policy Studies (CEPS)
Christopher J. Bates	Partner, Clifford Chance, LLP
Margherita Bianchini	Director of Corporate Legal Affairs, Assonime
Rainer W. Boden	Senior Advisor, European Financial Services Round Table (EFR)
Ginevra Bruzzone	Director for Enterprise, Competition and Regulation, Assonime
Roel Campos	Partner in Charge of Washington Office, Cooley Godward Kronish LLP
Piero Cinquegrana	Associate Research Fellow, Centre for European Policy Studies (CEPS)
Mitchell Coen	Director, Barclays Capital
Nicolas Collier	Head of EMEA Government Relations, Morgan Stanley
Arnaud de Bresson	Managing Director, Paris Europlace
Edouard de Lencquesaing	Senior Advisor, Paris Europlace
David Devlin	Partner, PricewaterhouseCoopers
Bouke de Vries	Senior Economist, Rabobank Nederland
Carmine Di Noia	Vice Director, Assonime
Susanne Dolberg	Executive Director, Danish Bankers Association
Sebastian A. Fairhurst	Manager of European Affairs, European Financial Services Round Table (EFR)
Christine Farnish	Strategic Public Policy Advisor, Barclay Bank PLC
Antonio Garcia del Riego	Managing Director, Banco Santander
Stefan Gavell	Executive Vice President, State Street Corporation
Simon Gleeson	Partner, Clifford Chance LLP
Dominique Graber	Head of European Public Affairs, BNP Paribas
Michele Graziadei	Full Professor of Private Law, University of Turin, Law School
Ulf Grunnesjö	Head of Investor Relations, Skandinaviska Enskilda Banken (SEB)
Mathew P. Haarsager	U.S. Treasury Representative for Europe, U.S. Department of the Treasury
Carol Hall	EU and International Public Affairs, Association of British Insurers
Philipp Härle	Partner, McKinsey & Company Inc.
Jörgen Holmquist	Director General of DG Internal Market and Services, European Commission
John Houston	Senior Partner, Kreab Gavin Anderson
Thomas Huertas	Director, Banking Sector, Financial Services Authority (FSA)
Charles Ilako	Partner, PricewaterhouseCoopers
Jeremy Jennings	Global Director, Regulatory and Public Policy, Ernst & Young
Staffan Jerneck	Director and Director of Corporate Relations, Centre for European Policy Studies (CEPS)
Richard Kaye	Head of Government Relations, EMEA, JPMorgan Chase & Co.
Friedhelm Kläs	Managing Partner, Deloitte & Touche GmbH
Martin Kopatschek	Partner, Deloitte & Touche GmbH
Andrew Kuritzkes	Partner, Oliver Wyman
Karel Lannoo	Chief Executive Officer, Centre for European Policy Studies (CEPS)
Julianne Lee	Executive Director, Head of Public Affairs EMEA, Nomura International
Dagmar Linder	Managing Director, Deutsche Bank AG
Michel Maquil	President and Chief Executive Officer, Luxembourg Stock Exchange
Stefano Micossi	Director General, Assonime

Andrea Mogni	Policy Coordinator, Analysis and Strategies, External Relations Department, European Commission
Paolo Montalenti	Professor of Corporate Law, University of Turin, Law School
Eric Morgan de Rivery	Partner, Jones Day
Penelope Naas	Vice President, Global Government Affairs, Citi
Marco Onado	Professor of Banking, Bocconi University Department of Finance
Sunao Otsuka	Head of Investment Banking, Daiwa Securities SMBC Europe, Ltd.
Denise Pacofsky	Partner, Global Regulatory and Public Policy, Deloitte
Pietro Penza	Partner, Financial Services, PricewaterhouseCoopers
Gregor Pozniak	Secretary General, AMICE
Michel Prada	Former Chairman, Autorité des Marchés Financiers, France
Alessandro Profumo	Chief Executive Officer, UniCredit, SpA
Fabio Recine	Senior Expert Financial Supervision, European Central Bank
Nickolas Reinhardt	Senior Policy Advisor, Fleishman-Hillard
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Andrew Spence	Chief Economist and Vice President, Asset Mix and Risk, Ontario Teachers' Pension Plan
Kalliopi Spyridaki	Manager, EU Public Policy, SAS
Alastair Sutton	Partner, White & Case
Bruna Szego	Head of Primary Regulation Division, Supervisory Regulations and Policies Dept., Banca d'Italia
Davide Taliente	Partner, Oliver Wyman
Ansgar Tietmeyer	Delegate of the Management Board for EU Affairs, Deutsche Bank AG
Peter Tils	Chief Executive Officer, Central and Eastern Europe, Deutsche Bank AG
Renzo Traversini	Solutions Business Development Manager, SAS Italy
Lawrence R. Uhlick	Chief Executive Officer, Institute of International Bankers
Maria Cristina Ungureanu	Researcher, Genoa Centre for Law and Finance, University of Genoa
Terri Vaughan	Robb B. Kelley Distinguished Professor of Insurance and Actuarial Science, Drake University
Oliver Wall	Senior Public Affairs Manager, Europe and International, Aviva
Pauline Wallace	Partner, PricewaterhouseCoopers
Scott White	Deputy General Counsel, Corporate, Legal Vice Presidency, The World Bank Group
Klaus Willerslev-Olsen	Deputy Chief Executive, Danish Bankers Association

SYMPOSIUM REPORT

BUILDING THE FINANCIAL SYSTEM OF THE 21ST CENTURY: AN AGENDA FOR EUROPE & THE UNITED STATES

MARCH 26-28, 2009
TURIN, ITALY

SYMPOSIUM ON BUILDING THE FINANCIAL SYSTEM OF THE 21ST CENTURY: AN AGENDA FOR EUROPE AND THE UNITED STATES
TORINO ● APRIL 2-4, 2009

FINAL REPORT

The seventh annual Europe-US Symposium was held at the UniManagement Executive Learning Center in Turin, Italy amidst a deep world recession. The financial crisis had quickly engulfed the entire globe, spreading to the real economy with global growth virtually coming to a halt. The timing of the event was particularly striking: Timothy Geithner, the incoming US Secretary of the Treasury, had just announced his plan to reform American financial regulation, and a few days after the Symposium concluded, the G20 gathered in London on to find an agreement on how to reform global finance and fight against the economic downturn.

Discussions were divided in three sessions. The first session focused on the global impact of national bailout plans; the second session concentrated on the allocation of power between the central banks and the national treasuries in crisis management and resolution; and the third session discussed failures and challenges of risk management in the financial sector.

Session I: Global Impact of National Bailouts

Participants expressed concerns about the level playing field in the financial sector following massive government intervention. Although the bailouts were deemed necessary to shore up the banking system, the piecemeal approach and the lack of international coordination had changed the competitive landscape of the industry. In addition, no easy solution was in sight to the problem on how to share the burden of bailouts for cross-border financial groups. There were also fundamental disagreements on what bailout techniques are desirable. Finally, participants could not agree on a definition of systemic risk, which caused confusion as to which institutions should enjoy implicit state guarantees.

Level Playing Field: Who Gets Bailed Out?

Governments across Europe and in the US had taken very different approaches to bailing out banks, creating distortions in the market. Some countries just provided state guarantees on new or standing liabilities, while others injected fresh capital in troubled institutions (with or without conditions). Few countries provided both or, alternatively, bought assets directly from banks. Some governments chose common equity to rescue banks, while others employed preferred shares. In the US, a plethora of different instruments were deployed such as issuance of warrants, guarantees of asset-backed securities, loan guarantees and purchase of convertible preferred shares. Central and eastern European countries had no plans to rescue the banking sector, which is 70-80% foreign-owned. Overall, it emerged that the bailout picture was particularly confusing.

Some participants felt that competition rules were bent in order to stabilize financial markets. In the UK, for instance, the government-sponsored takeover of HBOS by Lloyds created a behemoth dominating the UK retail banking and mortgage sectors. In the US, the Federal Reserve approved the takeover of Wachovia by Wells Fargo establishing the largest US bank holding group by number of customers. What would be the implications of these mergers in the long run?

Another issue that received attention was who gets bailed out. The criteria to determine which institutions enjoyed government support were murky at best. Was the crisis hitting the whole financial sector or was it just a banking crisis? Some cited the example of insurance companies in the US that had unsuccessfully applied for TARP funds. They thought that banks were direct competitors of insurance companies and the banks' bailout was creating a distorted market. Moreover, healthy banks were under pressure to accept state capital because their troubled competitors had larger capital buffers following government investment.

Burden Sharing

Participants identified a dilemma between financial markets integration and sharing the burden when the crisis strikes. Small countries that are the home of large international banks cannot absorb the losses of foreign operations, as shown by the case of Fortis. Solutions to the issue were dismissed. Some proposed limiting cross-border operations from small countries. Others thought that establishing a European supervisory body with the possibility to issue bonds to bail out troubled banks could be feasible. Outside of the European Union, it was not clear how to divide losses when international banks failed.

Most participants agreed that the parent company and, ultimately, the taxpayer in the home country were responsible for both foreign subsidiaries as well as branches. Some cited the case of Banco Santander during the Argentinean Crisis of 2001 as an example where the parent company had to bear the losses incurred by the subsidiaries. It appeared that fully capitalized subsidiaries as opposed to branches would play a much more prominent role in the future.

Additionally, even in medium or large economies such as the UK, Ireland, and Switzerland, total bank assets surpassed annual GDP by several times. Thus, state guarantees of foreign bank liabilities—as announced in Ireland at the end of September 2008 for Irish banks' liabilities in UK branches and subsidiaries—were not entirely credible. Nevertheless, the flight seen from UK banks to state-guaranteed Irish deposits was evidence of the distortive effects of state intervention.

The Politics of Bailout

Some thought that political constraints were hampering an optimal policy response to the crisis. Some mentioned the scandal over AIG bonuses that overshadowed the debate on how to address the banking crisis. Some pointed out that the tough conditions placed on receiving government funds, such as caps on executive compensation or restriction on foreign workers, could discourage participation. For instance, Bank of America was forced to cancel the hiring of foreign workers after having accepted TARP money.

Others disagreed arguing that it is inherent in the democratic process to provide checks and balances to decision making. Most shared the view that a general lack of understanding made discussions about the bailout plans difficult.

A lack of political will was at the root of Japan's lost decade, some said. Slow to react and to restructure the bad loans in the banks' portfolio, the Japanese government was partly responsible for the lost decade. Some claimed that taking drastic action over banks would have positive feedback on the real economy, with asset prices recovering rapidly.

Few expressed dismay at governments running banks, and claimed that politicians would find it convenient to direct loans and influence lending policy. Others pointed out that the public sector was forced to intervene to save the economy from disaster, and so far there was little evidence that officials were meddling with banks' lending.

Another issue on which there were animated discussions was the governments' exit strategy from the banking sector. When and how would governments get out of the financial sector in order to minimize taxpayers' losses and to avoid excessive interference in the market? Some predicted that it would be four to five years before governments could sell their equity in banks. Others asked whether the government should exit the banking sector before basic goals and principles were agreed upon. Such goals and principles would determine what banks ought to be doing and what level of risk they are allowed to take.

Bailout Techniques

There was no consensus on what bailout technique is most appropriate. Some advocated outright nationalization. The advantage of nationalization would be a quick restructuring of the banks' balance sheets with the transfer of bad assets to a bad bank managed independently. The valuation of the toxic assets would become irrelevant, since the assets would be transferred between two companies owned by the state. Once the good banks are cleared of the "legacy assets" (as euphemistically defined by Timothy Geithner), they can start lending again. A well-capitalized bad bank can bear the losses on the assets it holds, while the economy recovers. In a rosy scenario, the taxpayer could make a profit when the government sells the publicly owned banks.

Others found government control of banks unacceptable. They argued that nationalization would skew lending policies to politically connected industries, and they claimed that the government would not have the expertise to run such a complex industry. Some voiced concerns that once the government enters the banking sector, it would be tempted to stay. Some participants believed that the costs of nationalization would be too high and its results ineffective. Moreover, it would be hard both politically and economically to set clear criteria to decide which banks are insolvent.

Further, many stated that this crisis was fundamentally different from past crises, which made nationalization more difficult to implement than in the past. First, they said that the international nature of banking groups made government takeover hard to achieve. As mentioned above, countries such as the UK, Ireland or Switzerland were the homes of banking industries with assets larger than their GDP. By contrast, the Swedish or the Japanese banking crises of the early 90s were national crises where the government could effectively take over the insolvent banks. Second, they were concerned that the complexity of banks' balance sheets would overwhelm the expertise of public officials. Finally, they thought complex financial instruments made the system much more interconnected, and nationalization would represent a "credit event" for credit default swaps, all of which had uncertain and potentially disruptive consequences on the global financial system.

Another solution proposed was the purchase of bad assets. Some criticized this technique because it would represent a loss for the taxpayer – the prices paid had to be inflated to attract sellers and the bill for the losses had to be footed by the state to attract buyers – and it would not produce a drastic restructuring of banks' balance sheet.

Some participants proposed to inject capital in troubled banks and wait until the economy and asset prices recovered, basically the U.S. TARP approach. But this, as many acknowledged, was a risky strategy. A final solution would be to set up a bad bank without nationalizing the industry, whereby creditors would get a pro-rata interest in good and bad banks. In so doing, debt holders would experience losses from the impaired assets. It was unsure whether it would be feasible to create such vehicles without altering the contractual rights of debt holders.

What Is Systemic Risk?

Many participants agreed that only systematically important financial institutions should be rescued in times of turmoil. Ideally, some argued, a system should be in place whereby financial institutions would be allowed to fail without causing systemic disruption. In effect, if the entire financial sector enjoyed a blanket state guarantee, excessive risk-taking and the pro-cyclicality of the system would be exacerbated rather than mitigated.

However, a general lack of understanding or agreement prevented determining which institutions were “too big to fail.” Some put forward the idea that size is the single most important factor when deciding; others affirmed that interconnectedness should be given priority; some thought that even small players could undermine confidence and thus become systemic.

Overall, systemic risk proved an elusive concept. Interconnectedness is hard to measure, given the opaque nature of OTC markets and the complex linkages across institutions. Moreover, psychological factors – difficult to account for -- play a significant role on confidence, with repercussions on interbank lending and asset prices. Finally, systemic risk may be cyclical; in times of downturn even smaller actors could become systematically important.

Other Issues

An issue that received much attention was who should bear the losses. Some argued that only shareholders should be wiped out, since equity is by definition the most risky tranche of capital. Others disagreed pointing out that debt holders should also take a hit because they did not perform due diligence, and that avoiding creditors’ loss would encourage moral hazard in the future.

Most agreed that creditors had so far experienced few losses, which increased the cost of bailouts for taxpayers. Some attributed this behavior to the undue influence of domestic constituencies such as pension funds on the US administration.

Some highlighted the fact that the creation of hybrid instruments such as preferred stocks, warrants or convertible bonds has diluted the distinction between equity and debt. They also argued that this development produced legal uncertainty and that a clear definition of equity was missing.

Some said that letting Lehman Brothers go under was a mistake for which policy makers were clearly responsible. They believed that the investment bank should have been rescued for reasons of financial stability. Others disagreed claiming that only with the benefit of hindsight was such a view possible. At the time, policy makers were convinced that moral hazard was the overarching concern, and that the government should not intervene to save all financial institutions in trouble.

A final issue that came up in discussions was the degree of familiarity of different countries with crisis management. Some indicated that 80% of the UK Treasury was staffed with people with less than three years of experience. By contrast, others pointed out that most Swedish and Japanese policymakers had first-hand experience of banking crises from the early 90s. Finally, participants emphasized that the US Treasury was understaffed due to the laborious nomination process and the high ethical standards set by the Obama administration.

Conclusions

Most participants agreed that the answer to everything is not regulation, and that greater market discipline and transparency should play a role in responding to the crisis. Many also thought that creditors and not just shareholders should be liable in case banks are taken into receivership or nationalized. Participants also indentified a need to reduce interconnectedness through clearinghouses, requiring contract standardization, price reporting and valuation. Finally, bailout plans have resulted in a distorted market and lingering protectionism, all which should be countered with strong measures and with a return to a free market as soon as conditions allow.

Session II: Crisis Management and Resolution: What is the Respective Role of the Central Bank and the National Treasuries?

Discussions in this session focused on the distinctions between the functions of lender of last resort (LOLR), supervision, resolution and bailout. It emerged that central banks have engaged in a whole range of activities beyond the classic role of liquidity provider against good collateral, and this created demands for greater accountability and democratic control. In Europe, the detachment between fiscal and monetary authorities as well as the lack of harmonization of deposit guarantees and resolution procedures pose a set of challenges to the idiosyncratic governance structure of the euro area. In spite of much talk of systemic risk regulator, participants failed to define the distinction between macro and micro prudential supervision. Moreover, it was not clear how to address the inconsistency between political sovereignty and the need for coordinated global responses.

LOLR, Supervision, Resolution and Bailout

Many acknowledged the confusion between the functions of LOLR and bailouts in the ongoing crisis. Indeed, it was clear that authorities had contributed to such confusion, with central banks engaging in bailing out banks in a disguised fashion. Deposit guarantee schemes and resolution procedures were other hot topics in the debate.

Participants shared the view that crisis prevention (supervision), management (LOLR and bailouts) and resolution (resolution procedures) tools need strengthening at the national, regional and global level.

LOLR

The classic function of lender of last resort requires lending to deposit-taking institutions against good collateral at a penalty rate in order to provide liquidity to the system. Good collateral is easy to value because it has a liquid market with transparent pricing and low risk of default, and the haircuts applied by the central banks can be easily ascertained. In this scenario, the central bank is unlikely to lose money from its liquidity operations.

In the present crisis, however, central banks have expanded their mandate to untraditional liquidity provision against bad collateral such as illiquid or riskier securities. Moreover, the Fed has started to buy commercial paper and lent directly to nonbank institutions such as money market and investment funds. In so doing, it has engaged in a form of bailout of the financial sector with increasingly risky operations Participants mentioned that the size and composition of the Fed's balance sheet had expanded from $850 billion in 2006 mostly in liquid US Treasury bills to $1.9 trillion in January 2009 with US T-bills representing only 25% of the total.

Some participants expressed concerns at the uncertainty surrounding the valuation of the bad collateral accepted by central banks and the haircuts applied to illiquid securities. Most thought that the ECB has not been transparent enough on the models or valuation techniques used to price illiquid securities accepted as collateral, and found disconcerting that the Fed had contracted out this function to BlackRock, one of the largest publicly traded management funds in the US. In the latter case, the function of Blackrock is fraught with conflicts of interest, insofar as the management fund holds a large portfolio of asset-backed securities whose marketable value depends upon its own valuation role for the central bank.

There was general consensus that the expansion of the central banks' operations into unconventional territory has created extraordinary levels of scrutiny and demands for public accountability. By bailing out financial institutions, some argued, central banks have entered the political wrangling, undermining their independence and inflation-fighting credibility. By contrast, few thought that the monetary policy's objective of financial stability justified the unconventional measures undertaken to battle against the financial crisis.

Supervision

The supervision of financial markets appeared as a very contentious issue on both sides of the Atlantic. The first aspect relates to what exactly is supervision; the second aspect concerns who should be in charge of it.

In regard to the first issue, a lot of attention was devoted to macro and micro prudential supervision. Most participants agreed that an excessive focus on supervision at the firm level (micro) allowed supervisors to miss the bigger picture (macro) of global imbalances, asset price bubbles, excessive leverage and underpricing of risk. However, some claimed that the distinction between the two is rather murky. For example, are financial innovation and leverage issues for macro or micro prudential regulators? And, if the two functions were to be separated, how would information at the micro level be shared at the macro level?

As far as the allocation of authority is concerned, some participants proposed that the central banks should be in charge of both macro and micro prudential supervision. They added that information synergies at the micro and macro level would make the detection of systemic risk easier if the two supervisory functions were concentrated in a single authority – most conveniently the central bank. Others disagreed arguing that confirming supervision and monetary policy would undermine central banks' independence. Some suggested that some duplication in supervision would provide stronger checks and balances, given the fallibility of regulators revealed by the financial crisis. Thus the allocation of micro supervision to a separate agency from the central bank – the argument goes – would represent a healthy check. Overall, there seemed to be no consensus on where the authority should be allocated.

Participants thought that supervisors had failed to detect the weaknesses inherent in the system. Some claimed that supervisors had indeed detected the weaknesses, but they did not

have enough political capital to act or did not have the institutional power to do so. Others stressed that supervisors trusted institutions to properly manage the risks they were taking, considering that they lacked the technical expertise to evaluate whether institutions were doing a good job.

There was widespread agreement that the colleges of supervisors based on memoranda of understanding had failed to provide a robust framework to supervise cross-border activities and to afford appropriate crisis management tools. The cases of Fortis and Dexia were emblematic of the lack of information sharing, lack of coordination in supervision and of the nationalistic response to resolution. In Europe, it was also clear that the home-host model of supervision had failed.

Participants delineated two possible options for the future of supervision in Europe. One side advocated in favor of the European Central Bank taking over the supervisory function. The other side preferred the establishment of a European System of Financial Supervisors (ESFS) and the consolidation of CESR, CEBS, and CEIOPS, along the lines proposed by the de Larosière Report. US Participants were split too. Some thought the Fed should supervise banks, but it needed more resources to do so. Others called for the creation of a US FSA in order to preserve the Fed's independence.

Resolution

The resolution authority is the power to take banks or other financial institutions into receivership if they pose a threat to the financial system. Resolution procedures are administrative acts alternative to bankruptcy procedures – which have a judicial review and a slow-moving process – and they allow for the dismantling and reorganization of the failing institution in a speedy manner in order to minimize disruption in financial markets.

Some argued that the central bank should be charged with the authority to take over insolvent financial institutions. Others disagreed suggesting that resolution is an inherently political function and the government should be responsible for it.

In the US, the FDIC is charged with taking a bank into receivership after its regulator, i.e. the Office of the Comptroller of the Currency makes an insolvency determination. However, in the present crisis, it emerged that nonbank institutions such as AIG or Lehman Brothers fall outside the reach of the FDIC. Therefore, Secretary Geithner has recently asked resolution authority for the government over any financial institutions posing a threat to systemic stability, be it a bank holding group, an insurance company or a hedge fund.

Participants called for greater harmonization in the EU of resolution procedures. In the UK, a tripartite agreement between the Bank of England, the Treasury and the FSA was recently enacted to establish a special resolution regime for banks. After the FSA makes the insolvency determination, the Bank of England could pursue different resolution procedures (including public ownership managed by the Treasury) based on the circumstances. Other European countries have very different regimes, and some raised the question on how to address the problem of an insolvent bank with significant cross-border operations.

European Issues

Many participants thought that the split between the ECB and fiscal authorities in Euroland was positive for the central bank's independence, even though it could hinder coordination. Non-

Euroland countries like the U.K., could achieve better coordination between fiscal and monetary policy. In the case of the US, some claimed that the Fed was bullied by the Treasury to behave pro-actively as in the case of Bear Stearns or AIG, where the central bank provided financial support.

Some participants affirmed that in Europe there was evidence of nationalistic liquidity management, since national central banks had a preference for domestic institutions. Within Euroland that was not an issue – since the ECB would manage liquidity operations at the central level – but banks with subsidiaries outside their currency area were faced with hostile conditions. For instance, an Italian bank with subsidiaries in Hungary would have to seek liquidity support from the Hungarian National Bank. On the other hand, branches would be supported by the home country's central bank. Many participants felt that the home-host model for liquidity support represented an issue.

Most participants agreed that there was a lack of harmonization of deposit guarantee schemes across Europe. They called for a pre-funded deposit guarantee scheme with a homogenous level of insurance, and they claimed that post-funded schemes had reveled their inadequacy in times of crisis.

Systemic Risk Regulator

The systemic risk regulator – whose activities belong to the realm of crisis prevention – would be charged with macro prudential supervision. As discussed above, the functional distinction between micro and macro prudential supervision is not so clear-cut. Further, some raised concerns that this new body would issue warnings with hardly any impact because in times of boom – precisely when it is most necessary to take action – it would be politically suicidal to follow words with deeds.

Participants agreed that the Systemic Risk Council (SRC) to be established within the ECB, as envisioned in the de Larosière Report, would have a macro focus on imbalances and bubbles. It would not be involved in day-to-day supervision, regulation or resolution. It would issue warnings on the fragilities of the system, and then the ball would pass to the Ecofin Council, where the final decision to act would be taken.

By contrast, some claimed that in the US the systemic risk regulator would be most likely responsible for micro and macro prudential supervision as well as some regulatory function. Many participants guessed that all these functions would be concentrated at the Fed.

Global v. National Response

There was widespread agreement that in a brave new world of international finance, international coordination should play a much more prominent role. Many stressed how regulatory arbitrage was responsible for a regulatory race to the bottom, whereby financial institutions would be facing increasingly more lenient supervision and regulation. States, many argued, were eager to attract financial businesses to their jurisdiction, and competed towards this end. Therefore many affirmed that international cooperation should prevent this from happening in the future. But it was not clear how these arrangements should work, and many said that once the world economy turned around it would be hard to avoid this sort of regulatory competition.

Others emphasized the role of tax havens in hampering the pursuit of market abuse, and in encouraging tax evasion and fraud. They claimed that in investigating cases of market abuse, supervisors would end up lacking authority over uncooperative jurisdictions, where most shady transactions were conducted. Others thought that the focus on tax havens was misplaced, given that the crisis originated in regulated banks.

Despite the recognition of the importance of international coordination, states would be reluctant to give up power to unelected international bodies. In the discussions, no consensus emerged on how to effectively coordinate national and global responses.

Regulatory Response

Some called for a return of a Glass-Steagall Act, whereby banks with state deposit guarantees would be prohibited from engaging in investment activities. Many disagreed arguing that we cannot go back to the past, and that we should devise a better capital adequacy framework. However, some doubted whether a new regulatory framework would be successful, given that not all regulation works as demonstrated by the failure of Basel. Many advocated for smart as opposed to more regulation, claiming that the quality of regulation is more important than just the quantity of it.

As acknowledged by participants, some real differences on regulatory issues persisted between the US and Europe. First, the EU, unlike the US, wants credit rating agencies to rate structured products differently than corporate or sovereign debt. Second, the EU would like to see originators keep a portion of the debt they securitize, giving an incentive to originators to perform their due diligence towards the underlying pool of loans. Third, the EU wants to see a separate clearinghouse for credit default swaps on its territory, so that it can supervise the new entity with prudential rules.

Some added that regulation is useless without better implementation and enforcement. Although it was widely agreed that this was more of a European problem with different levels of implementation and enforcement across Member states, some pointed to the Madoff scandal and the weak surveillance of Citi and Wachovia as a failure of enforcement in the US as well. Some proposed limiting bank size to reduce systemic risk. Others were in strong disagreement, arguing that this would lead to inefficiencies in the system.

Other Issues

Some participants argued that regulatory capture played a role in the crisis. Regulators lacked the knowledge of specific market segments, and relied upon market participants to police themselves. Not only did they spend a lot of time with organized trade associations, thereby taking on their views, they also did not have the resources to make informed decisions about fundamental issues. Finally, it was pointed out that the industry is much more organized and has better resources to fund the research to back up their views. On the other hand, investors hardly participate in the regulatory process.

Some attention was devoted on how to manage the knowledge being produced during the crisis. Participants expressed concerns that a cacophony of voices and ideas were being put out, and policy makers had a hard time to organize and use that knowledge. Some proposed to form study groups with very narrow mandates on single issues that would come up with concrete proposals rather than grandiose principles on how to fix global finance. Others called

for academics to provide feedback as the policies to address the crisis were being implemented in order to help public officials to adjust and correct.

Some claimed that in order to get ready for the next crisis, we should conduct international stress tests of the financial system. Along the lines of NATO that simulate war scenarios, financial regulators should simulate large-scale financial crises periodically so that the next crisis will not strike an untested terrain.

Conclusions

Many agreed that central banks should not be generally involved in bailouts in order to maintain their independence. There was also agreement that supervision is a contentious issue in regard to who should do it, what exactly is the distinction of micro and macro prudential and which institutions should be monitored. In spite of the difficulty in finding practical solutions, most participants shared the view that more global coordination is needed on the supervision of multinational banks, on international warnings of macro problems, and on monetary and fiscal policy.

Session III: Failures and Challenges of Risk Management in the Financial Sector

Discussions in this session focused on risk management in the financial sector. There was widespread agreement that risk management had failed spectacularly, but the reasons were quite diverse. Some thought that an overreliance on quantitative models without a qualitative assessment of risk was the main problem. Others blamed the regulatory loopholes in Basel; others thought that risk management practices were not sufficiently embedded in business processes. Some participants argued that boards of directors did not monitor the overall level of risk banks were taking. Finally, national supervisors were deemed responsible for lenient supervision and enforcement of existing rules.

Models

Most participants agreed than an excessive reliance on quantitative models with optimistic assumptions was at least one of the factor responsible for the failure of risk management in the financial sector. Most argued that qualitative judgment should complement the use of quantitative models to insure for the sensitivity and robustness of the estimates, the avoidance of a rear-mirror based view of static metrics, and the chance that tail risks may materialize.

Others underlined the role of banks' technological infrastructure in responding quickly to changes in the business environment. They said that currently banks need around 20 days to calculate risk with internal models. However, when crises strike risk can appear very quickly, and therefore banks are now upgrading their IT systems to reduce capital calculations to 5 days.

Regulatory Capital

Some criticized the misplaced confidence in Pillar I (internal models for large banks) with its loopholes for asset/liabilities (A/L) funding risk, financial innovation, reputation, and business risks. A/L funding risk was not evident during the boom times, as conduits and other off-balance-sheet entities were able to borrow short-term commercial paper and buy long-term securities, gaining large spreads on maturity transformation. Financial innovation allowed overcoming regulatory constraints by creating complex transactions and poorly understood (outside the financial world) legal entities such as structured investment vehicles and conduits.

Once liquidity dried up because of a re-pricing of risk and the consolidation of off-balance sheet assets onto the banks' balance sheet, the reputation of banks suffered accordingly. The shadow banking system engendered a liquidity crisis on a global scale. Moreover, a lack of diversification led to large business risks in firms such as AIG financial products and the US monoline insurers.

Most participants agreed that counter-cyclical capital charges would be desirable to smooth out the business cycle. However, the details of the proposal were still rather vague. Some argued that dynamic provisioning as implemented in Spain in the early 2000s would be the best solution. Others disagreed claiming that manipulating banks' provisioning for profit and losses would delegitimize the function of accountants, and they favored dynamic capital charges instead.

Some asked whether we can rely on capital charges to contain risk or we need limits on activities or size. Some participants thought they should be simpler indicators encompassing all the banking activities, such as crude leverage ratios, could represent a solution. Others claimed that deposit-based institutions should not be allowed to engage in trading, and that narrow commercial banking would be the only viable model going forward.

Market Mechanisms

Given the failure of the regulatory system, some participants called for greater transparency and market discipline to limit risk-taking. They demanded more information on OTC markets and the shadow banking system creating better incentives to compete rather than writing more rules. If banks and financial institutions were allowed to fail without causing systemic disruption, the argument goes, banks would limit themselves to prudent lending.

Others strongly disagreed arguing that history has shown that free banking does not work. Competition in banking entails increasingly higher levels of risk and leverage,. While regulatory capital charges provide limits to the amount of leverage banks can accumulate, deposit insurance and lender of last resort function provide a safety net to shore up confidence in the banking system.

Risk Governance

Many thought that weak corporate governance in the financial sector was to blame for failing to spot excessive risk-taking. Boards of directors, many claimed, should have been more active in curbing management. Executive compensation and a focus on shareholder value provided perverse incentives to take on short-term risks in the knowledge that the taxpayer would bailout the financial sector once their bets went awry.

Others stressed the importance of embedding risk management into business processes. They claimed that top management had a poor understanding of risk management practices, and that short-term commercial factors always prevailed against risk assessments. They also argued that risk management decisions were taken at a low level in siloed departments, and that banks lacked firm-wide risk oversight. Participants also recognized a failure in linking risk to strategy. Banks should have performed deeper downturn scenario analyses, and should have looked at how these scenarios would have affected their competitive position. Many participants suggested more forward-looking risk assessments.

Many acknowledged the positive impact of diversity of risk management. Diversification of risk oversight practices lessens the herding behavior of financial actors. However, with greater oversight and capital requirements being imposed, there is a real risk that risk management would become more and more homogenous across the financial sector.

Whether to grant larger discretion to risk managers was the object of lively discussions. One side argued in favor saying that risk managers were not influential enough in the run up of the current crisis. Others thought that giving more power to risk managers would surely end up with banks taking larger and larger risks.

Mark-to-Market Accounting

Another contentious issue was mark-to-market accounting, which had come under attack for contributing to the aggravation of the banking crisis. Banks enjoyed vast profits during the upswing; once the crisis struck they were forced to write down illiquid securities. Some argued that mark-to-market had its origins in the efficient market hypothesis – which this crisis had widely discredited. They also thought that market prices are sometimes not fair prices because assets may be illiquid, and that we should be open to other valuation techniques.

Others strongly disagreed affirming that a move away from mark-to-market would create opportunities to manipulate banks' accounts. The acknowledgement of losses would be delayed, and the problems would arise anyway. In the end, they argued, market prices are the only barometer we have to measure the value of assets.

Conclusions

Most agreed that this crisis has taught us that liquidity is not free, and that liquidity risk should be better integrated in risk oversight. Many also found poor integration of risk management and business strategy across the financial sector: short-term profit overwhelmed long-term performance. Finally, qualitative judgment should be combined with quantitative modeling of risk. However, how this should be implemented was a far more controversial area of discussion.

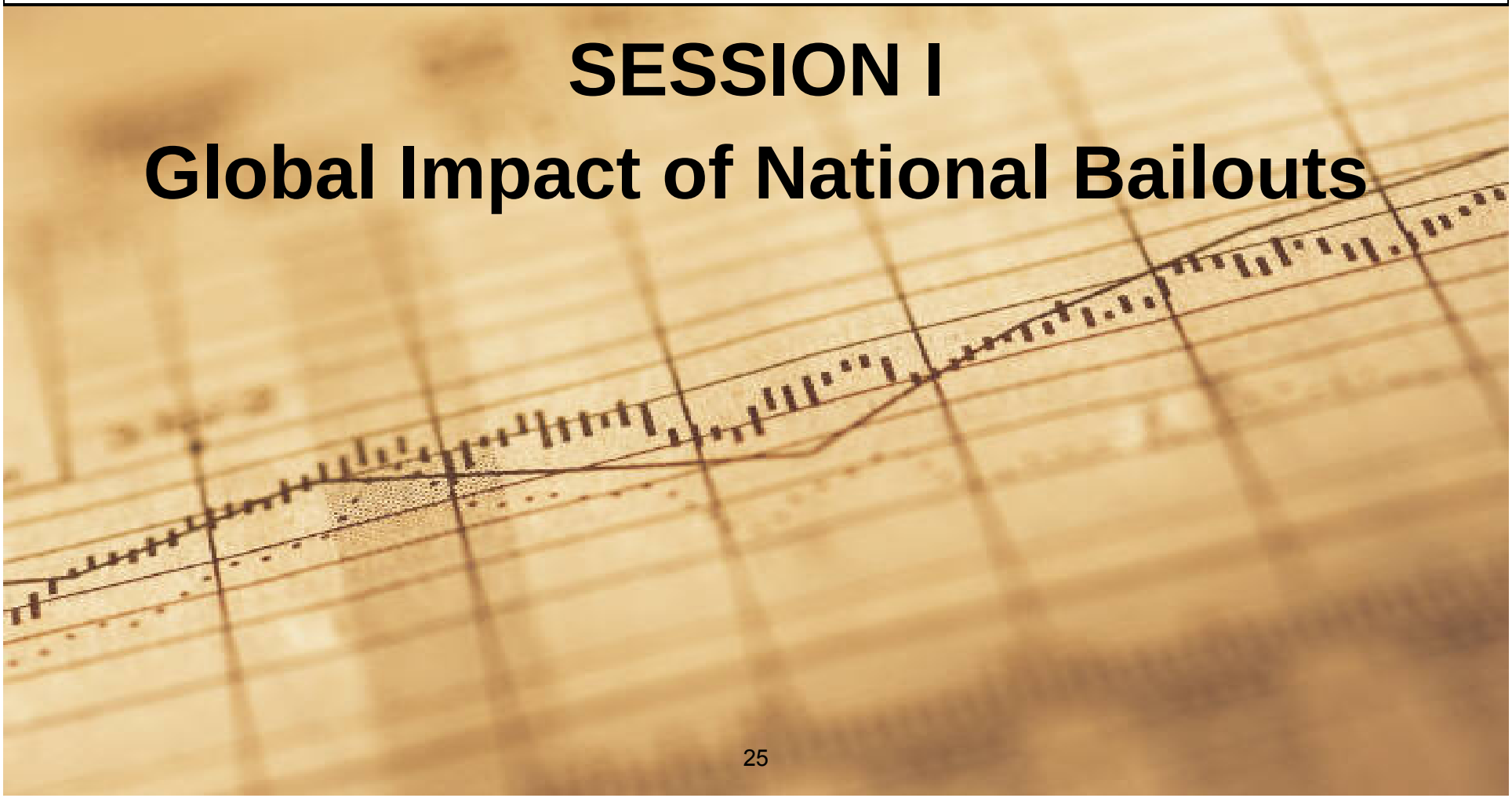
PRESENTATION OF FINAL PLENARY SESSION



2009 Symposium on Building the Financial System of the 21st Century: An Agenda for Europe and the United States

SESSION I

Global Impact of National Bailouts



Bailouts I

- Level playing field problem
  - Who gets bailed out?
- Burden sharing across European countries
  - Small countries cannot absorb loss of foreign operations
  - Should we limit cross border banking from small countries?
- Cost: difficulty of getting funds from governments: major problem in U.S. democratic system; during “lost decade” was also a problem in Japan
- Approach: given immediate crisis, how important is consistency or long-term consequences of policies?
  - More experiments may be better
  - Can change approach in longer term

Bailouts II

- Who bears loss? Shareholders, debtholders (what debtholders?)
- Apart from Lehman, debtholders have borne little loss, even where there was a receivership (e.g. Indy Mac)
- Unwillingness to have debtholders bear loss, increases taxpayer cost
- How much loss is there? Stress test determination?
- Conditions: e.g. executive compensation limits, may discourage participation

Bailout Techniques: Purchase of "Bad" Assets

- Valuation issue
- Private investor role (Geithner public private partnership) : subsidies to hedge funds?
- What are they? Mortgages vs. credit card loans
- Old (legacy) or new?
- How extensive are they?

Other Bailout Techniques

- Capital injection (TARP)
- Nationalization— (pre-privatization): what criteria?
  - Insolvency only
  - Other criteria
- Guarantees of liabilities
- Bad banks (creditors get pro-rata interest in good and bad banks)
  - Can you force spin-off, short of a receivership, without altering contractual rights of debt holders?
  - Creditors have losses from bad assets in bad banks

Supervisory Capacity in Bailouts

- UK experience (not much) v. Sweden (a lot)
- U.S. Treasury understaffed

Rescuing Only Systemically Important Financial Institutions

- Who are they?
- Based on size?
  - Does it measure systemic importance?
  - Does it create an incentive to be inefficiently small?
- Based on interconnectedness: how do we measure this?

What Conclusions?

- Answer to everything is not regulation: market discipline and transparency must play a role
- Should be some moral hazard for creditors, not only for shareholders
- Temporary solutions should not necessarily be permanent
- Need to reduce interconnectedness
- Through clearinghouses (how many?)
  - Requires valuation which may in turn demand price reporting of trades
  - Standardization may be needed
    - At least of terms and conditions
    - And possibly financial terms as well
- Need to take measures against protectionism

SESSION II

Crisis Management and Resolution: What is the Respective Role of the Central Bank and the National Treasuries

Roles of Fed (ECB) vs Treasuries/Gov't I

- CB as liquidity provider (when CB lends against good collateral)
  - How to determine whether loans are against "good" collateral?
  - Transparency of "haircuts" (ECB) vs. Fed (Blackrock is managing)
- Supervision: CB or Government: most contentious issue in U.S. and Europe
  - European options:
    - Expand power of ECB
    - Create ESFS (Larosière): consolidation of CESR, CBS, and CIEOPS); pre-FSA
  - U.S. options
    - CB: expertise; need for data
    - Government: preserve CB independence, could be done by existing agencies or create new US FSA

Fed (ECB) vs. Treasuries/Gov't II

- Resolution: CB or Government
  - UK: CB (after FSA makes insolvency determination)
  - U.S. FDIC (Geithner proposal; after Fed and Treasury make insolvency determination)
- Bailouts
  - Government, best policy
  - Preserve CB independence
  - But, less flexible in crisis

Europe: Special Problems for Bailouts

- Split in Euroland between ECB and fiscal authorities protects ECB independence but hinders coordination, e.g. ECB lends to French banks, but these banks are bailed out by French national authorities
- For non-Euroland, like U.S., more potential threat to central bank independence, but better coordination
- Allocation of liquidity between home and host central banks, if different
  - Branches from parent's home country CB, subsidiaries from host country CB
  - Not an issue for French bank with Belgian branch (both supplied by ECB)

Systemic Risk Regulator

- What will it do?
- Europe—Macro focus; e.g. imbalance or bubbles, not supervision, regulation, or resolution
- U.S.—Micro and Macro
  - Supervision and regulation, as well as macro
- Who will do it?
  - Europe; Systemic Risk Council warning system, then Finance Ministers act
  - U.S.: Fed or split among other existing agencies

Global v. National Response

- Not clear how global approach would work?
- Inconsistent with sovereignty
- Off G20 agenda
- But may still be necessary in long run

Regulatory Responses

- Activity regulation: the return of Glass-Steagall—cannot go back to the past
- Capital adequacy: will regulation work?
  - Not all regulation works (Basel failure)
  - May need more market discipline—increased transparency and subordinated debt that cannot be bailed out
- Smart vs. more regulation
- U.S. – Europe differences
  - Symbology for credit rating agencies
  - Skin in game for originators of securitized debt
  - Separate clearinghouse for credit default swap
- Global vs. National, at least need for global dialogue
- Need good implementation and enforcement (more of a European problem)
- Limit bank size: inefficient
- Europe—pre-funding of deposit insurance

Conclusions?

- Central bank should generally not be involved in bailouts—at least not after this crisis
- Supervision is a contentious issue as to who should do it, for all or some banks
- More need for global coordination with respect to:
  - Supervision of multinational banks
  - International warning of macro problems
  - Monetary and fiscal policy

SESSION III

Failures and Challenges of Risk Management in the Financial Sector

Risk Management

1. How do we overcome limitations of models → regulation? internal risk governance? investors?
2. Can we rely on banks to constrain risk within a capital framework, or do we need regulatory constraints on activities or size?
3. If both practitioners and regulators failed under a Basel-type framework, should we rely on market mechanisms instead to discipline risk-taking?
4. Will restructuring incentives fix risk governance?

Many thanks to our hosts at the UniManagement Executive Learning Center, our partner, CEPS and especially our 2009 Sponsors for their support of the Symposium!





































APPENDIX I

KEYNOTE ADDRESSES

ROEL CAMPOS

Keynote Address

AN AGENDA FOR EUROPE AND THE UNITED STATES

Turin, Italy, March 26-28, 2009

GLOBAL REGULATION AFTER THE FINANCIAL CRISIS

Presentation by Roel Campos

Introduction

Thank you for that kind introduction, Hal. All his life, Hal seems to have that great sense of timing that makes many of us envious. Of course, years ago, he had great timing when he was a young professor at Harvard Law School teaching a class on securities transactions occurring within bank holding companies. He had great timing in that he had this great student with vast unlimited potential. No, that student was not Barack Obama, it was only me. And you can see, after thirty years, Hal Scott and I are still talking and debating about regulation, and we even agree on many things. Speaking of Barack Obama, former Dean Elena Kagan told me that if each professor was telling the truth when they claimed that President Obama was one of their students, he would have taken so many courses that it would have taken ten years to graduate.

Back to timing; months ago, when this conference was planned, who would have though that today Treasury Secretary Timothy Geithner would provide the current U.S. Administration's plan for changes in how the federal government oversees risk-taking in financial markets. Talk about fresh news. This timing required me to watch on the internet the hearing this afternoon, which was before Congressman Barney Frank's Financial Services Committee in Washington. This prevented me from walking around Turin this afternoon and enjoying the great weather.

Geithner's announcement today is an early indication and provides an outline to the G-20 next week in London. Essentially, Geithner announced an intent to give powers to the Treasury and Federal Deposit Insurance Corp. to seize any company whose collapse could put the broader economy at risk.

The broadest concepts for the new regulatory system that Geithner announced today would provide for 1) a systemic risk regulator and regulations to oversee; 2) consumer and investor financial protection; 3) Dealing with gaps in the regulatory system – derivatives, swaps, for example; and 4) international coordination. Today, Geithner made clear that he would only address systemic risk and deal with the other items mentioned above on another day. It has become a characteristic of Treasury announcements to only offer part of the answer and leave to another day further detail. So, as we say in America, stay tuned for the rest.

Of course, this is in stark contrast to the European way, in which long lists of specific intentions are issued – such as what Jorgen Holmquist has given us today. My opinion is that our Treasury Secretary is being very careful and measured and wants to leave room for adjustments as they become necessary should criticism and other concerns be raised.

New Systemic Risk Approach

Although he did not provide a full explanation, Geithner has proposed a systemic risk regulator – without stating which agency will be the systemic regulator or whether it will be a new agency that doesn't yet exist. Most would say it is probably going to be the Fed. The crux of the new plan that Geithner outlined today is that there would normally be a joint decision by the FDIC (Board), Fed (Governors), Treasury (Secretary) in declaring certain financial firms as essentially "too big or too interconnected to fail." Under the new plan, the existing FDIC procedures would provide the framework for receiverships and auctions when appropriate. Of course, it isn't clear which companies would be brought under this umbrella. Administration officials believe they could include banks' parent companies, insurance conglomerates and certain hedge funds, among others. Geithner indicated that it would depend on a company's size, leverage, reliance on short-term funding and role in the financial system. The idea is that the federal government would have a new power to seize non-bank institutions, such as AIG, under this framework.

If a problem developed with a company that was designated too big to fail, Mr. Geithner's proposal would again provide for the Treasury and FDIC, in consultation with the Fed, to jointly determine whether a company needed to be seized. It would then entrust the running of the company to the FDIC under its existing rules, allowing the agency to borrow money from the Treasury. House Financial Services Committee Chairman Barney Frank (D., Mass.) is expected to introduce legislation soon that would give the government the power to seize a failing financial institution that isn't a bank, besides insurance companies, thrifts, broker dealers, holding companies.

Under the new plan announced by Geithner, it also appears that the FDIC would also be able to replace directors and senior executives and none of these actions would be subject to the approval of the institution's creditors or other stakeholders.

For institutions designated as creating systemic risk, Geithner has called for a strict and consistent set of regulations for large firms, as well as more power for the government to monitor emerging risks to the economy. Though not yet specified, the new rules will likely require financial institutions to hold more capital as a buffer against losses and will bolster risk-management standards. All told, the proposals would mean significant expansions of power for the FDIC, Treasury, Federal Reserve and other regulators.

Maintaining Features of the U.S. System

The challenge facing Geithner's new systemic regulator plan is how to address properly the goal of mitigating systemic risk, while not suppressing old-fashioned American risk taking. Certainly, financial innovation has largely served the global economy well, in spite of the current financial crisis. There is much agreement that the concepts of syndications and collateralizations, for example, should be preserved, in the context of better risk management. A casualty of the new oversight and regulation should not be reasonable innovation and risk taking.

The other large concern for systemic risk regulation is that if entities are too big, too connected, too indebted to fail, then the rules must carefully restrict the amount of risk to which those entities can be exposed. In other words if I am protected from failing and suffering, I will take all the risks possible, since I will not ultimately suffer consequences.

Moreover, an unintended consequence of being "too big to fail" is that the regulation may be so tight that talented and ambitious executives (but not reckless) will find it uninteresting to work at such an institution. The better game may be to go to less regulated and non-systemic risk-posing companies that have less or no capital reserve requirements for instance.

I will return to systemic risk, but let's cover a few potential differences between where America and where Europe may be going.

Potential Differences

One area where the U.S. is departing from its European allies is the Obama administration's approach to hedge funds, private-equity firms and venture-capital funds. Mr. Geithner is expected to ask Congress to require all of these firms over a certain size to register with the Securities and Exchange Commission and disclose certain information so government officials can determine whether their size or complexity puts the broader economy at risk.

Geithner specifically pointed out today that capital reserve requirements for hedge funds are not being proposed. This provision stops short of stricter proposals some European leaders have floated, calling for hedge funds to be regulated like banks.

As long as we are on potential differences, let me mention credit rating agencies. Geithner concentrated on the systemic risk approach today and did not mention credit rating agencies. However, it is clear that Europeans have stated plainly in statements, like those in the Larosiere Report, that credit rating agencies should require registration, be heavily regulated, be subject to a study or change in the issuer-pays model, and utilize a regulated ratings methodology.

Separately, Administration officials want Congress to give the SEC more power over money-market mutual funds so that the government can limit the risk profiles of these

companies. Fears about the stability of these funds led investors to flee these products during the height of the financial crisis last fall.

Mr. Geithner is also expected to call for changes in rules governing how banks conserve cash to cover losses, with the goal of allowing them to set aside more when times are good.

He also will call for a review of "fair value" accounting rules that require banks to take losses when the price of their assets falls. Some critics argue such rules punish firms when they need help the most—during rough times.

Enduring Issues for Regulators

Let me mention one broad concern for new oversight in the wake of the global financial crisis. Neither the European proposals or those of Secretary Geithner have addressed this potential weakness - which will remain, despite the new items that have been mentioned. This is, of course, the enduring issue for regulators of “capture.” In America, central oversight and control is disfavored. As stated earlier, the challenge is not to kill reasonable risk taking. But how does the regulator not get captured by the industry and business it seeks to regulate. In America, this problem is aggravated by the so called “revolving door”, the exchange of individuals from industry to government and back. While the system brings needed knowledge and capability to government, it has the potential to inadvertently affect decision making by regulators. Ultimately, if industry is telling the regulator that the wrong decision will destroy jobs and cause economic havoc, how is the regulator to say “no”? At the SEC, for example, many decisions need to be made regarding the technical regulations of the markets. Yet there are few, if any, individuals, such as traders, or brokerage and exchange executives, who are able to assess and balance the needs of industry and investors. In America and somewhat in Europe, it will take a far larger budget to fund the type of technical expertise that I believe is needed to be able to effectively say “No” to the industry at the right times. The European system, which is composed of a dedicated cadre of career regulators, also lacks the technical expertise required in these modern times to deal with new retail mutual funds, trading rules and derivatives.

Regulatory Arbitrage

I have not forgotten the disappointing battles between London and New York as to which was kinder or more “touchy feely” and therefore more attractive for hedge fund managers and other financial bankers. I argued that this was exactly the wrong approach by regulators. My view was always that a jurisdiction had to first protect capital, and capital and investors would then go to jurisdictions where they felt “safe”. I am convinced that part of America’s deep liquidity in its markets is due in large part to the safety and fairness that investors believed they received. Of course, recent scandals like the Madoff situation have raised questions as to how well the SEC is doing its job to protect investors. Protection of investors and capital, however, is the first order of any

jurisdiction. Regulatory arbitrage based upon being “easier” on bankers and agents can only lead to a race to the bottom and result in capital flight.

I sincerely hope that one of the great lessons of the financial crisis is that all fraud and recklessness with investor’s money will have serious consequences in all jurisdictions. We can no longer have havens or refuges or any sort of “lighter touch”. The global economy needs one system of regulation that, although enforced and administered by sovereign jurisdictions, provides for converged rules and similar consequences for misconduct. This also means that the international regulators should seek to have similar disclosure forms and similar approaches to make life more efficient for global companies.

I see that my time is up and we still need to go to dinner.

Thank you for your kind attention.

MICHEL PRADA

Keynote Address

Torino EU-US Symposium
Building the financial System of the 21st Century
March, 27, 2009
Michel Prada, former chairman of the AMF

Ladies and gentlemen,

It is a great honour and also a personal pleasure for me to participate in this EU-US symposium here in Torino, a beautiful city, dear to the heart of this particular Frenchman, as it was the city where the alliance between Piedmont and France, concluded by Cavour, led to the unification of Italy, a hundred and fifty years ago.
Allow me, first of all, to express my thanks to Hal Scott for inviting me, although I am now a regulator who, like horses at the twilight of their career, has been put out to grass. I have not forgotten that I had the privilege of debating with him some time ago, at a moment he had issued a report which proved to be quite visionary and gave way to lively discussions on both sides of the Atlantic.
Today, we are struggling to get out of the most severe financial crisis ever seen in a globalised world. I am not going to address the issues raised by the need to restart our economies, which would be presumptuous for a former securities regulator who cannot pretend to be a macroeconomist. As a former Director of Budget in France, I can only express some concern with regard to the future consequences of growing deficits and my understanding of the relatively prudent although determined approach of the French government to this type of action, in an economy where automatic stabilisers are highly developed and debt to GDP ratio is already significant. I understand that recent discussions within the G 20 have, hopefully, improved mutual understanding on this point.
I am not going either to expand on the crisis itself, as it has been analysed in depth.
I shall rather focus on the regulatory lessons to be drawn from this unprecedented set of events.

The permissive conditions were provided by global imbalances, an issue which was identified 50 years ago by General de Gaulle's closest adviser, Jacques Rueff. These were the times of the "transatlantic misunderstandings", as Henry Kissinger called them. Anyway, to be right is extremely wrong and even more so if one is right too early.
Based on the US current account deficit and the extraordinary growth of China and Asian countries, these imbalances provided the world with abundant liquidity and low interest rates, together with low inflation and a geographic mismatch between savings and investment needs. After a few years of exuberance, investors' search for yield and low aversion to risk, together with an unprecedented development of fundamental flaws in the "originate to distribute" model, together with a rather permissive monetary policy in the US, finally led to the 2007 disaster.
Many excellent reports have been issued in 2008 and 2009 on the crisis and its lessons:
I participated in the April 2008 report of the FSF;
We have seen in depth analysis by the industry, which, by the way, has been constantly opposed to any kind of regulatory intervention to deal with these issues, since the Internet crisis;
More recently, the de la Rosière Group and the G 30 have published thoughtful proposals.

I am, therefore, conscious that my views, today, are far from original and I hope you will forgive me for that.
I shall organise my presentation along three main considerations:
Firstly, we need to enlarge the scope of regulation.
Secondly, we need to enrich the content of regulation.
And third, we need to improve the architecture of regulation.
Before I develop these ideas, let me, once again, underline the fact that regulation, in French, is a concept which encompasses a number of ways and means to monitor a complex system, so that when a Frenchman advocates in favour of regulation, he should not necessarily be seen as another Colbertist and Jacobine interventionist opposed to free market economy and devoted to bureaucratic ruling. According to that definition, this monitoring includes macro-economic, macro-prudential and micro- financial supervision.

We need to enlarge the scope of regulation.

Indeed, nearly everybody agrees, today, on the fact that the scale of the credit bubble is due to a securitisation process which took place, for most of it, in a grey area of unregulated, or poorly regulated, financial activities, in between the very sophisticated banking supervision and the regulated, or, at least, well organised, markets. Externalisation of risk was the mantra of the early years 2000. For a number of banking regulators, it contributed to the dissemination of risk, which, unfortunately, was seen as a way to minimise it. Deconsolidation was the rule of the game and banks were therefore considered to be resilient. Securities regulators were focused on the protection of retail investors and did not supervise either OTC markets or unregulated entities which, after all, according to all the insistent pounding message of the professional lobbies, were supposed to be properly managed by state of the art professionals. Hence the huge regulatory loophole in which a flawed OTD model flourished, giving way to unprecedented complex innovation and leveraging.
A few regulators were not happy with this evolution, although they obviously did not anticipate the extent of the danger. Some of us believed that externalisation might end up, directly or indirectly, in the portfolios of retail investors and that there was, therefore, merit in trying to monitor it in a better way. Fierce opposition of the industry, together with the philosophy of light touch regulation and some apparently relevant legalistic arguments prevented us from doing our job. Today, we know better.
It is clear that, if such systemic consequences are to be avoided, there should not be such regulatory loopholes.
If we are to ensure that, once a financial activity is externalised out of the prudential supervision of financial intermediaries, it is not only identified and monitored within market supervision system bur that appropriate coordination also exists between both systems, then there is a need to monitor both OTC markets and market participants.
The scope of supervision concerning two specific issues must also be clarified.
The first issue concerns hedge funds. This is a good example of an issue which has not been properly defined, hence addressed, since the first time it was raised, in the aftermath of the Asian crisis, for the simple reason that it became an issue where ideology overcame reasoning, in fact more for commercial reasons than philosophical ones. I shall come back to this when addressing the content of regulation, but I do believe that hedge funds should be within the scope of regulation.
The second issue concerns unregulated or uncooperative jurisdictions, a definition I find more adequate than the complex and ambiguous concept of Off-Shore Centres, which, by the way, the French identify as Tax Havens…

This issue has been debated for many years. Here also, ideology, diplomacy and commercial interest have been detrimental to the efficiency of financial supervision and compliance with elementary ethical principles. The on-going crisis requires that these jurisdictions be included in the scope of global regulation. I shall also come back to this issue when addressing the regulatory architecture.

Let me now come to my second point: We really must grab the bull by the horns and enrich the content of regulation.

The most difficult, and possibly the most important task, in this respect, is to align the capacities of macro-economic and macro-prudential regulations with the process of globalisation, which is fundamentally beneficial to humanity. Governments and Central bankers have to address the issue of global imbalances and leverage. I shall not elaborate on this, since I don't feel competent enough to do so. Let's hope the G 20 meeting will make some progress on this one

A second set of issues is related to banking regulation and supervision. The key issue in that domain is obviously that of leverage. As a former securities regulator having been involved in the Financial Stability Forum since its inception, I can only repeat the three main lessons I learnt there.

The first is to better address the liquidity and reputational risks (which have been underestimated by Basle Principles, thus probably encouraging proprietary trading and externalisation of risk) by enhancing capital adequacy and risk management requirements.

The second concerns the accounting rules for consolidation.This is both a banking and an accounting issue of the utmost importance. It is appalling to note that the liquidity and reputational risks embedded in SIVs and Conduits were hardly mentioned in public reports and analysis before the crisis exploded in summer 2007.

The third one is related to pro-cyclicality. Here I have to say that I personally believe this is merely a prudential issue, and not, as is often advocated, an accounting issue. I would prefer to talk about "dynamic regulation of equity and reserves", which is clearly a good idea, rather than "dynamic provisioning" which might lead to creative accounting and, possibly, even more pro-cyclical standards.

Securities regulation comes next, with a series of most needed improvements which, for some of them, have to be dealt with in common with banking and insurance regulations. In the securities markets field, the key word is transparency, which was unfortunately lost of sight in both the OTD model and the OTC market.

A simple way to summarise what has to be done is to go along the securitisation chain, and identify the broken links which need and deserve to be repaired, as securitisation is clearly a useful component of a market system when properly managed.

Origination is key for the rest of the process. It is mainly an issue for banking supervisors who should ensure that credit is provided by regulated entities, but only when it respects the relevant standards. Maybe some kind of incentive should be imposed on banks through the obligation to retain part of the risk on their balance sheets.

Arrangement is the next step, together with rating. At this level, transparency of the underlying assets, liquidity risk and correlation risk are of the essence. I believe that IOSCO has issued all the relevant recommendations in that field. I understand rating agencies, or at least most of them, are ready to comply with the new code of conduct. This should be implemented without complacency, most certainly at the global level. In my view this would be made easier if rating agencies would organise themselves as a profession, while complying, of course, with competition principles. Nonetheless, it appears that some kind of supervision will also be organised at the regional and national levels.

Then comes distribution: again an issue of transparency, to enable investors to understand the products and perform their own due diligences. May I mention, “en passant “, that investors do have their share of responsibilities, especially the professionals and sophisticated investors. With regard to retail investors, rules of conduct should be enhanced and breach of rules should be severely sanctioned.

Trading and price discovery is probably the most unexpected issue on the agenda, as the industry had constantly insisted and pretended that OTC markets were fine and did not require any regulation. We now have identified the need for better transparency, at least post-trade, and also the need for robust infrastructures, at least for clearing and settlement. This is a technically and politically hot potatoe. Should the solution be provided by for profit, competing, organisations, or should it be utility oriented? What about the scope and governance? A global solution might be ideal. But is it feasible at this stage and is it not more relevant, to begin with, to progress through a regional approach, in order to deal with the issues of sovereignty, legal and monetary specificities and risk concentration, while, at the same time, organising the relevant links and cooperation between infrastructures?

Whatever the answer, it also appears that the issue of valuation of financial instruments is of paramount importance and that market value is not the only answer. Indeed, relevant valuation is necessary, either in liquid markets (in order to inform buyers and sellers and help them define their positions) or in illiquid or inefficient markets (in order to provide reference values for trading or accounting purposes). I should like to take this opportunity to mention the restructuring and new development of the International Valuation Standards Council, a global organisation which gathers representatives of a number of appraisal associations around the Globe and which has the ambition to be actively involved in the efforts to improve the valuation standards and code of ethics applicable to valuation activities. Our preceding keynote speaker, my good friend Roel Campos is a member of the new Board of Trustees of the IVSC, of which I have been elected Chairman, and I’m sure he will join me in commending this organisation to your attention and support. It will obviously work in close cooperation with IFAC and the IASB, since the issue of valuation is so complementary with the issue of accounting principles and standards (another key issue on the agenda of regulators).

I can say but a few words on this very technical, but also philosophical matter. I personally believe that accounting should be, objectively, and merely, a representation of reality, as registered at the relevant points of measurement. It should not be manipulated for management or regulatory purposes. Neither should it seek a promethean ambition to answer all kinds of questions relevant to investors and which have to be addressed through the use of other techniques and tools. Having said that, I guess everybody agrees that market value should be the rule when markets are efficient, and for the valuation of instruments effectively traded. The difficulty appears in other situations, when markets are illiquid or when the business model is based on the assumption that assets and liabilities are held to maturity. As I participate in the lively discussions of the Financial Crisis Advisory Group to the IASB and FASB, I can only express the wish that we come to a well balanced advice to the standard setters.

Finally, I would like to come back to the issue of hedge funds.

To my view, hedge funds raise three different issues.

The systemic issue is raised by their size and leverage. By the way, one has to recognise that they have not been the triggering factor of the crisis, as sometimes expected, although they had to sell massively and participated in the downturn of the markets. Their leverage has significantly diminished since the times of LTCM and is well below that of banks. In any event, there is a need for prudential regulators to be informed on these risks and to monitor

them through relevant supervision of their prime brokers and consolidation of their systemic exposures.
The second issue concerns investor protection. This is a classical one and should be addressed according to normal regulations, as it is the case today in Europe. Which means:
Ruling and close supervision, when they are sold to retail investors;
Registration and soft monitoring, when hedge fund managers address the needs of professionals and qualified investors.
The third issue concerns possible market abuse, be it market manipulation, insider dealing, or undisclosed actions in concert. Here again, normal rules and regulations should apply without specificity. In fact, the difficulty for regulators is to be able to track information on hedge funds management, which is more an issue of international cooperation.

Which leads me to my last consideration: We need to improve the global architecture of financial regulation.
Let me start by saying that, for those who have devoted a lot of time, energy and effort during the last 15 years or so to foster international cooperation in the field of financial regulation, for them to acknowledge the collective failure which has led to the present crisis is a bitter blow.
Indeed, a lot of progress has already been achieved since the mid nineties.
The dialogue between the EU and the US hardly existed. European markets were fragmented and the European legislative, monetary and regulatory framework was an embryo. In the field of securities regulation, IOSCO was an emerging institution and had hardly any relationship with other international institutions.
Keeping IOSCO as an example of the progress made, let me remind you of some of its major achievements:
In 1998, it adopted its three objectives and thirty principles;
In 2000, it endorsed the core standards of the IASC, which paved the way to the adoption of global accounting standards by a number of countries, to begin with the EU;
In 2002, it adopted a multilateral MOU which triggered an unprecedented effort of convergence and cooperation among its members, together with the beginning of self assessment and discipline and a strategic direction for the members to comply with the objective, principles and standards before 2010;
In 2003, we saw the reform of IFAC and of auditing standards, followed, in 2004, by the first code of conduct for rating agencies, and I could go on, quoting the many standards and recommendations published during the last decade.
Similarly, other organisations made the same kind of progress, be it the Basle Committee or the IAIS, which, together with IOSCO, established the Joint Forum
In 1999 the Financial Stability Forum was established and successfully improved the dialogue between prudential and securities regulators, central bankers, ministries of finance of the G7 and IFIs.
In the mean time, Europe undertook an unprecedented effort of integration of its financial regulations and markets, based on the Financial Services Action Plan and the so-called Lamfalussy process.
The transatlantic dialogue became lively and transatlantic undertakings, such as NYSE-Euronext or Nasdacq-OM, were successfully launched. The concept of mutual recognition became a subject for concrete discussions. My American friends won't contradict me if I say that such an evolution was unpredictable 15 years ago.
Were all these efforts useless? Are we going back to the trees and to the times of protectionism and narrow domestic visions? Do we have to start again from scratch?

I don’t believe so. The crisis does not contradict the actions we took. It derives from the initiatives we were not able to agree upon and the issues we did not want to address.
I believe that we have to build on what has been achieved and to deepen our cooperation on an enlarged basis with a renewed ambition.
Firstly, the global architecture should be more inclusive: we won’t be able to deal with global imbalances without opening the door to membership of the main supervisory institutions to the main emerging economies.
Secondly, governments and IFIs should commit themselves to support regulators in their endeavour to converge and to comply with global standards and cooperative arrangements.
Thirdly, we have to put an end to the role of uncooperative jurisdictions which have the most perverse effect on the behaviour of market participants and on the efficiency of cooperative arrangements in the field of enforcement.
I have no competence to design a more detailed picture of the global regulatory framework. I only wish to pay tribute to the Financial Stability Forum, which I consider an excellent institution for monitoring the system and coordinating the institutions in an open and flexible way, as well as providing the governments with an efficient and reactive high level secretariat.
Allow me to say a brief word on Europe, if only to fully support the conclusions of the de la Rosière Group report. I have, for many years advocated in favour of a reinforcement of the regulatory committees, CESR, CEBS and CEIOPS, and I’m glad the group finally came to this consensual conclusion. If the EU can implement these proposals, this will undoubtedly facilitate the EU-US dialogue.
Finally, there are also some improvements to be made at the national level. I can only reiterate here my strong preference for the “twin peaks” model which is being considered in France, while recognising that structures can differ according to the size and specificities of the markets, provided that all the necessary components are present and regulatory principles are properly implemented.
Allow me to conclude with two remarks.
Firstly, I believe the crisis is, contrary to some nationalistic reactions, a unique opportunity to relaunch the transatlantic dialogue which is much needed to enhance the dynamism of our economies. The EU and the US have a lot in common. When they work together on an equal footing, their actions are beneficial to the globe. If they are opposed, or even indifferent to each other, the World suffers.
Secondly, I cannot but mention the need to restore strong ethical principles and responsible governance at the centre of the system. This is not paying lip service to a kind of imposed exercise at this stage of my presentation. It is a personal belief and also the identification of a political risk.
Never in the past 5O years, or so, has market economy been in such a danger of loosing the confidence of the public at large. The financial industry bears the main responsibility for that, even if governments and regulators have also a share of the responsibility.
The coincidence of the crisis and of the discovery of unprecedented scams, together with the shameful behaviour of a number of business leaders, be it incompetence, cynicism, or greed and the need for governments to bail out their firms with tax payers’ money may trigger uncontrolled reactions.
It is for these reasons that I was relieved and encouraged by the recent meeting of the Ministers of Finance of the G20, when it appeared that the right balance between the need to foster the growth of the world economy and the need to mend the regulatory system, both from a technical and from an ethical point of view, should be found during the April meeting of the heads of States and governments.
I thank you.

APPENDIX II

CONCEPT PAPERS

Financial Crisis: Proposals for Reforms

Rym Ayadi, Senior Research Fellow, CEPS

Discussion paper

Draft 14 March 2009

Not for circulation and not for quotation

The 2008 financial crisis – Unprecedented facts

Initiated in the US in the summer of 2007, the financial crisis became global in 2008 and, since September 2008, it has been characterized by the most severe events in the history of financial markets since the Great Depression. The period of September/October 2008 will be remembered as the time in which the financial system in general and investment banking in particular were fundamentally reshaped. The scale of government intervention via increasing coverage of deposit guarantee schemes, guarantees of bank liabilities, recapitalisation or straight nationalisation in many countries has been unprecedented. On 7 September 2008, the US government announced the bailout of Freddie Mac and Fannie Mae, the two stricken mortgage lenders which together control $3 trillion in home loans. After a range of major rescue plans, the US government did not intervene to save Lehman Brothers, the fourth-largest investment bank in the US. On September 15, Lehman Brothers filed for bankruptcy. The failing investment bank held total assets of $639 billion and an estimated $400 billion of credit derivatives against debts of $613 billion (including some 10% of toxic debts) - making it among the largest corporate bankruptcies in recent years (See Table 1). On September 15 Merrill Lynch also agreed a $50bn takeover by Bank of America. Later that week, AIG, the insurer, received a rescue package. In mid October, Morgan Stanley and Goldman Sachs, the last two large independent investment banks, applied to become bank holding companies under Fed supervision. On November 25, 2008 the US authorities announced a government bailout of Citigroup. Specifically the agreement includes two different programmes, one consisting of a guarantee from the Treasury and Federal Deposit Insurance Corporation and the other consisting of $20 Billion investment programme by the Treasury pursuant to the Emergency Economic Stabilization Act of 2008. In February 2009, the US Government announced a new and extensive bank rescue programme.

Anxiety levels in the global financial markets were growing up after credit derivatives linked to the failure of Lehman Brothers began to be unwound. The panic generated a series of banking difficulties and failures not only in the US (e.g. Washington Mutual, Wachovia, etc) but also in Europe including the Belgian Fortis, Dexia, the German Hypo Real Estate and many more. (See Table 1). In Belgium, the near-failures of Fortis and Dexia were revealing. Both had seemingly Basel Tier 1 capital above the required minimum as of December 2007 (9.5% and 8.1% respectively), and somewhat low core capital (equity/assets) of about (3.8% and 2.4%). Fortis had direct and indirect exposures to Lehman of about euro 137 ml and also 270 ml in "quality" asset-backed loans. This is a major counterparty credit risk which was not taken into consideration in its capital ratios. Subsequent writes-downs for both banks provoked a dramatic plunge of their

share prices. In Germany, Hypo-Real Estate bank, had a large exposure to the failed Lehman and relied on the dried-up wholesale funding. The depreciation of its CDOs portfolio led to a dramatic reduction in it share price (35%). The Basel tier 1 ratio of the bank remained above minimum (7% as of December 2007) while is core capital was around 7%. In Iceland, the crisis of its major banks became a sovereign crisis (as well as a diplomatic 'crisis'), with the creditworthiness of Iceland as a country severely damaged.

In response to the internationally widespread financial crisis, unprepared governments across the globe acted individually to avoid a systemic risk of bank failures hoping to restore the confidence of the general public.

Undoubtedly, given the magnitude of the crisis, governments' actions were driven by the course of events. Poorly coordinated, as they were and ranging from liquidity assistance to deposit guarantee schemes' activation and other major bail outs and recapitalization plans, these actions showed no or very limited success.

On the top of the list of these interventions, the central banks have been expanding their balance sheets to response to the liquidity shortage in the capital markets. Their operations, via provision of market liquidity and the establishment of special facilities, have become crucial for the functioning of financial markets in general and interbank market in particular. They have become both lenders of last resort and often lenders of only resort to the market.[1] Their interventions were concerted and have been the example of central bank cooperation under extreme circumstances.

After the run on northern rock in September 2008 and the likely spread of such a threat to other member states, the Irish government, acting alone, was leading[2] the scene by guaranteeing 100% of the deposits of the six major Irish banks and increasing statutory limit for the scheme for banks and building societies from €20,000 to €100,000 per depositor per institution. This has triggered a series of similar actions by other governments. The UK authorities increased deposit insurance coverage to £50,000 **(**from £35,000). Other European governments followed suit (in Greece, Spain, Germany…) and the protection of private savings generated a debate in the EU about the effectiveness and, the appropriate design of deposit insurance (See Table 2). Triggered by these individual member states' actions, European finance ministers decided during a meeting in October 7, 2008 to increase Europe-wide deposit insurance, for an initial period, of at least one year to a minimum of 50,000 euro, which could be raised to 100,000 euro to contain the competitive distortions that such actions could generate in the future.

More individual bailouts actions took place in the various countries. In the UK for example, the bank rescue plan announced by the government on October 8, 2008 (comprising massive injection of liquidity with bank recapitalization and loan guarantees) served as a template for EU leaders meeting in Paris on October 12, 2008 (with an agreement that Member States of the EU would guarantee bank loans, recapitalise failing banks and commit not to let major financial institutions fail[3]) and for the US Government, which also announced a massive program of bank recapitalisation on October 14 as part of its TARP (Trouble Asset Relief Programme). The new

[1] For further elaboration on this see Campbell and Lastra, Revisiting the Lender of Last Resort, forthcoming in 2009.

[2] Action announced on 30 September 2008 and passed in legislation by the Irish Parliament on October 2, 2008.

[3] Amounting €1.800 bn in government guarantees and €280 bn in recapitalization schemes, more than three times the $700 billion 'Troubled Assets Recovery Plan' of the US. (till December 2008).

programme of assistance announced by the US Treasury in February 2009 got a lukewarm reception from market participants.

The failure of principle based regulation

The principles based approach to regulation raises a few concerns. The essence of principles based regulation is that policymakers set out a framework of high level principles and delegate a greater degree of responsibility for interpreting those principles to firm's senior management.

Albeit its merits, the principle based approach proved its limits. The numerous events described above during the financial crisis cast doubts about whether principles based prudential regulation can cope with financial innovations and disintermediation of risk. While this has so far primarily affected the banking sector there are serious lessons for regulating the other financial segments in the financial sector.

In theory, risk can be 'disintermediated' through the wider use of innovative financial instruments and counterparties, but it cannot be eliminated. It simply migrates to other parts of the financial system, such as hedge funds, insurers and pension funds, which makes it more difficult for regulators to identify and manage.

And this is where danger lies with principles based regulation. Financial scandals tend to happen when people in positions of power and influence abuse that position then conflicts of interest between shareholders, directors and policyholders arise.

It is appreciated that policymakers are attracted to a principles based approach as it is supposed to be more flexible and better suited to dealing with fast moving and innovative financial markets. But the fear is that in such a fast moving environment the reduction in scrutiny inherent in the principles based approach will create even more opportunities for conflicts of interest and for vested interests to abuse their position. And as experience shows, information disclosure on its own is not effective in protecting consumers from these conflicts of interest. Therefore, relying on yet more disclosure to protect consumers in a principles based environment is unlikely to create a level playing field between consumers, intermediaries and financial providers.

Over time the principles based approach will be underpinned by more and more detailed guidance from regulators and may unintentionally be transformed to a *de facto* rules based system. This will not help avoiding regulatory overkill if the objective is to ensure that regulation contributes to efficient markets and financial inclusion.

However, principles based regulation can be made to work if it is accompanied by effective governance mechanisms such as more robust regulatory enforcement, greater transparency and more explicit duties of care to policyholders. Without those governance mechanisms, principles based regulation creates a vacuum.

Reforming the prudential and wholesale market regulatory system

Getting prudential market regulation right will be critical. The previous approach focused too much on solvency and failed to cope with liquidity risks and disintermediation of risks in the system. A reformed regulatory system should be built around the following principles and objectives. Regulation should:

- restore and maintain confidence in the financial system;
- be comprehensive, consistent, and coherent;
- be proportionate to promote effective competition and financial inclusion; and
- introduce greater transparency and better corporate governance into the financial system.

There are a number of possible ways of managing risk and different ways of introducing implementing measures. These could be introduced through new EU-wide regulatory initiatives or through international agreements. For example, the Basel accord is not fit-for-purpose and is in need of reform.

At the same time, we are conscious of the need to avoid regulatory overkill exacerbating the mood swings in the capital markets. It would be possible to design risk out of the financial system by requiring firms to hold huge amounts of regulatory capital and avoid taking risks. But this could impose an unacceptable cost on consumers and society, as it could price even more consumers out of the market and favour the largest lenders so reducing choice in the market.

So a proportionate response is critical and we do not underestimate the challenge policymakers face to strike the right balance between promoting consumer confidence in financial system through effective prudential regulation and promoting access to affordable credit.

Regulating asset prices

Although it may seem a moot point at the moment given that asset prices are falling, central banks and regulators should be given a policy objective to actively consider asset price inflation (not just consumer price inflation) as part of their remit, and if necessary be required to take action along with financial regulators to moderate asset price growth by restraining lending, or conversely to take action to tackle asset price deflation.

Of course, if policymakers are to regulate asset prices then they need mechanisms for doing so. There are a number of possible interventions they could deploy through the Basel 2 framework – probably through the pillar 2 process[4].

Contra-cyclical capital requirements:

One way of constraining asset price bubbles would be to correlate capital minimum capital adequacy requirements with increases in mortgage lending and property prices. Therefore, if indicators such as growth in mortgage lending and house prices suggested that an asset price bubble was emerging in the property market, regulators could require banks to increase their minimum capital requirements. The degree to which individual banks would be required to increase capital would depend on their individual exposure to the property market. This is similar

[4] Pillar 1 of Basel 2 consists of rules which require banks to hold minimum capital to protect against credit, operational and market risks. The intention of Pillar 2 is to require banks to take into account all the additional risks the bank is exposed to when calculating capital requirements.

to the approach followed by the central bank in Spain and seems to have left the balance sheets of Spanish banks in a stronger position to withstand the financial crisis.

This would require careful monitoring and recalibrating on a regular basis by regulators and central banks. For example, banks that had little current exposure to property markets would find themselves with a favourable minimum capital requirements ratio. Mortgage lending would be less expensive for them compared to competitors with significant mortgage lending exposure, which would tempt them to lend aggressively in mortgage markets. This would of course be an advantage in competition terms as new lenders would be able to enter the market to compete away the advantage of dominant providers. However, in terms of prudential regulation and managing risk at the macro-level, regulators would need to monitor total exposure on a regular basis and adjust the minimum capital requirements of those lenders expanding market share of mortgage lending.

Conversely, contra-cyclical regulation could be used to stimulate lending during periods of prolonged lending droughts or asset price deflation.

Better risk management

The way risk is managed generally by regulators needs to improved. Regulators could, as an alternative to contra-cyclical capital requirements, attach a higher risk rating to certain asset classes – in this case mortgages and unsecured loans.

This would mean that the cost of capital associated with mortgages and loans would increase proportionately and automatically. If done properly, this could have the dual benefit of improving the micro-regulation of individual firms as well as the macro-regulation of the mortgage market as it would provide an in-built restraint on mortgage lending.

Liquidity risk management

Poor liquidity risk management contributed to the mortgage market crisis. Mortgage lenders have become increasingly reliant on wholesale market funding as a source of mortgage funding (rather than the traditional method of using retail deposits). This has left many lenders vulnerable to funding sources drying up ie. liquidity risk.

The way liquidity risk is managed has changed (as has the role of central banks). In the past, banks used to be required to lodge mandatory reserves with the central bank. This fulfilled two functions. It allowed central banks to control the amount of credit in the economy while at the same time ensuring that individual banks had enough cash on hand to protect against liquidity risk.

Nowadays, regulators tend now to rely on different approaches to liquidity risk management. These are complex issues but can be categorised into two main approaches: i) managing 'maturity mismatches'[5] and ii) requiring lenders to hold stocks of very liquid, high quality assets which can be used as collateral to raise money on wholesale markets when liquidity is needed.

The recent turmoil in the wholesale markets has exposed the weaknesses in these approaches. One of the reasons for the failure of regulators to control liquidity risk is the principles based

[5] With the maturity mismatch approach, regulators try to ensure that short term liabilities maturing are not greater than maturing assets by a certain ratio. This is meant to ensure that lenders have enough liquid assets on hand to meet liabilities.

approach set down in the Basel relies too much on lenders' internal risk models or provides too much discretion on the definition of high-quality, liquid assets to be used as collateral.

For Basel 2 to be effective, regulators will have to move away from this reliance on qualitative, principles based regulation to more detailed standards setting on liquidity risk management (see below, Monitoring and enforcement of regulation).

Monitoring and enforcement of principles-based regulation

Perhaps not surprisingly, given the different structure of capital markets and lending institutions around the world and the fast-moving nature of financial markets, regulatory authorities at international, EU and national level lending institutions have moved towards a principles-based approach to prudential regulation.

But, in an increasingly globalised and complex financial world, consumer advocates constantly warn about the risk of 'regulatory arbitrage' where market participants attempt to shift their activities to jurisdictions or financial institutions that are less regulated and transparent, or to less well regulated or transparent financial mechanisms such as off-balance sheet vehicles, securitised investment vehicles (SIVs) and so on. Therefore, the regulatory framework will need to ensure that it does not encourage regulatory arbitrage and policymakers need to adopt consistent, robust regulation.

It is not clear at all that the new BASEL II regime or principles-based regulation which has become fashionable amongst regulators is effective at managing risks in the markets. Principles based regulation is meant to be more flexible and better suited to dealing with fast moving and innovative financial markets. But principles based regulation doesn't work without effective governance and accountability mechanisms to manage the conflicts of interests inherent in the financial system. One of the main causes of the recent crisis has been the failure of firms and regulators to manage the conflicts of interest between investment bankers and clients, different firms in the market, and third-parties such as credit rating agencies.

Other prudential and wholesale market regulation issues

In addition to the measures described above, there are a number of additional issues that need to be addressed if prudential regulation is to be reformed effectively. These include:

- Consolidation and integrity of balance sheet assets
- Pricing and trading transparency
- Accounting standards including fair value accounting

Improving governance and management of conflicts of interest

The causes of the current financial crisis (such as undue risk taking and irresponsible lending) can be traced back to the various conflicts of interest that exist along the financial services supply chain:

- at the point of sale, the use of commission and aggressive remuneration practices mean that sales staff and intermediaries face a conflict between making a sale and offering borrowers appropriate advice;

- aggressive bonus payments which reward employees for taking excessive risks – this provides incentives for employees to take undue risks but also conceal exposures or loss making positions;
- conflicts of interest between non-executive directors and executive directors/ senior management;
- financial conflicts between lenders, investors and supposedly objective third parties such as credit rating agencies.

If risks are to be managed effectively in future then more needs to be done to regulate the relationships between the various parties in the market. Each of these major conflicts of interest needs to be addressed, and the interests of market participants better aligned, by policy interventions and targeted regulations.

The role of ratings agencies and auditors

Crucial to the development of the wholesale funding markets has been the role of the credit ratings agencies in rating lenders and structured finance products. The complexity of wholesale funding markets means that investors find it difficult to undertake due diligence before investing in structured finance products without the involvement of third party ratings agencies to provide an independent evaluation of the financial position of these investment vehicles and the risks involved.

However, concerns have been raised about the conflicts of interest faced by ratings agencies who are remunerated by the issuers of structured products (the banks), and the reliance of ratings agencies on the internal risk models used by the issuing banks.

Clearly, if confidence and transparency are to be restored to the mortgage funding market, these conflicts of interest will have to be addressed by regulators as will the ratings models used agencies to ensure that they are not just 'rubber-stamping' banks internal risk assessment.

Furthermore, we would suggest that the EC review the role of auditors in reassuring investors that information contained in the prospectuses for structured investment vehicles and published accounts of banks was accurate.

Remuneration structures

One of the key conflicts of interest arises from the structure of remuneration packages that incentivise market practictioners to take undue risks. This applies to the use of aggressive bonus structures that encourage short termism and concealment of risk in the wholesale markets and to existence of commission bias in the retail mortgage markets which encourages sales staff and other financial intermediaries to indulge in reckless lending to borrowers who are not in a position to maintain mortgage payments.

If the interests of consumers and market practitioners are to be aligned in the market then robust regulatory interventions will be needed to constrain the effects of these remuneration structures at wholesale, institutional and retail level.

Investor due diligence

It should also be remembered that one of the major sources of wholesale funding for mortgages has been institutional investors (such as pension funds and insurance companies). However, the quality of the due diligence undertaken by institutional investors to understand the risks involved has been questionable.

Of course, this has not been helped by the lack of transparency in the markets and the role of the credit rating agencies. Nevertheless, institutional investors ought to have been more alert to the risks involved and paid more attention to the quality of mortgage books underpinning securitised assets.

The EC has understandably begun to look at the role it can play in improving financial capability of retail financial consumers. However, the crisis in the wholesale financial markets and the role of institutional investors suggests that policymakers should undertake similar initiatives to improve the knowledge and capability of institutional investors (such as pension fund trustees).

Corporate governance and the role of non-executive directors

As we highlight above, the failure of lenders' internal models to assess and control risks, and weak governance structures that incentivised key individuals along the supply chain to behave recklessly contributed to reckless lending in the market.

The role of board directors and non-executive directors in providing the checks and balances to control the behavior of senior management must be questioned. Non-executives in particular are supposed to provide the independent oversight of executive director and senior management behaviour on behalf of shareholders. But there are concerns that non-excecutives directors either:

- did not understand the risks involved or the new lines of business firms became involved in;
- if they did understand what was going on, did not feel empowered or confident enough to challenge executive decisions;
- alternatively, non-executives may not have been provided with the appropriate level of information to understand risks and exercise due diligence.

In line with our recommendation on improving capability of institutional investors, we urge policymakers to review and improve the corporate governance structures of banks and other lenders and improve the training and competence of non-executive directors.

Crisis management

A case for a reform of Deposit guarantee schemes

One specific aspect of financial safety net that has been in the spotlight is the deposit guarantee schemes - which provide protection for depositors so that if a credit institution fails, they are able to recover at least a part of their bank deposits. Deposit guarantee schemes also serve to prevent runs on banks, and if properly designed, to facilitate banks closures. The run on the British bank Northern Rock in September 2008 was a clear evidence of the failure of such schemes to fulfill one of the aims. This leads us to consider and think how to improve their institutional and operational design.

The 1994 directive (94/19/EC) provided a minimum harmonization background for establishing deposit guarantee schemes in the member states. While the criteria used in the Directive were generally harmonized in terms of the scope (the exclusion of the interbank and corporate deposits) and the minimum of coverage (fixed at 20.000 euro per person per bank), they fell short to ensure a sound European deposit guarantee system. Indeed, the directive was implemented unevenly in the member states as a result of divergent interpretations of its provisions. Table 2 shows differences between selected member states in the legal framework, in the administration of the schemes, the extent of coverage, the co-insurance practices and the sources of funding. In light of continuing trends of cross-border banking these divergences in implementation address major challenges. While foreign branches of EU banks are covered by the home deposit guarantee scheme, foreign subsidiaries of EU banks are covered by host deposit guarantee scheme. Both schemes can be intrinsically different and depositors are not necessarily aware of such differences and in the majority of the cases are not protected evenly. The situation gets further complicated in the case of branches of non-EU banks and in countries where no deposit guarantee schemes exists. Not only does this raise competitive considerations and can it be the source of potential conflicts of interest between the host and the home countries' authorities; but also does it add further confusion ad complications for depositors, particularly if a bank failure occurs.

These limitations were acknowledged by the European Commission in a communication[6] in November 2006, less than a year before the eruption of the crisis. The conclusions concurred not to make changes to the directive, but to work on some interpretative guidance and recommendations on the main aspects of the directive[7].

The financial crisis has not only put into doubt the adequacy of the existing national schemes and the relevance of the European Commission's decision not to amend earlier the directive but also has pressured governments in the member states to take individual un-concerted actions to help restoring confidence in their domestic markets. These individual actions have then urged EU policy makers to revise the original directive to prevent any competitive distortions. Amendments were then put forward more importantly to reassure depositors than to promote the convergence of deposit guarantee schemes. They revise three key areas: a) the increase of the minimum coverage level (from a minimum of 20000€ to at least 50.000€ and within a further year to at least 100.000€[8]), b) the reduction of the payout delay to a maximum of 3 days[9] and c) the termination of co-insurance.

In its design, the 1994 Directive fails to tackle key aspects. It leaves to the discretion of the member states a number of issues that are not harmonized, such the funding of the schemes, their

[6] Available at http://ec.europa.eu/internal_market/bank/docs/guarantee/comm9419_en.pdf

[7] The definition of deposits and scope of coverage, the coinsurance, the topping up arrangements, the exchange of information requirements, the risk based contributions to DGS, the transferability/refundability of SGD contributions, the consumer information and advertising….

[8] In the compromise package of the Council published on 24 November 2008 and which was agreed on the 02 December 2008, changes to the original Commission's proposal related to coverage levels were introduced. The timeline of increasing the coverage to 100,000€ was extended by two years (from 31 December 2009 to 31 December 2011), subject to a report by the European Commission to evaluate the impact of such an increase and the necessity for this amount to become a harmonised coverage level in the Community.

[9] The 3 days payout delay was deemed unrealistic by the European Parliament and the Council. The former proposed an extension of the payout delay to 10 days and the former to 20 days. The Council also expects from the European Commission an impact assessment on the delays of the payout procedures by 31 December 2010.

risk sensitivity and the consideration of home and host country conflicts, which have been manifested in the cases of Ireland and Iceland (though for different reasons and with different considerations as we further discuss below). Though the line between what should be harmonized and what should be left to the discretion of national authorities is a fluid and dynamic one, the experience of the current crisis suggests that a greater degree of harmonization and, possibly, the introduction of a Community arrangement[10] is needed with regard to deposit guarantee schemes, given that with the freedom to move capital and to provide financial services and products across the EU (which corresponds to the Single Market philosophy), regulatory measures in one country (e.g., the guarantee of private savings in the six largest Irish banks by the Irish government) have competitive implications in other jurisdictions.

The crisis also raises important issues about the ability of some governments to underwrite their deposit guarantee schemes and to fulfill their obligations under the Deposit Guarantee Schemes Directive (as in the case of Iceland). The 'natural' tendency of countries to protect their own nationals in a crisis needs to be reconciled with the obligations of EU membership or participation in the European Economic Area.

The responsibility of the home country supervisor for branches – in particular with regard to the obligations of the DGS - has been put under the spotlight following the collapse of the Icelandic banks, where the Icelandic authorities were not in a position to fulfill such obligations. Notwithstanding the subsequent handling by the UK authorities, the truth of the matter remains that reliance upon home country control proved very problematic, thus leading some commentators to push for host country control, perhaps by making branches of countries whose financial soundness is in doubt, be converted into subsidiaries. This is, of course, a departure from one of the principles of the single market, the home country control and single passport, which has been rather successful till relatively recent. If a retrenchment of the single market is to be avoided, perhaps we need a move to a pan-European supervisory arrangement (thought that would mean the need to tackle the fiscal issue), as Howard Davies has proposed in a recent FT contribution (Europe's Banks need a Federal Fix, FT 14 January 2009).

The collapse of the Icelandic Landsbanki in October 2008, along with several other difficulties affecting the country's banking institutions and the alleged unwillingness or inability of the Icelandic Government to accept responsibility to save UK deposits has soured relationships between the UK and Iceland, with the Treasury threatening legal proceedings to enforce compliance with the EU's Directive on deposit guarantee schemes. The UK Treasury also took the extreme step of invoking the Anti-Terrorism, Crime and Security Act as a legal basis to block Landsbanki assets in the United Kingdom, effectively as a means of securing assets for the benefit of depositors. As is invariably the case, blocking orders of this kind impose a significant burden of compliance on financial institutions.[11]

The 2008' amendments of the directive 94/19/EC provide useful lessons for a fundamental review of the adequacy of the existing schemes and for the discussion of possible improvements to enhance the level playing field in Europe.

[10] In a CEPS report Karel Lannoo (2008) supports the creation of a federal deposit protection fund in the EU rather than attempting to harmonize different national deposit protection schemes. Since the European Commission is investigating this possibility in December 2009, several issues shall be examined such as the risk sensitivity of the scheme, its funding, its coverage, the links with supervision, and the management of receiverships.

[11] See Charles Proctor, mimeo 2008.

First, the coverage limit that has been fixed by the directive to a minimum of 20.000 is not effective in preventing bank runs and re-establishing the general public confidence. The differences in coverage and scope in an internal market leads to competitive distortions and market confusion. The amount covered must be credible and harmonized. A credible deposit insurance system requires *inter alia* prompt payment of depositors (next business day as in the US is ideal[12]) and a reasonable amount of coverage (neither too meagre to be non-credible nor too generous to incur into moral hazard incentives). [13] A harmonised coverage will avoid competitive distortions and other burdens related to toping up and information exchange between schemes.

Second, at a national level when more than one competent authority is entrusted with responsibilities in a bank failure situation, it is important to establish a mechanism to set the scope and the hierarchy of various powers ex-ante in order to insure the timely payouts of depositors. The failure of such arrangement provoked a bank run on Northern Rock in the UK. A hypothetical bank run on a cross-border institution in Europe would raise several questions on such arrangements between the different deposit insurers of the host and home countries. The new banking legislation in the UK (expected to receive Royal Assent in February 2009) has introduced early intervention mechanisms in the pre-insolvency phase, with new powers vested upon the Bank of England in the exercise of that Special Resolution Regime (SRR), which comprises three stabilization options; transfer to a private sector purchaser, bridge bank and temporary public ownership. Though there was some debate in the consultation that led to the Banking Bill as to who the competent authority for running the SRR should be, in the end it was decided that the Bank of England (which also receives a statutory mandate with regard to financial stability) should be such authority, though the FSA remains in charge of bank supervision and will be the institution that will pull the trigger to assess when an institution should be subject to SRR.

Third, the topping up arrangements[14] must be revisited in line with further harmonization of deposit guarantee schemes. The branches that opted for a topping up solution are insured by two deposits insurers (home and host) and pay premiums for both. These arrangements add further complications in a crisis situation in particular in terms of delays of payments, breakdown between what should be paid under which scheme and exchange of information between schemes. Depositors are not necessarily informed about such arrangements, which may create further disarray in a situation of crisis. In addition, such arrangements only deals with the provision of services via branches, and do not consider direct provision of financial services.

Fourth, the scheme needs to be widely known by depositors. Ample publicity should be given to the scheme in order to make it credible; depositors should be in no doubt that their deposits will be covered, up to the amount specified in the law.

Fifth, risk based contributions must be the way forward to ensure fairness between banking institutions with different risk profiles. High risk institutions are expected to pay higher contributions and vice versa. Stressing on risk based schemes will add further incentives to banks

[12] The extension of the payout delay to 20 days runs counter to the need to maintain confidence of the general public and against the objective of preventing bank runs.

[13] See Lastra, *Northern Rock, UK Bank Insolvency and Cross-Border Bank Insolvency,* published in the Journal of Banking Regulation, Vol. 9, No. 3, pp 939-955, May 2008.

[14] When a bank sets up a branch in another EU member state where the coverage level is higher of the scope is broader than in its home country, then it has the right to join the host country deposit guarantee scheme. This avoids any competitive distortions at a local market level.

to improve risk management, which is a natural development in view of the risk sensitive elements introduced by the capital requirement directive.

Sixth, for large cross border banks, considerable resources are required if a DGS were to play a meaningful role in any crisis management. The combination of today's collection of DGS may prove to be inadequate; therefore, proposals are needed to ensure an adequate funding in a crisis.

Last but not least, a more European solution is recommended in line with a European deposit guarantee fund[15]. Such a solution will address the problems for large cross border banks, having major cross border exposures. The funding, the design, the administration, the decision to use such a fund and the sharing of costs are fundamental issues that should be addressed and examined by the European Commission.

Deposit insurance, if properly designed and administrated makes it politically feasible and practically possible to close a bank because the authorities know that depositors are protected.

A case for strengthening the ECB role

With respect to the LOLR, there are two main types of assistance: assistance to the market (market liquidity) and assistance to individual troubled institutions (collateralized lines of credit). Bagehot and Thornton contend that the LOLR's responsibility is to the market, to the entire financial system and not to specific institutions. The Bank of England, the Federal Reserve System and the European Central Bank have all provided ample market liquidity. As regards assistance to individual institutions, the responsibility is of the national central banks (the ECB's possible responsibility is clouded with uncertainty)[16], while the Bank of England and the Fed are clearly competent.

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[15] The European Commission will investigate the merits and lack of further harmonization (of the coverage level (100,000€), of the funding mechanisms of the schemes, and the potential introduction of a Community deposit guarantee scheme by end 2009.

[16] The following is an excerpt from the ECB Monthly Bulletin February 2007 (p. 80): '*One of the specific tools available to central banks in a crisis situation is the provision of emergency liquidity assistance to individual credit institutions against adequate collateral. Generally, this tool consists of providing liquidity support in exceptional circumstances to a temporarily illiquid credit institution which cannot obtain liquidity through either the market or participation in monetary policy operations. This exceptional and temporary liquidity provision should respect the prohibition of monetary financing embodied in the Treaty*'. '*A credit institution cannot, however, assume automatic access to central bank liquidity. As a central banking function, the provision of Emergency Liquidity Assistance (ELA) is within the discretion of the national central bank, which will consider the relevant factors that may justify the access to this lending of last resort*'.
The ECB Financial Stability Review December 2006 (p. 172) states that '*since ELA is not a Eurosystem function, the decision concerning its provision lies with the competent Natinal Central Bank (NCB) regarding an institution operating in its jurisdiction.*'
The following is an excerpt from the ECB Annual Report 1999 (p. 98): '*The institutional framework for financial stability in the EU and in the euro area is based on national competence and international cooperation…. Co-ordination mechanisms are primarily called for within the Eurosystem. This is the case for emergency liquidity assistance (ELA), which embraces the support given by central banks in exceptional circumstances and on a case-by-case basis to temporarily illiquid institutions and markets…. If and when appropriate, the necessary mechanisms to tackle a financial crisis are in place. The main guiding principle is that the competent NCB takes the decision concerning the provision of ELA to an institution operating in its jurisdiction. This would take place under the responsibility and at the cost of the NCB in question. Mechanisms ensuring an adequate flow of information are in place in order that any potential liquidity impact can be managed in a manner consistent with the maintenance of the appropriate monetary*

Furthermore, in the case of the ECB, the lack of a fiscal authority at the EU level (and of any burden sharing rules with regard to the possible fiscal costs of recapitalising banks) severely constrains the lending operations of the ECB. In the case of the Fed, the extension of its facilities to primary dealers, commercial market paper and others is a clear example of how much LOLR has changed as a result of the crisis 2007-2008.[17] The central bank has become lender of last resort, lender of primary resort, and only lender (sole resort) in some instances.

Although the LOLR managed to fulfill its function as a temporary provider of lending to the market at a time of financial distress and more specifically[18] to prevent temporarily illiquid but solvent banks from failing, it equally failed to fulfill its objective of restoring market confidence. In a crisis the line between illiquidity and insolvency is a fluid one. At the EU level, this raises important considerations in term of the application of state aid rules.

Following the Northern Rock case, the Commission has clarified that state aid rules do not apply to central bank's liquidity assistance to a financial institution in liquidity difficulties. On 8 December 2008, the European Commission has published detailed guidance on how Member States can recapitalise banks in the current financial crisis to ensure adequate levels of lending to the rest of the economy and stabilise financial markets whilst avoiding excessive distortions of competition, in line with EU state aid rules.[19] The Communication complements and refines the broader guidance document adopted on 13 October 2008 (see IP/08/1495), to ensure Member States had rapid guidance on the adequate pricing of state capital injections into banks designed to stabilise the banks themselves. The Communication, which takes full account of the recommendations of the European Central Bank and has been discussed with Member States, is based on the same fundamental principle as the 13th October guidance, namely that state support for banks must not result in recipient banks enjoying an artificially advantageous competitive position compared to banks not receiving aid e.g. in other Member States.

In the EU, national banking markets have become highly concentrated (see Table 4). For instance, the assets of the largest five banks in Switzerland amount to over 7 times Swiss GDP and English top five banks 3 times GDP in the UK, and "yet" 1.3 times GDP in Italy. Moreover, the degree to which banks might be at risk from market turbulences, which can be measured by the capitalization ratio (capital as a % of total assets) also varies considerably. German banks appear to be the least capitalized in Europe, holding a core capital of 2.6 % meaning 2.6 Euros in capital for every 100 euro of assets. By contrast Italian banks hold about three times as much capital (7.4 Euros per 100 of total assets).

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policy stance. The agreement on ELA is internal to the Eurosystem and does not affect the existing arrangements between central banks and supervisors at the national level or bilateral or multilateral co-operation among supervisors and between the latter and the Eurosystem. However, their smooth functioning assumes an ability to implement, swiftly and efficiently, co-ordination mechanisms aimed at dealing with the cross-border implications of financial crises and at prevent contagion.'

[17] These issues are further elaborated in Rosa Lastra and Andrew Campbell, "Rethinking the Lender of Last Resort", forthcoming 2009. Lastra has previously tackled LOLR in a variety of papers, including Chapter 10 of her book, Legal Foundations of International Monetary Stability (OUP, 2006).

[18] As defined by Henry Thornton in 1802 and Walter Bagehot in 1873. See **Lastra,** "Lender of Last Resort, an International Perspective", *International and Comparative Law Quarterly*, ICLQ, Volume 48, 1999, April 1999, pp. 340-361.

[19] <http://ec.europa.eu/comm/competition/state_aid/legislation/specific_rules.html>

Therefore, some issues arise as regards the involvement of the LOLR in the resolution of European banks' crisis including the "too-big to be saved" banks (See Table 5). The protection of institutions raises important competitive issues and can generate moral hazard incentives. However, in a crisis, rules that typically apply can be waived or ignored or leniently interpreted (eg state aid rules in the EU or fiscal rules for the eurozone Member States).

It is in this context of extraordinary circumstances that the debate about the rescue packages ought to be understood. Some institutions have been deemed too big to fail, like Merrill Lynch, and some others too inter-connected to fail, like Bear Stearns, or too big to save, like Fortis, or too complex to fail, like AIG. The decision by the authorities to save Bear Stearns and let Lehman Brothers fail has been the subject of much controversy, in particular given the severe negative externalities of the Lehman failure at a time when confidence was extremely fragile. With the benefit of hindsight that authorities should have acted differently, but - with the benefit of hindsight - banks should not have relied so much on rating agencies and expanded so much their leveraged positions in the market for securitized assets!

In the EU, while the ECB has fulfilled its function as a temporary provider of lending to the market at a time of financial distress generated by the breakdown of the interbank funding, the regulation and supervision of financial institutions and the rules concerning insolvency proceedings (as well as the responsibility for fiscal policy) remain nationally based, raising important concerns about their credibility and consistency of crisis management procedures at the EU level.

The latest resolution experiences including Fortis, the Icelandic banks and Swiss banks, show that the credibility of a single government to save a troubled bank is becoming doubtful. For instance, Fortis total assets represent almost 229% of the Belgium country GDP (see Tables 4 and 5). Although, it is theoretically regulated by the Belgium authority, it could not be saved by a single government intervention. Its bail-out involved a combined injection of 11.2 bn euro from the Belgian, Dutch and Luxembourger governments and the potential take over of 66% of Fortis by BNP Paribas. In the same vein, the near failures of the three Icelandic banks as explained above (Glitnir, Landsbanki and Kaupthing bank) almost resulted in a bankruptcy of the country owing to their dominance in the economy. There are important issues that will not be further analysed here as regards the ability of small countries, with their own currencies and large banking systems to bail out their banks.

All in all, large international banks are close to being "too big to be saved"; and any action by a single national government is not any more credible for the general public. The question that remains unanswered is "who would be the LOLR in such cases?" The answer is not clear. Only governments have deep pockets (and national governments remain in charge of fiscal policy in the EU and elsewhere). And only central banks possess the ability to provide immediate liquidity assistance to a troubled bank.[20] It would appear that the European Central Bank should assume such a role at the EU level. Two problems arise though, that we have identified above: the first is that the ECB has no fiscal 'federal' counterpart, since the responsibility for bank recapitalization and the allocation of the fiscal costs of rescuing insolvent institutions remains at the national level. The second problem is that since the UK is not a member of the Euro-zone and since London is the pre-eminent financial capital in Europe, most pan-European institutions have had so far a strong presence in the UK. This can of course change in future, but it remains a problem that must be taken into account into the reconstruction of the institutional design of supervision and lender of last resort for pan-European financial institutions at the EU level.

[20] Lastra and Campbell (2009), Forthcoming.

The role of EU authorities in regulation- Post de Larosière

The solutions outlined above are, for the most part, the remit of individual member states who need to take action to revive their own financial systems. However, the EU and EC have a critical role to play.

These interventions need to be coordinated to: ensure maximum effectiveness, stabilise the wholesale markets which operate internationally, and prevent regulatory arbitrage. The EU and EC has the opportunity to contribute to the creation of a modern, international regulatory system that is fit-for-purpose.

We are very aware of the possibly serious competition issues if the shake-out in the lending markets or state sponsored recapitalisation schemes results in market power being concentrated in the hands of a small number of major lenders.

However, if and when some form of stability returns to the financial system, policymakers at national and EU level will need to reconsider the appropriateness of competition policy to lending markets to ensure that dominant positions are not abused. This may require the application of quantitative limits on market share and other regulations.

Table 2: Case studies of troubled financial institutions

	US		Europe			
	AIG	**Lehman Brothers**	**FORTIS**	**DEXIA**	**B&B**	**Hypo-Real-State**
Causes	▪ Central player in CDSs market, ▪ Complex exposures in the mortgage market	▪ High exposure to the subprime mortgage market (RMBS, CRE)	▪ Direct and Indirect Exposures to Lehman and Brothers of about € 137 ml and 270 ml in "quality" asset-backed loans	▪ OBSs exposures increase of 23.5% between 2007 and 2008.	▪ Exposed to the subprime mortgage market. ▪ Losses on poor quality U.S. home loans ▪ High reliance on Wholesale funding	▪ Exposures to the failed Lehman Brothers ▪ High reliance on wholesale funding ▪ High leverage
Losses/ write downs during the turmoil	▪ Almost $45bn losses (mark -to market, RMBSs)	▪ $7.2 bn pretax loss ▪ $60 bn toxic debts ▪ $639 bn assets against $613 bn debts	▪ Writes downs of about 78% of the collateralized debt obligations ▪ 49% decline in 2Q 2008 profit on credit related write-downs.	▪ 7.9% fall in the 2007 year end net profit	▪ £94m last year on SIVs and collateralized debt obligations linked to the toxic US mortgage market ▪ Profits for 2007 halved to £126m from £246.7m as a result of the losses.	▪ CDOs portfolio have been depreciating since the beginning of the year ▪ Reduction of 35% in the value of its shares
Losses in Market Capitalization 2007/08	▪ Shares plunged by about 32% to reach $12.14	▪ Shares plunged by 42% than by 55% in a week reaching a trading share at $3.8	▪ Shares down 71% last year and Share prices fell about 20% to €5.20 during the trouble	▪ Earning per share reached 0.46 € in 2Q 2008 against 0.68 € in 2Q 2007 ▪ Shares losses of about 23.58% during the trouble	▪ Shares tumbled to a record low of 9% and the cost of insuring its debt jumped.	▪ Dropping of its shares for 73 % in one single day reaching a price of 3,78 € against 45 € one year ago
Tier 1 as of December 2007	9.3%	6.19%	9.5%	8.1%	8.7%	7%
Leverage as of December 2007	---	30.7%	23%	49%	---	14.28%
Consequences	▪ 2- year Loan Facility of $85 bn from the Federal Reserve	▪ Bankruptcy	▪ Combined injection of 11.2 bn € from the Belgian, Dutch and Luxembourger governments. ▪ Potential selling of assets for 10 bn € including ABN Amro assets. ▪ Partial nationalization: by the government of Luxembourg. ▪ Cross border rescue Involvement of BNP Paribas: takeover of 66% of Fortis +control of its banc-assurance in Belgium (75% of its activities) for 14.7 bn €. ▪ Belgium state conserves the reminder 25% of banking activities and 100% of insurance activities.	▪ Rescue and nationalization : capital injection of more than $9 bn from public shareholders ▪ French government $1.42 bn, French-state controlled Caisse des Dépôts : $2.84 bn ▪ Belgium state $4.26 bn ▪ Luxembourger government $ 518.82 ml	▪ Partly Nationalized[21]: rescue takeover of £52bn of assets. ▪ Santander's purchase of £21bn deposit base and part of assets within 197 branches for £ 612 ml	▪ Bail-out of 35 bn €: Liquidity line by a consortium of several FIs (15 bn €) and Germany Central Bank (20 bn €).

Table 3: DGSs in some European countries: EFDI DEPOSIT GUARANTEE SYSTEMS, FIRST REPORT OCTOBER 2006 and Demirguc-kunt et al (2005)

Before the financial crisis				**After the financial crisis Within October**
Country	**Legal framework**	**Coverage**	**Funding**	
Belgium	▪ Established in 1975, EU Directive in 1995 ▪ Legal separate organization	▪ Coverage per depositor **per institution** , **20.000 €** ▪ No coinsurance ▪ No coverage for deposits in non EU currencies	▪ Ex-ante , no public contributions, additionnal contributions can be required in the amount of up 200% of the regular annual contributions. ▪ No risk based contributions	▪ The CBFA announced to elevate the coverage limit to 100.000 € and to extend the protection, if needed, to other financial firms such as insurances and cooperative banks for products similar to bank deposits.
Germany	▪ Established in 1998 ▪ Private company with public rights	▪ Deposits in € or other currency of the EU member states, ▪ Coverage per depositor, level of coverage **22.222, 22 €**	o Ex-ante ▪ Borrowing of the fund in case of need, no risk-based premiums, ▪ Extraordinary contributions unlimited, intervention decision with BaFin	o Announced 100% coverage for deposits.
Iceland	o Established in 1985 and revised in 1996, EU Directive in 1999 o Official permanent fund	o Coverage for foreign currencies also granted o Coverage per depositor of about 22.000 € o 86.8% of deposit value coverage o No co-insurance	o No-risk adjusted premiums o 0.15% annual premiums o Private funding (banks) and no public support	o The government has promised to compensate Icelandic deposit holders the full amount, and it does not discriminate between Icelandic and European deposit holders
Irelands	▪ Established in 1989 ▪ Updated in 2005 after the introduction of the Directive 94/19/EC ▪ Public	▪ Coverage per depositor, 20.000 €, 10% coinsurance, ▪ Payout limit up to 90% of the insured deposits, subject to a max payment of **20.000 €**	▪ Ex-ante , no public contributions, ▪ No risk-based contribution, ▪ Extraordinary contributions if needed (if members contributions less than 0.2% of their relevant " deposits"), dependent intervention decisions	o The Parliament passed legislation guaranteeing 100% of the deposits and borrowings of six major Irish banks from €20,000 to €100,000 per depositor per institution.
Luxemburg	▪ Established in 1989, EU Directive 1997 ▪ Private fund	▪ All cash deposits in any currency held by all natural person regardless of nationality or residence ▪ Coverage per depositor per institution up **to 20.000 €**, Co-insurance	▪ No risk-based contribution, no extraordinary contributions	▪ The government announced to elevate the deposits coverage to 100000 € and is negotiating the coverage of the Belgium depositors of the subsidiary of the bank Kaupthing
Netherlands	▪ Published in 1979 Public legal form, EU Directive 1995	▪ Deposits in any currency held by natural persons or legal entities , coverage per depositor per institution up to 20.000 € and elevated to 40.000 € in 2007 as a result of a	o Pre-funded by the Dutch Central Bank and ex-post funding by banks members , no extraordinary contributions, no risk based premiums	o A deposit Guarantee scheme is created to cover current accounts, savings accounts or special savings accounts such as fixed-term

		failure in 2005 , no coinsurance ▪ **3 months for depositors pay-offs**		deposits o Banks incorporated in the European Union, Norway, Iceland or Liechtenstein, and operating a branch in the Netherlands fall into the scope of the DGS of their country of origin
Spain	▪ Date of establishment 1997, 1980, 1982 for the three different deposit guarantee schemes ▪ Joint: the fund has public characteristics and may carry out its functions under private law	▪ Securities, in € and foreign currency held by natural persons and legal entities, interest not considered ▪ Coverage per depositor per institution up to 20.000 €, no coinsurance ▪ **3 months for depositors pay-offs**	▪ Ex ante, no public contributions, ▪ Extraordinary contributions from member institutions when the value of the funds becomes negative ▪ No independent intervention	▪ On Oct 7, 2008 Plans to increase the DG coverage but government did not say by how much (unlimited !)
UK	▪ Reformed in 2001: the Financial Services Compensation Scheme (FSCS) replaced various compensation bodies including the Deposit Protection Board, The Investor Compensation Scheme and the Policyholders' Protection Broad ▪ Private company limited by guarantee	▪ Deposits in all currencies held by all personal depositors expect bond issued by credit institutions part of the institution capital , secured deposits, deferred shares issued by a building society , non nominative deposits ▪ Coverage per depositor per institution up to **around 35.000 pounds, payout limit (100%) of the first 2.000 pounds and 90% of the next 33.000 pounds** ▪ 10% Coinsurance over the first 2.000 pounds ▪ **6 months for depositors payoffs**	▪ Mixed, ▪ No public contributions, ▪ No risk based premium, ▪ No extraordinary contributions ▪ Intervention decision subject to the FSA assessment	▪ On Oct 4, 3008 Increased its deposit insurance coverage to £50,000 from £35,000
USA	▪ First establishment in 1934 and revised in 1950, 1966, 1969, 1974, 1980, 2005 and 2006 ▪ Public official fund (FDIC)	▪ **Deposits including** checking and savings accounts, money market deposit accounts and certificates of deposit (CDs). ▪ **100000 dollars** ▪ **0.1 month on average for depositors pay offs**	▪ Risk adjusted funding (between 0% and 27%) o Joint funding	o Through December 31, 2009 different accounts including single accounts, joint accounts, individual retirement accounts are covered up to 250000 $ and an unlimited coverage for Non-interest Bearing Transaction Accounts

Table 4: Top five banks (Year end 2007)

Country	Asset / GDP (%)	Loans / Assets (%)	Equity / Assets (%)
France	293	29	3.5
Germany	165	23	2.6
Italy	131	61	7.4
Iceland	890	64	6.3
Ireland	404	62	3.6
Luxemburg	854	33	5.2
Netherlands	521	51	3.8
Spain	184	95	7.2
Switzerland	756.3	24	3.2
UK	313	44	3.9
USA	44	44	7.6

Table 5: Characteristics of the "too-big to be saved" banks (year-end 2007)

Banks	Country	Tier 1 (%)	Core capital (%)	Loans / Deposits (%)	Leverage (Assets/ Equity (%))	Asset / GDP (%)
Fortis Bank	Belgium	9.5	4.4	118.8	22.7	229.1
Dexia Bank	Belgium	8.1	2	106.2	49.1	79
ING	Belgium	11.4	4.7	65.5	21	53.8
Bank of Ireland	Ireland	8.1	3.4	158.1	29.3	103.6
Bayerische Hypo-und Vereinsbank	Germany	16.2	5.7	148.1	17.5	17.4
Deutsche bank	Germany	8.6	1.9	41	52.5	83.4
Kaupthing Bank	Iceland	9.6	6.7	239.2	15.0	402.3
Dexia Banque Internationale	Luxembourg	9.1	3.6	41.8	27.8	198
Deutsche Bank Luxembourg	Luxembourg	NA	2.9	104.6	35.1	180.9
Fortis Banque Luxembourg	Luxembourg	11.3	6.7	110.4	14.9	165.5
ABN Amro Holding	Netherlands	12.4	3	121.0	33.5	180.8
UBS	Switzerland	8.8	1.9	60.9	52.0	439.9
Credit Suisse	Switzerland	11	4.4	83.2	23	263.4
Citigroup	USA	7.1	5.2	94.2	19.3	14.8

Source: Own calculation – Bankscope database

The future for credit derivatives markets: The eminence of regulation

Rym Ayadi[1] Patrick Behr[2]

This paper reviews prevailing credit derivatives markets regulation and comments on the need to regulate these markets in light of the recent financial crisis. Although credit derivatives may have had beneficial effects such as enhancing the resilience of the financial system, these benefits can only be reaped if credit derivatives are used prudently and responsibly by all market participants. We argue that the current regulatory regime is not sufficient to induce market participants to use credit derivatives in a desirable way. Rather, the existing system, which is mainly based on self-regulatory initiatives, should be accompanied by supervisory action such as the introduction of mandatory disclosure of credit derivative transactions or collateral requirements for all credit derivative transaction counterparties. The combination of self-regulatory initiatives together with strict supervisory action seems to be well-suited to help preventing market participants from misusing credit derivatives, therewith dampening the dangers these instruments might pose to the stability of the financial system.

JEL Classification: **G21, G28, G29**

Keywords: Financial innovation, credit derivatives, financial stability, regulation

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1. Introduction

Credit derivative markets have undergone a rapid growth in the last decade. According to figures from the British Banker's Association (BBA), the global outstanding notional volume of credit derivatives was 180 billion USD in 1996. Only ten years later, at the end of 2006, the market size had expanded to a volume of more than 20 trillion USD, roughly 112 times the market size of 1996 (BBA, 2006). Recent figures released by the Bank for International Settlement (BIS) report a skyrocketing notional amount of outstanding credit derivatives of 57.3 trillion USD per mid-year 2008, reflecting the continuing growth of this market (BIS, 2008). However, such volumes are expected to shrink as a result of the financial crisis.

This tremendous market growth was accompanied by the invention of new, innovative products, therewith widening the diversity and the complexity of credit derivative instruments. Market participants are nowadays able to issue and trade in products such as single-name credit default swaps (CDS), credit linked notes[3] (CLN), credit spread options[4] (CSO), collateralized debt obligations[5] (CDO), equity linked products, portfolio products, to name just a few. The principal feature of these instruments is the separation and isolation of credit risk, which facilitates the trading, enables the replication, the transfer and hedging of credit risk.

Credit derivatives are mainly used for credit risk management purposes, for example for credit risk diversification across sectors and geographical regions or regulatory capital relief. Banks and insurance companies use credit derivatives mostly for these purposes. Besides, there seems to be an increasing activity in trading in credit derivatives to create additional income resulting from the exploitation of pricing inefficiencies and information asymmetries associated with credit derivatives transactions. This is one of the driving factors behind the increasing participation of hedge funds in credit derivatives markets.

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[3] CLN are designed to enable investors to capture returns on a single reference entity (an underlying bond or loan).

[4] Credit spread products are options or forwards on the credit spread of bonds, loans or other credit risk related assets. These instruments allow the separate trading of the credit spread for the purpose of risk reduction, speculation or return enhancement.

[5] CDO is the generic term used for credit portfolio securitization. It entails repackaging credit portfolios (loans/bonds and/or derivatives) for sale to investors. Thus, a CDO can be described as a combination of a fixed income security with an embedded credit derivative.

Not surprisingly, the rapid growth of the market as well as of new credit derivatives and the increasing importance of new market players pose challenges to credit derivatives markets in particular and to the financial system as a whole. For instance, one of the CDS market's main characteristics is to draw the world's major financial institutions and other market participants into a complex web of interconnections where the failure of any one (sufficiently important) institution might easily initiate a domino effect, potentially threatening the global financial system. As credit derivatives markets are still exceptionally opaque because market participants are not required to disclose their transactions, there are an increasing number of voices calling for more transparency and more regulation. An often voiced argument is that the increasing volume of credit derivatives may threaten the stability of banks involved in credit derivative transactions and, ultimately, the stability of the financial system.[6] Recently, such concerns were fueled by the collapses of American Insurance Group (AIG) and Lehman Brother's in autumn 2008, both heavily active in the CDS market.

A core question associated with the increased importance of credit derivatives is under which conditions do they enhance the resilience of financial systems, respectively, under which conditions do they threaten the stability of financial systems? This paper delivers a policy analysis with regard to the necessity of – and, if so, what kind of – regulatory support for credit derivatives markets. We argue that the existing self-regulation by market participants should be accompanied by regulatory and supervisory actions in order to reduce the existing opacity of these markets and to minimize the risks associated with credit derivatives.

The paper is structured as follows. In section 2 we present some stylized facts and figures about global credit derivatives markets and introduce CDS as the predominating credit derivative instrument. In the third section we describe how credit derivatives change the traditional lender-borrower relationship and discuss potential new incentive problems arising from credit derivative transactions. The fourth section examines whether and how

[6] In March 2003 the Financial Times quoted Warren Buffett with the following: "Derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal to the financial system." In a letter to the shareholders of his company Berkshire Hathaway, Inc., he added that "derivatives are wildly mis-priced, but continue to generate hundreds of millions of dollars". This quote nicely reflects the fear of (some) market participants and observers that credit derivatives may threaten the stability of the financial system.

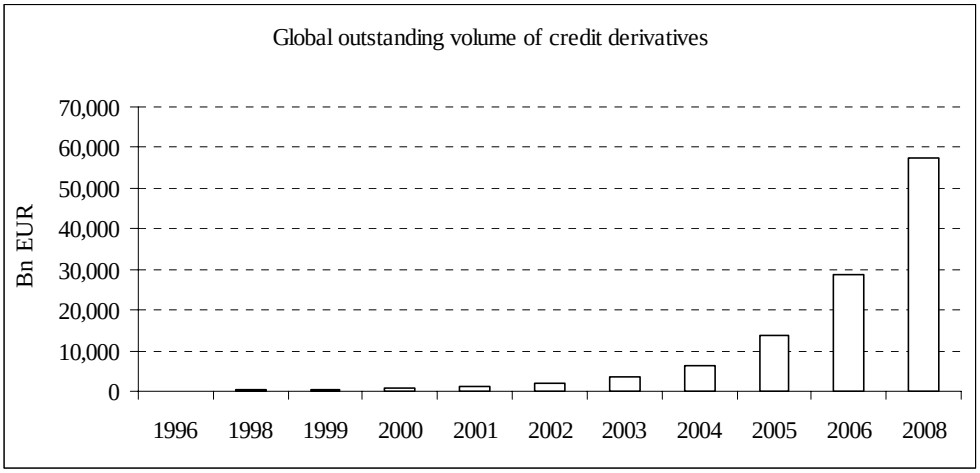
credit derivatives impact financial stability, and section 5 discusses whether and what kind of regulatory support is needed for the well-functioning of credit derivatives markets.

2. Credit derivatives markets

Some stylized facts about the development of credit derivatives markets

The rapid expansion of credit derivative markets dates back to the mid 1990s.[7]. While the volume of the notional amount of outstanding credit derivatives was only 180 billion USD in 1996, it skyrocketed in the years thereafter, surpassing the one trillion threshold in 2001 and reaching a stunning 28.5 trillion USD at the end of 2006. Yet, this rapid growth does not seem to have come to an end. For instance, the BIS reported the credit derivatives markets notional outstanding volume to be around 57.3 trillion USD per end of June 2008.[8] The following figure illustrates the exponential growth of credit derivatives markets in the last decade.

Figure 1: Global outstanding notional volume of credit derivatives from 1996 to 2008. The figure for 2008 is per end of June 2008. Sources: BBA (2006), BIS (2008).



[7] The Credit Default Swap was invented in the mid 1990s by a young Cambridge University mathematics graduate, Blythe Masters, who was then hired by J.P. Morgan Chase Bank in New York. This new instrument provided a revolutionary new risk management (and speculation) tool for global credit markets.

[8] Although the market volume figures vary between the available sources (BBA, BIS, Fitch, International Swaps and Derivatives Association (ISDA)) they all show the same trend of a continuing rapid growth. The variation owes to the fact that most stylized facts stem from surveys and survey participants may vary from source to source.

The volume growth was accompanied by an increase in product complexity. The array of credit derivatives, which are mainly traded over-the-counter (OTC), nowadays ranges from CDS, CSO, CLN, CDO, total return swaps, to portfolio products as well as loan-only CDS and index-related products. Particularly the latter have recently experienced a boost in volume (Fitch, 2007). Notwithstanding the recent increase in importance of highly complex instruments such as CDO (Fitch, 2007), CDS still seem to make up the lion's share of the credit derivative markets. Indeed, CDS accounted for a market share of 67% in 2002, for 68% in 2003, almost 70% in 2004, 51% in 2005 (Fitch, 2006), and a more moderate 40% in 2006 (Fitch, 2007).

The future growth of these instruments will largely depend of the market and regulatory responses in the aftermath of the crisis. Indeed, concerns were voiced about the role of several complex instruments including CDS in exacerbating the crisis. Pessimistic analysts foresaw their disappearance, others advocate stricter regulation. It is however dangerous to draw prompt judgments before analyzing the roots of the problem. The market for credit derivatives is relatively new. The 2007/09 financial crisis may prove to be an opportunity to clean-up the superfluous.

In the following section, we focus primarily on the functioning of CDS as this is still the most important credit derivative product in terms of market share and may be the victim of the crisis. Additionally, we briefly examine CDO because of their recent importance gain and because of the "dubious" role they played in the financial crisis.

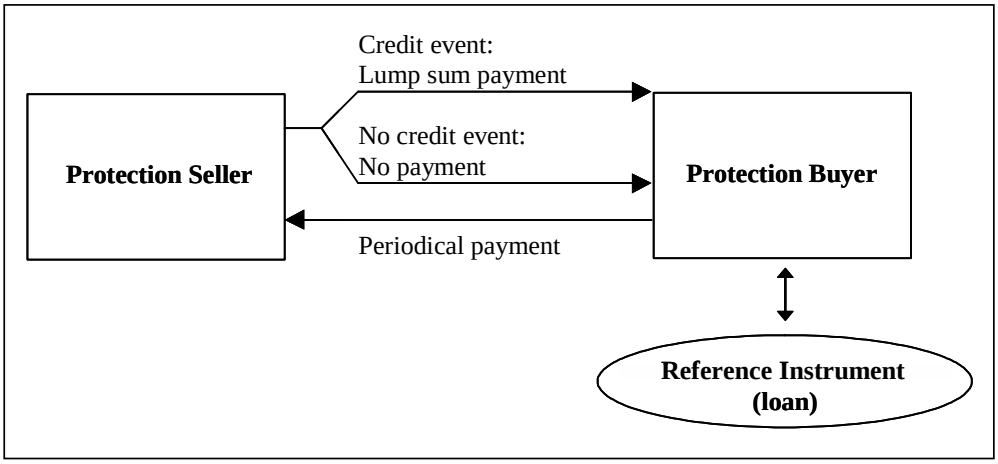
Functioning of CDS[9]

The main feature of a CDS is that two counterparties enter into a swap transaction. One of the two parties is a loan originating bank that wants to swap the credit risk of a borrower (reference instrument or reference entity) to a second party, which is often, but not necessarily, another bank. The motive for the swap for the loan originator is to seek protection from the risk of a credit event occurrence. Credit events include bankruptcy, the restructuring of debt, a failure of the reference entity to meet scheduled debt repayments, or a rating downgrade of the reference entity. Consequently, the originating party is commonly referred to as the protection buyer. The swap counterparty is referred

[9] This section draws on Rule (2001), Das (2005), and Mengle (2007).

to as the protection seller because in case of a credit event, which has to be precisely defined in the swap contract, the protection seller has to pay a lump sum to the protection buyer. The lump sum is equal to the difference between the face and the market value of the reference entity's debt. In return the protection buyer usually pays a periodical fee (often on a quarterly basis) to the protection seller. Figure 2 summarizes the general structure of a CDS transaction. As the figure shows, in the case without a credit event the protection seller does not have to pay anything to the protection buyer. The receipt of the periodical payment to the protection seller remains unaffected by this.

Figure 2: Functioning of a credit default swap.



Unlike other types of derivatives such as interest rate swaps, the risks assumed by the protection buyer and protection seller in a CDS transaction are not symmetrical. The protection buyer effectively takes on a short position in the credit risk of the reference entity, which thereby relieves the buyer of exposure to default, respectively, more generally, of a deterioration of the credit quality of the reference entity. By giving up reference entity credit risk, the buyer effectively gives up the opportunity to profit from exposure to the reference entity. In return, the buyer takes on counterparty default exposure due to the possibility of a default of the protection seller, exposure to a simultaneous default of the reference entity and the protection seller, and so-called

counterparty replacement risk.[10] In addition, the protection buyer takes on basis risk to the extent that the reference entity specified in the CDS transaction does not precisely match the asset hedged through the acquisition of the credit risk. A bank hedging a loan, for example, might buy protection on a bond issued by the borrower instead of negotiating a more customized and potentially less liquid CDS linked directly to the loan.

The protection seller, in contrast, builds up a long position in the credit risk of the reference entity, which is essentially the same as the default risk assumed when lending directly to the reference entity. The protection seller also takes on counterparty risk because the seller will lose expected premium income if the protection buyer defaults.

One exception to the above risk allocation is the funded CDS, in which the protection seller lends the notional amount to the protection buyer in order to secure performance in the event of default. In a funded CDS, which requires an up-front payment by the protection seller, the protection buyer is relieved of the counterparty exposure to the protection seller but the seller has the exposure to the buyer along with the exposure to the reference entity. However, most CDS transactions are unfunded, which means they do not involve up-front payments by the protection seller, but to circumvent counterparty credit risk up front payments and/or collateral may nevertheless be required.

For the simplest (single name) form of CDS, the reference entity is an individual corporation or government. If a corporate reference entity is taken over by another firm, the protection typically shifts over to the acquiring entity. If a reference entity de-merges or spins off a subsidiary, CDS market participants use a set of criteria, known as successor provisions, to determine the new reference entities.

A CDS with more than two reference entities is known as a *basket* CDS. In the most common form of a basket CDS, the so-called *first-to-default* CDS, the protection seller compensates the buyer for losses associated with the first entity in the basket to default, after which the swap terminates and provides no further protection. CDS referencing more than ten entities are sometimes referred to as portfolio products. Such products are generally used in connection with synthetic securitizations[11] in which a CDS transfers

[10] According to the BIS (1998) replacement cost risk is the risk that a default of a counterparty will require the non-defaulting counterparty to incur a cost to replace the contract or a portfolio of contracts.

[11] A synthetic securitization is a structured transaction that involves the transfer of risk on a portfolio of assets through a CDS or CLN. The originating bank packages more than 10 reference loan entities into a

credit risk of loans or bonds to collateralized debt obligation (CDO) note holders[12] instead of a true sale of the assets as in a cash securitization (Figures 3a & 3b).[13]

Figure 3a: Cash securitization

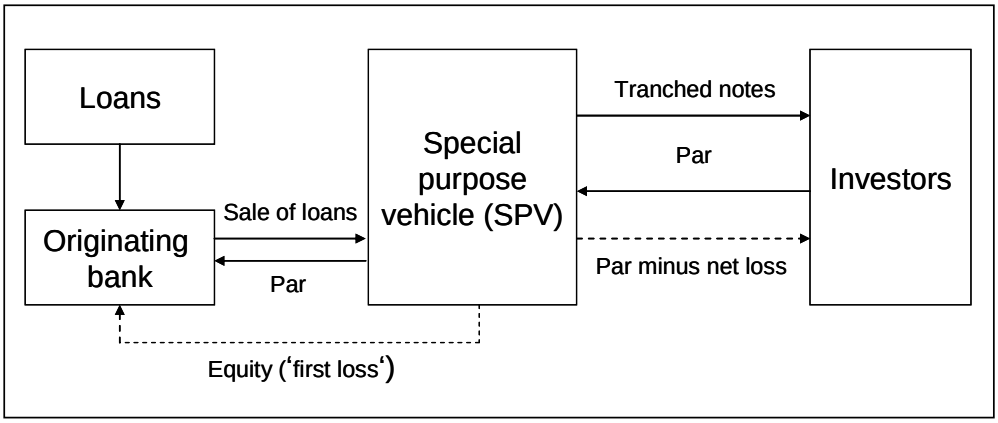
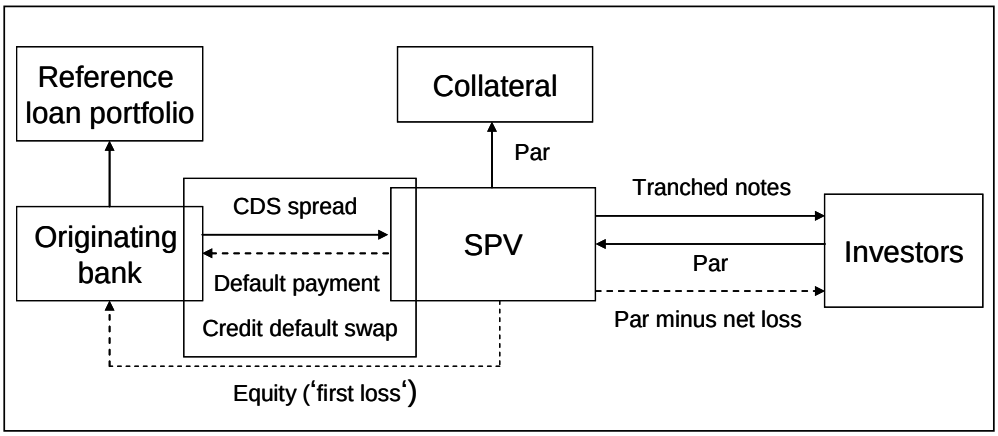


Figure 3b: Synthetic securitization



portfolio product. The package is subsequently sold to an independent Special Purpose Vehicle (SPV) formed for the specific purpose of funding the loans. The SPV is a separate company and must not be owned by the originator. In a classical or cash securitization transaction, the SPV issues tradable securities to fund its purchase of the loan portfolio from the originator. The performance of these securities is directly linked to the performance of the loan portfolio. The securities are then sold to investors. In a synthetic securitization transaction, a CDS on the reference portfolio is created between the originating bank and the SPV. The originating bank pays a premium to the SPV and in case of a credit event the SPV ensures the default payment to the originating bank.

[12] The characteristics of this transaction type are the following: a) only credit risk is transferred, b) assets remain on the balance sheet, c) there is no generated funding.

[13] See Mengle (2007).

In a typical securitization transaction where banks transfer the legal rights of the assets to an SPV, CDO involve the transfer of a portfolio of loans (Collateralized Loan Obligation - CLO) or bonds (Collateralized Bond Obligation - CBO) or a mixture of the two (CDO), and the tranching of the risk to attract investors. The use of tranching techniques enables the creation of highly structured types of credit risk profiles. Lower rated tranches bear the greatest risk of loss. The prospectuses in CDO issues typically contain information on the underlying obligations, diversity scores, and the ratings of the tranches.

The underlying portfolio of a CDO can include various assets such as commercial loans or corporate bonds as well as asset-backed securities, and may be static or actively managed. Holders of so-called senior tranches have repayment priority over the more junior tranches and the transactions can be sliced into up to five or more tranches. The first loss tranche (also called equity tranche) is unrated, carries the major share of risk in the structure, and is usually held by the originating bank.[14] The senior tranche is normally structured in such a way that an AAA rating is assigned to it, and it accounts for most of the transaction volume, often between 70% to 90% of the notional amount. The exact riskiness of the layers between the first loss and the senior tranches (known as mezzanine layers) depends on the structure – the size of the first loss tranche and the riskiness of the underlying portfolio. A distinction is also made between balance-sheet CDO and arbitrage CDO.

A major source of credit derivatives growth since 2004 has been the invention of index CDS (Fitch, 2007), in which the reference entity is an index comprising as many as 125 corporate entities. A CDS index offers protection for all entities in the index, and each entity has an equal share of the notional amount. The two main indices are the CDX[15]

[14] The equity tranche usually remains with the originating bank as a signaling device. However, it appears that in recent years the originators often also sold the equity tranche. This might be very problematic because it can reduce the originator's incentives to monitor the underlying reference entity, which could increase the risk of the reference entity. This, in turn, might increase the risk of all issued tranches. Some researchers argue that this was one of the main reasons that caused the recent breakdown of the CDO market with the known consequences (Franke and Krahnen (2008)).

[15] CDX is a brand name for the family of CDS index products covering North America and emerging markets. They are owned, managed, compiled and published by Markit Group Limited, the leading industry source of independent pricing, reference data and valuations.

instruments to transfer the risk form one party to the other may have to be restrained to certain players with clear conditions. The latter may however suffer from the complexity of the design of the transactions and the weaknesses of the actual pricing models. Investors who lost unprecedented amounts of money may shy away from complexity in the next years, which will determine the faith of such instruments.

Transaction documentation and settlement

The confirmation[18] of a CDS deal involves a standard set of credit events that must occur before the protection seller has to compensate the buyer for losses caused by the credit event. The deal counterparties decide which events they want to include and which not. The included events vary according to the type of reference entity. The five most often included ones are:

- The most common credit event is *failure to pay*.
- *Bankruptcy* is a credit event associated with corporate reference entities.
- *Restructuring*, which refers to actions such as coupon reduction or maturity extension undertaken instead of default, is generally included as a credit event for corporate entities. Restructuring is sometimes referred to as a "soft" credit event because, in contrast to failure to pay or bankruptcy, it is not always clear what constitutes a restructuring that should trigger compensation.
- *Repudiation* or *moratorium* provides for compensation after specified actions of a government reference entity and is generally relevant only for emerging market governments.
- *Obligation acceleration* and *obligation default*, which refer to technical defaults such as violation of a bond covenant, are rarely used.

[18] Leading market participants recognized the need for documentation standardization and worked with the ISDA to develop a standard documentation format for CDS, the so-called "ISDA Master Agreement". The first attempt to standardize documentation resulted in the development of the confirmation for an OTC credit default swap transaction (single reference entity, non sovereign). This confirmation entitled the Long Form Documentation was published in 1998. However, the structure of this document was very complex and caused delays and misunderstandings among market participants. It therewith increased the risk of operational errors. In July 1999, the ISDA published a revised standard documentary framework for privately negotiated CDS. The revised format consisted of a) a standard definition for CDS (The 1999 Definition); and b) a shorter confirmation for individual CDS, the so-called short form confirmation. In 2002, the ISDA reviewed the 1999 credit derivatives definitions, and in February 2003 it adopted a new set of definitions.

In the event of default the protection seller compensates the buyer according to the settlement method chosen. There are two types of settlement, *physical settlement* and *cash settlement*.

- If a credit event occurs and the counterparties have opted for physical settlement, the protection buyer delivers the defaulted debt of the reference entity with a face value equal to the notional amount specified in the CDS to the protection seller. In return, the protection seller pays the par value, that is, the face amount of the debt.
- If a credit event occurs and the counterparties have agreed on a cash settlement, an auction of the defaulted bonds takes place in order to determine the post-default market value. Once this value is determined, the protection seller pays the buyer the difference between the par value, which is equal to the CDS notional amount, and the post-default market value.

Table 1 summarizes the main characteristics of CDS transactions.

Table 1: Main characteristics of CDS transactions. Source: Own research and BIS (2003).

Cash flows	• Protection buyer pays regular premiums over the life of the swap. • Protection seller pays amount (depending on the agreed settlement procedures) following the credit event.
Reference entity	Generally investment grade rated corporations, banks and sovereigns from developed countries or emerging markets.
Risks involved	• Counterparty credit risk – the risk that the transaction counterparty defaults before the final settlement of the transaction's cash flows – protection seller defaults on contingent payouts and protection buyer defaults on premiums. • Legal or documentation risks – credit event definitions do not cover all potential risks. • Market liquidity risk – associated with the decline in asset market liquidity resulting from the failure of winding down of one or more major participants in the CDS market. • Operational risks.
Types of CDS	• Unfunded or funded – whether the protection buyer receives funds in the transaction or whether the protection seller has to provide upfront funding in the transaction. • Standardized contracts – corresponding to ISDA definitions. • Contracts based on ISDA Master Agreements.
Trigger events	ISDA standard credit events – failure to pay, bankruptcy, restructuring, moratorium, obligation default.
Settlement in the case of a credit event	• Physical settlement – the protection buyer delivers a bond issued by the reference entity or a bank claim that it holds on the entity in exchange for payment of the par value. • Cash settlement – the reference entity's debt is valued at market price. The protection seller pays the protection buyer the difference between the security's nominal value and its market price, or the difference between its

	par value and the estimated recovery rate.

Participants (in) and their motives for credit derivative transactions

A very often cited motive to enter into a credit derivative transaction is the management of exposure to credit risk. This is particularly relevant *for banks* which face severe sectoral and geographical diversification constraints. Entering into credit derivative transactions allows such banks to diversify their credit portfolio by acquiring claims on firms that would otherwise not be accessible to them through regular client acquisition.[19] Managing credit risk is, however, not new to banks. They have managed credit risk long before the invention and rapid growth of credit derivatives, for instance, through syndicating loans or third party guarantees and letters of credit. The novel aspect of credit derivatives is that their invention allowed the creation of a market for credit risk that is completely separated from the underlying reference obligation. This yielded a lot more opportunities than sheer default protection. For instance, investors who are confident that a given reference entity will not default can collect the premium payments in case they provide protection. On the other hand, arbitrageurs or market makers can exploit price discrepancies resulting from information asymmetries or market inefficiencies.[20] For the originators of credit risk transfer (CRT) transactions[21] motives such as regulatory capital relief, management of individual credit lines and concentration risks as well as the generation of additional fee income play a key role. The global derivatives survey by Fitch (2006) further cites that credit derivatives markets' participants increasingly use credit derivatives for trading purposes. Table 2 summarizes some of the most often cited motives for credit derivative transactions for protection buyers and sellers.

Table 2: Motives for using credit derivatives by type of financial institution. Source: Own Research and ECB (2004).

Type of financial institution	Buying protection for/in case of	Selling protection for/in case of
Banks	• Credit risk management • Regulatory capital relief • Balance sheet management	• Geographic/industry diversification of loan portfolio

[19] European Central Bank (2004).
[20] Durbin (2006).
[21] We will henceforth use the terms CRT transaction and credit derivative transaction interchangeably as credit risk is usually transferred by means of a credit derivative transaction.

	• Liquidity shortages (funding motive)	• Offsetting of costs of hedging other credits • Yield enhancement
Insurance companies	• Reduction or diversification of liability concentration in insurance portfolio without having to sell bond positions	• Diversification • Yield enhancement • Matching of maturity profile of liabilities
Securities dealers	• Market intermediation • Credit risk management • Regulatory capital relief	• Market intermediation • Geographical/industry diversification of loan portfolio • Offsetting of costs of hedging other credits
Asset managers	• Strategic trade construction • Exploitation of negative views on creditworthiness development	• Exploitation of positive views on creditworthiness (yield enhancement and diversification)
Hedge funds	• Exploitation of negative views on the credit quality • Packaging with bonds and/or convertible bonds for basis trades	• Exploitation of positive views on a credit

A survey published in 2004 by the European Central Bank (ECB) revealed that large, globally operating universal banks mainly act as originators of CRT transactions while smaller, regionally oriented banks often act as protection sellers. The survey also reported that 80% of the credit derivative transactions take place cross-border therewith underlining the formerly mentioned regional diversification argument.

According to the mentioned survey by the ECB, the market for CRT transactions is mainly a bank-to-bank market, that is, banks do not only act as originators but are also the main counterparties of CRT transactions. Other market participants include insurance companies, pension funds, asset managers and hedge funds. Particularly the latter seem to have gained importance in recent years. Contrary to banks, the dominating motive for hedge funds in participating in credit derivative markets is to generate trading income.

The main originators of CRT transactions in recent years were large, globally operating universal banks as well as (the former) investment banks, with relatively little variation in the group of the top 10 CRT transaction originators over the past years. Table 3 illustrates this.

Table 3: Top 10 originators of CRT transactions from 2003 to 2006. Source: Fitch (2004, 2005, 2006, 2007).

Rank	2003	2004	2005	2006
1	JPMorgan Chase	Deutsche Bank	Morgan Stanley	Morgan Stanley
2	Deutsche Bank	Morgan Stanley	Deutsche Bank	Goldman Sachs
3	Goldman Sachs	Goldman Sachs	Goldman Sachs	JPMorgan Chase
4	Morgan Stanley	JPMorgan Chase	JPMorgan Chase	Deutsche Bank
5	Merrill Lynch	UBS	UBS	ABN Amro
6	CSFB	CSFB	Lehman Brothers	Barclays
7	UBS	Lehman Brothers	Barclays	Lehman Brothers
8	Lehman Brothers	Merrill Lynch	Citigroup	UBS
9	Citigroup	Citigroup	CSFB	Bear Stearns
10	Bear Stearns	Bear Stearns	BNP Paribas	Merrill Lynch

However, the eruption of the financial crisis in summer 2007 and the worsening of the situation in the months thereafter will likely change the market structure as, for instance, Lehman Brothers and Bear Stearns are not any longer participating in CRT markets.

Although, the structure of the credit derivatives market has barely changed over the last decade, with banks largely dominating the market, and other players such as hedge funds gaining importance as protection sellers (Table 4), the financial crisis is expected to drive major structural changes in the years to come.

Table 4: Protection sellers by institution type (in %) from 2000 to 2006. Source: Fitch (2006).

Type of institution	2000	2002	2004	2006
Banks (including securities firms)	63	55	54	44
Banks – Trading activities				35
Banks – loan portfolio				9
Insurers	23	33	20	17
Mono-line insurers			10	8
Re-insurers		21	7	4
Other insurance companies		12	3	5
Hedge funds	5	5	15	30
Pension funds	3	2	4	4
Mutual funds	2	3	4	3

Corporates	3	2	2	1
Other	1	0	1	1

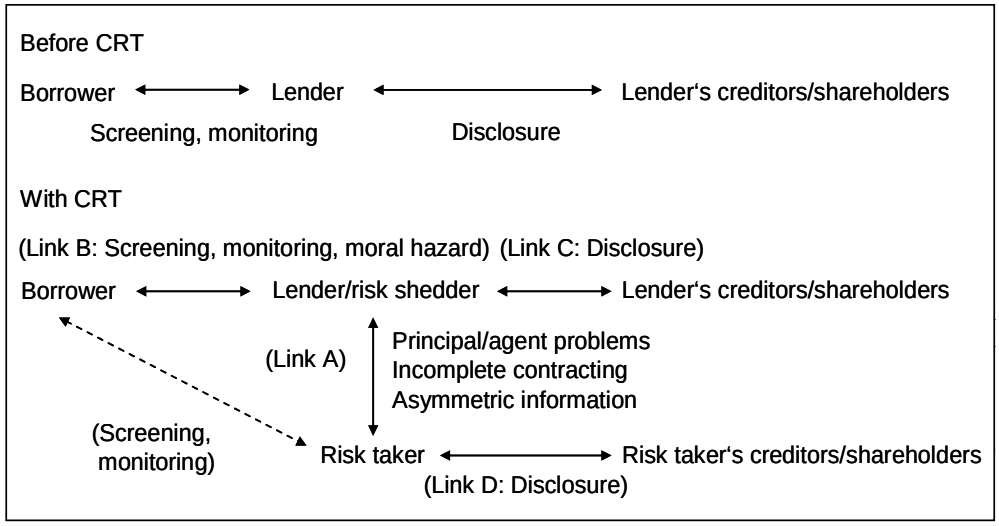
Up to today and albeit the industry self-regulatory actions in the aftermath of the crisis, credit derivatives markets continue to be rather opaque and survey results are the only halfway reliable sources of information. Among other things, this opacity is fed by the change of the incentive structure associated when a CRT transaction is originated compared with the incentive structure associated with the traditional lender-borrower relationship. The implications of a change of the incentive structure will be discussed in the following section.

3. Incentive issues associated with credit derivatives

It is well known that the borrower-lender relationship suffers from adverse selection and moral hazard problems, which screening and monitoring by banks as delegated monitors help mitigating.[22] However, with the introduction of CRT transactions the prevalent incentive structures in the borrower-lender relationship have changed by creating a new set of relationships amongst borrowers, lenders/protection buyers and protection sellers. For example, Morrison (2005) argues that the availability of credit derivatives could adversely affect banks by reducing their incentives to screen and to monitor borrowers.[23] Furthermore, the use of credit derivatives could make bank loans less valuable to borrowers because the loans would entail a reduced certification effect.

Figure 4 provides a stylized summary of the traditional relationships between borrowers and lenders before and after the introduction of CRT transactions.

Figure 4: Stylized summary of relationships affected by CRT transactions. Source: BIS (2003).



According to the figure above, the introduction of CRT transactions alters the borrower/lender relationships in several ways:

- The relationship between the protection buyer and the protection seller (link A) suffers from: a) the *principal-agent problem* which stems from the possibility for the lender to retain the relationship with the borrower and become the agent of the risk taker following the CRT. Since the protection buyer's monitoring efforts cannot be observed by the protection seller without a cost, there is an increasing incentive for the former to reduce its monitoring, b) the *incomplete contracting problem* related to opportunistic behaviors by the contract parties, for instance, if the protection buyer is able to demand payments under the agreements that exceed credit losses actually occurred or if the protection seller is able to avoid payment following a genuine credit event, and c) the *asymmetric distribution of information* related to the information advantage of the lender (about the creditworthiness of the borrower) over the protection seller.
- The relationship between the lender/protection buyer and the borrower (Link B). The transfer of credit risk from a lender to a third party can have a knock-on effect on the borrower. Even if the lender-borrower relationship remains formally intact – for example, if the lender has used credit derivatives or insurance rather than selling the claim outright – the lender's behavior towards the borrower may nevertheless be affected by the fact that it has reduced its exposure and by the precise terms on which it has transferred the credit risk. Indeed, since the lender has transferred some or all of the credit risk on a given exposure, it might be expected to *reduce its monitoring efforts*. Moreover, on the one hand, the use of CRT instruments should free up additional credit lines and thus benefit borrowers. On the other hand, some corporate borrowers have been reluctant to accept the transfer of their loans and this reluctance has impeded the development of secondary loan markets. One reason may be the concern that market participants interpret the risk transfer as a negative signal about a borrower's creditworthiness. *The potential signaling effect* depends on the visibility of the transactions to third parties, which is not equal for all CRT instruments. For instance, this visibility is rather low in the CDS market. Finally, the existence of

credit risk protection might influence a lender's behavior with respect to *distressed borrowers* because loss protection changes the risk/return profiles of various alternative actions. On the one hand, the existence of credit risk protection could encourage forbearance because there is no longer an incentive to try to reduce losses by early action. On the other hand, lenders who have shed credit risk by using credit derivatives – which include restructuring as a credit event – may be encouraged to agree to a debt restructuring, provided that it falls within the particular definition used, while if they have used instruments which exclude restructuring they may prefer to take a "hard line" in the hope that the borrower will enter insolvency proceedings or default.

- The relationships between the protection buyer, protection seller and their creditors respectively shareholders (Links C and D). As CRT instruments can alter institutions' risk profiles, their creditors and shareholders have an interest in such changes being properly reflected in disclosed statements/disclosure requirements. Since CRT may involve substantial counterparty, legal, operational and liquidity risk for protection buyers, the relevance of adequate disclosure is not limited to protection seller.

Table 5 summarizes the potential problems arising from CRT transactions and the relationships CRT might affect.

Table 5: Potential impacts of CRT transactions on the borrower-lender relationship.

	Potential problem	Affected relationship
Adverse selection	Reduced incentives for lenders to screen out low-quality assets	Borrower – lender Lender – protection seller
	Lemons' problem	Lender – protection seller
	Incentives for lenders to select low-quality assets	Lender – protection seller
Moral hazard	Reduced incentives for lenders to monitor borrowers	Borrower – lender Lender – protection seller
	Lender's purchase of credit protection against borrower's wishes	Borrower – lender
	Increased incentives for lenders to prematurely trigger default	Lender – protection seller Borrower – lender
	Protection seller reneges (partially or fully) on contingent payouts	Lender – protection seller

Expectedly, the increasing importance of CRT transactions and their likely implications for credit markets and the real economy have led to a growing body of mostly theoretical works due to the lack of data in this area. The most notable ones are Gorton and Penacchi

(1995), DeMarzo and Duffie (1999), Duffee and Zhou (2001), Arping (2005), Morrison (2005), Marsh and Wagner (2006), Chiesa (2006), Duffie (2007), and Franke and Krahnen (2007, 2008). These papers examine – from different angles and based on different underlying assumptions – how CRT transactions can change incentive structures, what the implications of these changes are, and how the real economy might be affected by the introduction of CRT transactions.

4. Credit derivatives and financial stability

Consequences of increasing credit derivative activity for financial stability

There was a growing consensus that the flexibility provided by credit derivatives had the potential to facilitate risk-sharing, to enhance the efficiency of risk management, and to promote market completeness (International Monetary Fund (IMF), 2006). This view may have to be reconsidered in the aftermath of the current financial crisis and the subsequent events that led to the collapse of major credit derivatives players and the effects this had on global financial market stability. However, it is important to point out that although in theory credit derivatives are believed to have stability-enhancing benefits, the realization of these benefits depends crucially on the use of these instruments by market participants. Although it still seems to be too early to pass final judgment on this issue, it appears that one of the reasons for the crisis and its propagation was the misuse of credit derivatives rather than instrument-inherent features.

In theory, credit derivatives provide banks and other financial institutions access to a broader range of risk-return combinations and a wider pool of underlying risks. Importantly, credit derivatives enable banks to optimize their overall risk profile and to improve their profitability and efficiency thereby helping them to alleviate credit problems in specific sectors or regions. Credit risk – which has traditionally been warehoused primarily by banks – can be distributed more broadly and other non-bank market participants such as insurance companies, investment trusts and increasingly hedge funds have access to exposures which were formerly not accessible to them (IMF, 2006). A differently structured credit portfolio, which assumes the exposure at lower costs than the original lender, was believed to allow a more efficient allocation of risks within the economy. Again, according to the IMF (2006), economic shocks such as an

economic recession or a crisis situation in specific business sectors or of a particular company can be better absorbed if the associated costs are lower in total and less concentrated. Credit derivatives can also supply important additional information on the borrower's creditworthiness by providing market prices[24] – given that the risks incurred are accurately measured and priced and the markets are sufficiently liquid. They are thus likely to improve the information efficiency of financial markets.[25]

Credit derivative activity has also contributed to enhance the transferability of credit risks by allowing an increased specificity of credit exposures that can meet different investment demands, particularly in the "primary" risk transfer markets.[26] The demand for trading and hedging tools has fostered the introduction and rapid growth of credit indices and standardized tranche products, resulting in an increasingly liquid market for such products. Particularly the increasing activity of hedge funds has been an important source of liquidity in credit derivatives markets. This provides a twofold benefit for banks. First, it contributes to reducing banks' credit risks by giving them the possibility to transfer assets[27] and/or credit risk[28] off their balance sheets[29], and second, it improves their liquidity by providing secondary markets for credit risk.

Nevertheless, it should be borne in mind that in a period of relatively benign macroeconomic conditions – continued global economic growth, low inflation rates, high corporate profits combined with a low number of business failures and a more predictable monetary policy – the prices of financial assets often embody relatively low expected volatility and little reward for taking credit risk or for extending the duration of investor portfolios. With more risk traded in the market and more participants managing this risk through portfolio adjustments, the importance of market liquidity increases and the

[24] For instance, the premia for credit default swaps are nowadays an important indicator of a firm's or a bank's credit quality.

[25] A discussion of the information content of CDS index tranches for financial stability is provided in ECB (2006).

[26] But, as the IMF points out: "*However, once transferred, secondary market liquidity risks remain, and may constitute the most significant stability risk emanating from the structured credit markets.*" IMF (2006, p. 66).

[27] Through a traditional fully funded credit linked note (CLN).

[28] Through synthetic securitization, for instance.

[29] However, Wagner (2007) showed that the benefits of increased liquidity through risk transfers in good times and enhanced power of liquidation in a crisis are counterbalanced by hefty increases in banks' risk taking. Overall, stability is reduced because the enhanced liquidation in a crisis reduces banks' incentives to avoid a crisis. Banks therefore take on an amount of new risk that leads to a higher probability of default.

potential knock-on effects from an erosion of liquidity are multiplied. In some situations, asset price movements are exacerbated by the actions of market participants, including dynamic hedging strategies or forced liquidations (fire sales) of assets to meet margin calls. Most importantly, complex structured credit products, typically including CDO whose risks and fair valuation are still difficult to be fully grasped by many investors and even rating agencies[30], could suffer a dramatic loss of liquidity in the event of stress scenarios.

Moreover, the multiplication of layers of intermediation between borrowers and lenders that characterizes the financial system since a few decades may create new channels for the transmission of shocks within the financial markets and into the economy at a global scale, therewith exacerbating contagion risks. The turbulences on credit markets in August/September 2007 and then again in August/September 2008 have (unexpectedly) spread much more widely in the global financial system, being fueled by the loss of investors' and buyers' confidence in the quality of structured products and in high-quality commercial papers respectively, leading to an unprecedented dry-out of liquidity in the interbank market.[31] Packages of securities whose performance is tied to subprime mortgages have suffered unanticipated losses[32], and as some originators went out of business[33] and secondary markets were disrupted, institutions along the chain found themselves facing unexpected exposures from warehousing or financing the holding of loans before securitization.[34] The impact of the dramatic widening of spreads on the riskier tranches of securitized subprime loans is difficult to quantify, though. A contagion effect can also adversely hit securitized loans' of higher quality and may drive

[30] As pointed out in Duffie: "*Even specialists in collateralized debt obligations (CDOs) are currently ill equipped to measure the risks and fair valuation of tranches that are sensitive to default correlation. This is currently the weakest link in CRT markets, which could suffer a dramatic loss of liquidity in the event of a sudden failure of a large specialty investor or a surprise cluster of corporate defaults*." (Duffie, 2007, p. 4).

[31] A discussion on the US subprime mortgage loan problems spillover to CRT markets is provided in ECB (2007).

[32] These securities may include risky CDO tranches. Such assets can be particularly illiquid and vulnerable to macroeconomic performance and may be used as an argument against credit risk transfer by banks.

[33] For instance, the bail outs of Bearn Sterns and AIG, and the bankruptcy of Lehman Brothers which fueled a wave of banking bail outs and bank losses across the globe.

[34] A vivid example is the almost collapse of the German IKB Bank which suffered heavy losses due to the US subprime crisis. Only with the help of the mostly governmentally owned Kreditanstalt für Wiederaufbau and some other public and private German banks, which together injected more than 8 billion Euro into IKB, could the collapse be averted. IKB Bank was later on sold to Lonestar for a price of roughly 100 million Euro.

institutions, which are dependent on such instruments, to face a cessation of funding in the interbank market. In the current financial crisis, the situation escalated and caused bank runs[35] and near sovereign bankruptcies.[36] Such severe "stress scenarios" could entail large spillovers which pose a real threat to global financial stability and the real economy.

Risks inherent in credit derivative transactions

While risks can be dispersed in the financial system through the use of credit derivatives instruments, credit derivatives entail a number of risks inherent in their nature. If improperly managed and priced these risks may offset the benefits associated with credit derivatives.

Counterparty credit risk: This is typically seen to be the most severe risk inherent in CDS transactions because the transactions are generally not funded. Measuring counterparty credit risk may prove to be complicated because of its two-way nature. In other words, the net exposure between two institutions involved in a CDS transaction may change with market price fluctuations and either party may become a net defaulter. A simple measure of counterparty credit risk is the current exposure, which is the net exposure at current market value. A more comprehensive measure is potential future exposure, defined as the maximum amount to which an exposure could grow over a future time period with a high degree of statistical confidence in case markets move against the counterparty. An additional issue that can arise when evaluating counterparty credit risk and the value of credit protection provided by all CRT instruments relates to the potential correlation between an underlying reference entity and the protection seller. This is referred to as "*wrong way risk*". Wrong way risk is highest when a perfect correlation between the reference entity and the protection seller exists – this is the case when the credit derivatives are sold by the reference entities themselves.

[35] On September 13, Northern Rock actually experienced a bank run "obliging" the UK Government to intervene by safeguarding depositors and changing the previous stance about the adverse impact (increasing moral hazard and sowing seeds for future financial crisis) of bailing out risky behaviors of aggressive lenders.

[36] The collapse of the Icelandic Landsbanki in October 2008, along with several other difficulties affecting the country's banking institutions and the incapacity of the government to ensure a credible bail out have undermined the creditworthiness of Iceland as a country. Some other countries like Hungary and Pakistan also faced severe problems and had to be "saved" with money from the IMF.

The involved contractual parties may limit their counterparty credit risk exposures by using collateral agreements. Although collateral agreements are quite common in CDS transactions, it is in the discretion of the contract parties to determine the exact features (and whether collateral is required at all) of the collateral agreement. This owes to the OTC-character of CDS transactions. In the case of AIG, a very important counterparty in credit derivatives markets, apparently there were no collateral requirements. The simple reason was that AIG had an AAA rating, which made it almost impossible for market participants to believe it could ever default. However, even an AAA-rated company such as AIG suffered strongly in the crisis, with the well-known consequence that the government eventually had to bail out AIG by providing a 85 billion USD credit line to the collapsing insurance company. One way to overcome this problem is to no longer rely on the ratings of the counterparties when determining collateral requirements, but to introduce mandatory collateral requirements.

However, systemic concerns remain, in particular in a crisis situation when credit risks are transmitted easily from one institution to another due to inter-linkages between credit exposures. The growth of unregulated hedge fund activities may exacerbate this danger in a crisis situation. Hedge funds managed an estimated 1,426 trillion USD in assets at the end of 2006, over 700% more than in 1995.[37] Their activities nowadays consist to a considerable extent of investments in CRT instruments. Initially, hedge funds participated primarily as protection buyers in the CDS market in order to take advantage of a lower-cost alternative to build up short positions in corporate bonds. More recently, their participation has broadened and encompasses a wider variety of trading strategies and approaches that involve selling as well as buying protection (see table 4).

Ever since the near collapse of Long Term Capital Management (LTCM) in 1998 have regulators showed interest in regulating hedge fund activities. Industry and financial supervisors agreed that excessive leverage and poor counterparty credit risk management as practiced by banks and other creditors raised concerns that market players seeking to sell large positions simultaneously could have widely negatively affected asset prices across markets, indirectly affecting other market participants such as mutual and pensions

[37] Figure taken from Hedge funds research, Inc., available at www.hedgefundresearch.com, accessed 10th May 2008.

funds. However, until now the hedge fund industry remains largely unregulated[38] and concerns about systemic risk associated with hedge fund activities in the CRT markets seem to rise steadily.

Market liquidity risk: In addition to direct counterparty risks inherent in credit derivative transactions, there are indirect risks associated with a decline in asset market liquidity resulting from the failure or winding down of a major financial institution. A particular concern is that, in illiquid markets, market participants may be forced to sell positions to meet margin requirements (this is most imminent for hedge funds), thereby driving down market prices. In some severe cases, this may entail the necessity for other market participants to sell their positions, which might eventually dry out liquidity. Such "liquidity black holes" have diverse causes. When counterparties have concentrated positions, losses on these positions are more likely to lead to substantial decline in liquidity. According to a BIS survey (BIS, 2005a), market participants noted that, particularly within the CDS market, liquidity varies heavily between the first 50 to 200 and other reference entities, the former being substantially more liquid than the latter. Most importantly, it was indicated that there is liquidity in the CDS market even for reference entities that are close to default. However, severe market shocks, such as the default of a very large reference entity or a major market maker might adversely affect liquidity in the CDS market.

*Documentation and legal risks***:** This risk can be defined as the risk that the legal effect of a transaction is different from what the involved parties understand it to be. It is due to the relatively unrestricted range and scope of credit events covered by the instruments, poorly defined contract terms and the inappropriate identification of reference entities.
One case of legal documentation risk resulting from a CDS transaction arises when participants have a contractual relationship with the wrong legal entity. For example, as reported by the BIS (2005b), two major market participants entered into CDS contracts

[38] An industry-led initiative to regulate hedge funds is underway. A hedge fund working group headed by Andrew Large, former deputy governor of the Bank of England, will look at existing principles, standards and guidelines, will evaluate areas that may require strengthening, and will suggest applicable solutions that may include voluntary adherence to voluntary standards.

specifying the holding company of Armstrong World Industries as the reference entity. However, this legal entity did not have any debt outstanding and could thus not default, even though one of its subsidiaries went bankrupt. In other cases, there has been confusion between the buyer and the seller of the CDS regarding the specific legal entity on which the CDS was written. Documentation and legal risks were partly overcome by major market-making firms who commissioned the development of a common database of reference entities (RED) as well as a process to scrub the names which do not meet appropriate guidelines.

Operational risk: This risk stems from operational shortcomings due to a rapid growth in trading volumes and the ever increasing complexity of new products. Concerns were voiced over the mounting backlog of unconfirmed trades, the management of trade reassignments, and the weaknesses of settlement procedures. The backlog of unconfirmed trades may reflect inadequate investments in back-office capacity by the major market participants in recent years. With the entry of hedge funds as active traders on the scene, the issue of delays and/or incorrect notification procedures for reassignments of credit derivative contracts is likely to increase even further.

Mis-pricing risk: Pricing models for credit derivatives are still at an early stage of development.[39] According to the BIS (2003), there is no generally accepted pricing model for credit derivatives and most of the existing models do not account for the true risks inherent in these transactions. In practice, this has resulted in over-simplistic approaches to assess the actual risk profile associated with CRT transactions (Duffie, 2007). A severe problem arises when market participants underestimate the actual risk profile of a CRT transaction and take on more risk than what would be desirable. For instance, if credit risks were systematically wrongly priced, this would lead to a misallocation of resources in terms of capital efficiency. Price distortions may put the protection buyer at a disadvantage vis-à-vis the protection seller because she might have to pay an excess premium when prices are set too high and do not properly reflect the underlying risk. In

[39] There are two basic ways to determine a CDS spread, namely, from asset swap spreads and from the calculation of expected CDS cash flows.

practice it is very difficult to investigate whether premiums on credit derivatives are appropriately set because it is not possible to observe the "true" underlying credit risk and thus the amount of the "correct", i.e. fair, premium. The recent financial turmoil provides a clear evidence of pricing weaknesses of credit derivatives, in particular synthetic CDO. Until today, rating agencies were believed to provide adequate approximations for the underlying risk in CRT transactions. However, the increasing level of complexity of credit derivatives instruments requires a serious revisiting of the rating agencies' and other participants' risk assessment models.[40] Finally, mis-pricing risks are also exacerbated by the inadequate knowledge of new market participants (for example newly set up hedge funds) who lack experience in estimating and pricing default risk.

Risks related to incentive problems: As discussed in section 3 (see figure 4), when credit risk is transferred by means of a credit derivative, the incentive structure of the underlying transaction is altered. The new incentives may lead to behaviors that could harm financial stability. In fact, it is often argued that using credit derivatives reduces incentives of lenders to screen borrowers and monitor credit quality because they transfer the credit risk in case of synthetic securitization and/or the asset in case of fully funded CLN away from the balance sheet to a third party. Because of less monitoring, the debtor may tend to behave in a way that threatens repayment of the loan. The generalization of this behavior may be detrimental to the overall economy. The severity of this problem relates closely to the extent to which the protection buyer is required to bear parts of the costs in the case of a credit event. However, the results of academic research analyzing this potential moral hazard problem are not unambiguous, hence we are no in a position to pass final judgment on this issue.

In practice, payment difficulties do not lead to a full default but only to a restructuring of the reference debt. The lender has fewer incentives in the case of a restructuring to seek a solution that is also acceptable for the debtor when a CDS on the reference entity exists. This implies that the lender may agree on terms that are disadvantageous for the debtor.

[40] Another reason why rating might have "failed" to properly assess the credit risk of the complex structured products is that they were working closely together with the originators. At the same time at which they were supposed to rate the issues they were consulting the originators on how to structure the issue in order to receive a certain rating. This created room for moral hazard behaviour on the side of the rating agencies and should doubtlessly be forbidden in the future.

The incentives crucially hinge on the chosen type of settlement. In case of a physical settlement, the reference asset is transferred to the protection seller when a credit event occurs. The seller thus has an interest in ensuring that the company is restructured. While the problem of the altered incentive structure between the original lender and the reference debtor is not solved, a new, potentially functioning creditor-debtor relationship is created in which the protection seller is the new creditor. In case of a cash settlement, the protection buyer receives the difference between the face value of the debt and its current market value from the seller. There are probably far fewer incentives in these cases for the protection buyer to work together with the debtor to agree on a way to restructure that is in the interest of both of them. If the protection buyer were to act opportunistically, she might even have an incentive to deliberately provoke a restructuring (e.g. by refusing to grant further loans). As settlement is in cash she would suffer no loss from the restructuring, but rather have an incentive to negotiate the highest possible repayment later from the reference entity. This owes to the fact that the cash settlement is based on the market value of the debt at a fixed point in time after the credit event, whereas the amount of the debt to be repaid to the protection buyer may be agreed upon at a later date.

5. Regulation of credit derivatives markets

It is sometimes argued that the emergence and development of derivatives markets resulted from unintended consequences of government intervention (Miller, 1986). In fact, a great part of the early activity in derivatives markets was motivated by regulatory arbitrage.[41] For instance, one key trigger for the global derivatives market growth was the adoption of the Futures Trading Practice Act of 1992 in the U.S. This act fostered legal certainty in the derivatives market and allowed the Commodity Futures Trading Commission (CFTC) to exempt OTC contracts from Commodity Exchange Act (CEA) regulation, which formerly was an obstacle for the growth of derivatives trading. As laid down in Bergman et al. (2004), derivatives are subject to special protections during insolvency resolution, which tend to disproportionately favour creditors to the detriment

[41] See Miller (1990).

of debtors. This gives banks incentives to outlay risks on their balance sheets by means of credit derivative transactions.

The one-size-fits-all, fairly simplistic 1988's Basel Accord (Basel I), under which all bank assets were assigned a standardized risk weight for the calculation of the regulatory capital, motivated risk transfer activities and promoted regulatory arbitrage because of the capital requirement structure. Banks were intended to reduce their riskier portfolio holdings by complying with the regulatory framework, yet instead of high-risk assets they primarily sold low-risk assets to the market. Basel I led to increased securitisation activity in order to achieve a more efficient allocation of regulatory capital. However, credit derivative activity remained largely unregulated.

The growth and the complexity of required documentation associated with credit derivative transactions encouraged market participants to define their own terms and conditions. These *self-regulatory initiatives*, which could also be seen as *market discipline*, sought the standardisation of credit derivative transactions while at the same time accommodating the instruments' inherent complexity. In the early days of credit derivative activity, market participants documented CDS using individually developed confirmations within an ISDA Master Documentation Framework. This created problems in negotiating transactions because the used confirmations differed heavily between the market participants. Delays in confirming and documenting transactions became problematic. The standardization efforts of CDS contracts undertaken by the ISDA arouse out of a process of consultation with the market participants, which led to the establishment of the first (standardized) documentation of 1999 followed by a second one in 2003. The review and standardization process profited largely from the painful lessons learnt from the Russian[42] and Argentine[43] debt crises in 1998 and 2002. In particular, a more precise definition of what constitutes a credit event was worked out.

[42] On August 17, 1998, the Russian government announced the restructuring of its sovereign bond debt and suspended payments on those securities. In response to this announcement, the foreign currency-denominated external debt depreciated strongly, in spite of the fact that it had not been ascertained that Russia would also default on this asset class. The diverse nature of Russia's debt highlighted the gaps in the existing documentation covering CDS contracts. The complex structure of Russia's debt and the litigation arising from it prompted the ISDA to tighten up certain aspects of their documentation. More specific details were included regarding the issuer's identity, subordination clauses and creditor's status.

[43] Following the moratorium on Argentina's external debt declared on December 23, 2001, the settlement of CDS contracts did not encounter many difficulties given that at mid-February 2002, 95% of outstanding CDS contracts had been settled. Nonetheless, the settlement of CDS in this context provided an opportunity

All efforts of the ISDA and market participants since 1998 have produced a fairly robust documentation determining the rights and obligations of credit derivative transactions. Despite these efforts, documentation, legal and operational risks still prevail and need to be continuously addressed by market participants and monitored by national regulators, particularly in light of the increasing role of hedge funds in credit derivatives markets. Clearly, the role of market participants is important to reduce these risks. As rightly recommended by the Basel Committee on Banking Supervision in its report on CRT in March 2005, "*…all market participants need to continue paying careful attention to the legal documentation relating to credit derivatives, such as the range of credit events covered by the instruments and the clear and unambiguous identification of the underlying reference. Standardization should also continue in a market where innovative financial instruments are mushrooming. Moreover, there is a need for market participants to encourage due diligence necessary to clearly identify their legal responsibilities to the counterparty or customer. It is crucial to foster further transparency when marketing structured and complex CRT products. Originators and dealers should foster a complete understanding of the nature and material terms, conditions and risks involved and should not solely rely on external ratings as a measure of risk associated with the transaction. Before entering in a CRT transaction, investors should ensure their capacity both on the outset and on an ongoing basis to obtain the necessary information to properly evaluate and manage the risks associated with their investment. Information on the risk profile of the investment should be accessible to them on a continuous basis...*" (BIS, 2005a, p. 7-8).

To reduce operational risk stemming from backlogs of unconfirmed trades and the management of trade reassignments, called "novations"[44], and the weaknesses of settlement procedures, market participants already monitor the developments individually

to define contracts more precisely with regard to three main aspects: 1) Definition of a credit event: debt swaps executed on a voluntary basis were not longer considered as credit events. Protection buyers wanted to include the exchange of debt that had taken place in November 2001 in the moratorium, arguing that it constituted a restructuring linked to the default. 2) Definition of deliverables: zero-coupon bonds that satisfy the criterion of non-contingence were accepted as deliverables. 3) Option of partial cash settlement: partial cash settlement was permitted in case that the protection buyer is unable, either out of technical or legal reasons, to deliver securities.

[44] To reduce backlogs, ISDA completed a solution known as the ISDA Novations Protocol in 2005.

and at the industry level (ISDA, 2007). Additionally, they should take further measures such as ensuring that credit derivative activity is undertaken by reputed professionals with the appropriate experience, skill levels and degree of specialization and risk management systems' sophistication.

However, industry self-regulation has important drawbacks, as most regulatory efforts will necessarily foster the interests of the major market participants. Concerns have been raised as to whether ISDA's development of standardized documents actually created informational asymmetries and negative externalities (Partnoy, 2002). In particular, it seems clear that the major market makers represented through ISDA have no incentives to promote broader disclosure, as this would imply a loss of their informational advantage (Gottlieb, 2007). Moreover, given ISDA's monopoly position in formulating legal contracts and setting industry standards, these might be biased towards ISDA's largest stakeholders, i.e. dealers. This implies that contractual frameworks established by the ISDA could have a pure dealer to dealer focus, which might be to the detriment of the end-users.[45] Consequently, end-users might have reduced incentives to participate in OTC derivatives markets. Therefore, the industry led self-regulatory measures may not suffice to ensure the stability of the market. They should thus be complemented by adequate regulatory and supervisory actions.

ISDA documentations and financial institutions' risk management systems continue to form the "first line of defence" against the risks inherent in using credit derivatives. Additionally, international regulators have been carefully watching the market developments, and provided recommendations to foster the transparency in the markets[46]

[45] In fact, within the ISDA end-users have no voting rights. Consequently their role in policy-making respectively standard setting is marginal.

[46] Among the initiatives, in February 1995 a working group established by the central banks of the group of ten countries published a report on macro-prudential risks from derivative activity. They mainly recommended enhancing the transparency in the market by expanding national central banks' data collection efforts consistently across countries. In 1996, they published concrete proposals to improve and enhance data collection of global derivatives markets. In 1998, another report on the settlement procedures and counterparty credit risk management in OTC derivatives recommended prudential supervisors to review the backlogs and associated risks at institutions they supervise (especially derivative dealers), to assess the effectiveness of the institutions' policies and procedures for limiting the associated risks, and to encourage improvements in practices where appropriate. The report also urged supervisors to develop supervisory guidance on the use of collateral as a means of reducing credit risk, including guidance on operational risks and on legal due diligence and to take action where necessary to reduce legal uncertainty about the enforceability of collateral agreements. (For more details on the sequence of regulatory initiatives consult www.bis.org).

as well as guidance on sound risk management of derivative activities (BIS, 2005a). A first step subsequent to the revision of the 1988 Capital Accord was taken in 1995 with the amendment of the treatment of market risk, introducing specific risk capital charges for positions hedged by credit derivatives (BIS, 1995). One of the main impacts of this amendment was the migration of the credit risk from the banking book to the trading book.

Although international regulators agreed on a set of prudential provisions for credit derivatives, national practices continued to differ, particularly as to whether these instruments are classified in the banking book or trading book. In order to close the gap between supervisory requirements and credit derivatives markets developments and to ensure consistency in supervisory practices, the new capital adequacy guidelines issued by the Basel Committee for Banking Supervision (known as Basel II) in June 2004 (BIS, 2004) defined clearer and more sophisticated risk sensitive provisions on risk mitigation techniques including credit derivatives – regardless of whether they are included in the trading or banking book. The new guidelines introduced extensive operational requirements for credit derivatives, ranging from eligibility criteria for protection sellers to an extensive list of credit events. A prudentially sounder treatment of counterparty credit risk inherent in OTC derivatives and for double default effects of covered transactions were also introduced in the new regulatory framework. Therefore, this regulatory framework was expected to improve the incentives for undertaking efficient CRT transactions. However, adjustments in regulatory capital standards for default correlation[47], or at least granularity, seem to need further improvements.

The effectiveness of the Basel II guidelines with regard to credit derivative activity will crucially hinge on financial institutions' efforts to limit potential losses through setting the appropriate incentive structure for adequate risk management systems, including the use of stress tests. Especially the latter allow them to ascertain and appropriately limit their market and counterparty exposures in scenarios in which credit spreads widen

[47] Default correlation across a pool of loans forming the collateral of a CDO can have a significant impact on the risks and market values of individual CDO tranches. Currently, the weakest link in the risk measurement and pricing of CDO is the modeling of default correlation. There is relatively little emphasis in practice on data or analysis bearing on default correlation. When valuing CDO, somewhat arbitrary "copula" default correlation models are typically calibrated to the observed prices of CDS-index tranches, a class of derivatives that behave much like CDO. See Duffie (2007).

rapidly and asset market liquidity decreases markedly as was the case in the recent financial crisis. National supervisors should focus on two priorities to ensure the success of their supervisory review and intervention: risk management and financial infrastructure.

With regard to risk management, supervisors will have to equip themselves with adequate analytical tools to understand and evaluate tail events, i.e. events that materialize with a low probability but a high impact. Supervisory efforts and need for resources are likely to increase with the complexity and the illiquidity of some financial instruments, the opacity of some counterparties (hedge funds), the rapidity with which large positions can change, and the potential feedback effects associated with leveraged positions. Stress testing and scenario analysis are central to the process of risk management.[48] Apparently, however, it seems that even those banks (hand in hand with the regulators) which applied sophisticated stress testing and scenario analysis were not able to (fully) capture the impacts of a financial crisis like the current one on their risk exposure. One possible explanation could be that the models used did not account for such an extreme scenario as the (almost) complete and synchronous breakdown of several very important markets, namely the market for structured products, the commercial paper market, and the market for interbank lending.

With regard to the financial infrastructure, national supervisors should ensure that clearing and settlement arrangements on which core institutions and other participants depend are safe and efficient. Weaknesses in such systems can be sources of systemic risks. The benefits of such supervisory initiatives can extend beyond the core regulated institutions themselves because improvements in their counterparty risk management practices will strengthen market discipline for their unregulated counterparties such as hedge funds. In terms of reporting, supervisors[49] should ensure that information about the

[48] In theory, these tools are expected to capture, on a high frequency basis, the full exposure of the firm to a sufficiently broad range of adverse conditions, the aggregate exposure to specific types of different risk factors and types of counterparties, the potential interactions among those factors, the effects of a general loss of liquidity and confidence in markets, and the constraints on the ability of the firm to move to reduce its exposure to further losses.

[49] „ In the US Deriv/SERV, an unregulated subsidiary of DTCC, provides automated matching and confirmation services for over-the-counter derivatives trades, including CDSs. However, participation in Deriv/SERV is still elective, and the platform does not support some of the most complex credit derivatives products. Finally, because Deriv/SERV is unregulated, the US regulator has no authority to view the

credit derivatives market is centralized to facilitate regulation of fraud and misuse in the market.

Supervisors should also cooperate and coordinate their actions nationally and internationally. A good example is the cooperation that the Federal Reserve Bank of New York, other US prudential supervisors and industry representatives have entered into recently to encourage and support market participants' progress in addressing what were serious weaknesses in the infrastructure of the credit derivatives markets. These supervisors reviewed the core firms' management of counterparty exposures to hedge funds and other highly leveraged transaction partners.[50] It is relatively easy to predict that such initiatives will emerge in the aftermath of the crisis. In particular, it is important to highlight, that hedge funds and other institutional investors tend to rely on the ratings of structured credit products including CDO when making investment decisions. Methodologies for rating CDO, however, are still in their infants, for instance, because correlation parameters used in ratings models tend to be based on rudimentary assumptions.[51]

In Europe, CDSs are unregulated: they are not covered by MiFID (no pre or post-trade transparency), the prospectus, market abuse and transparency directives. Greater information reporting on CDS trades, maintained in consistent form, is necessary for EU financial supervisors.

All in all, there are good reasons to believe that financial innovations over the past few decades, including the emergence and growth of the credit derivatives markets, have increased the perception that financial systems are becoming more resilient. This perception maybe true if:

1. inherent risks of complex credit derivatives are accurately measured, priced and understood by all market participants,

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information stored in this facility for supervision of risk associated with the OTC CDS market might be used to manipulate other markets. In Europe such an institution does not exist.

[50] Federal Reserve Bank of New York (2007).

[51] For example, treating all pairs of names within a given industrial sector as if they have the same default correlation, and treating all pairs of names not within the same industrial sector as if they have the same default correlation. See Duffie (2007).

2. financial institutions including hedge funds are equipped with adequate risk management frameworks,
3. heterogeneity of investors' behaviors and risk appetite are preserved to ensure market liquidity,
4. regulatory frameworks are rightly set to control any abuses and misuses by financial institutions including hedge funds,
5. regulators are adequately equipped (effective early actions, stress testing) to face crises situations, without increasing moral hazard.

In reality, however, credit derivatives have not eliminated systemic risk, and experience (recall the cases of LTCM, the Argentine crisis and the 2007/08 global financial crisis) has shown the weaknesses of derivatives pricing and financial institutions' risk management frameworks, the inability to control aggressive investors' behaviors and the out-datedness of regulatory actions. The latest episode of the US subprime lending market is a vivid illustration of market disruptions leading to market liquidity dry-ups, which forced central banks from both sides of the Atlantic to inject billions of dollars into the capital markets – together with the absence of effective early regulatory actions – that could jeopardize global financial stability practically overnight. The collapse of Lehman Brothers, the rescues of Bern Sterns and AIG are other illustration of the role of uncontrolled and unregulated credit derivatives that fulfill the right 2003 description of Warren Buffet.

In this paper, we argue in favor of a hybrid regulatory system that relies on market discipline and regulatory oversight, although we do not claim to know what exactly is the optimal mix between market self-regulation and regulatory actions. We rather argue that further market and regulatory measures should be taken to ensure a more viable financial system where credit derivatives are used prudently and responsibly. These are

1. Need for continuous promotion of market standards and mitigation of legal, documentation, operational, pricing and incentives-related risks.
2. Need to increase transparency of credit derivatives markets – clear principles and guidelines should serve as a basis towards the construction of an adequate transparency framework. Trading standardized credit derivatives on exchanges is

essential, in particular with regard to the implementation of mandatory collateral requirements for all counterparties.

3. Regulators are urged to produce a global regulatory framework for liquidity management and to enhance their capabilities in terms of scenario and stress testing.
4. Basel II provisions for counterparty credit risk and double default should be adequately enforced and if necessary strengthened.
5. Given the systemic risk posed by the use of CDS, regulators should investigate the merits of specific provisions to tackle this risk. Setting exposures limits could be the way forward.
6. Given the multitude of market players operating in the credit derivatives markets, systematic limits on protection selling, with or without collateral requirements should be set. The significant exposure of AIG in the credit derivatives market is revealing to examine potential restrictions.

Given the hedge funds' growing influence in the global financial markets and the potential systemic risk they pose, a code of practice – to enhance transparency of hedge funds' activities particularly in credit derivatives markets and to give them the right incentives to strengthen their risk management abilities – seems to be necessary at this stage. Such code of conduct must be enforced by supervisors, if not a regulation should be the way forward.

The implementation of these measures will require strong regulatory efforts (and resources) and a great deal of international harmonization and it remains to be seen what future for ether the increasing activity on credit derivatives markets ultimately fosters or harms the stability of financial systems across the globe.

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index, consisting of 125 North American investment grade rated firms, and the iTraxx[16] index, including 125 Euro-based, mainly investment grade rated firms. In addition, there are indices for North American sub-investment grade rated firms, for European firms that have been downgraded from investment grade to junk status and for regions such as Japan and Asia excluding Japan.

Recently, the fluctuation of these indices began to serve as a signal to the markets about the pricing of the underlying debt and equity securities. This was instrumental during the recent financial crisis, where price fluctuations of single name CDS or indices provided valuable information to the market.

Recent innovations in CDS have extended protection to reference obligations instead of entities. A CDS on asset-backed securities (ABS), for example, provides protection against credit events on securitized assets, usually securitized home equity lines of credit. In addition, CDS can specify CDO notes as reference obligations. Finally, loan CDS can reference leveraged loans to a specific entity. These products suffered severe losses in 2007/08 as a consequence of the US subprime debacle and investors' loss of confidence in securitized and tranched securities. The main reason was the almost complete breakdown of the markets for these products and the associated value reduction which led to huge write-offs on the portfolios of a number of banks including well-known global players such as Citigroup and UBS, but also some not so well-known banks such as the mainly government-owned IKB Bank or the fully government-owned Landesbank Sachsen, both from Germany.[17]

What may arise from this description is the future of CDS and CDO. In the former, a preliminary evaluation tends to focus on the merits of these instruments as they provide an impeccable source of tracking a potential default of a company. The ability of these

[16] iTraxx is the brand-name for the family of CDS index products covering European and Asian markets. These indices were launched in 2004 in conjunction with a consortium of leading global investment banks. The rules-based indices comprise the most liquid entities in the European and Asian credit markets, and consist of iTraxx Europe, iTraxx Hivol, iTraxx Crossover, iTraxx Asia ex-Japan, iTraxx Japan, iTraxx Australia, iTraxx SDI-75, and various sub-indices. The iTraxx indices were owned, managed, compiled and published by International Index Company (IIC), a leading independent provider of credit derivative and fixed income indices that also licenses market-makers. In April 2006, IIC and Markit announced that they had signed an agreement governing the calculation and publication of IIC's iTraxx indices, the benchmark for the European and Asian credit markets.

[17] After the government had to inject several billions of Euros into IKB Bank, it was eventually sold to Lonestar, Landesbank Sachsen, on the other hand, was taken over by another state-owned German bank, Landesbank Baden-Württemberg.

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The Reform of the Credit Rating Agencies:
A Comparative Perspective

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1. Introduction

The credit rating industry is a global business, with three leading players (Moody's, Standard & Poor's, and Fitch), controlling over 94% of the global market (European Commission 2008b). Credit rating agencies (CRAs) sit at the centre of international capital markets. Until recently CRAs were seen as neutral information providers, capable of objectively assess the credit risk of a certain entity or debt security. Starting from the early 1990s, however, CRAs have been increasingly criticised. From the 1994 Mexico's Tequila Crisis to the 1997-98 Asian Financial Crisis; from the 2001 Enron Scandal to the 2003 Parmalat bankruptcy, CRAs were blamed for failing to warn investors of imminent corporate or sovereign default. The anger directed at the agencies indicates the degree of power CRAs enjoy in financial markets. In the subprime financial meltdown, the role of CRAs in exacerbating the financial crisis has become painfully clear, and yet investors and the financial press still discuss ratings widely. As capital markets have become increasingly global, so has the dominance of the leading CRAs.

This policy brief argues that credit ratings are a quasi public good, and that investors and financial markets regulation need an independent assessment of the creditworthiness of an issuing entity because of information asymmetries and principal agent-problems. In light of high volatility of market-based measures and failure in internal risk management, private CRAs are best fit for purpose. However, natural barriers of entry in the rating business and conflicts of interest have led to ratings' inflation and deterioration in their quality. Thus, it appears that CRAs need strong supervision. While certainly burdensome and likely to raise barriers of entry, there seems to be no alternative solution to the the European Commission's proposal. Market discipline based on competition and transparency as envisioned in the US will lead to a weak surveillance regime, while leaving the regulatory license intact.

This paper is organised as follows. The second part briefly discusses the academic literature concerning credit ratings. The third part compares the US and EU regulatory frameworks. The fourth part analyses the differences in regulation in light of the previous theoretical discussion. The final part draws the conclusions.

2. Theoretical Framework

Although credit ratings are widely used and figure prominently in the financial press, no consensus on the reasons of such success exists. Some argue that credit ratings contain no meaningful information, and they are widely used only because of regulation; others contend that ratings are unavoidable because they balance accuracy with stability. Are credit ratings opinions or regulatory actions? The following section serves as a theoretical introduction to understand why credit ratings exist, what their use in capital markets is, and what the issues with the leading agencies' current business model are.

2.1 Credit Rating Agencies

What exactly are credit rating agencies, and why do credit ratings exist? In spite of the mounting interest and growing body of literature on CRAs, the response to these two ostensibly simple questions is hard to find. According to the International Organization of Securities Commissions (IOSCO), "a credit rating is an assessment of how likely an issuer is to make timely payments on

a financial obligation" (IOSCO, 2003, p. 3).[1] Thus are credit ratings nothing but opinions on the creditworthiness of an issuing entity? This is what the agencies themselves successfully argue in US courts when seeking legal protection under the First Amendment from liability for their ratings.

Yet others dispute the notion of CRAs as pure analysts, and point to the quasi-regulatory role ratings have in financial markets (Kerwer, 2005). Because rating decisions have an important impact on credit flows, the leading agencies -- the argument goes -- are tantamount to informal regulators. Some have argued that a look at the companies' profitability confirms that CRAs are more than "financial gatekeepers" (Partnoy 2006). For example, Moody's revenues and profit more than doubled over 2002-2007 from $1,023 and $288 million in 2002 to $2,259 and $710 million, respectively; its market capitalisation in 2007 was $10 billion in spite of having only $1.7 billion in assets. Other financial gatekeepers such as accounting and financial publishing firms face different competitive landscapes. On the one hand, accounting firms are legally liable for their actions, resulting in litigation costs and hefty settlement payments. On the other, competition in financial publishing is much stronger compared to the credit rating industry.

Table 1. Key figures for the "Big Three"

	Total Assets	Turnover	Net Income	Operating Margin	Market Capitalisation	Business model	Corporate governance	Number of employees
Moody's Corporation						Issuer-pays	Publicly-owned	
2002	$630	$1,023	$288	28.15%	$6,899			2,100
2007	$1,714	$2,259	$701	31.03%	$10,063			3,600
Standard and Poor's						Issuer-pays	Private	
2003	n/a	$1,700	n/a	n/a	n/a			5,000
2006	n/a	$2,750	n/a	n/a	n/a			8,500
Fitch						Issuer-pays	Private	
2003	n/a	$505	$59.8	11.84%	n/a			1,502
2004	n/a	$561	$62.1	11.06%	n/a			1,661

Sources: S&P website; Moody's K-10 Filings; OSIRIS; Hoover's

Conflicting views also exist on the reason for the success of credit ratings. The prevalent view is that credit ratings are useful in reducing *information asymmetries* between issuers and buyers of debt securities. Thanks to their access to privileged information on the issuer, the agencies can verify the obligor's financial ability to repay its debt. In particular, small investment firms and unsophisticated investors -- lacking the resources to establish large research departments -- gain from the economies of scale of the leading CRAs. Another view holds that credit ratings help mitigate *principal-agent problems* by lowering the cost of monitoring agents (Gonzales et al., 2004, pp. 7-8). For instance, since asset managers do not have sufficient incentives to curb excessive risk-taking, investors can with contractual obligations "tie the hands" of asset managers

[1] The three leading rating agencies agree with this definition. "Moody's credit rating are opinions of the credit quality of individual obligations or of an issuer's general creditworthiness" (Moody's, 2008, p. 1); "A Standard & Poor's issue credit rating is a current opinion of the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program" (S&P, 2008, p. 3); "Fitch's credit ratings provide an opinion on the relative ability of an entity to meet financial commitments, such as interest, preferred dividends, repayment of principal, insurance claims or counterparty obligations" (http://www.fitchratings.com/corporate/fitchResources.cfm?detail=1, accessed January 20, 2009).

by forcing them to purchase only rated debt or, in some instances, only investment-grade securities.[2]

However, some of the empirical academic literature is sceptical about the role of credit ratings in providing useful information to investors. Hull, Predescu and White (2004) find that credit default swap spreads and bond yields largely anticipate the information contained in ratings' changes. Cantor and Mann (2003) show that market-based measures such as bond spreads are more accurate in predicting short-term default risk than credit ratings. Nevertheless, credit ratings remain useful because they balance accuracy and stability, sacrificing some predicting power for lower volatility (Löffler, 2004). Moreover, market-based measures may not be reliable for illiquid securities and less-known companies for which little public information is available.

Whether one considers credit ratings as opinions or quasi-regulatory actions has important economic, political and regulatory consequences. These will be analysed in greater detail in section 4. Let us now turn to three important theoretical issues concerning the agencies' business model: governance, transparency and competition.

2.2 Governance

The three leading credit rating agencies are for-profit organizations. Moody's Corporation is the NYSE-listed holding company of Moody's Investor Service (for simplicity Moody's); the American publisher NYSE-listed McGraw-Hill is the owner of Standard & Poor's (S&P), which does not have separate disclosure requirements; and finally the French financial company Fimalac listed on Euronext Paris is the majority owner of Fitch, which has two headquarters in New York and London.[3]

The most prominent issue with the agencies' governance is their "issuer-pays" business model. During the 1970s, CRAs switched to the "issuer-pays" model from a "subscriber-pays" model because of increasingly complex securities in need of large resources, and the fear of declining revenues resulting from the dissemination of private ratings through new information technologies. Nobody raised concerns at time. However, amid heightened criticism following the 1994 Mexican crisis and the 1997-98 Asian Financial crisis, CRAs have come under intense scrutiny (IMF, 1999, p. 136). Since the 1990s when emerging economies' borrowings expanded rapidly, sovereign and corporate ratings have become much more prominent in international bond markets. Critics pointed to the inherent conflict of interest in the "issuer-pays" business model, whereby agencies would value profits over ratings' quality. In particular, because the agencies are paid by the entities object of the judgement, CRAs would be under pressure to maintain market share by inflating ratings. This criticism re-emerged after the WorldCom and Enron collapses in the early 2000s. In spite of mounting calls for regulating the industry, CRAs successfully fended off the attacks by arguing that keeping their reputation intact was a sufficient incentive to manage their conflicts of interest. The fact that US courts recognized ratings as "opinions", and granted them free speech protection from liability under the First Amendment certainly helped to avoid supervision (Partnoy, 2006, pp. 94-95).

Another important governance issue is whether credit rating agencies should perform due diligence of the information received by the issuer. Generally, CRAs do not check the information they are given, and they rate securities on the assumption that the data are correct (SIFMA, 2008, p. 5). For instance, in 2001 S&P and Moody's both rated Enron as investment-grade until four days before the energy company declared bankruptcy -- based on the

[2] An international long-term security is considered investment-grade if it has a rating above BBB- (S&P and Fitch) and Baa3 (Moody's).

[3] For detailed information on market shares, revenues, and legal structure of the agencies in the European market, please refer to Annex 9.4 of European Commission (2008b).

misrepresentations of Enron's executives. In the example of residential mortgage based securities (RMBS), CRAs relied on flawed information provided by originators concerning underlying pools of subprime mortgages (Fitch 2007).

2.3 Transparency

In theory, transparency should help to evaluate CRAs' performance by reducing monitoring costs, and it should reduce over-reliance on ratings. For instance, disclosing rating methodologies and critical assumptions underlying ratings allows users to check whether the rating is fair and the analysis accurate. Moreover, it helps users understand the meaning of ratings and their possible shortcomings. Finally, it would encourage users to perform their own research based on the information made available.

Transparency should also increase competition. For example, disclosing information regarding the ratings' accuracy may help to sanction those agencies that do not meet certain criteria. Some may argue that too much transparency may hurt innovation. Why should rating agencies develop new methodologies if they are forced to disclose their efforts?

In the case of structured products, CRAs have used the same rating scale as corporate bonds, without releasing information on liquidity and volatility risk and on the uncertainties in pricing highly complex securities. In consequence, triple-A senior tranches of collateralised debt obligations (CDO)[4] had – in the eyes of regulation and of less informed investors – the same degree of risk than triple-A corporate bonds.[5] As it turned out, the statistical models used to calculate the ratings of structured products were based on excessively thin samples and optimistic assumptions on default probabilities. Some have proposed that the agencies utilise different rating scales in light of the different nature of corporate bonds and complex securities. But originators – actors with a vested interest in the survival of securitisation – fiercely oppose such measures, arguing that it would represent a "stigma" on structured securities.

2.4 Competition

The credit rating industry is oligopolistic with the three leading agencies controlling over 94% of the global market (European Commission 2008b). In theory, competition ensures innovation, and it represents a healthy check on product quality. However, the rating business is entirely based on reputation. A certain contradiction between competition and reputation exists. The reputational capital the leading CRAs enjoy is enormous – the result of almost a century of successful activity. Investors trust CRAs' judgement and they ask for a certain risk premium based on the issuer's rating. Even after the subprime debacle, rating decisions are widely discussed in the financial press, highlighting their continuous importance. The same way a three-star Michelin restaurant can charge bulky prices for its food, highly rated issuers can charge high prices for their bonds, resulting in lower interest rates.

Because reputation is costly to establish and maintain, there is a "natural" barrier of entry in the rating industry. Some argue that the so-called "regulatory license" reinforces the oligopolistic nature of the rating industry (Partnoy, 1999). Remove ratings from regulation, the argument goes, and competition will arise. Users will consider ratings for what they are –

[4] Collateralised debt obligations are securities issued by special purpose vehicles on an underlying pool of fixed-income assets. Fixed-income assets can be credit card debt, corporate loans or bonds, residential or commercial mortgages or asset-backed securities. CDOs are divided in tranches with different levels of seniority, with senior being the highest. In case of difficulty in repayments on the underlying pool of debt, the most senior tranches are those that are paid first: from there the lower risk of default and higher rating.

[5] A qualification is in order. Interest rates spreads paid on triple-A CDOs have been consistently higher than on triple-A corporate bonds. Market-based measures had been more prescient than ratings.

opinions -- and they will be free to choose what value to assign to them. According to this view, rating opinions are so important precisely because they are "hardwired" in global regulation. For instance, "credit triggers" – clauses in loan covenants tied to ratings – bolster the value of ratings, in so far as companies must consider rating actions or face a loss of credit. Another example is Basel II where banks can choose the so-called Standardised Approach to calculate the risk-weighted capital requirements based on ratings of recognised External Credit Assessment Institutions (ECAIs).[6]

However, in spite of criticism of low informational content, there is evidence that investors use and value ratings, regardless of present regulation. In a recent survey of asset managers in the US and Europe, Cantor, Gwilym, and Thomas (2007) find that only 21% of respondents used ratings because they were mandated by regulation, while 59% of respondents used ratings because they were mandated by clients. Moreover, some respondents trusted ratings for pursuing a good investment strategy (25%). Thus, this seems to indicate that ratings are perceived to be a tool both to reduce information asymmetries between issuers and buyers, and to mitigate principal-agent problems. Considering that almost all the fund managers in the study cited Moody's (98% of respondents), S&P (97%), and Fitch (70%) as rating agencies present in clients' guidelines, this points to the high level of trust enjoyed by the incumbent CRAs. Indeed, the reputational barriers of entry in the business are extremely high.

3. Regulation

US regulation has employed credit ratings since the 1930s without supervising CRAs. This dependence has certainly grown starting from the 1970s. By contrast, EU regulation has only recently started to use ratings. The US has enacted a regime of surveillance in 2006, while the EU intends to do so shortly. The following section overviews the supervisory frameworks of credit rating agencies in the US and Europe, and it takes a look at the use of ratings in present regulation on both sides of the Atlantic.

3.1 US Approach

US regulation has become entangled with credit ratings during the 1930s, in response to the 1929 market crash. The Comptroller of the Currency issued the first act incorporating ratings in legislation in 1931, and the Federal Reserve followed in 1935 and 1936 (Partnoy, 1999, pp. 686-690). Between the 1930s and the 1970s the use of ratings in regulation did not change to a significant extent. Amid the credit crises of the early 1970s, the Securities and Exchange Commission (SEC) amended Rule 15c3-1 in 1975 to make capital requirements for brokers-dealers more risk sensitive, introducing for the first time the official denomination of Nationally Recognized Statistical Ratings Organization (NRSRO) (SEC, 1975). Since then, US regulation has grown extremely dependent upon ratings in areas such as securities, pension, banking, real estate, and insurance (*ibid*, p. 690). While the SEC failed to specify formally the criteria to assign NRSRO status, the term was widely used in state and federal regulation. Moreover, four CRAs that were recognised as NRSRO were eventually acquired by the three main CRAs, leading to a de facto state-sanctioned oligopoly (SEC, 2003, 9).

The ambiguity in the NRSRO registration process persisted up to the Credit Rating Agency Reform Act of 2006, when Congress decided to act to inject competition and transparency in the rating industry. The legislation was the logical consequence of the perceived failure of credit rating agencies in predicting the Enron bankruptcy of 2001 because of gross negligence. In section 702(b) of the Sarbanes-Oxley Act of 2002, Congress asked the SEC to

[6] Although some minor agencies are recognised in some jurisdictions, Fitch, S&P and Moody's are universally recognised as ECAIs across Europe and Asia.

issue a report on the role and function of CRAs in securities markets (SEC 2003). The reports' main conclusions were that enhanced registration and oversight of CRAs were needed, and that increased transparency and competition would benefit the quality of ratings and would represent a check to potential conflicts of interest. The Credit Rating Agency Reform Act of 2006 (U.S. Congress 2006) aimed at these objectives by granting rule-making, supervisory and enforcement powers to the SEC in order to oversee the credit rating industry, which was previous unregulated. Let us analyse the provisions in detail.

Rating agencies that *wish* to be recognised as NRSRO shall apply to the SEC, furnishing information on:

(1) ratings' performance
(2) procedures and methodologies to calculate ratings
(3) policies to safeguard confidential information
(4) organisational structure
(5) code of ethics
(6) conflicts of interest
(7) 20 largest clients
(8) written certifications on the part of "qualified institutional buyers" stating that they used the agency for at least 3 years.

The SEC may revoke or suspend the license in case the CRA no longer satisfies the criteria for the initial application or in case of misuse of non-public information and/or infringement of conflicts of interest provisions. Moreover, it can impose sanctions if the NRSRO fails to maintain adequate financial and managerial resources. The NRSRO shall submit updates on the information delivered in case of any change as well as an annual report certifying the accuracy of the information. The statute forbids explicitly to the SEC to issue rules concerning the substance and the methodologies of the ratings. The SEC's rule-making powers relate to: the prevention of misuse of non-public information; the management and disclosure of conflicts of interest; and the avoidance of unfair, coercive or abusive competitive practices. The Act also mandates that each NRSRO designate a compliance officer, and that it provide a confidential financial statement to the SEC.

Based on the authority granted by the Credit Rating Agency Reform Act of 2006, the SEC proposed six rules on February 2, 2007, and it adopted final rules on May 23, 2007. The final rules determine the details of the application process, and they establish that a NRSRO shall keep record of rating actions, internal documents, auditing materials, and internal and external communications. The NRSRO or its employees shall not use confidential information for personal profit, and the NRSRO shall set policies and procedures to manage and disclose conflicts of interest defined as (1) issuer-pays model (2) ancillary services (3) subscriber-pays model (4) employee owns any stake in a company rated by another employee (5) excessive involvement of an employee with the entity subject to rating. NRSROs shall not (1) rate an entity whose business represents more than 10% of its total net revenue (2) rate an entity if the NRSRO or an employee involved in the rating decision own any stake in the company rated (3) rate an entity associated with themselves. As far as unfair, coercive, or abusive practices are concerned, a NRSRO shall not tie the performance of its services to the purchase of other services, and it should consistently use its preset procedures and methodologies independently from the services purchased by the rated entity (SEC 2007).

In light of the 2007-08 global financial crisis and mounting evidence of the responsibility of CRAs in the debacle, the SEC decided to propose a new, more stringent set of rules on June 16, 2008 and July 1, 2008 regarding disclosure, conflicts of interest and reduction of reliance on

ratings in regulation.[7] In a nutshell, the proposed rules: envision CRAs as "gatekeepers" in disclosing extensive information on structured securities and statistics on performance of ratings; prohibit CRAs to provide advisory services; forbid analysts involved in rating decisions to negotiate fees and/or to receive gifts; keep records of deviations from models and third-party complaints; differentiate ratings for structured products; and, finally, to eliminate references to ratings in broker-dealers, money markets and other investment companies regulation. Some of the rules proposed are controversial. For instance, prohibiting NRSROs in engaging in any type of advisory services was considered excessive. By the same token, CRAs have criticised their proposed role of gatekeepers in disclosing information, arguing that the burden should fall on originators. Finally, both originators and CRAs oppose using different symbols for structured securities.

3.2 European Approach

European Union legislation started to use ratings only in recent times. The first piece of Community law mentioning CRAs explicitly was the market abuse regime's implementing Directive 2003/125/EC, in which the agencies are *encouraged* to establish policies and procedures to ensure that ratings are fairly presented and to disclose conflicts of interest. However, it was not until the Capital Requirements Directive (CRD)[8] that European legislators have incorporated ratings in the law in order to assess the risk related to a certain financial asset. According to the CRD, EU financial institutions can use ratings of recognised ECAIs to calculate on a risk-weighted basis their minimum capital requirements. The recognition mechanism for ECAIs is described in Annex VI Part 2 of the CRD, whereby the rating agency should abide by standards of objectivity, independence, ongoing review, credibility, and transparency (European Commission, 2008a, p.4). However, the recognition mechanism did not grant any rule-making, supervisory or enforcement powers over ECAIs, as specified by the Committee of European Banking Supervisors, or CEBS (CEBS, 2006, p.1).

In spite of the lack of formal regulation, the European Commission ("the Commission") had been monitoring the credit rating industry closely. In particular, in July 2004 -- under the impulse of a European Parliament's resolution in February 2004 after the Enron and Parmalat scandals -- the Commission asked the Committee of European Securities Regulators (CESR) for technical advice on possible avenues to supervise CRAs. CESR concluded that there was no need of formal regulation. In January 2006, the Commission agreed to these conclusions, but requested that CESR submit a yearly report of the implementation on the part of CRAs of the voluntary IOSCO Code of Conduct (IOSCO 2004).[9] As it became increasingly clear that CRAs played an important role in the ongoing financial crisis and that self-regulation was no longer a viable solution, in July 2008 the Commission decided to undertake the legislative path, issuing a consultative paper followed by a formal Regulation proposal in November 2008 (European Commission 2008a). The Commission wishes the proposal be adopted by the Council in March 2009.

The proposal takes the form of Regulation,[10] and it sets four broad principles as the main objectives:

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[7] For an excellent summary of the proposed rules, please refer to, accessed January 28, 2009, (http://www.chadbourne.com/clientalerts/2008/creditratings/)

[8] Directive 2006/48/EC, this directive implements the Basel II capital requirements.

[9] See Annex for an overview of the IOSCO Code of Conduct. Both US and EU regulation reflect the principles contained in the IOSCO code. The main weakness of the code was that it lacked sanctions beside the usual "comply or explain" approach of self-regulation.

[10] Regulation implies that once the legislation is adopted by the Council, it takes immediate effect across the Community following the publication in the Official Journal of the European Union.

(1) avoidance, or at least adequate management, of conflicts of interest
(2) improvement of the quality of ratings and methodologies
(3) enhanced transparency
(4) efficient registration and surveillance.

The proposal follows the Lamfalussy procedure, so that its details can be decided at the "comitology" level. The Regulation shall apply to rating agencies used for regulatory purposes, and banks and investment firms shall use for capital calculations only ratings issued by registered CRAs. Moreover, ex art 4(2) investment firms and credit institutions "should not execute orders on behalf of their clients" in regard to financial instruments rated by unregistered CRAs. This provision seems to imply that they may still deal on own account and engage in discretionary portfolio management when trading securities rated by unregistered CRAs, but they may not use such ratings in capital calculations.

Among other rules contained in the legal text, CRAs shall: avoid any conflict of interest; ensure its employees have sufficient knowledge and expertise; prohibit analysts from discussing fees with rated entities; establish a rotation mechanism; set compensation schemes rewarding accuracy; perform due diligence of the information received; record all downgrades and justification for such actions; review ratings in light of new macroeconomic conditions; immediately disclose changes in rating methodologies and review and re-rate past ratings in light of the new methodologies; either differentiate the rating scale for structured securities or provide a detailed report on the underlying assumptions; disclose policies and procedures for unsolicited ratings; identify unsolicited ratings with a different rating category; disclose detailed information on ratings' performance; and, finally, publish a transparency report annually.

As far as the registration process is concerned, CRAs that wish to be registered with the community must establish a subsidiary within the territory, and submit a registration to CESR. CESR will then transmit the registration to the home Member state of the main subsidiary of the CRA and to other host Member states with branches on their territories. The proposal mandates that home and host Member states cooperate on registration, supervision and enforcement matters under the umbrella of CESR. The proposal also outlines in detail the powers of competent authorities, and it sets principles relating to the sanctions applicable to CRAs in breach of the law. Finally, the proposal asks CESR to issue guidelines on implementation of the Regulation in order to achieve consistent application of the law across the EU territory.

Two annexes are attached to the legal text that can be modified at level II by the Commission with the assistance of the European Securities Committee (ex art 33(1)). The annexes contain rules on conflicts of interest and on the information that must be provided with the registration. A CRA's supervisory board shall include at least three non-executive independent members whose compensation is not tied to the company's financial performance. A CRA shall establish an independent review function competent to review periodically methodologies and the adequacy of those methodologies to new financial instruments. A CRA shall also disclose information on rated entity whose business represent more than 5% of its annual revenue. Other measures include: a CRA or its employees shall not rate entities if they own a stake in the company object of the judgement; a CRA shall not provide consultancy services; a CRA shall keep records of activities and communications for 5 years; a CRA shall ensure its employees do not misuse private information; a CRA shall present the rating decision with extensive information on underlying assumptions, people involved, the meaning and the methodologies used, and its limitations. Regarding disclosure, a CRA shall disclose publicly its rules on conflicts of interest, its definition of ancillary services, its compensation schemes, its methodologies, its 20 largest clients and its largest contributors to the company's growth. The following information is required for the registration: (1) legal status, addresses and contact personnel (2) rating procedures and methodologies (3) policies to identify and manage conflicts

Table 2. Comparison between US and EU supervision of CRAs

	Registration	Oversight	Conflicts of Interest	Transparency	Competition	Governance	Methodology
US **(The Credit Rating Agency Reform Act of 2006 and SEC final and proposed Rules)**	- Registration at the Security and Exchange Commission (SEC) as Nationally Recognized Statistical Rating Organization (NRSRO). - Application includes information on: 1. ratings' performance 2. procedures and methodologies 3. policies against misuse of private information 4. organisational structure 5. code of ethics 6. conflicts of interest 7. 20 largest issuers or subscribers 8. certification of institutional investors that the ratings are considered significant	- The SEC has sole responsibility for supervision - The SEC has no say in the ratings' substance, procedures and methodologies - The SEC can suspend or limit operations or revoke the license if the NRSRO does not comply with the regulation or fails to maintain adequate resources to produce valid ratings	- Appropriate policies and procedures to manage and address conflicts of interest - SEC has the authority to issue rules concerning conflict of interests related to: 1.Compensation 2.Consulting and advisory services 3.Personal and ownership conflicts 4.Affiliation with issuers 5.Other conflicts of interest the SEC deems necessary - Prohibit an NRSRO from issuing a rating where the NRSRO or a person associated with the NRSRO has made recommendations as to structuring the same products that it rates. - Prohibit anyone who participates in determining a credit rating from negotiating the fee that the issuer pays for it, to prevent business considerations from undermining the NRSRO's objectivity. - Prohibit gifts from those who receive ratings to those who rate them, in any amount over $25.	- Periodic private disclosure of financial conditions - Require disclosure by the NRSROs of whether and how information about verification performed on the assets underlying a structured product is relied on in determining credit ratings. - Require disclosure of how frequently credit ratings are reviewed; whether different models are used for ratings surveillance than for initial ratings; and whether changes made to models are applied retroactively to existing ratings. - Require NRSROs to make an annual report of the number of ratings actions they took in each ratings class. - Require documentation of the rationale for any material difference between the rating implied by a qualitative model that is a "substantial component" in the process of determining a credit rating and the final rating issued. - Require NRSROs to differentiate the ratings they issue on structured products from other securities, either through issuing a report disclosing how procedures and methodologies and credit risk characteristics for structured finance products differ from other securities, or using different symbols, such as attaching an identifier to the rating.	- Require NRSROs to make all of their ratings and subsequent rating actions publicly available, to facilitate comparisons of NRSROs by making it easier to analyze the performance of the credit ratings the NRSROs issue in terms of assessing creditworthiness. - Require NRSROs to publish performance statistics for one, three and ten years within each rating category, in a way that facilitates comparison with their competitors in the industry.	- Prohibit an NRSRO from issuing a rating on a structured product unless information on the characteristics of assets underlying the product is available, in order to allow other credit rating agencies to use the information to rate the product and, potentially, expose a rating agency whose ratings were unduly influenced by the product's sponsors. - Prohibition to use non-public information for profit	/
EU **(Commission's Proposals SEC (2008)2745 and SEC (2008)2746)**	- CRAs whose ratings are used in regulation should be registered - Single registration for the Community - Coordination of CESR for the registration process Info for the registration 1. full name of the credit rating agency, address of the registered office within the Community; 2. name and contact details of a contact person; 3. legal status; 4. class of credit ratings for which the credit rating agency is applying to be registered; 5. description of the procedures and methodologies used to issue and maintain credit ratings; 6. policies and procedures to identify and manage conflicts of interests; 7. information regarding employees; 8. compensation arrangements; 9. ancillary services; 10. programme of operations, including indications of where the main business activities are expected to be carried out and setting out the type of business envisaged.	- Convergence of sanctions across Member states - CRAs headquartered outside the Community must establish a subsidiary within the Community.	- CRAs should limit their activities to issuing of credit ratings; ancillary services are permitted only if conflicts of interest do not arise - CRAs should establish policies and procedure to ensure conflicts of interest are properly managed - CRAs should try to avoid conflicts of interest. If conflicts of interest are unavoidable then they should be managed. Records of potential conflicts of interest as well as safeguards against those threats must be kept - CRA or its employees shall not rate an entity if they own a stake in the company	- Either use different ratings for structured products or clearly disclosing information on the different types of risk - Updates of methodologies must be disclosed before these enter into effect. All changes should lead to a review of previous ratings - Disclose policies and procedures for unsolicited ratings - Disclose information on rated entity whose business represents more thant 5% of annual revenue - Present ratings with extensive information on assumptions, people involved, limitations - Disclose rules on conflicts of interest, definition of ancillary services, compensation schemes, methodologies, 20 largest clients and largest contributors to company's growth		- No preliminary rating assessment is allowed - Rotation of analysts is required - CRA's supervisory boards should include at least three independent, non-executive members whose remuneration shall not be dependent on the agency's performance - Adequate financial and human resources must be dedicated to monitoring, updating, and issuing of credit ratings	- Methodologies should be rigorous, systematic, continuously updated and backed by historical data. - The CRA should ensure that the information provided by the issuer is reliable. -Ratings should be reviewed in light of new macroeconomic conditions

of interest (4) information regarding employees (5) compensation arrangements (6) ancillary services.

4. Regulatory Analysis

As evidenced from the above description of the European and American supervisory frameworks towards CRAs, the Commission's proposal ("the proposal") stands in stark contrast with The Credit Rating Agency Reform Act ("the Act") of 2006 and subsequent SEC's final and proposed rules. First, in spite of the proclaimed search for US-EU cooperation and some convergence in the actual and proposed rules, the underlying objectives of the regulatory interventions are very different. Second and somewhat consequently, the proposal goes far beyond the Act in regulating the agencies, and it is a step towards cementing the status quo. As far as the objectives are concerned, the Act aims at injecting competition in the rating industry, while the proposal aims at enacting a regime of strong surveillance.[11] Both share the goals of transparency and accountability, but the proposal seeks accountability through enforcement whilst the Act seeks accountability through market discipline. The diverging goals are the result of different analyses of the rating industry and of different degrees of faith in the market. In order to understand the dissimilar approaches, it is necessary to step back for a moment and consider the logic behind the interventions.

Information goods such as credit ratings may be considered quasi public goods, which are by definition non-rivaled and non-excludable. Non-rivaled means that the consumption of the good does not reduce its availability to others; non-excludable means that no-one can be effectively excluded from using the good. The property of non-excludability in credit ratings emerged with the widespread use of information technologies capable of reproducing and disseminating the ratings at virtually no cost.[12] If credit ratings are quasi public goods, then the government should be in charge of providing them (public-utility model). However, governments are themselves conflicted because CRAs must rate sovereign entities. Market-mechanisms are generally better at insulating from political pressure than government entities. Moreover, heavy state intervention may hamper innovation in the production of ratings. Thus a free market of demand and supply of information seems to be the only optimal solution to provide credit ratings. Arguably the inclusion of ratings in regulation since the 1930s in the US and since the early 2000s in the EU amounts to outsourcing the production of the public good "credit ratings" to private entities.

There are two opposing views of the functioning of the credit rating industry: the "reputational capital" view and "regulatory license" view (Partnoy 1999). The reputational capital view contends that the rating industry is competitive and reputation-driven. The three leading CRAs have acquired the trust of investors thanks to their meaningful analyses contained in ratings, and investors demand lower or higher interest rates based on ratings, which reflect the creditworthiness of the rated entities. Reputation ensures that the agencies maintain ratings' quality because of fear of losing the trust of investors and, in consequence, market shares. By contrast, the regulatory license view argues that since ratings are embedded in regulation, CRAs do not sell information but regulatory licenses. The regulatory license allows the rated entity to enjoy some benefits with respect to regulation. In spite of the low informational content, ratings

[11] Some elements of surveillance are present in SEC rules but not to the extent of the Commission's proposal.

[12] One can argue that subscription-based CRAs can overcome the problem of non-excludability. However, the most successful CRAs employ the "issuer-pays" model to prevent the dissemination of ratings (free rider problem) and to ensure sufficient revenues to cover the costs of analysing an ever-expanding array of financial instruments.

remain meaningful because they are present in regulation. Moreover, state registration of CRAs increases barriers of entry, reinforcing the value of the license.

In the eyes of US regulators, the regulatory license view is an accurate depiction of the present state of the credit rating industry. The Act aims that re-establishing a situation where the reputational capital view would prevail. Put differently, US authorities are convinced that they can create a competitive, reputation-based credit rating industry, in which different opinions compete to gain the trust of investors. By lowering barriers of entries, enhancing transparency and removing the regulatory license, competition will arise. The same way newspapers compete to establish their reputation as authoritative observers of politics and business, so CRAs should strive to provide accurate opinions on the creditworthiness of issuing entities. However, there is a fundamental dilemma that this vision fails to address. No replacement for credit ratings in regulation exists. Credit default swaps (CDS) spreads and bond yields are extremely volatile, and they would exacerbate the pro-cyclicality of financial regulation. Additionally, the lack of liquidity of CDS and bonds in certain segments of the market represents a further obstacle in replacing credit ratings. If regulation wants to remain risk-sensitive without exasperating the business cycle, credit ratings are here to stay and so is the regulatory license.

Although the US solution is optimistic in envisioning a fundamental restructuring of the credit rating industry, the European approach represents a seal on the status quo. The stringent supervisory regime suggests that European authorities do not see any alternative to the "regulatory license" scenario. Tellingly, "competition" is not even mentioned as an underlying objective of the proposal, while it figures prominently in the title of the Act. By outsourcing the production of the public good "credit ratings" to private companies, the Commission is convinced that it must closely monitor their actions and provide governance guidelines in order to ensure the quality and accuracy of the information. The organisational and conduct of business requirements are burdensome, and are likely to raise barriers of entry in the industry. The proposal interferes with the agencies' business model, also providing standards for their methodology. By contrast, the Act explicitly forbids the SEC to interfere with the content and methodologies of ratings.

However, if credit ratings are a quasi public good – and we are convinced that they are – the position of the Commission is defendable on several fronts. First, as discussed above, risk-sensitive regulation requires measures that balance accuracy with stability. No realistic alternative to credit ratings balancing these objectives exists. Second, self-regulation has failed to ensure rating's accuracy, leading to rating inflation and poor performance. Third, "natural" barriers of entry in the rating industry are high. Incumbent CRAs enjoy enormous reputational capital, regardless of the regulatory license. For instance, an absence of "red tape" in the European market in the 1990s did not see the emergence of significant European competitors to the leading CRAs. Fourth, competition and reputation are at odds. Provided that the rating industry is based on reputation, it is unlikely that significant competition will arise because the market tends to coalesce towards two or three reputed agencies. Were significant competition to arise and with it decreasing margins, CRAs would be tempted to lower prices and ratings quality to gain market shares (Becker and Milbourn, 2008). In a nightmare scenario, issuers would shop around for ratings among several competitors, looking for the highest one. And if authorities are incapable of removing the regulatory license, then banks and investment firms would choose those ratings that suit their investment decision, regardless of quality. This scenario would represent a threat to financial stability. Since credit ratings must be incorporated in legislation, public authorities have the duty to set minimum criteria for CRAs. Doing otherwise would represent a complete abdication of responsibility.

That said, several criticisms can be moved to the details of the proposal. First, the proposal should outline general principles in the legal text concerning conflicts of interests, governance, and disclosure, and then specify detailed rules in the annexes. In that way, it would provide more flexibility for possible changes because the annexes can be modified at Level II without the involvement of the Parliament and the Council. But there are several instances in

which the legal text is extremely detailed and rule-based such as arts 6(4), 7(4) and (5), and 8(3) and (5). Second, by regulating so heavily CRAs, the Commission may give the impression of certifying ratings. However, ratings cannot be relied upon completely. Investors must make their own risk assessments, using credit ratings as one of the factors to be included in the investment decision. To this goal, the Commission must undertake initiatives to educate investors on the limitation of ratings, and to reduce dependence on ratings. Nevertheless, mounting complexity and diversity in financial products rather than regulation may be the prime cause of over-reliance on ratings because investors do not have the expertise and resources to research on each product. Moreover, risk management department of investment firms have emerged heavily battered from the ongoing financial crisis. This weakens the argument to rely more on risk management and less on external credit assessment. Overall, it appears that credit ratings are necessary in today's financial markets.

To summarise, in a world of information asymmetries, principal-agent problems, mounting complexity and diversity of financial products, network economies due to the nature of the rating business and necessity of risk-sensitive regulation, external credit assessment appear unavoidable. While it is likely to establish raise barriers of entry, the Commission's proposal aims at restoring confidence in the production of credit ratings and set minimum governance standards for CRAs.

5. Conclusion

Credit ratings are necessary for risk-sensitive regulation, and to reduce information asymmetries and principal-agent problems in financial markets. Private CRAs are best fit to provide independent assessments of the creditworthiness of an issuing entity. However, natural barriers of entry in the rating industry and widespread conflicts of interest have led to deterioration in the ratings' quality. Self regulation and market discipline have not worked. Although the European Commission's proposal cements the status quo by further raising barriers of entry in the industry, it appears as the only viable solution. Competition and transparency envisioned in the US are likely to result in a weak surveillance regime, while leaving the regulatory license intact. Because ratings balance accuracy with stability, no viable alternative exists. Increasing competition may reduce the reputational incentives to ensure the quality of ratings. Moreover, the widespread failure of internal risk management in the banking sector suggests that reducing the role of external ratings in regulation is risky. Thus, strong provisions and strict surveillance regime to police rating agencies are appropriate. Nevertheless, there is room for improving the Commission's proposal.

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AVANT-PROPOS

I would like to thank the President of the European Commission, José Manuel Barroso, for the very important mandate he conferred on me in October 2008 to

chair an outstanding group of people to give advice on the future of European financial regulation and supervision. The work has been very stimulating. I am grateful to all members of the group for their excellent contributions to the work, and for all other views and papers submitted to us by many interested parties.

This report is published as the world faces a very serious economic and financial crisis.

The European Union is suffering.

An economic recession.

Higher unemployment.

Huge government spending to stabilize the banking system – debts that future generations will have to pay back.

Financial regulation and supervision have been too weak or have provided the wrong incentives. Global markets have fanned the contagion. Opacity, complexity have made things much worse.

Repair is necessary and urgent.

Action is required at all levels – Global, European and National and in all financial sectors.

We must work with our partners to converge towards high global standards, through the IMF, FSF and G20 processes. This is critical. But let us recognize that the implementation and enforcement of these standards will only be effective and lasting if the European Union, with the biggest capital markets in the world, has a strong and integrated European system of regulation and supervision.

In spite of some progress, too much of the European Union's framework today remains seriously fragmented. The regulatory rule book itself. The European Unions' supervisory structures. Its crisis mechanisms.

This report lays out a framework to take the European Union forward.

Towards a new regulatory agenda – to reduce risk and improve risk management; to improve systemic shock absorbers; to weaken pro-cyclical amplifiers; to strengthen transparency; and to get the incentives in financial markets right.

Towards stronger coordinated supervision – macro-prudential and micro-prudential. Building on existing structures. Ambitiously, step by step but with a

simple objective. Much stronger, coordinated supervision for all financial actors in the European Union. With equivalent standards for all, thereby preserving fair competition throughout the internal market.

Towards effective crisis management procedures – to build confidence among supervisors. And real trust. With agreed methods and criteria. So all Member States can feel that their investors, their depositors, their citizens are properly protected in the European Union.

In essence, we have two alternatives: the first *"chacun pour soi"* solutions; or the second - enhanced, pragmatic, sensible European cooperation for the benefit of all to preserve an open world economy. This will bring undoubted economic gains, and this is what we favour.

We must begin work immediately.

Jacques de Larosière
Chairman

DISCLAIMER

The views expressed in this report are those of the High-Level Group on supervision chaired by Jacques de Larosière.

The Members of the Group support all the recommendations. However, they do not necessarily agree on all the detailed points made in the report.

INTRODUCTION

1) Since July 2007, the world has faced, and continues to face, the most serious and disruptive financial crisis since 1929. Originating primarily in the United States, the crisis is now global, deep, even worsening. It has proven to be highly contagious and complex, rippling rapidly through different market segments and countries. Many parts of the financial system remain under severe strain. Some markets and institutions have stopped functioning. This, in turn, has negatively affected the real economy. Financial markets depend on trust. But much of this trust has evaporated.

2) Significant global economic damage is occurring, strongly impacting on the cost and availability of credit; household budgets; mortgages; pensions; big and small company financing; far more restricted access to wholesale funding and now spillovers to the more fragile emerging country economies. The economies of the OECD are shrinking into recession and unemployment is increasing rapidly. So far banks and insurance companies have written off more than 1 trillion euros. Even now, 18 months after the beginning of the crisis, the full scale of the losses is unknown. Since August 2007, falls in global stock markets alone have resulted in losses in the value of the listed companies of more than €16 trillion, equivalent to about 1.5 times the GDP of the European Union.

3) Governments and Central Banks across the world have taken many measures to try to improve the economic situation and reduce the systemic dangers: economic stimulus packages of various forms; huge injections of Central Bank liquidity; recapitalising financial institutions; providing guarantees for certain types of financial activity and in particular inter-bank lending; or through direct asset purchases, and *"Bad Bank"* solutions are being contemplated by some governments. So far there has been limited success.

4) The Group believes that the world's monetary authorities and its regulatory and supervisory financial authorities can and must do much better in the future to reduce the chances of events like these happening again. This is not to say that all crises can be prevented in the future. This would not be a realistic objective. But what could and should be prevented is the kind of systemic and inter-connected vulnerabilities we have seen and which have carried such contagious effects. To prevent the recurrence of this type of crisis, a number of critical policy changes are called for. These concern the European Union but also the global system at large.

5) **Chapter 1** of this report begins by analysing the complex causes of this financial crisis, a sine qua non to determine the correct regulatory and supervisory responses.

CHAPTER I: CAUSES OF THE FINANCIAL CRISIS

Macroeconomic issues

6) **Ample liquidity and low interest rates have been the major underlying factor behind the present crisis, but financial innovation amplified and accelerated the consequences of excess liquidity and rapid credit expansion. Strong macro-economic growth since the mid-nineties gave** an illusion that permanent and sustainable high levels of growth were not only possible, but likely. This was a period of benign macroeconomic conditions, low rates of inflation and low interest rates. Credit volume grew rapidly and, as consumer inflation remained low, central banks - particularly in the US - felt no need tighten monetary policy. Rather than in the prices of goods and services, excess liquidity showed up in rapidly rising asset prices. These monetary policies fed into growing imbalances in global financial and commodity markets.

7) In turn, **very low US interest rates helped create a widespread housing bubble.** This was fuelled by unregulated, or insufficiently regulated, mortgage lending and complex securitization financing techniques. Insufficient oversight over US government sponsored entities (GSEs) like Fannie Mae and Freddie Mac and strong political pressure on these GSEs to promote home ownership for low income households aggravated the situation. Within Europe there are different housing finance models. Whilst a number of EU Member States witnessed unsustainable increases in house prices, in some Member States they grew more moderately and, in general, mortgage lending was more responsible.

8) In the US, **personal saving fell** from 7% as a percentage of disposable income in 1990, to below zero in 2005 and 2006. Consumer credit and mortgages expanded rapidly. In particular, subprime mortgage lending in the US rose significantly from $180 billion in 2001 to $625 billion in 2005.

9) This was accompanied by the **accumulation of huge global imbalances**. The credit expansion in the US[1] was financed by massive capital inflows from the major emerging countries with external surpluses, notably China. By pegging their currencies to the dollar, China and other economies such as Saudi Arabia in practice imported loose US monetary policy, thus allowing global imbalances to build up. Current account surpluses in these countries were recycled into US government securities and other lower-risk assets, depressing their yields and encouraging other investors to search for higher yields from more risky assets…

10) In this environment of plentiful liquidity and low returns, investors actively sought higher yields and went searching for opportunities. Risk became mis-priced. Those originating investment products responded to this by developing **more and more innovative and complex instruments designed to offer improved yields, often combined with increased leverage**. In particular, financial institutions converted their loans into mortgage or asset backed securities (ABS), subsequently turned into collateralised debt obligations (CDOs) often via off-balance special purpose vehicles (SPVs) and structured investment vehicles (SIVs), generating a dramatic expansion of leverage within the financial system as a whole. The issuance of US ABS, for example, quadrupled from $337

[1] Evidenced by a current account deficit of above 5% of GDP (or $700 billion a year) over a number of years.

billion in 2000 to over $1,250 billion in 2006 and non-agency US mortgage-backed securities (MBS) rose from roughly $100 billion in 2000 to $773 billion in 2006. Although securitisation is in principle a desirable economic model, it was accompanied by through opacity which camouflaged the poor quality of the underlying assets. This contributed to credit expansion and the belief that risks were spread.

11) This led to **increases in leverage and even more risky financial products**. In the macro conditions preceding the crisis described above, high levels of liquidity resulted finally in risk premia falling to historically low levels. Exceptionally low interest rates combined with fierce competition pushed most market participants – both banks and investors – to search for higher returns, whether through an increase in leverage or investment in more risky financial products. Greater risks were taken, but not properly priced as shown by the historically very low spreads. Financial institutions engaged in very high leverage (on and off balance sheet) - with many financial institutions having a leverage ratio of beyond 30 - sometimes as high as 60 - making them exceedingly vulnerable to even a modest fall in asset values.

12) These problems developed dynamically. The rapid recognition of profits which accounting rules allowed led both to a view that risks were falling and to increases in results. This combination, when accompanied by constant capital ratios, resulted in a fast expansion of balance sheets and made institutions vulnerable to changes in valuation as economic circumstances deteriorated.

Risk management

13) There have been quite fundamental failures in the assessment of risk, both by financial firms and by those who regulated and supervised them. There are many manifestations of this: a misunderstanding of the interaction between credit and liquidity and a failure to verify fully the leverage of institutions were among the most important. The cumulative effect of these failures was an overestimation of the ability of financial firms as a whole to manage their risks, and a corresponding underestimation of the capital they should hold.

14) The extreme complexity of structured financial products, sometimes involving several layers of CDOs, made proper risk assessment challenging for even the most sophisticated in the market. Moreover, model-based risk assessments underestimated the exposure to common shocks and tail risks and thereby the overall risk exposure. Stress-testing too often was based on mild or even wrong assumptions. Clearly, no bank expected a total freezing of the inter-bank or commercial paper markets.

15) This was aggravated further by **a lack of transparency in important segments of financial markets** – even within financial institutions – and the build up of a "shadow" banking system. There was little knowledge of either the size or location of credit risks. While securitised instruments were meant to spread risks more evenly across the financial system, the nature of the system made it impossible to verify whether risk had actually been spread or simply re-concentrated in less visible parts of the system. This contributed to uncertainty on the credit quality of counterparties, a breakdown in confidence and, in turn, the spreading of tensions to other parts of the financial sector.

16) Two aspects are important in this respect. First, the fact that the Basel 1 framework did not cater adequately for, and in fact encouraged, pushing risk taking off balance-sheets.

This has been partly corrected by the Basel 2 framework. Second, the explosive growth of the Over-The-Counter credit derivatives markets, which were supposed to mitigate risk, but in fact added to it.

17) **The originate-to-distribute model as it developed, created perverse incentives.** Not only did it blur the relationship between borrower and lender but also it diverted attention away from the ability of the borrower to pay towards lending – often without recourse - against collateral. A mortgage lender knowing beforehand that he would transfer (sell) his entire default risks through MBS or CDOs had no incentive to ensure high lending standards. The lack of regulation, in particular on the US mortgage market, made things far worse. Empirical evidence suggests that there was a drastic deterioration in mortgage lending standards in the US in the period 2005 to 2007 with default rates increasing.

18) This was compounded by financial institutions and supervisors substantially underestimating **liquidity risk**. Many financial institutions did not manage the maturity transformation process with sufficient care. What looked like an attractive business model in the context of liquid money markets and positively sloped yield curves (borrowing short and lending long), turned out to be a dangerous trap once liquidity in credit markets dried up and the yield curve flattened.

The role of Credit Rating Agencies

19) **Credit Rating Agencies** (CRAs) lowered the perception of credit risk by giving AAA ratings to the senior tranches of structured financial products like CDOs, the same rating they gave to government and corporate bonds yielding systematically lower returns.

20) The major underestimation by CRAs of the credit default risks of instruments collateralised by subprime mortgages resulted largely from flaws in their rating methodologies. The lack of sufficient historical data relating to the US sub-prime market, the underestimation of correlations in the defaults that would occur during a downturn and the inability to take into account the severe weakening of underwriting standards by certain originators have contributed to poor rating performances of structured products between 2004 and 2007.

21) The conflicts of interests in CRAs made matters worse. The issuer-pays model, as it has developed, has had particularly damaging effects in the area of structured finance. Since structured products are designed to take advantage of different investor risk appetites, they are structured for each tranche to achieve a particular rating. Conflicts of interests become more acute as the rating implications of different structures were discussed between the originator and the CRA. Issuers shopped around to ensure they could get an AAA rating for their products.

22) Furthermore, the fact that regulators required certain regulated investors to only invest in AAA-rated products also increased demand for such financial assets.

Corporate governance failures

23) Failures in risk assessment and risk management were aggravated by the fact that the **checks and balances of corporate governance also failed**. Many boards and senior managements of financial firms neither understood the characteristics of the new, highly complex financial products they were dealing with, nor were they aware of the aggregate exposure of their companies, thus seriously underestimating the risks they were running. Most board members did not provide the necessary oversight or control of management. Nor did the owners of these companies – the shareholders.

24) **Remuneration and incentive schemes** within financial institutions contributed to excessive risk-taking by rewarding short-term expansion of the volume of (risky) trades rather than the long-term profitability of investments. Furthermore, shareholders' pressure on management to deliver higher share prices and dividends for investors meant that exceeding expected quarterly earnings became the benchmark for many companies' performance.

Regulatory, supervisory and crisis management failures

25) These pressures were not contained by regulatory or supervisory policy or practice. Some long-standing policies such as the definition of capital requirements for banks placed too much reliance on both the risk management capabilities of the banks themselves and on the adequacy of ratings. In fact, it has been the regulated financial institutions that have turned out to be the largest source of problems. For instance, capital requirements were particularly light on proprietary trading transactions while (as events showed later) the risks involved in these transactions proved to be much higher than the internal models had expected.

26) One of the mistakes made was that insufficient attention was given to the liquidity of markets. Too much attention was paid to each individual firm and too little to the impact of general developments on sectors or markets as a whole. These problems occurred in very many markets and countries, and aggregated together contributed substantially to the developing problems. Once problems escalated into specific crises, there were real problems of information exchange and collective decision making involving central banks, supervisors and finance ministries.

27) Derivatives markets rapidly expanded (especially credit derivatives markets) and off-balance sheet vehicles were allowed to proliferate– with credit derivatives playing a significant role triggering the crisis. While US supervisors should have been able to identify (and prevent) the marked deterioration in mortgage lending standards and intervene accordingly, EU supervisors had a more difficult task in assessing the extent to which exposure to subprime risk had seeped into EU-based financial institutions. Nevertheless, they failed to spot the degree to which a number of EU financial institutions had accumulated – often in off balance-sheet constructions- exceptionally high exposure to highly complex, later to become illiquid financial assets. Taken together, these developments led over time to opacity and a lack of transparency.

28) This points to serious **limitations in the existing supervisory framework globally,** both in a national and cross-border context. It suggests that financial supervisors frequently did

not have and in some cases did not insist in getting, or received too late, all the relevant information on the global magnitude of the excess leveraging; that they did not fully understand or evaluate the size of the risks; and that they did not seem to share their information properly with their counterparts in other Member States, with the US or even within their own countries. In fact, the business model of US-type investment banks and the way they expanded was not really challenged by supervisors and standard setters. Insufficient supervisory and regulatory resources combined with an inadequate mix of skills as well as different national systems of supervision made the situation worse.

29) Regulators and supervisors focused on **the micro-prudential supervision of individual financial institutions and not sufficiently on the macro-systemic risks** of a contagion of correlated horizontal shocks. Strong international competition among financial centres also contributed to national regulators and supervisors being reluctant to take unilateral action.

30) Whilst the building up of imbalances and risks was widely acknowledged and commented upon, there was **little consensus among policy makers or regulators at the highest level on the seriousness of the problem,** or on the measures to be taken. There was little impact of early warning in terms of action – and most early warnings were feeble anyway.

31) **Multilateral surveillance** (IMF) did not function efficiently, as it did not lead to a timely correction of macroeconomic imbalances and exchange rate misalignments. Nor did concerns about the stability of the international financial system lead to sufficient coordinated action… for example through the IMF, FSF, G8 or anywhere else.

The dynamics of the crisis

32) The crisis eventually erupted when inflation pressures in the US economy required a tightening of monetary policy from mid-2006 and it became apparent that the sub-prime housing bubble in the US was going to burst amid rising interest rates. Starting in July 2007, accumulating losses on US sub-prime mortgages triggered widespread disruption of credit markets, as uncertainty about the ultimate size and location of credit losses undermined investor confidence. Exposure to these losses had been spread among financial institutions around the world, including Europe, inter alia via credit derivative markets.

33) **The pro-cyclical nature of some aspects of the regulatory framework was then brought into sharp relief.** Financial institutions understandably tried to dispose of assets once they realised that they had overstretched their leverage, thus lowering market prices for these assets. Regulatory requirements (accounting rules and capital requirements) helped trigger a negative feed-back loop amplified by major impacts in the credit markets.

34) Financial institutions, required to value their trading book according to mark-to-market principles, (which pushed up profits and reserves during the bull-run) were required to write down the assets in their balance sheet as markets deleveraged. Already excessively leveraged, they were required to either sell further assets to maintain capital levels, or to reduce their loan volume. "Fire sales" made by one financial institution in turn forced all other financial institutions holding similar assets to mark the value of these assets down

"to market". Many hedge funds acted similarly and margin calls intensified liquidity problems.

35) Once credit rating agencies started to revise their credit ratings for CDOs downwards, banks were required to adjust their risk-weighted capital requirements upwards. Once again, already highly leveraged, and faced with increasing difficulties in raising equity, banks scrambled to dispose of assets, putting further pressure on asset prices. When, despite the fear of possible negative signalling effects, banks tried to raise fresh capital, more or less at the same time, they were faced by weakening equity markets. This obliged them to look for funding from sovereign wealth funds and, in due course, from heavy state intervention. What was initially a liquidity problem rapidly, for a number of institutions, turned into a solvency problem.

36) The lack of market transparency, combined with the sudden downgrade of credit ratings, and the US Government's decision not to save Lehman Brothers led to a wide-spread breakdown of trust and a crisis of confidence that, in autumn 2008, practically shut down inter-bank money markets, thus creating a large-scale liquidity crisis, which still weighs heavily on financial markets in the EU and beyond. The complexity of a number of financial instruments and the intrinsic vulnerability of the underlying assets also explains why problems in the relatively small US sub-prime market brought the global financial system to the verge of a full-scale dislocation. The longer it took to reveal the true amount of losses, the more widespread and entrenched the crisis of confidence has become. And it remains largely unresolved to this day.

37) The regulatory response to this worsening situation was weakened by **an inadequate crisis management infrastructure in the EU**, both in terms of the cooperation between national supervisors and between public authorities. The ECB was among the first to react swiftly by provide liquidity to the inter-bank market. In the absence of a common framework for crisis management, Member States were faced with a very difficult situation. Especially for the larger financial institutions they had to react quickly and pragmatically to avoid a banking failure. These actions, given the speed of events, for obvious reasons were not fully coordinated.

CHAPTER II: POLICY AND REGULATORY REPAIR

I. INTRODUCTION

The present report draws a distinction between financial regulation and supervision.

38) Regulation is the set of rules and standards that govern financial institutions; their main objective is to foster financial stability and to protect the customers of financial services. Regulation can take different forms, ranging from information requirements to strict measures such as capital requirements. On the other hand, supervision is the process designed to oversee financial institutions in order to ensure that rules and standards are properly applied. This being said, in practice, regulation and supervision are intertwined and will therefore, in some instances, have to be assessed together in this chapter and the following one.

39) As underlined in the previous chapter, the present crisis results from the complex interaction of market failures, global financial and monetary imbalances, inappropriate regulation, weak supervision and poor macro-prudential oversight. It would be simplistic to believe therefore that these problems can be "resolved" just by more regulation. Nevertheless, it remains the case that good regulation is a necessary condition for the preservation of financial stability.

40) A robust and competitive financial system should facilitate intermediation between those with financial resources and those with investment needs. This process relies on confidence in the integrity of institutions and the continuity of markets. *"This confidence, taken for granted in well-functioning financial systems, has been lost in the present crisis in substantial part due to its recent complexity and opacity,…weak credit standards, mis-judged maturity mismatches, wildly excessive use of leverage on and off-balance sheet, gaps in regulatory oversight, accounting and risk management practices that exaggerated cycles, a flawed system of credit ratings and weakness of governance* [2]".

All must be addressed.

41) This chapter outlines some changes in regulation that are required to strengthen financial stability and the protection of customers so to avoid – if not the occurrence of crises, which are unavoidable – a repetition of the extraordinary type of systemic breakdown that we are now witnessing. Most of the issues are global in nature, and not just specific to the EU.

42) What should be the right focus when designing regulation? It should concentrate on the major sources of weaknesses of the present set-up (e.g. dealing with financial bubbles, strengthening regulatory oversight on institutions that have proven to be poorly regulated, adapting regulatory and accounting practices that have aggravated pro-cyclicality, promoting correct incentives to good governance and transparency, ensuring international consistency in standards and rules as well as much stronger coordination between regulators and supervisors). Over-regulation, of course, should be avoided because it slows down financial innovation and thereby undermines economic growth in the wider

[2] G30 report, Washington, January 2009.

economy. Furthermore, the enforcement of existing regulation, when adequate (or improving it where necessary), and better supervision, can be as important as creating new regulation.

II. THE LINK BETWEEN MACROECONOMIC AND REGULATORY POLICY

43) The fundamental underlying factor which made the crisis possible was the ample liquidity and low interest rate conditions which prevailed globally since the mid-nineties. These conditions fuelled risk taking by investors, banks and other financial institutions, leading ultimately to the crisis.

44) The low level of long term interest rate over the last five years – period of sustained growth – is an important factor that contrasts with previous expansionary periods.

45) As industrial economies recovered, corporate investment did not pick up as would have been expected. "As a result, the worldwide excess of desired savings over actual investment … pushed its way into the main markets that were opened to investment, housing in industrial countries, lifting house prices and rising residential construction[3]". This phenomenon, which affected also financial assets, took place in the US but also in the EU, where significant housing bubbles developed in the UK, Ireland and Spain.

46) This explanation is not inconsistent with the one focusing on excessive liquidity fuelled by too loose monetary policy. Actually the two lines of reasoning complement each other: too low interest rates encouraged investment in housing and financial assets, but had monetary policy been stricter, there would have been somewhat less expansion in the US, more limited house prices increases and smaller current account deficits. By the same token, if countries with big surpluses had allowed their currencies to appreciate, smaller current account deficits and surpluses would have been the consequence. This raises the question of what competent authorities can do in order to at least mitigate the risks of bubbles building up, instead of simply intervening *ex-post* by injecting liquidity to limit the damage from a macro-economic standpoint.

47) The point that the lack of precise and credible information on whether a given state of asset markets is already a bubble is not a sufficient argument against trying to prevent a serious bubble.

48) It is commonly agreed today that monetary authorities cannot avoid the creation of bubbles by targeting asset prices and they should not try to prick bubbles. However, they can and should adequately communicate their concerns on the sustainability of strong increases in asset prices and contribute to a more objective assessment of systemic risks. Equally, they can and should implement a monetary policy that looks not only at consumer prices, but also at overall monetary and credit developments, and they should be ready to gradually tighten monetary policy when money or credit grow in an excessive and unsustainable manner. Other competent authorities can also use certain tools to contain money and credit growth. These are of particular importance in the context of the euro zone, where country-specific monetary policies tailored to countries' positions in the

[3] See "the global roots of the current financial crisis and its implications for regulation" by Kashyap, Raghuram Rajan and Stein.

economic cycle cannot be implemented. The following are examples of regulatory tools which can help meet counter-cyclical objectives:

- introducing dynamic provisioning or counter-cyclical reserves on banks in *"good times"* to limit credit expansion and so alleviate pro-cyclicality effects in the *"bad times"*;

- making rules on loans to value more restrictive;

- modifying tax rules that excessively stimulate the demand for assets.

49) These tools were not, or were hardly, used by monetary and regulatory authorities in the run-up to the present crisis. This should be a lesson for the future. Overall cooperation between monetary and regulatory authorities will have to be strengthened, with a view to defining and implementing the policy-mix that can best maintain a stable and balanced macro-economic framework. In this context, it will be important for the ECB to become more involved in over-seeing the macro-prudential aspects of banking activities (see next chapter on supervision). Banks should be subject to more and more intense scrutiny as the bubble builds up.

50) Finally, a far more effective and symmetric *"multilateral surveillance"* by the IMF covering exchange rates and underlying economic policies is called for if one wants to avoid the continuation of unsustainable deficits (see chapter on global issues).

III. CORRECTING REGULATORY WEAKNESSES

Reforming certain key-aspects of the present regulatory framework

51) Although the relative importance assigned to regulation (versus institutional incentives - such as governance and risk assessment, - or monetary conditions…) can be discussed, it is a fact that global financial services legislation did not prevent or at least contain the crisis as well as market aberrations. A profound review of regulatory policy is therefore needed. A consensus, both in Europe and internationally, needs to be developed on which financial services regulatory measures are needed for the protection of customers, the safeguarding of financial stability, and the sustainability of economic growth.

52) This should be done being mindful of the usefulness of self-regulation by the private sector. Public and self-regulation should complement each other and supervisors should check that where there is self-regulation it is being properly implemented. Something not sufficiently carried out in the recent past.

The following issues must be addressed as a matter of urgency.

a) The Basel 2 framework

53) It is wrong to blame the Basel 2 rules *per se* for being one of the major causes of the crisis. These rules entered into force only on 1 January 2008 in the EU and will only be applicable in the US on 1 April 2010. Furthermore, the Basel 2 framework contains several improvements which would have helped mitigate to some extent the emergence of

the crisis had they been fully applied in the preceding years. For example, had the capital treatment for liquidity lines given to special purpose vehicles been in application then they might have mitigated some of the difficulties. In this regard Basel 2 is an improvement relative to the previous "leverage ratios" that failed to deal effectively with off-balance sheet operations.

54) The Basel 2 framework nevertheless needs fundamental review. It underestimated some important risks and over-estimated banks' ability to handle them. The perceived wisdom that distribution of risks through securitisation took risk away from the banks turned out, on a global basis, also to be incorrect. These mistakes led to too little capital being required. This must be changed. The Basel methodologies are too much based on recent past economic data and good liquidity conditions. The safeguards to prevent short-term biases are not sufficiently clear and neither fully understood nor implemented by institutions and supervisors.

55) Liquidity issues are important in the context both of individual financial firms and of the regulatory system. The Group believes that both require greater attention than they have hitherto been afforded. Supervisors need to pay greater attention to the specific maturity mismatches of the firms they supervise, and those drawing up capital regulations need to incorporate more fully the impact on capital of liquidity pressures on banks' behaviour.

56) A reflection is also needed with regard to the reliance, by the buy-side, of Basel 2 on external ratings. There has undoubtedly been excessive reliance by many buy-side firms on ratings provided by CRAs. If CRAs perform to a proper level of competence and of integrity, their services will be of significant value and should form a helpful part of financial markets. The Group later makes proposals to improve these aspects of CRAs. But the use of ratings should never eliminate the need for those making investment decisions to apply their judgement. A particular failing has been the acceptance by investors of ratings of structured products without understanding the basis on which those products were provided.

57) The use by sophisticated banks of internal risk models for trading and banking book exposures has been another fundamental problem. These models were often not properly understood by board members (even though the Basel 2 rules increased the demands on boards to understand the risk management of the institutions). Whilst the models may pass the test for normal conditions, they were clearly based on too short statistical horizons and this proved inadequate for the recent exceptional circumstances.

58) Future rules will have to be better complemented by more reliance on judgement, instead of being exclusively based on internal risk models. Supervisors, board members and managers should understand fully new financial products and the nature and extent of the risks that are being taken; stress testing should be undertaken without undue constraints; professional due diligence should be put right at the centre of their daily work.

59) Against this background, the Group is of the view that the review of the Basel 2 framework should be articulated around the following elements:

- The crisis has shown that there should be more capital, and more high quality capital, in the banking system, over and above the present regulatory minimum levels. Banks should hold more capital, especially in good times, not only to cover idiosyncratic risks but also to incorporate the broader macro-prudential risks. The goal should be to

increase minimum requirements. This should be done gradually in order to avoid pro-cyclical drawbacks and an aggravation of credit crunch.

- The crisis has revealed the strong pro-cyclical impact of the current regulatory framework, stemming in particular from the interaction of risk-sensitive capital requirements and the application of the mark-to-market principle in distressed market conditions. Instead of having a dampening effect, the rules have amplified market trends upwards and downwards - both in the banking and insurance sectors.

60) How to reduce the pro-cyclical effect of Basel 2? Of course, it is inevitable that a system based on risk-sensitivity is to some extent pro-cyclical: during a recession, the quality of credit deteriorates and capital requirements rise. The opposite happens during an upswing. But there is a significant measure of "excessive" pro-cyclicality in the Basel framework that must be reduced by using several methods[4].

- concerning the banking book, it is important that banks, as is the present rule, effectively assess risks using "through the cycle" approaches which would reduce the pro-cyclicality of the present measurement of probability of losses and default;

- more generally, regulation should introduce specific counter-cyclical measures. The general principle should be to slow down the inherent tendency to build up risk-taking and over-extension in times of high growth in demand for credit and expanding bank profits. In this respect, the "dynamic provisioning" introduced by the Bank of Spain appears as a practical way of dealing with this issue: building up anti-cyclical buffers, which rise during expansions and allow them under certain circumstances to be drawn down in recessions. This would be facilitated if fiscal authorities would treat reserves taken against future expected losses in a sensible way. Another method would be to move capital requirements in a similar anti-cyclical way;

- this approach makes sense from a micro-prudential point of view because it reduces the risk of bank failures. But it is also desirable from a macro-prudential and macro-economic perspective. Indeed, such a measure would tend to place some restraint on over rapid credit expansion and reduce the dangers of market over-reactions during recessionary times;

- with respect to the trading book of banks, there is a need to reduce pro-cyclicality and to increase capital requirements. The present statistical VaR models are clearly pro-cyclical (too often derived, as they are, from observations of too short time periods to capture fully market prices movements and from other questionable assumptions). If volatility goes down in a year, the models combined with the accounting rules tend to understate the risks involved (often low volatility and credit growth are signs of irrational low risk aversion and hence of upcoming reversals). More generally, the level of capital required against trading books has been well too low relative to the risks being taken in a system where banks heavily relied on liquidity through "marketable instruments" which eventually, when liquidity evaporated, proved not to be marketable. If banks engage in proprietary activities for a significant part of their total activities, much higher capital requirements will be needed.

[4] See Lord Turner, The Financial Crisis and the Future of Financial Regulation, Economoist's inaugural city Lecture, 21 January 2009.

It is important that such recommendations be quickly adopted at international level by the Basel committee and the FSF who should define the appropriate details.

61) Measuring and limiting liquidity risk is crucial, but cannot be achieved through simple quantitative criteria. Indeed the "originate-and-distribute" model which has developed hand in hand with securitisation has introduced a new dimension to the liquidity issue. That dimension has not sufficiently been taken into account by the existing framework. The assessment by institutions and regulators of the "right" liquidity levels is difficult because it much depends on the assumptions made on the liquidity of specific assets and complex securities as well as secured funding. Therefore the assets of the banking system should be examined in terms not only of their levels, but also of their quality (counterparty risk, transparency of complex instruments…) and of their maturity transformation risk (e.g. dependence on short term funding). These liquidity constraints should be carefully assessed by supervisors. Indeed a "mismatch ratio" or increases in liquidity ratios must be consistent with the nature of assets and the time horizons of their holdings by banks.

The Basel committee should in the future concentrate more on liquidity risk management. Even though this is a very difficult task, it should come forward with a set of norms to complement the existing qualitative criteria (these norms should cover the need to maintain, given the nature of the risk portfolio, an appropriate mix of long term funding and liquid assets).

62) There should be stricter rules (as has been recommended by the FSF) for off-balance sheet vehicles. This means clarifying the scope of prudential regulation applicable to these vehicles and determining, if needed, higher capital requirements. Better transparency should also be ensured.

63) The EU should agree on a clear, common and comprehensive definition of own funds. This definition should in particular clarify whether, and if so which, hybrid instruments should be considered as Tier 1. This definition would have to be confirmed at international level by the Basel committee and applied globally. Consideration should also be given to the possibility of limiting Tier 1 instruments in the future to equity and reserves.

64) In order to ensure that management and banks' board members possess the necessary competence to fully understand complex instruments and methods, the criteria for ”fitness and propriety” should be reviewed and strengthened. Also, internationally harmonized rules should be implemented for strengthening the mandates and resources for banks’ internal control and audit functions. Regulators and supervisors should also be better trained to understand risk assessment models.

65) The Group supports the work initiated by the Basel committee on the above issues. It will however be important that the Basel committee works as expeditiously as possible. It took 8 years to revise Basel 1. This is far too long, especially given the speed at which the banking sector evolves. It will be important for the Basel committee to find ways to agree on the details of the above reforms far more quickly.

***Recommendation 1**: The Group sees the need for a fundamental review of the Basel II rules. The Basel Committee of Banking Supervisors should therefore be invited to urgently amend the rules with a view to gradually:*

- *increase capital requirements;*
- *reduce pro-cyclicality;*
- *introduce stricter rules for off-balance sheet items;*
- *tighten norms on liquidity management, and*
- *strengthen the rules for bank's internal control and risk management, notably by reinforcing the "fitness and proprietory" criteria for management and board members.*

***Recommendation 2**: In the EU, a common definition of own capital should be adopted, clarifying whether, and if so which, hybrid instruments should be considered as tier 1 capital. This definition should be confirmed by the Basel Committee.*

b) Credit Rating Agencies

66) Given the pivotal and quasi-regulatory role that they play in today's financial markets, **Credit Rating Agencies** must be regulated effectively to ensure that their ratings are independent, objective and of the highest possible quality. This is all the more true given the oligopolistic nature of this business. The stability and functioning of financial markets should not depend on the opinions of a small number of agencies – whose opinions often were proven wrong, and who have much too frequently substituted for rigorous due diligence by firms.

67) The Commission has made a proposal for a Regulation on CRAs. However, the system of licensing and oversight contained in this proposal is too cumbersome. The allocation of work between the home and host authorities, in particular, is likely to lack effectiveness and efficiency. The Group is of the view that it would be far more rational to entrust the Committee of European Securities Regulators (CESR) with the task of licensing and supervising CRAs in the EU (as is proposed in the new supervisory framework proposed in the next chapter).

68) Beyond this proposal for a Regulation, a fundamental review of CRAs economic model should be conducted, notably in order to eliminate the conflicts of interests that currently exist. One drawback of the present model is that CRAs are entirely financed by the issuers and not by the users, which is a source of conflict of interest. The modalities of a switch from the current "issuer pays" model to a "buyer pays" model should be considered at international level. Furthermore, and even though this may well be a difficult task in practice, consideration should be given to the ways in which the formulation of ratings could be completely separated from the advice given to issuers on the engineering of complex products.

69) The use of ratings required by some financial regulations raises a number of problems, but is probably unavoidable at this stage. However, it should be significantly reduced over time.

70) Regulators should have a close eye on the performance of CRAs with the recognition and allowable use of their ratings made dependent on their performance. This role should be entrusted to CESR, who should on an annual basis approve those CRAs whose ratings can be used for regulatory purposes. Should the performance of a given CRA be insufficient, its activities could be restricted or its licence withdrawn by CESR.

71) Finally, the rating of structured products should be transformed with a new, distinct code alerting investors about the complexity of the instrument.

72) These recommendations will of course have to dovetail with increased due diligence from the buy-side. Supervisors should check that financial institutions have the capacity to complement the use of external ratings (on which they should no longer excessively rely upon) with sound independent evaluations.

***Recommendation 3*: Concerning the regulation of Credit Rating Agencies (CRAs), the Group recommends that:**

- ***within the EU, a strengthened CESR should be in charge of registering and supervising CRAs;***
- ***a fundamental review of the CRA model, its financing and of the scope for separating rating and advisory activities should be undertaken;***
- ***the use of ratings in financial regulations should be significantly reduced over time;***
- ***the rating for structured products should be transformed by introducing distinct codes for such products.***

It is crucial that these regulatory changes are accompanied by increased due diligence from investors and improved supervision.

c) The mark-to-market principle

73) The crisis has brought into relief the difficulty to apply the mark-to-market principle in certain market conditions as well as the strong pro-cyclical impact that this principle can have. The Group considers that a wide reflection is needed on the mark-to-market principle. Whilst in general this principle makes sense, there may be specific conditions where this principle should not apply because it can mislead investors and distort managers' policies.

74) It is particularly important that banks can retain the possibility to keep assets, accounted for amortised cost at historical or original fair value (corrected, of course, for future impairments), over a long period in the banking book - which does not mean that banks should have the discretion to switch assets at will from the banking to the trading book. The October 2008 decision by the EU to modify IAS-39 and introduce more flexibility as well as convergence with US GAAP is to be commended. It is irrelevant to mark-to-

market, on a daily basis, assets that are intended to be held and managed on a long-term horizon provided that they are reasonably matched by financing.

75) Differences between business models must also be taken into account. For example, intermediation of credit and liquidity requires disclosure and transparency but not necessarily mark-to-market rules which, while being appropriate for investment banks and trading activities, are not consistent with the traditional loan activity and the policy of holding long term investments. Long-term economic value should be central to any valuation method: it may be based, for instance, on an assessment of the future cash flows deriving from the security as long as there is an explicit minimum holding period and as long as the cash flows can be considered as sustainable over a long period.

76) Another matter to be addressed relates to situations where assets can no longer be marked-to-market because there is no active market for the assets concerned. Financial institutions in such circumstances have no other solution than to use internal modelling processes. The quality and adequacy of these processes should of course be assessed by auditors. The methodologies used should be transparent. Furthermore internal modelling processes should also be overseen by the level 3 committees, in order to ensure consistency and avoid competitive distortions.

77) To ensure convergence of accounting practices and a level playing-field at the global level, it should be the role of the International Accounting Standard Board (IASB) to foster the emergence of a consensus as to where and how the mark-to-market principle should apply – and where it should not. The IASB must, to this end, open itself up more to the views of the regulatory, supervisory and business communities. This should be coupled with developing a far more responsive, open, accountable and balanced governance structure. If such a consensus does not emerge, it should be the role of the international community to set limits to the application of the mark-to-market principle.

78) The valuation of impaired assets is now at the centre of the political debate. It is of crucial importance that valuation of these assets is carried-out on the basis of common methodologies at international level. The Group encourages all parties to arrive at a solution which will minimise competition distortions and costs for taxpayers. If there are widely variant solutions – market uncertainty will not be improved.

79) Regarding the issue of pro-cylicality, as a matter of principle, the accounting system should be neutral and not be allowed to change business models – which it has been doing in the past by "incentivising" banks to act short term. The public good of financial stability must be embedded in accounting standard setting. This would be facilitated if the regulatory community would have a permanent seat in the IASB (see chapter on global repair).

<u>Recommendation 4</u>: With respect to accounting rules the Group considers that a wider reflection on the mark-to-market principle is needed and in particular recommends that:

- ***accounting standards should not bias business models and discourage long-term investment;***
- ***the IASB and other accounting standard setters should clarify and agree on a common, transparent methodology for the valuation of assets in illiquid markets where mark-to-market cannot be applied;***

- ***the IASB opens its standard-setting process to the regulatory, supervisory and business communities;***
- ***the oversight and governance structure of the IASB be strengthened.***

d) Insurance

80) The crisis originated and developed in the banking sector. But the **insurance sector** has been far from immune. The largest insurance company in the world has had to be bailed out because of its entanglement with the entire financial sector, inter alia through credit default swaps activities. In addition, the failure of the business models of monoline insurers has created significant market and regulatory concern. It is therefore important, especially at a time where Europe is in the process of overhauling its regulatory framework for the entire insurance sector, to draw the lessons from the crisis in the US insurance sector. Insurance companies can in particular be subject to major market and concentration risks. Compared to banks, insurance companies tend to be more sensitive to stock market developments (and less to liquidity and credit risks, even if the crisis has shown that they are not immune to those risks either).

81) Solvency 2 is an important step forward in the effort to improve insurance regulation, to foster risk assessments and to rationalise the management of large firms. Solvency 2 should therefore be adopted urgently. The directive, especially if complemented by measures which draw the lessons from the crisis, would remedy the present fragmentation of rules in the EU and allow for a more comprehensive, qualitative and economic assessment of the risks mentioned above. The directive would also facilitate the management and supervision of large insurance groups. With colleges of supervisors for all cross-border groups the directive would strengthen and organise better supervisory cooperation – something lacking up to now in spite of the efforts made by the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). The AIG case in the US has illustrated in dramatic terms what happens when there is a lack of supervisory cooperation.

82) Differences of views between "home" and "host" Member States on the operation of the group support regime have so far prevented a successful conclusion of the negotiation of the directive. This should be addressed by providing adequate safeguards for host Member States. In addition, the Group believes that the new supervisory framework proposed in the chapter on supervision (and in particular, the setting up of a binding mediation mechanism between home and host supervisors) plus the development of harmonised insurance guarantees schemes could contribute to finding a solution for the current deadlock. All the above measures (safeguards, binding mediation, insurance guarantee schemes) should be implemented together concurrently with Solvency 2.

<u>Recommendation 5</u>: The Group considers that:

- ***the Solvency II directive must be adopted by May-2009;***
- ***the final agreement should include a group support regime, to be coupled with sufficient safeguards for host Member States, a binding mediation process between supervisors and the setting-up of harmonised insurance guarantee schemes.***

e) Supervisory and sanctioning powers

83) A sound prudential and conduct of business framework for the financial sector must rest on strong supervisory and sanctioning regimes. Supervisory authorities must be equipped with sufficient powers to act when financial institutions have inadequate risk management and control mechanisms as well as inadequate solvency of liquidity positions. There should also be equal, strong and deterrent sanctions regimes against all financial crimes - sanctions which should be enforced effectively.

84) Neither of these exist for the time being in the EU. Member States sanctioning regimes are in general weak and heterogeneous. Sanctions for insider trading range from a few thousands of euros in one Member State to millions of euros or jail in another. This can induce regulatory arbitrage in a single market. Sanctions should therefore be urgently strengthened and harmonised. The huge pecuniary differences between the level of fines that can be levied in the competition area and financial fraud penalties is striking. Furthermore, Member States should review their capacity to adequately detect financial crimes when they occur. Where needed, more resources and more sophisticated detection processes should be deployed.

<u>Recommendation 6:</u> The Group considers that:

- ***Competent authorities in all Member States must have sufficient supervisory powers to ensure the compliance of financial institutions with the applicable rules;***
- ***Competent authorities should also be equipped with strong, equivalent and deterrent sanction regimes to counter all types of financial crime.***

Closing the gaps in regulation

a) The parallel banking system

85) In addition to the weaknesses identified in the present regulatory framework, and in particular in the Basel 2 framework, it is advisable to look into the activities of the **parallel banking system** (encompassing hedge funds, investment banks, other funds, various off-balance sheet items, mortgage brokers in some jurisdictions). The Group considers the regulatory net must extend, in a proportionate manner, to all firms or entities conducting financial activities which may have a systemic impact (i.e. in the form of counterparty, maturity, interest rate risks…) even if they have no direct links with the public at large. This is all the more important since such institutions, having no deposit base, can be very vulnerable when liquidity evaporates – resulting in major impacts in the real economy.

86) Concerning hedge funds, the Group considers they did not play a major role in the emergence of the crisis. Their role has largely been limited to a transmission function, notably through massive selling of shares and short-selling transactions. We should also recognise that in the EU, unlike the US, the great bulk of hedge fund managers are registered and subject to information requirements. This is the case in particular in the UK, where the largest 30 hedge funds are subject to direct information requirements often obtained on a global basis as well as to indirect monitoring via the prime brokers.

87) It would be desirable that all other Member States as well as the US adopt a comparable set of measures. Indeed, hedge funds can add to the leverage of the system and, given the scale at which they can operate, should a problem arise, the concentrated unwinding of their positions could cause major dislocation.

88) There is a need for greater transparency since banks, the main lenders to hedge funds, and their supervisors have not been able to obtain a global view of the risks they were engaging in. At the very least, supervisors need to know which hedge funds are of systemically importance. And they should have a clear on-going view on the strategies, risk structure and leverage of these systemically important funds. This need for supervisory information requires the introduction of a formal authority to register these funds, to assess their strategies, their methods and their leverage. This is necessary for the exercise of macro-prudential oversight and therefore essential for financial stability.

89) Appropriate regulation in the US must also be redesigned for large investment banks and broker dealers when they are not organised as bank holding companies.

90) In this context, particular attention has to be paid to institutions which engage in proprietary trading to create value for their shareholders, i.e. investment banks and commercial banks who have engaged in these activities (that are not essentially different from some hedge funds). The conventional wisdom has been that light regulatory principles could apply to these because they were trading "at their own risk". Evidence has shown that the investment banks were subject to very thin capital requirements, became highly leveraged and then created severe systemic problems. These institutions, who as it turned out were subject to almost no control by the Securities and Exchange Commission, meant that no one had a view on their involvement with hedge funds and SPVs; nor had the competent authorities a view on the proprietary investments of these institutions in the US real estate sector.

91) While these institutions should not be controlled like ordinary banks, adequate capital requirements should be set for proprietary trading and reporting obligations should be applied in order to assess their degree of leverage. Furthermore, the wrong incentives that induced excessive risk taking (in particular because of the way in which bonuses are structured) must be rectified.

92) Where a bank actually owns a hedge fund (or a private equity fund), the Group does not believe that such ownership should be necessarily prohibited. It believes however that this situation should induce very strict capital requirements and very close monitoring by the supervisory authorities.

***Recommendation 7*: Concerning the parallel banking system the Group recommends to:**

- ***extend the regulatory net, in a proportionate manner, to all firms or entities conducting financial activities of a potentially systemic nature even if they have no direct dealings with the public at large;***

- ***improve transparency in all financial markets – and notably for systemically important hedge funds - by imposing, in all EU Member States and internationally, direct information requirements on hedge fund managers, concerning their strategies, methods and leverage, including their worldwide activities;***

- ***introduce appropriate capital requirements on institutions owning a hedge or private equity fund or being otherwise engaged in significant proprietary trading and to closely monitor such institutions.***

b) Securitised products and derivatives markets

93) The crisis has revealed that there will be a need to take a wide look at the functioning of **derivative markets**. The simplification and standardisation of most over-the-counter derivatives and the development of appropriate risk-mitigation techniques plus transparency measures could go a long way towards restoring trust in the functioning of these markets. It might also be worth considering whether there are any benefits in extending the relevant parts of the current code of conduct on clearing and settlement from cash equities to derivatives.

94) In the short-run, an important goal should be to reduce the counterparty risks that exist in the system. This should be done by the creation in the EU of at least one well-capitalised central clearing house for over-the-counter credit-default swaps (which would have to be simplified and standardized). This clearing house should be supervised by CESR and by the relevant monetary authorities, and notably the ECB (80% of the CDS market is denominated in euros)[5]. This is vital to realize the highly needed reduction from gross to net positions in counterparty risks, particularly in cases of default such as Lehman Brothers.

95) To restore confidence in securitized markets, it is important to oblige at the international level issuers of complex securities to retain on their books for the life of the instrument a meaningful amount of the underlying risk.

<u>Recommendation 8</u>: Concerning securitised products and derivatives markets, the Group recommends to:

- ***simplify and standardise over-the-counter derivatives;***
- ***introduce and require the use of at least one well-capitalised central clearing house for credit default swaps in the EU;***
- ***guarantee that issuers of securitised products retain on their books a meaningful amount of the issuance.***

c) Investment funds

i) Money market funds issues

Another area which deserves attention is the regulation of the investment fund industry. A small number of investment funds in the EU have faced temporary difficulties in meeting investor redemption demands because of the unexpected contraction of liquidity in previously highly liquid markets (e.g. asset backed commercial paper, short-term banking paper).

[5] Use of central bank money should be made for securities settlement, as proposed by Target 2 securities.

This episode highlights in particular the need for a common EU definition of money market funds, and a stricter codification of the assets in which they can invest in order to limit exposure to credit, market and liquidity risks.

ii) Custodian issues

The Madoff case has illustrated the importance of better controlling the quality of processes and functions in the case of funds, funds of funds and delegations of responsibilities. Several measures seem appropriate:

- delegation of investment management functions should only take place after proper due diligence and continuous monitoring by the "delegator";
- an independent depository should be appointed, preferably a third party;
- The depositary institution should remain responsible for safe-keeping duties of all the funds assets at all times, in order to be able to perform effectively its compliance-control functions. Delegation of depository functions to a third party should therefore be forbidden. Nevertheless, the depositary institution may have to use sub-custodians to safe-keep foreign assets. Sub-custodians must be completely independent of the fund or the manager. The depositary must continue to perform effective duties as is presently requested. The quality of this duties should be the object of supervision;
- delegation practices to institutions outside of the EU should not be used to pervert EU legislation (UCITS provides strict "Chinese walls" between asset management functions and depositary-safe-keeping functions. This segregation should be respected whatever the delegation model is used).

***Recommendation 9*: With respect to investment funds, the Group proposes to further develop common rules for investment funds in the EU, notably concerning definitions, codification of assets and rules for delegations. This should be accompanied by a tighter supervisory control over depositaries and custodians.**

IV. EQUIPPING EUROPE WITH A CONSISTENT SET OF RULES

96) While the above areas for regulatory repair are relevant for all major jurisdictions in the world, and should be addressed internationally, Europe suffers from an additional problem in comparison to all single jurisdictions: the lack of a consistent set of rules.

97) An efficient Single Market should have a harmonised set of core rules.

98) There are at least four reasons for this.

- a single financial market - which is one of the key-features of the Union - cannot function properly if national rules and regulations are significantly different from one country to the other;

- such a diversity is bound to lead to competitive distortions among financial institutions and encourage regulatory arbitrage;

- for cross-border groups, regulatory diversity goes against efficiency and the normal group approaches to risk management and capital allocation;

- in cases of institutional failures, the management of crises in case of cross-border institutions is made all the more difficult.

99) The present regulatory framework in Europe lacks cohesiveness. The main cause of this situation stems from the options provided to EU members in the enforcement of common directives. These options lead to a wide diversity of national transpositions related to local traditions, legislations and practices.

100) This problem has been well-identified since the very beginning of the single financial market process. But the solutions have not always met the challenges. The fundamental cause for this lack of harmonisation is that the level 1directives have too often left, as a political choice, a range of national options. In these circumstances, it is unreasonable to expect the level 3 committees to be able to impose a single solution. Even when a directive does not include national options, it can lead to diverse interpretations which cannot be eliminated at level 3 in the present legal set-up.

101) As has been pointed out above, most of these issues relate to the effectiveness of the single financial market more than to the crisis. But three observations can be made here: firstly, the mandate of this Group is not limited to recommendations directly related to the issues that have arisen in the crisis; secondly, a number of inconsistencies (different bankruptcy laws, different reporting obligations, different definitions of economic capital…) have compounded the problems of crisis prevention and management; thirdly, the crisis has shown that financial policy actions in one country can have detrimental effects on other countries. To avoid as much as possible spill-over effects and build the necessary trust, some institutionalised and binding arrangements are needed.

a) Examples of current regulatory inconsistencies

102) A few examples of excessive diversity can be stressed:

- the differences regarding the sectoral extent of EU supervision. Some EU countries have an extended definition of credit institutions (i.e. "établissements de crédit"), while other members have much more limited definitions. This is a source of problematic divergences between members that can lead to laxer supervision and regulatory arbitrage;
- reporting obligations are very diverse in the EU, some institutions -especially the non-listed ones- have no obligation to issue accounting reports. The transparency of the system is negatively affected by such differences;
- the definition of core capital differs from one Member State to another, with an impact in terms of communication. Some companies do not subtract goodwill from the definition of core capital;
- there are different accounting practices for provisions related to pensions. These differences create serious distortions in the calculation of prudential own funds in different nations;
- the directive on insurance mediation has led to highly divergent transpositions in the Member States. Some Member States have transposed the directive as it is with

almost no national additions, while others have complemented the directive with very extensive national rules. Given that the directive grants a single passport to insurance intermediaries, these different transpositions induce competition distortions;

- there is limited harmonisation of the way in which insurance companies have to calculate their technical provisions, which makes it difficult to compare the solvency standing of insurance companies across the Community;
- the differences in the definition of economic capital regarding financial institutions are striking within the EU (for example, the treatment of subordinated debt as core tier 1 is the object of different adaptations). This goes at the heart of the efficiency and the enforcement of the Basel directive on capital requirements;
- there is no single agreed methodology to validate risks assessments by financial institutions;
- there are still substantial differences in the modalities related to deposit insurance;
- there is no harmonisation whatsoever for insurance guarantee schemes.

103) This brief analysis, based on concrete examples, leads to the conclusion that keeping intact the "present arrangements" is not the best option in the context of the Single Market. All the options above pass the test of having a potential on financial stability.

b) The way forward

104) How to correct such a situation?

First of all, it must be noted that harmonisation is not an end in itself and that consistency does not need identical rules everywhere. There are national approaches that can be beneficial to the interested countries while not falling into the drawbacks mentioned above. National exceptions should be looked at with this in mind.

105) Furthermore, allowing a country, under appropriate circumstances, to adopt safeguards or regulatory measures stricter then the common framework should not be rejected. As long as agreed minimum core standards are harmonized and enforced, a country could take more restrictive measures if it considers they are domestically appropriate to safeguard financial stability. This should of course be done while respecting the principles of the internal market.

106) This being said the problem of regulatory inconsistencies must be solved at two different levels:

- the global level. Europe is part of a number of international arrangements (Basel committee…) and multi-lateral institutions (FSF…) that cannot be unilaterally changed by the EU. If and when some changes in those global rules appeared necessary, Europe should "speak with one voice" as we will mention in the global chapter;

- the European level. The European Institutions and the level 3 committees should equip the EU financial sector with a set of consistent core rules. Future legislation should be based, wherever possible, on regulations. When directives are used, the co-legislator should strive to achieve maximum harmonisation of the core issues.

Furthermore, a process should be launched to remove key-differences stemming from the derogations, exceptions and vague provisions currently contained in some directives (see chapter on supervision).

<u>Recommendation 10</u>: In order to tackle the current absence of a truly harmonised set of rules in the EU, the Group recommends that the Commission and the level 3 Committees should identify those national exceptions the removal of which would improve the functioning of the single financial market; reduce distortions of competition and regulatory arbitrage; or improve the efficiency of cross-border financial activity in the EU. Notwithstanding, a Member State should be able to adopt more stringent national regulatory measures considered to be domestically appropriate for safeguarding financial stability as long as the principles of the internal market and agreed minimum care standards are respected.

V. CORPORATE GOVERNANCE

107) This is one of the most important failures of the present crisis.

108) Corporate governance has never been spoken about as much as over the last decade. Procedural progress has no doubt been achieved (establishment of board committees, standards set by the banking supervision committee) but looking back at the causes of the crisis, it is clear that the financial system at large did not carry out its tasks with enough consideration for the long-term interest of its stakeholders. Most of the incentives – much of them being the result of official action – encouraged financial institutions to act in a shot-term perspective and to make as much profit as possible to the detriment of credit quality and prudence; interest rates were low and funding plentiful; the new accounting rules were systematically biased towards short-term performance (indeed these rules led to immediate mark-to-market recognition of profit without allowing a discount for future potential losses). As a result of all this, the long-term, "through the cycle" perspective has been neglected.

109) In such an environment, investors and shareholders became accustomed to higher and higher revenues and returns on equity which hugely outpaced for many years real economic growth rates. Few managers avoided the "herd instinct" – leading them to join the competitive race even if they might have suspected (or should have known) that risk premia were falling and that securitisation as it was applied could not shield the financial system against bad risks.

110) This is a sombre picture and not an easy one to correct; much of this behaviour was ingrained in the incentive structure mentioned above.

111) There should be no illusion that regulation alone can solve all these problems and transform the mindset that presided over the functioning (and downward spiral) of the system.

112) However, good, well-targeted measures could help mitigate or eliminate a number of misled incentives; the Group believes that several recommendations put forward in this report would be useful in this respect. They are:

- reform of the accounting system;
- a building-up of buffers in the form of dynamic provisioning or higher capital requirements in the good times;
- closing of regulatory gaps (e.g. off-balance sheet operations, oversight of hedge funds);
- an overhaul of the regulation of credit rating agencies.

113) The Group however wishes to stress two further aspects of corporate governance that require specific attention: remuneration and risk management.

Remuneration issues

114) The crisis has launched a debate on remuneration in the financial services industry. There are two dimensions to this problem: one is the often excessive level of remuneration in the financial sector; the other one is the structure of this remuneration, notably the fact that they induce too high risk-taking and encourage short-termism to the detriment of long-term performance. Social-political dissatisfaction has tended recently to focus, for understandable reasons, on the former. However, it is primarily the latter issue which has had an adverse impact on risk management and has thereby contributed to the crisis. It is therefore on the structure of remuneration that policy-makers should concentrate reforms going forward.

115) It is extremely important to re-align compensation incentives with shareholder interests and long-term, firm-wide profitability. Compensation schemes must become fully transparent. Industry has already come up with various sets of useful principles to try and achieve this. The principles agreed in 2008 by the Institute of International Finance, for example, are a first step.

116) Without dealing with remuneration in financial institutions that have received public support, nor impinging on the responsibility of financial institutions in this field, it seems appropriate to outline a few principles that should guide compensation policies. Such principles could include:

- the assessment of bonuses should be set in a multi-year framework. This would allow, say over five years, to spread out the actual payment of the bonus pool of each trading unit through the cycle and to deduct any potential losses occurring during the period. This would be a more realistic and less short-term incentivised method;
- these standards should apply not only to proprietary trading but also to asset managers;
- bonuses should reflect actual performance and therefore should not be "guaranteed" in advance.

117) Supervisors should oversee the adequacy of financial institutions' compensation policies. And if they consider that these policies conflict with sound underwriting practice, adequate risk management or are systematically encouraging short-term risk-taking, they should require the institutions concerned to reassess their remuneration policies. If supervisors are not satisfied by the measures taken they should use the possibility opened by pillar 2 of the Basel framework to require the financial institutions concerned to provide additional capital.

118) Of course the same guidelines should apply in relation to other financial institutions in order to avoid competitive distortions and loopholes. As suggested in the "global repair" chapter of this report, consistent enforcement of these measures at global level should be ensured to avoid excessive risk-taking.

***Recommendation 11*: In view of the corporate governance failures revealed by the current financial crisis, the Group considers that compensation incentives must be better aligned with shareholder interests and long-term firm-wide profitability by basing the structure of financial sector compensation schemes on the following principles:**

- ***the assessment of bonuses should be set in a multi-year framework, spreading bonus payments over the cycle;***
- ***the same principles should apply to proprietary traders and asset managers;***
- ***bonuses should reflect actual performance and not be guaranteed in advance.***

Supervisors should oversee the adequacy of financial institutions' compensation policies, require changes where compensation policies encourage excessive risk-taking and impose additional capital requirements under pillar 2 of Basel II in case no adequate remedial action is being taken.

Internal risk management

119) In many cases, risk monitoring and management practices within financial institutions have dramatically failed in the crisis.

120) In the future, the risk management function must be fully independent within the firms and it should carry out effective and not arbitrarily constrained stress testing exercises. Firms should organise themselves internally so that incentives are not too much tilted towards risk taking – neglecting risk control. To contribute to this, the Senior Risk Officer in an institution should hold a very high rank in the hierarchy (at management level with direct access to the board). Changes to remuneration structures will also be needed: effective checks and balances are indeed unlikely to work if those who are supposed to control risk remain under-paid compared to those whose job it is to take risks.

121) But all this must not be construed as exonerating issuers and investors from their duties. For issuers, transparency and clarity in the description of assets put on the market is of the essence as this report has often stressed; but investors and in particular asset managers must not rely (as has too often been the case) on credit rating agencies

assessments; they must conduct due diligence on their own; penalties should be enforced by supervisors when this is not applied. Supervisory control of firms' risk management should be considerably reinforced through rigorous and frequent inspection regimes.

<u>Recommendation 12</u>: With respect to internal risk management, the Group recommends that:

- ***the risk management function within financial institutions must be made independent and responsible for effective, independent stress testing;***
- ***senior risk officers should hold a very high rank in the company hierarchy, and***
- ***internal risk assessment and proper due diligence must not be neglected by over-reliance on external ratings.***

Supervisors are called upon to frequently inspect financial institutions' internal risk management systems.

VI. CRISIS MANAGEMENT AND RESOLUTION

122) As a general observation, it has been clearly demonstrated that the stakes are high for the State in a banking crisis because such a situation has the potential to jeopardise financial stability and the real economy. The crisis has also shown that crisis prevention, crisis management and crisis resolution tools should all be handled in a consistent regulatory framework.

123) Of course, crisis prevention should be the first preoccupation of national and EU authorities (see chapter on supervision). Supervisors should act as early as possible in order to address the vulnerabilities identified in a given institution, and use all means available to them to this effect (e.g. calling on contributions from shareholders, fostering the acquisition of the institution concerned by a stronger one). In this respect, the role of central banks which are by essence well placed to observe the first signs of vulnerability of a bank is of crucial importance. Therefore in countries where supervision is not in the hands of the central bank, a close collaboration must be ensured between supervisors and central banks. But crises will always occur and recent experiences in managing crises have shown that many improvements to the present system are called for.

a) Dealing with the moral hazard issue

124) "Constructive ambiguity" regarding decisions whether or not public sector support will be made available can be useful to contain moral hazard. However, the cure for moral hazard is not to be ambiguous on the issue of public sector involvement as such in crisis management. Two aspects need to be distinguished and require different treatment. On the one hand, a clear and consistent framework for crisis management is required with full transparency and certainty that the authorities have developed concrete crisis management plans to be used in cases where absence of such public sector support is likely to create uncertainty and threaten financial stability. On the other hand,

constructive ambiguity and uncertainty is appropriate in the application of these arrangements in individual cases of distressed banks[6].

b) Framework for dealing with distressed banks

125) In the management of a crisis, priority should always be given to private-sector solutions (e.g. restructuring). When these solutions appear insufficient, then public authorities have to play a more prominent role and the injection of public money becomes often inevitable.

126) As far as domestic national banks are concerned, crisis management should be kept at the national level. National supervisors know the banks well, the political authorities have at their disposal a consistent legal framework and taxpayers' concerns can be dealt with in the democratic framework of an elected government. For cross-border institutions at EU level, because of different supervisory, crisis management and resolution tools as well as different company and insolvency laws, the situation is much more complex to handle. There are inconsistencies between national legislation preventing an orderly and efficient handling of an institution in difficulty.

127) For example, company law provisions in some countries prevent in times of crisis the transfer of assets from one legal entity to another within the same group. This makes it impossible to transfer assets where they are needed, even though this may be crucial to safeguard the viability of the group as a whole. Another problem is that some countries place, in their national laws, emphasis on the protection of the institution while other countries attach a greater priority to the protection of creditors. In the crisis resolution phase, other problems appear: for example, the ranks of creditors are different from one Member State to the other.

128) The lack of consistent crisis management and resolution tools across the Single Market places Europe at a disadvantage vis-à-vis the US and these issue should be addressed by the adoption at EU level of adequate measures.

c) Deposit Guarantee Schemes

129) The crisis has demonstrated that the current organisation of DGSs was a major weakness in the EU banking regulatory framework[7]. The Commission recent proposal is an

[6] This approach is recommended by Charles Goodhart and Dick Schoenmaker, "Fiscal Burden Sharing in Cross Border Banking Crises", in International Journal of Central Banking, to be published early 2009.

[7] The crisis has demonstrated that the current organisation of deposit guarantee schemes was a major weakness in the EU banking regulatory framework. The Commission recent proposal is an important step to improve the current DGS-regime, as it strengthens harmonisation and improves the protection of depositors. However, the directive still leaves a large degree of discretion to member states, particularly in relation to funding arrangements, administrative responsibility and the role of DGS in the overall crisis management framework. Leaving these issues unresolved at EU-level implies that significant weaknesses remain in the DGS-framework, including inter alia:

– *Unsustainable funding* – the current lack of sophisticated and risk sensitive funding arrangements involves a significant risk that governments will have to carry the financial burden indented for the banks, or worse, that the DGS fails on their commitments (both of which illustrated by the Icelandic case). In particular, in relation to the any of the 43 European LFCIs identified earlier in the chapter, no current scheme can be expected to have the capacity to make reimbursements without involving public funds.

important step to improve the current regime, as it will improve the protection of depositors.

130) A critical element of this proposal is the requirement that all Member States apply the same amount of DGS protection for each depositor. The EU cannot indeed continue to rely on the principle of a minimum coverage level, which can be topped-up at national level. This principle presents two major flaws: first, in a situation where a national banking sector is perceived as becoming fragile, there is the risk that deposits would be moved to the countries with the most protective regime (thus weakening banks in the first country even further); second, it would mean that in the same Member State the customers of a local bank and those using the services of a third country branch could enjoy different coverage levels. As the crisis has shown, this cannot be reconciled with the notion of a well-functioning Single Market.

131) Another important element to be taken into account is the way in which the DGSs are funded. In this respect, the Group was of the view that preference should be given to schemes which are pre-funded by the industry. Such schemes are better to foster confidence and help avoiding pro-cyclical effects resulting from banks having to pay into the schemes at a time where they are already in difficulty.

132) Normally, pre-funded DGSs should take care in the future of losses incurred by depositors. Nonetheless, it is probable that for very large institutions, pre-funded mechanisms might not be sufficient to cover these guarantees. In order to preserve trust in the system, it should be made clear that in those cases pre-funded schemes would have to be topped-up by the State.

133) The idea of a pooled EU fund has been discussed by the Group, but has not been supported. The setting-up and management of such a fund would raise numerous political and practical problems. Furthermore, one fails to see the added-value that such a fund would have in comparison to national funds operating under well-harmonised rules (notably for coverage levels and the triggering of the scheme).

EU harmonization should not go as far either as laying down rules on the possible use of DGSs in the management of a crisis. It should not prohibit additional roles beyond the base task for a DGS to act ex post, in the crisis resolution phase, as a pay box by reimbursing the guaranteed amount to depositors in a defaulted bank. Most member countries limit their national DGS to this pay box function. Some countries, however, extend the activities by giving their DGS also a rescue function. The Group did not see any need for EU harmonization in this respect.

134) There is a specific case (of the Icelandic type) when a supervisory authority allows some of its banks to mushroom large branches in other EU countries, whilst the home

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– *Limited use in crisis management* – Even if DGS' had that capacity, the pay box nature of most schemes makes it unlikely that they ever will be utilised for LFCIs, because of the large externalities associated with letting such institutions fail.

– *Negative effects on financial stability* – reliance on ex-post funding and lack of risk sensitive premiums weakens market discipline (moral hazard), distort the efficient allocation of deposits, as well as it may be a source of pro-cyclicality.

Obstacle to efficient crisis management – due to incompatible schemes (trigger points, early intervention powers etc.) and diverging incentives among member.

Member State is not able to honour the deposit guarantee schemes which are inadequate for such exposures. The guarantee responsibilities then *de facto* fall into the jurisdiction of the host country. This is not acceptable and should at least be addressed, for example, in the following way: the host Member State should have the possibility to inquire whether the funds available in the DGS of the home Member State are indeed sufficient to protect fully the depositors of the host Member State. Should the host Member State not have sufficient guarantees that this is indeed the case, the only way to address this kind of problem is to give sufficient powers to the host supervisory authorities to take measures that would at the very beginning curtail the expansive trends observed.

135) The Group has not entered into the specifics of the protection of policy-holders and investors. It nevertheless considers that the above general principles, and in particular the equal protection of all customers in the Single Market, should also be implemented in the insurance and investment sectors.

d) Burden sharing

136) The issue of burden sharing in cases of crisis resolution is extremely complicated for three reasons. First, it is more difficult to agree on burden sharing between countries in cases of large cross-border banks than for domestic banks. Second, cases where financial support from both public sector and private sector is needed to reach an acceptable solution are more complex than rescues where either private or public money is involved. Third, agreement on burden sharing on an *ex post* basis, at the moment of the rescue operation, is more difficult to reach than when one can rely on predetermined, *ex ante* arrangements.

137) As noted above, the current lack of pan-EU mechanism to resolve a crisis affecting a cross-border group implies that there is no choice but to resolve this crisis at national entity-level or to agree on improvised cross-border solutions. The lack of a financing mechanism to support the resolution of a cross-border group further complicates the situation.

138) On the basis of the experiences learnt from the crisis, the Group believes that the Member States should become able to manage a crisis in a more adequate way than is feasible today. There would be merit, in order to achieve this, in developing more detailed criteria on burden sharing than the principles established in the current Memorandum of Understanding (MoU), which limits the sharing of a fiscal burden to two main principles: the economic impact of the crisis on the Member States concerned (equity principle) and the allocation of home/host supervisory powers (accountability principle).

139) Burden sharing arrangements could, in addition, include one of the following criteria, or a combination thereof:

- the deposits of the institution,

- the assets (either in terms of accounting values, market values or risk-weighted values) of the institution,

- the revenue flows of the institution,

- the share of payment system flows of the institution,

- *the division of supervisory responsibility; the Party responsible for supervisory work, analysis and decision being also responsible for an appropriately larger share of the costs.*

140) These criteria would preferably be implemented by amending the 2008 MoU. Where needed, additional criteria could be agreed.

<u>Recommendation 13</u>: The Group calls for a coherent and workable regulatory framework for crisis management in the EU.

In this context:

- ***without pre-judging the intervention in future individual cases of distressed financial institutions, a transparent and clear framework for managing crises should be developed;***
- ***all relevant authorities in the EU should be equipped with appropriate and equivalent pre-crisis and crisis intervention tools;***
- ***legal obstacles which stand in the way of using these tools in a cross-border context should be removed, with adequate measures to be adopted at EU level.***

<u>Recommendation 14</u>: Harmonised Deposit Guarantee Schemes (DGS) in the EU should preferably be pre-funded by the private sector (in exceptional cases topped up by the State) and provide high, equal protection to all bank customers throughout the EU.

The principle of high, equal protection of all customers should also be implemented in the insurance and investment sectors.

<u>Recommendation 15</u>: In view of the absence of an EU-level mechanisms for financing cross-border crisis resolution efforts, Member States should agree on more detailed criteria for burden sharing than those contained in the existing Memorandum of Understanding (MoU) and amend the MoU accordingly.

CHAPTER III: EU SUPERVISORY REPAIR

I. INTRODUCTION

141) The previous chapter proposed changes to the European regulation of financial services. This chapter examines the policies and practices of supervision of financial services within the EU and proposes both short and longer term changes. Regulation and supervision are interdependent: competent supervision cannot make good failures in financial regulatory policy; but without competent and well designed supervision good regulatory policies will be ineffective. High standards in both are therefore required.

Macro and Micro prudential supervision

142) The experience of the past few years has brought to the fore the important distinction between micro-prudential and macro-prudential supervision. Both are clearly intertwined, in substance as well as in operational terms. Both are necessary and will be covered in this chapter.

143) Micro-prudential supervision has traditionally been the centre of the attention of supervisors around the world. The main objective of micro-prudential supervision is to supervise and limit the distress of individual financial institutions, thus protecting the customers of the institution in question. The fact that the financial system as a whole may be exposed to common risks is not always fully taken into account. However, by preventing the failure of individual financial institutions, micro-prudential supervision attempts to prevent (or at least mitigate) the risk of contagion and the subsequent negative externalities in terms of confidence in the overall financial system.

144) The objective of macro-prudential supervision is to limit the distress of the financial system as a whole in order to protect the overall economy from significant losses in real output. While risks to the financial system can in principle arise from the failure of one financial institution alone if it is large enough in relation to the country concerned and/or with multiple branches/subsidiaries in other countries, the much more important systemic risk arises from a common exposure of many financial institutions to the same risk factors. Macro-prudential analysis therefore must pay particular attention to common or correlated shocks and to shocks to those parts of the financial system that trigger contagious knock-on or feedback effects.

145) Macro-prudential supervision cannot be meaningful unless it can somehow impact on supervision at the micro-level; whilst micro-prudential supervision cannot effectively safeguard financial stability without adequately taking account of macro-level developments.

The objective of supervision

146) The prime objective of supervision is to ensure that the rules applicable to the financial sector are adequately implemented, in order to preserve financial stability and thereby to ensure confidence in the financial system as a whole and sufficient protection for the customers of financial services. One function of supervisors is to detect problems at an

early stage to prevent crises from occurring. However, it is inevitable that there will be failures from time to time, and the arrangements for supervision have to be seen with this in mind. But once a crisis has broken out, supervisors have a critical role to play (together with central banks and finance ministries) to manage the crisis as effectively as possible to limit the damage to the wider economy and society as a whole.

147) Supervision must ensure that all supervised entities are subject to a high minimum set of core standards. When carrying-out their duties, supervisors should not favour a particular institution, or type of institution, to the detriment of others. Competition distortions and regulatory arbitrage stemming from different supervisory practices must be avoided, because they have the potential of undermining financial stability – inter alia by encouraging a shift of financial activity to countries with lax supervision. The supervisory system has to be perceived as fair and balanced. Furthermore, a level playing field is vital for the credibility of supervisory arrangements, their acceptance by market operators big and small and for generating optimal cooperation between supervisors and financial institutions. This is of particular importance in the context of the Single Market, built as it is, *inter alia*, on the principles of undistorted competition, freedom of establishment and the free flow of capital. Confidence will be gained in the European Union from common approaches by all Member States.

148) The supervisory objective of maintaining financial stability must take into account an important constraint which is to allow the financial industry to perform its allocative economic function with the greatest possible efficiency, and thereby contribute to sustainable economic growth. Supervision should aim to encourage the smooth functioning of markets and the development of a competitive industry. Poor supervisory organisation or unduly intrusive supervisory rules and practices will translate into costs for the financial sector and, in turn, for customers, taxpayers and the wider economy. Therefore supervision should be carried-out as effectively as possible and at the lowest possible cost. This, again, is crucial if the Single Market is to deliver all its benefits to customers and companies.

II. LESSONS FROM THE CRISIS: WHAT WENT WRONG?

149) Chapter 1 examined in detail the causes of the crisis. These were many; often with a global dimension. Although the way in which the financial sector has been supervised in the EU has not been one of the primary causes behind the crisis, there have been real and important supervisory failures, from both a macro and micro-prudential standpoint. The following significant problems have come to light:

a) Lack of adequate macro-prudential supervision

150) The present EU supervisory arrangements place too much emphasis on the supervision of individual firms, and too little on the macro-prudential side. The fact that this failing is duplicated elsewhere in the world makes it a greater, not a lesser, issue. The Group believes that to be effective macro-prudential supervision must encompass all sectors of finance and not be confined to banks, as well as the wider macro-economic context. This oversight also should take account of global issues. Macro-prudential supervision requires, in addition to the judgements made by individual Member States, a judgement to be taken at EU level. The Group believes that this requires that an Institution at EU

level be entrusted with this task. It recommends that the ECB/ESCB[8] be explicitly and formally charged with this responsibility in the European Union.

b) Ineffective Early Warning mechanisms

151) Insofar as macro-prudential risks were identified (and there was no shortage of comments about worrying developments in both macroeconomic imbalances and the lowering price of risk, for example) there was no mechanism to ensure that this assessment of risk was translated into action. The Group believes, if the responsibility it proposes to be given to the ECB/ESCB is to work, that there must be an effective and enforceable mechanism to check that the risks identified by the macro-prudential analysis have resulted in specific action by European and national supervisors. The Group therefore recommends a formal and binding process to give teeth to this.

c) Problems of competences

152) There have been a significant number of instances of different types of failure in the supervision, by national supervisors, of particular institutions, i.e. in their oversight duties supervisors failed to perform to an adequate standard their responsibilities. One of these instances – the supervision of Northern Rock by the UK Financial Services Authority – has been examined in detail, but other, less well documented examples (e.g. IKB, Fortis) should be as well. The Group believes there is advantage in analysing and publishing the circumstances of those failures, so that lessons can be learnt and future supervisory behaviour improved. Although the Group does not believe that any system can avoid errors of judgment occurring, it considers that the supervisory experience of the crisis points to the need for well staffed, experienced and well trained supervisors in all Member States, and the Group accordingly makes recommendations designed to achieve this.

d) Failures to challenge supervisory practices on a cross-border basis

153) The present processes and practices for challenging the decisions of a national supervisor have proven to be inadequate; for example the embryonic peer review arrangements being developed within the level 3 committees proved ineffective. At present (and until any practical arrangements for supervision on an EU basis are both agreed in principle and translated into practice), extensive reliance is and will be placed on the judgements and decisions of the home supervisor. This is particularly important when a financial institution spreads its activities into countries other than its home base by branching from its home country. This can, as occurred with the Icelandic banks, create significant risks in countries other than that of the home regulator, yet the ability of the host countries affected to challenge the decisions of the home regulator do not sufficiently recognise these risks.

154) The Group believes that an effective means of challenging the decisions of the home regulator is needed, and therefore makes recommendations designed both to achieve a step change in the speed and effectiveness of the present arrangements for peer review (which are at a very early stage of development), and to give force to a considered decision (if arrived at), that a home regulator has not met the necessary supervisory

[8] ESCB is the European System of Central Banks. It includes all the national central banks of the EU.

standards. The Group considers that a binding mediation mechanism is required to deal with such cross-border supervisory problems. Without such an effective and binding mechanism, pressure will build up and some Member States might in the future try to limit the branching activities of any firm supervised by a supervisor which has been judged to have failed to meet the standards. Such fragmentation would represent a major step backwards for the Single Market.

155) Equally, the Group believes that an effective mechanism is needed to allow home supervisors to challenge decisions made by host supervisors.

e) Lack of frankness and cooperation between supervisors

156) As the crisis developed, in too many instances supervisors in Member States were not prepared to discuss with appropriate frankness and at an early stage the vulnerabilities of financial institutions which they supervised. Information flow among supervisors was far from being optimal, especially in the build-up phase of the crisis. This has led to an erosion of mutual confidence among supervisors. Although the Group recognises the issues of commercial confidentiality and legal constraints involved in candid discussions, it believes that much more frank exchange of information is called for and makes recommendations to achieve this.

f) Lack of consistent supervisory powers across Member States

157) There are substantial differences in the powers granted to national supervisors in different Member States, both in respect of what they can do by way of supervision and in respect of the enforcement actions open to them when a firm is in breach of its duties. The Group recommends an urgent review of these differences in powers and subsequent action to bring all supervisors up to a high level minimum standard. This will involve substantial increase in the powers of a number of European supervisors.

g) Lack of resources in the level 3 committees

158) The resources available to the level 3 committees severely limited the work which they could undertake, and their speed of reaction. This, combined with the heavy workload required of them in implementing the Financial Services Action Plan, meant that they were unable to perform very much either by way of peer review or by way of identifying sector wide risk issues. The Group therefore believes that the resources available to the three committees should be significantly increased, and makes recommendations to that end.

h) No means for supervisors to take common decisions

159) There are a number of reasons why the level 3 committees have been unable to contribute to the effective management of the crisis, notably their inability to take urgent decisions. For example, they were not able to agree and implement common decisions in relation to money-market funds or short-selling. The basic reason for this problem is that the level 3 committees do not have the legal powers to take decisions. As a consequence, they understandably have failed to develop either the reflexes or the procedures needed to respond rapidly to the emerging crisis. If their legal powers are expanded, changes in both will be required.

160) The above diagnosis is of course easy to establish with hindsight. It is not the Group's intention to blame the supervisory community in the EU for a crisis which is the result of the interaction of a number of complex and global factors – many of which (i.e. global imbalances, excess liquidity, too low interest rates…) were beyond the remit of micro-prudential supervisors. We should also recognize that some regulation applied by supervisors played a negative role in fuelling the crisis. In the previous chapter on regulation, we noted that some "public" regulation may well have aggravated things, generated perverse effects and contributed to the excesses of securitisation. In addition, in some instances, the absence of clarity of some rules (e.g. pillar 2 of Basel) led supervisors to be passive, rather than pro-active.

161) It remains however the case that the evidence clearly shows that the crisis prevention function of supervisors in the EU has not been performed well, and is not fit for purpose.[9]

162) This chapter will not enter into the details of recent trends that have resulted in an increasingly integrated European financial market (see annex 3) nor into the description of the present supervisory arrangements (see annex 4).

163) What is proposed here is basically a new structure to make European supervision more effective and so improve financial stability in all the member countries of the EU. There are two elements to this: strengthening the quality of both national supervision and European supervision. The evidence given to the" Group by the level 3 committees was clear that, under their existing mandate as advisory committees to the Commission and with their present working methods, their ability to develop their work further will be severely constrained.

III. WHAT TO DO: BUILDING A EUROPEAN SYSTEM OF SUPERVISION AND CRISIS MANAGEMENT

A) The role of the ECB

164) A number of people, including representatives of the ECB, have suggested that the ECB could play a major role in a new European supervisory system in two respects: a role in macro-prudential supervision and a role in micro-prudential supervision.

165) In the area of macro-prudential supervision, the suggested responsibilities could cover financial stability analysis; the development of early warning systems to signal the

[9] This general statement does not reflect the fact that some banks in the EU fared better than others. Was this related to differences in national supervision? It could be that some banks' supervisors had a more "prudent" approach than others (see for example the Spanish approach to off-balance sheet transactions which was the most rigorous and also their requirement for dynamic provisioning which provided cushions to the banks when the crisis erupted). It could be also that some financial institutions had developed, by tradition, better internal controls and risk management which led, for example, to a more cautious behaviour to securitisation than had been the case in others (the US investment bank model was less used by EU banks). Those European banks which held to the universal banking model have been to some extent better protected although a number of them, in their investment capacities, were caught by buying toxic securities.

All this shows that the context in which the crisis developed is complex and that there is no single explanation.

emergence of risks and vulnerabilities in the financial system; macro-stress testing exercises to verify the degree of resilience of the financial sector to specific shocks and propagation mechanisms with cross-border and cross-sector dimensions; as well as the definition of reporting and disclosure requirements relevant from a macro-prudential standpoint.

166) In the area of micro-prudential supervision, the views have been put forward to the Group that the ECB could become responsible for the direct supervision of cross-border banks in the EU or only in the euro zone. This could cover all cross-border banks or only the systemically important ones. In such a scenario, the competences, currently assigned to national supervisory authorities, would be transferred to the ECB which would, *inter alia*, licence the institutions concerned, enforce capital requirements, carry-out on-site inspections.

167) Alternatively, the ECB could be granted a leading oversight and coordination function in the micro-supervision of cross-border banks in the EU. Whilst the colleges composed of national supervisors would continue to directly supervise cross-border banks, the ECB could play a binding mediation role to resolve conflicts between national supervisors, define supervisory practices and arrangements to promote supervisory convergence and become responsible for regulation related to issues such as pro-cyclicality, leverage, risk concentration or liquidity mismatch.

168) These ideas have been carefully appraised by the Group. In summary, the Group has reacted with caution, and to some extent, concern about these proposals as far as they relate to micro-prudential supervision. Several arguments have been put forward:

- the ECB is primarily responsible for monetary stability. Adding micro-supervisory duties could impinge on its fundamental mandate;

- in case of a crisis, the supervisor will be heavily involved with the providers of financial support (typically Ministries of Finance) given the likelihood that tax payers money may be called upon. This could result in political pressure and interference, thereby jeopardising the ECB's independence;

- giving a micro-prudential role to the ECB would be extremely complex because in the case of a crisis the ECB would have to deal with a multiplicity of Member States Treasuries and supervisors;

- conferring micro-prudential duties to the ECB would be particularly difficult given the fact that a number of ECB/ESCB members have no competence in terms of supervision;

- conferring responsibilities to the ECB/Eurosystem which is not responsible for the monetary policy of a number of European countries, would not resolve the issue of the need for a comprehensive, integrated system of supervision;

- finally, the ECB is not entitled by the Treaty to deal with insurance companies. This could entail legal and practical problems if Europe were, as many think it should, to move towards more cross-sectoral supervision to deal effectively with financial conglomerates.

169) For all these reasons, the Group takes the view that the ECB should not become responsible for the micro-supervision of financial institutions. However, the Group considers that the ECB should be tasked with the role in ensuring adequate macro-prudential supervision in the EU.

B) Macro-prudential supervision: the case for reform

170) A key lesson to be drawn from the crisis, as noted above, is the urgent need to upgrade macro-prudential supervision in the EU for all financial activities.

171) Central banks have a key role to play in a sound macro-prudential system. However, in order for them, and in particular the ECB/ESCB, to be able to fully play their role in preserving financial stability, they should receive an explicit formal mandate to assess high-level macro-financial risks to the system and to issue warnings where required.

172) Within the EU, the ECB, as the heart of the ESCB, is uniquely placed for performing this task: i.e. identifying those macro-prudential risks which all national supervisors should take account of. The ECB/ESCB therefore should be able to require from national supervisors all the information necessary for the discharge of this responsibility.

173) In view of the integrated financial market in the EU and the geographical distribution of financial activities, it is essential that within the ESCB all national central banks are associated to this process, not merely those of the euro area.

174) This could be achieved in the following way. A new group, replacing the current Banking Supervision Committee (BSC) of the ECB, called the **European Systemic Risk Council (ESRC)** should be set up under the auspices and with the logistical support of the ECB. Its task will be to decide on macro-prudential policy, risk warnings, compare observations on macro-economic and prudential developments and give direction on these issues.

175) As the responsibility of conducting macro-prudential supervision is proposed to be allocated to the ECB/ESCB, it is logical to compose the ESRC with the central banks of the ESCB. It would therefore be composed of the ECB/ESCB General Council (composed of the President of the ECB, the vice-president of the ECB and the Governors of the 27 central banks), plus the Chairpersons of CEBS, CEIOPS and CESR and the European Commission. The President of the ECB would chair the ESRC.

176) But given the importance of having this group interact closely with those supervisors who are not part of central banks, it should be clearly stated that whenever the subject discussed justifies wider presence of insurance and securities supervisors (as well as banking supervisors for those countries where banking supervision is carried-out outside the central bank), it would be assured. This would be facilitated if up to two high-level alternates to the central bank Governors were nominated.

177) The ESRC should be supported by a secretariat provided by the ECB.

178) For a new system of macro-prudential supervision to work effectively, two main conditions must be met:

- A proper flow of information between national supervisors and the ECB/ESCB must be mandatory. Appropriate procedures will have to be put in place so that all relevant information can be transmitted to the ECB/ESCB in a way which guarantees confidentiality. In this context, ECB/ESCB staff could be invited to attend meetings - and ask questions- between supervisors and the systemically important financial groups in order to receive first-hand relevant information. ECB/ESCB staff could be invited to participate in the relevant colleges of micro-prudential supervisors. But the ECB/ESCB would not be responsible for micro-prudential supervision.

- It is crucial that there is an effective early warning mechanism as soon as signs of weaknesses are detected in the financial system. And a graduated risk warning framework for ensuring that, in the future, the identification of risks translates into appropriate action.

179) Depending on the nature of the risks detected, a proper action has to be taken by the relevant EU authorities. Different types of actions could be required. For example:

- if credit expansion appeared to become excessive in one or several member countries, the ESRC would liaise with the relevant central bank (and/or banking supervisor), give advice on the appropriate measures to be taken (tightening monetary policy, triggering dynamic provisions…). Central banks would be expected to take into account the findings of the ESRC. If the ESRC has issued a specific risk warning calling for a response by national supervisors, the ESRC should review their responses, and, if necessary, indicate whether and what further action it judged necessary, by reporting to the Economic and Financial Committee (EFC), on the basis described below;

- if the issue is more related to a global dysfunction of the system (e.g. too high maturity transformation, abuse of off-balance sheet transactions, abuse of regulatory arbitrage by non-banks), the ESRC would have to warn the global supervisory system (see chapter 4 on global repair) in order to define appropriate and coherent actions at both the EU and global levels. If the problems pertain to prudential issues in the EU, then the level 3 committees should be required to address them;

- If the concerns were related to fiscal matters (e.g. excessive deficits or the accumulation of debt), the ESRC would immediately relate to the EFC.

180) As soon as the risks detected would appear to have a potentially serious negative impact on the financial sector or the economy as a whole, the ESRC should inform the Chairman of EFC. In such circumstances, the EFC, working with the Commission, could play an essential role by developing an action-oriented strategy to deal with serious risks requiring political or legislative action. It must be clear to everyone who should act and according to which timetable. Furthermore, a process should be established to regularly evaluate the effectiveness of the supervisory/regulatory actions that have been agreed and decide whether other actions are necessary. A "rendez-vous clause" should be set to check that the actions taken have actually been effective. It would be the responsibility of the Chairman of the EFC to decide if and when the EFC (in its full composition, i.e. with the central banks) or the ECOFIN Council should be informed or associated in the deliberations. The EFC should also advise on how to relate

with the European Parliament and on whether the information needs to be made public – which can be helpful in certain circumstances.

<u>Recommendation 16</u>: A new body called the European Systemic Risk Council (ESRC), to be chaired by the ECB President, should be set up under the auspices and with the logical support of the ECB.

- ***The ESRC should be composed of the members of the General Council of the ECB, the chairpersons of CEBS, CEIOPS and CESR as well as the European Commission. High-level alternates to the central bank Governors should take part in the discussions, in particular when insurance or securities markets issues are discussed.***
- ***The ESRC should pool and analyse all information, relevant for financial stability, pertaining to macro-economic conditions and to prudential developments in all the financial sectors.***
- ***A proper flow of information between the ESRC and the micro-prudential supervisors must be ensured.***

<u>Recommendation 17</u>: an effective risk warning system shall be put in place under the auspices of the ESRC and of the EFC.

- ***The ESRC should issue macro-prudential risk warnings: there should be mandatory follow up and, where appropriate, action shall be taken by the relevant competent authorities in the EU.***
- ***If the risks are of a serious nature, potentially having a negative impact on the financial sector or the economy as a whole, the ESRC shall inform the chairman of the Economic and Financial Committee (EFC). The EFC, working with the Commission, will then implement a strategy ensuring that the risks are effectively addressed.***
- ***If the risks identified relate to a global dysfunction of the monetary and financial system, the ESRC will warn the IMF, the FSF and the BIS in order to define appropriate action at both EU and global levels.***

C) Micro-supervision: moving towards a European System of Financial Supervision

181) After having examined the present arrangements and in particular the cooperation within the level 3 committees, the Group considers that the structure and the role bestowed on the existing committees are not sufficient to ensure financial stability in the EU and all its Member States. Although the level 3 committees have contributed significantly to the process of European financial integration, there are a number of inefficiencies which can no longer be dealt with within their present legal structure (i.e. as advisory bodies to the Commission).

This is why the Group proposes the establishment of a European System of Financial Supervision (ESFS).

182) The ESFS should constitute an integrated network of European financial supervisors, working with enhanced level 3 committees ("Authorities"). Therefore the ESFS would be a largely decentralised structure, fully respecting the proportionality and subsidiarity principles of the Treaty. So existing national supervisors, who are closest to the markets and institutions they supervise, would continue to carry-out day-to-day supervision and preserve the majority of their present competences (see annex 3).

183) But in order to be in a position to effectively supervise an increasingly integrated and consolidated EU financial market (and especially the large cross-border institutions, which pose systemic risks), the Authorities will carry-out a defined number of tasks that are better performed at the EU level. The supervisor of the home Member State will continue to function as the first point of contact for the firm, whilst the European centre should coordinate the application of common high level supervisory standards, guarantee strong cooperation with the other supervisors, and, as importantly, guarantee that the interests of host supervisors are properly safeguarded.

184) As far as cross-border institutions are concerned, the ESFS should continue to rely heavily on the colleges of supervisors to be introduced by the revised CRD and the Solvency 2 directives. However, these colleges of supervisors should be strengthened by the participation of representatives of the secretariat of the level 3 committees as well as of ECB/ESCB observers.

185) The ESFS must be independent from possible political and industry influences, at both EU and national level. This means that supervisors should have clear mandates and tasks as well as sufficient resources and powers. In order to strengthen legitimacy and as a counterpart for independence, proper accountability to the political authorities at the EU and national levels should be ensured. In short, supervisory work must be independent from the political authorities, but fully accountable to them10.

186) The ESFS must work with a common set of core harmonized rules and rely on high-quality and consistent information. This means proper, primary, timely information

[10] Based on various internationally recognised standards and codes (i.e. the G10 Basel Core Principles for Effective Banking Supervision (BCP), the IAIS Insurance Core Principles and the IOSCO Objectives and Principles of Securities Regulation), supervisory independence can be defined as a situation in which the supervisor is able to exercise its judgment and powers independently with respect to the enforcement of prudential and/or conduct of business rules, i.e. without being improperly influenced or overruled by the parties under supervision, the government, the Parliament, or any other interested third party. As such, the supervisory authority must be empowered and able to make its own independent judgements (e.g. with respect to licensing, on-site inspections, off-site monitoring, sanctioning, and enforcement of the sanctions), without other authorities or the industry having the right or possibility to intervene. Moreover, the supervisor itself must base its decisions on purely objective and non-discriminatory grounds. However, supervisory independence differs from central bank independence (i.e. in relation to monetary policy), in the sense that the government (usually the Finance minister) remains politically responsible for maintaining the stability of the financial system, and the failure of one or more financial institutions, markets or infrastructures can have serious implications for the economy and tax payer's money10. Consequently, the supervisory authority should operate within a certain scope of responsibilities and under an explicit delegation of powers in the form of legislation passed by

Parliament and the government should not exercise immediate powers on the supervisory authority and interfere directly in its day-to-day activities. Independence should be balanced and strengthened by proper accountability arrangements and transparency of the regulatory and supervisory process, consistent with confidentiality requirements. National authorities should however relinquish control mechanisms such as having government representatives, chairing or actively participating in the management board of the supervisory authority, or giving the government the right to intervene in the day-to-day operations of the supervisory authority. Their influence should be limited to the possibility of amending the legal framework, imposing long-run strategic goals, and monitoring performance, on the condition that this is done in an open and transparent manner.

exchange among all supervisors to enable complete assessment – from the national to European to global levels.

187) Finally, the ESFS should be neutral with respect to national supervisory structures: national supervisory structures have been chosen for a variety of reasons and it would be impractical to try to harmonise them – even though it may well be that the current trend could continue towards the emergence of a dual "twin peaks" system (banks and insurance companies being covered by the same authority and markets by another one).

IV. THE PROCESS LEADING TO THE CREATION OF A EUROPEAN SYSTEM OF FINANCIAL SUPERVISION

188) The goal set out above is an ambitious one. It will require important institutional, legislative and operational changes. It will also require the emergence of the broadest possible political consensus on the necessity to move in this direction and the steps that must be taken to do so. The Group hopes that all Member States will aspire to these changes. If not, a variable geometry approach based on the mechanisms of Enhanced Cooperation or an inter-governmental agreement provided for in the Treaty may be required.

189) The Group proposes a two stage confidence building process, to gradually strengthen the supervision of the European financial sector. The process should be as swift as possible, whilst giving sufficient time to all stakeholders involved to converge towards the goal of a strengthened and more integrated system.

190) Whilst the transformation of current EU supervisory arrangements lie at the very heart of this process, the Group considers that improvements in the organisation of supervision cannot be looked at in isolation from the rules which supervisors have to implement and from the crisis management and resolution arrangements that they have to implement (together with finance ministries) when needed. Regulation, supervision and crisis management/resolution arrangements are intertwined. They form a continuum. There is no point in converging supervisory practices, if the basic financial regulations remain fragmented. And it will be impossible to revamp the organisation of European supervision, without clarity as to how a crisis, should it break-out, will be managed and resolved by the relevant authorities.

191) The two stage process proposed below therefore brings together regulation, supervision and crisis management/resolution.

A) Stage 1 (2009-2010): Preparing for a European System of Financial Supervision

a) Preparing for the transformation of the level 3 committees into European Authorities.

192) The Commission, the Council and the Parliament should immediately start the necessary legislative work building a consensus to transform the level 3 committees into three

European Authorities: a European Banking Authority, a European Insurance Authority and a European Securities Authority. The actual transformation should be completed at the start of the second phase (see below).

Concurrently, work should start in the following areas:

b) Upgrading the quality of supervision

193) The Member States and the level 3 committees should, as a matter of urgency, find practical ways to strengthen the national supervisors. At national level, consideration should be given to the following issues: aligning supervisors' competences and powers on the most comprehensive system in the EU; increasing supervisors' remuneration; facilitating exchanges of personnel between the private sector and supervisory authorities; ensuring that all supervisory authorities implement a modern and attractive personnel policy. At European level, the level 3 committees should intensify their efforts in the areas of training and personnel exchanges to create a strong European supervisory culture.

194) The European Commission should carry-out, in cooperation with the level 3 committees, an examination of the degree of independence of all national supervisors. This examination should lead to concrete recommendations for improvement, including the ways in which national supervisory authorities are funded.

195) The level 3 committees should prepare the modalities with the ESRC for a legally binding mechanism, including for the transfer of information, whereby the identification of risks by the ESRC translates into expeditious regulatory, supervisory or monetary policy examination at EU level.

***Recommendation 18*: In a first stage, national supervisory authorities should be strengthened with a view to upgrading the quality of supervision in the EU.**

- ***Member States should give consideration to the following reforms: aligning supervisors' competences and powers on the most comprehensive system in the EU, increasing supervisors' remuneration, facilitating exchanges of personnel between the private sector and supervisory authorities, ensuring that all supervisory authorities implement a modern and attractive personnel policy.***
- ***The level 3 committees should intensify their efforts in the areas of training and personnel exchanges. They should also work towards the creation of a strong European supervisory culture.***
- ***The European Commission should carry-out, in cooperation with the level 3 committees, an examination of the degree of independence of all national supervisors. This should lead to concrete recommendations, including on the funding of national authorities.***

c) Moving towards harmonised rules, powers and sanctions

196) The European Institutions and the level 3 committees should initiate a determined and concerted effort to equip the EU financial sector with a consistent set of core rules by the beginning of 2013. A process should be set-up, whereby the key-differences in national legislation stemming from exceptions, derogations, additions made at national

level[11], or ambiguities contained in directives which: have a material impact on the market; are laxer than the minimum core standards; or which may induce competition distortions or regulatory arbitrage will be identified and removed. The European Commission should concentrate its first efforts on the main problems.

197) This may not lead to identical rules in every case. However, the core harmonised rules should be sufficiently comprehensive. To that effect, the level 3 committees will examine the differences that exist and propose to the Commission new or further developments of level 1 and level 2 rules (e.g. harmonisation of the sanctions regimes, definition of core capital rules, harmonisation in the areas of short-selling, controls for security settlement systems).

198) The European Institutions should also set in motion a process which will lead to far more consistent sanctioning regimes across the Single Market. Supervision cannot be effective with weak, highly variant sanctioning regimes. It is essential that within the EU and elsewhere, all supervisors are able to deploy sanctions regimes that are sufficiently convergent, strict, resulting in deterrence. This is far from being the case now[12]. The same exercise should be initiated with respect to supervisory powers. These also differ greatly from one Member State to another[13]. This cannot be conducive to coherent and effective supervision in the Single Market.

<u>Recommendation 19</u>: In a first stage, EU should also develop a more harmonised set of financial regulations, supervisory powers and sanctioning regimes.

- ***The European Institutions and the level 3 committees should initiate a determined effort to equip the EU with a far more consistent set of rules by the beginning of 2013. Key-differences in national legislation stemming from exceptions, derogations, additions made at national level or ambiguities contained in current directives should be identified and removed, so a harmonized core set of standards is defined and applied throughout the EU.***
- ***The European Institutions should set in motion a process leading to far stronger and consistent supervisory and sanctioning regimes in the Member States.***

d) Immediate strengthening of the level 3 committees

199) The level 3 committees should be subject to a number of changes which should be implemented rapidly:

i) Reinforcement of the resources of the these committees, to be able to employ more people, with a larger budget;

[11] A practice sometimes referred to as "goldplating".

[12] For example, sanctions in relation to insider trading range in the EU from several years of prison in one Member State to just a few thousands of euros in another.

[13] For the time being, for example, only 10 insurance supervisors are empowered to approve internal risk models; only 6 of them can increase capital requirements within firms ; and 2 of them are not empowered to grant licences.

ii) Development of the presently embryonic peer review processes within each committee, with a view to becoming binding mediation processes;

iii) Redefinition of their work and priorities to become more pro-active in identifying problems and proposing solutions. The use of qualified majority voting should be put into practice;

iv) Cooperation between the level 3 committees should be further intensified and codified.

e) Supervisory colleges

200) The present relatively restricted use of supervisory colleges should be expanded immediately. The Group believes that by the end of 2009 colleges for all major cross-border firms should be established in the EU. By mid-2009, the level 3 committees should make proposals for all major cross border financial firms within the EU to have supervisory colleges and they should define clear supervisory norms for them.

***Recommendation 20*: The level 3 committees should, as a matter of urgency:**

- ***benefit from, under the Community budget, a significant reinforcement of their resources;***
- ***upgrade the quality and impact of their peer review processes;***
- ***prepare the ground, including through the adoption of adequate supervisory norms, for the setting-up of supervisory colleges for all major cross-border financial firms in the EU by the end of 2009.***

f) Crisis management and resolution

201) The EU framework for crisis management and resolution should be modified to deal with a large scale cross-border bank in difficulty while preserving financial stability, ensuring the continuity of key banking services and minimising the costs of a resolution to the public. Because of different supervisory and crisis resolution tools, and entity-specific insolvency and company law environments, this is not the case currently. National authorities are left with no alternatives other than to use public money or ring fence assets in a cross-border bank and apply national resolution tools at entity level. This may threaten the 'survival' of a group. In this respect, Europe is clearly at a disadvantage vis-à-vis the US. Legislative changes covering in particular aspects of company and insolvency laws (e.g. winding-up, transferability of assets, bankruptcy), should be proposed by the Commission as soon as possible if the EU is to deal with future crises in a more effective and cost-efficient manner.

B) Stage 2 (2011-2012): Establishing the European System of Financial Supervision

a) Role of the new European Authorities

202) As early as possible during this second phase, the level 3 committees would be transformed legally into the three Authorities mentioned above.

203) These Authorities would continue to perform all the current functions of the level 3 committees (advising the Commission on regulatory and other issues, defining overall supervisory policies, convergence of supervisory rules and practices, financial stability monitoring, oversight of colleges).

204) National authorities would continue to remain responsible for the supervision of domestic institutions. Cross-border institutions would continue to be supervised by home and host supervisors. Disputes between home and host supervisors would be subject to decisions by the relevant Authority.

205) But, in addition, the new Authorities would carry-out a number of new, specific tasks which, in full conformity with the principle of subsidiarity, the Group considers would be more effectively carried-out at the European level. These tasks would be the following:

i) <u>In relation to cross-border institutions</u>:

- A legally binding mediation role, allowing the new Authorities to solve disputes between national supervisors. They should be able to, when no agreement can be found between the supervisors of a cross-border institution, take certain supervisory decisions directly applicable to the institution concerned (e.g. approval of risk internal models, capital add-ons, licence withdrawal, resolving disputes about different legal interpretations relating to supervisory obligations…);

- The designation of Group supervisors (in cases where the process laid down in the relevant directives has not led to an agreement on this question);

- The collection and making available all relevant information pertaining to cross-border institutions to the members of the college of supervisors;

- Staff from the Authorities could take part in on-site expectations carried out by national supervisors.

- The Authorities would ensure a true level playing-field for all cross-border institutions and facilitate the monitoring of the systemic threats they pose.

- The Authorities would be tasked to ensure the consistency of prudential supervision for all actors (and in particular between cross-border and smaller institutions), thereby avoiding the risk of unfair competition between supervised entities. To guarantee this, any financial institution (including purely domestic ones) should be able to submit complaints to the Authority when they consider that they suffer from any discrimination vis-à-vis a cross-border institution which has its home supervisor in another Member State;

- The prudential assessment of pan-EU mergers and acquisitions (in combination with the assessment made by the relevant Member States).

ii) <u>In relation to specific EU-wide institutions</u>:

- The Authority concerned would be responsible for the licensing and direct supervision of some specific EU-Wide institutions, such as Credit Rating Agencies and post-trading infrastructures.

iii) <u>In the area of regulation</u>:

- The Authorities should play a decisive role in the technical level 3 interpretation of level 1 and level 2 measures and in the development of level 3 technical standards. A legal mechanism should be put in place so as to ensure that, once an Authority has decided on a given interpretation (through guidance, recommendations etc), this interpretation becomes legally valid throughout the EU.

iv) <u>In relation to supervisory standards and practices</u>:

- The Authorities would be responsible for defining common supervisory practices and arrangements for the functioning of the colleges of supervisors;

- The Authorities should evaluate the organisation, processes, competences and independence of the national supervisory authorities through peer reviews. These evaluations should lead to concrete recommendations for improvements and should take place frequently, without any scruples;

- The Authorities would have a significant new responsibility of ensuring that all national supervisors meet necessary standards, by being able to challenge the performance by any national supervisor of its supervisory responsibilities, whether for domestic or cross-border firms, and to issue rulings aimed at ensuring that national supervisors correct the weaknesses that have been identified. In the event of the national supervisor failing to respond to this ruling, a series of graduated sanctions could be applied, including fines and the launch by the Commission of infringement procedures. In exceptional circumstances, where serious issues of financial stability are at stake, the Authorities should be able on a temporary basis to acquire the duties which the national supervisor is failing to discharge.

v) <u>In relation to macro-prudential issues</u>:

- The Authorities would have binding cooperation and information sharing procedures with the ESRC to allow the latter to perform its macro-prudential supervision task;

- The Authorities should create and lead groups of national supervisors to deal with specific events affecting several Member States (e.g. bankruptcy of a third country systemic group).

vi) <u>In the area of crisis management</u>:

- In crisis situations, the Authorities should have a strong coordinating role: they should facilitate cooperation and exchange of information between competent authorities, act as mediator when that is needed, verify the reliability of the

information that should be available to all parties and help the relevant authorities to define and implement the right decisions.

- Annex 5 to this chapter shows how supervisory competences could be shared between national supervisors and the Authorities.

vii) <u>In relation to international matters</u>:

- The Authorities would prepare (and in some cases could adopt) equivalence decisions pertaining to the supervisory regimes of third countries;

- They would represent the EU interests in bilateral and multilateral discussions with third countries relating to supervision.

b) Governance and budget of the new Authorities

206) From a governance standpoint, each Authority would have a board structure comprised of the highest-level representatives from national authorities. Their chairpersons and director generals should be full-time independent professionals. These professionals would be chosen and appointed by the board. This should not exclude recruiting an independent external personality of the highest calibre. In addition, the appointment of the chairs should be confirmed by the Commission, the Council of Ministers and the European Parliament and should be valid for a period of 8 years.

207) The Authorities' decisions would be taken collectively, through the board structure composed of the Heads of national supervisors, by qualified-majority. However, other arrangements could be considered when dealing with binding mediation cases (e.g. decisions by the chairpersons and director generals). The Authorities would have their own autonomous budget, which would have to be commensurate with their responsibilities.

208) The Authorities would have the highest degree of independence vis-à-vis the European institutions, which should in not interfere in the internal processes and decisions of the Authorities. However, the Authorities would be accountable to the Council, the European Parliament and the Commission. They should report formally to these three institutions on a frequent basis.

c) Crisis management and resolution

209) As soon as possible in this second phase, the legislative changes recommended in the previous chapter would need to enter into force in order to ensure that the EU becomes. An equal and high level of protection to all depositors, investors and policy-holders should be guaranteed, avoiding competition distortions between institutions and between sectors.

210) The changes recommended above are ambitious and will be complex to implement.

211) It is nevertheless vital to do so in order, in particular, to seriously tackle the issue of confidence that affects the present relationship between home and host countries. Recent developments in this crisis have strengthened this distrust. Fears of most countries have deepened in terms of the ability of their own supervisors to prevent crises, stop withdrawals by parent companies of liquidity held in local subsidiaries or branches. The

Group believes that the reforms described above could do a lot to reduce such suspicions and provide effective, practical and legally binding mechanisms to resolve disputes. We believe that this is probably the only way at this stage to combine the efficiency and needs of large groups on the one hand and the necessary safeguards for host countries on the other.

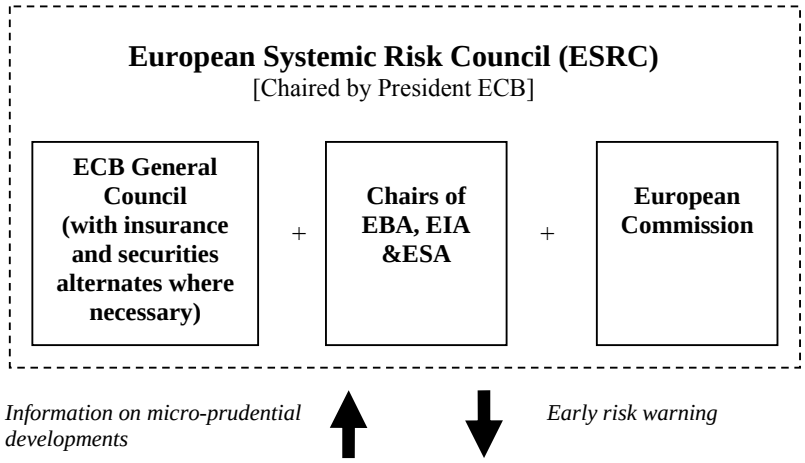
<u>Recommendation 21</u>: In a second stage, the EU should establish an integrated European System of Financial Supervision (ESFS).

- ***The level 3 Committees should be transformed into three European Authorities: a European Banking Authority, a European Insurance Authority and a European Securities Authority.***
- ***The Authorities should be managed by a board comprised of the chairs of the national supervisory authorities. The chairpersons and director generals of the Authorities should be full-time independent professionals. The appointment of the chairpersons should be confirmed by the Commission, the European Parliament and the Council and should be valid for a period of 8 years.***
- ***In addition to the competences currently exercised by the level 3 committees, the Authorities should have, inter alia, the following key-competences:***
  - ***i) legally binding mediation between national supervisors;***
  - ***ii adoption of binding supervisory standards;***
  - ***iii) adoption of binding technical decisions applicable to individual financial institutions;***
  - ***iv) oversight and coordination of colleges of supervisors;***
  - ***v) licensing and supervision of specific EU-wide institutions (e.g. Credit Rating Agencies, and post-trading infrastructures);***
  - ***vi) binding cooperation with the ESRC to ensure adequate prudential supervision.***
- ***National supervisory authorities should continue to be fully responsible for the day-to-day supervision of firms.***

212) The following diagram illustrates how the ESRC and the ESFS would interact with each other.

A new European Framework for Safeguarding Financial Stability

Macro-prudential supervision



Micro-prudential supervision

<u>Main tasks of the European Systemic Risk Council:</u> *decide on macro-prudential policy, provide early risk warning to EU supervisors, compare observations on macro-economic and prudential developments and give direction on these issues.*

<u>Main tasks of the Authorities:</u> *in addition to the competences of the existing level 3 committees, the Authorities would have the following key-competences: (i) legally binding mediation between national supervisors, (ii) adoption of binding supervisory standards, (iii) adoption of binding technical decisions applicable to individual institutions, (iv) oversight and coordination of colleges of supervisors, (v) licensing and supervision of specific EU-wide institutions (e.g., Credit Rating Agencies and post-trading infrastructures), (vi) binding cooperation with the ESRC to ensure adequate prudential supervision, and (vii) strong coordinating role in crisis situations.*

<u>Main tasks of national supervisors:</u> *continue to be fully responsible for day-to-day supervision of firms.*

V. REVIEWING AND POSSIBLY STRENGTHENING THE ESFS

213) The implementation of the arrangements described above will have to be monitored, and their effectiveness carefully assessed. A full-review should take place no later than three years after the entry into force of stage 2. Whilst it would be premature at this stage to make detailed recommendations as to how the ESFS could be strengthened beyond stage 2, the following observations can be made.

214) There may be merit, over time, in evolving towards a system which would rely on only two Authorities: The first would be responsible for banking and insurance issues, as well as any other issue which is relevant for financial stability (e.g. systemically important hedge funds, systemically important financial infrastructures). The second Authority would be responsible for conduct of business and market issues, across the three main financial sectors. Combining banking and insurance supervisory issues in the same Authority could result in more effective supervision of financial conglomerates and contribute to a simplification of the current extremely complex institutional landscape.

215) Furthermore, given the speed at which financial markets evolve, it is important to maintain a consistent set of technical rules applying to all financial firms. If it appeared, after the review mentioned above, that wider regulatory powers of horizontal application were needed, such a strengthening of the Authorities should be envisaged.

216) Concerning one idea, that often appears, suggesting the unification of all supervisory activities for cross-border institutions at the pan-EU level, the Group considers that this matter could only be considered if there were irrefutable arguments in favour of such a proposal. The complexities and costs entailed by such a proposal (which would result in a two-tier supervisory system) and its political implications are such that the Group is not in favour of it being implemented at this juncture. This scenario could become more viable, of course, should the EU decide to move towards greater political integration.

Recommendation 22: ***The functioning of the ESFS should be reviewed no later than 3 years after its entry into force. In the light of this review, the following additional reforms might be considered:***

- ***Moving towards a system which would rely on only two Authorities: the first Authority would be responsible for banking and insurance prudential issues as well as for any other issue relevant for financial stability; the second Authority would be responsible for conduct of business and market issues across the three financial sectors.***
- ***Granting the Authorities with wider regulatory powers of horizontal application.***

Recommendation 23*: The Group recommends that planning for the 2 stages of the new system be started immediately. To this effect, a group of high-level representatives of the Finance Ministries, the European Parliament, the Level 3 Committees, and the ECB to be chaired by the Commission, should come forward before the end of 2009 with a detailed implementation plan.*

CHAPTER IV: GLOBAL REPAIR

I. PROMOTING FINANCIAL STABILITY AT THE GLOBAL LEVEL

217) Although Europe was not at the root of the current financial crisis, it has nevertheless both contributed to it and been hit severely by it. Global economic and financial integration has by now reached a level where no country or region can any longer insulate itself from developments elsewhere in the world. This points to the need for a co-ordinated, global policy response not only in the area of financial regulation and supervision, but also in the macroeconomic and crisis management field.

218) Since the financial crisis has started to unfold, the EU has played a pro-active role in international efforts, trying to contain the economic fall-out from the financial crisis and to reform the international financial architecture. The EU was at the origin of the G20 process launched at the Washington Summit in November 2008 and is contributing to the political orientations agreed at that summit. However, beyond managing the current crisis, attention must now be devoted to drawing the lessons from the weaknesses of the current international financial architecture that have been revealed by the recent events.

219) A variety of international institutions and informal groups currently deal with financial regulatory and supervisory issues, often in a segmented way despite the interactions and risk transfers between different parts of the financial system.[14] However, at present there is an evident lack of a coherent framework for designing and enforcing minimum regulatory standards, for identifying risks to financial stability and for coordinating supervisory policies at the global level. Moreover, there are practically no arrangements for cross-border financial crisis management at the global level and for enforcement. What is needed now is a strengthened, more coherent and streamlined international financial regulatory and surveillance system, building on the better use of existing international institutions.

220) A start in addressing the weaknesses of the existing international financial architecture has been made at the G20 Summit in Washington on 15 November 2008. By agreeing on an action plan based on the need to strengthen transparency, to enhance sound regulation, to promote integrity in financial markets and to reinforce international cooperation, G20 leaders have set out the main priorities for the months and years to come. However, international cooperation will not work without a proper representation of the main players and key emerging market economies in each international organisation or body.

221) It is clearly in the EU's interest to try to shape the reform of the international financial architecture. The EU should take the lead by improving its own regulatory and supervisory system, which, necessary in its own right, is also required for international convergence. In other words, international convergence and agreement on high standards needs strong EU enforceability through strong EU institutions. The EU has,

[14] These include the Basel Committee on Banking Supervision, other Basel-based Committees such as the Committee on the Global Financial System and the Committee on Payment and Settlement Systems, the Bank for International Settlements, the Financial Stability Forum (FSF) as well as bodies like the International Organisation of Securities Commissions (IOSCO), the International Accounting Standards Board (IASB) and the International Association of Insurance Supervisors (IAIS).

after all, a large share of world capital markets. The EU's policy development should dovetail with international developments. Furthermore, convergence in international regulatory and supervisory standards would ensure a level playing field for the highly competitive globally integrated financial services sector.

II. REGULATORY CONSISTENCY

222) Chapter 2 of this report has set out the Group's recommendations for regulatory reform. While some of the required improvements specifically refer to the legislative framework in the EU, most of the recommended reforms either concern existing rules agreed at the international level (Basel II; international accounting standards) or new initiatives that should preferably be implemented internationally (e.g. the regulation of credit rating agencies, strengthened derivatives market rules or corporate governance rules). The EU has a clear interest in promoting worldwide consistency of regulatory standards towards the high level benchmarks.

223) Such moves towards to international consistency of regulatory standards will also avoid unacceptable regulatory loopholes and regulatory arbitrage which could undermine financial stability. It would moreover reduce the compliance burden associated with cross-border economic activity and avoid distortions of competition. Finally, seen from the point of view of public authorities, enhanced regulatory convergence would avoid regulatory friction between jurisdictions and facilitate the supervision of globally active firms.

224) International regulatory convergence towards a consistent set of rules could be promoted by pursuing two parallel avenues. Firstly, a strengthening and broadening of bilateral regulatory dialogues between the main financial centres. Secondly, a clear mandate, including precise objectives and timetables, for international standard-setters as currently discussed in the G20 context.

225) Who should be in charge of coordinating the international standard setting process? Given its experience and track record as a standard-setter in the field of banking, the Basel Committee would seem well placed to play an important role in developing adequate standards in some of the above-mentioned areas. However, as a number of international standard setters other than central banks are concerned by the regulation of the different aspects of financial activity, the Group considers that a reformed FSF would, in view of the broader range of its participants and expertise, be in the best position for coordinating the work of the various international standard setters in achieving international regulatory consistency.

226) However, the FSF in its current form would not be able to fulfil this task. It is therefore proposed to strengthen the FSF by providing it with more resources and a stronger governance structure (including a full-time chairperson). Moreover, the FSF should become more accountable by reporting to the IMF and, like other international standard-setters (e.g. Basel Committee) should enlarge its membership to all systemically important countries. Clearly, all international standard-setters will need to combine independence from political interference with political accountability. Furthermore, it will be essential to prepare such international financial standards transparently and in

close cooperation with market participants in order to be sufficiently close to market realities.

227) It would also be important to report regularly (at least once or twice a year) to the IMF's International Monetary and Finance Committee (IMFC) in order to maintain the political momentum and to ensure accountability. In this context, it would be advisable to activate the Articles of Agreement of the IMF in order to transform the IMFC into a decision making Council.

228) Over the medium term, thought might be given to establishing a full international standard-setting authority, established by a treaty. The objective should be to put in place an international standard setting process which would be binding on jurisdictions and which would ensure implementation and enforcement of international standards. This would have to be supplemented by providing the IMF with the tasks of surveying (in the framework of Article IV Reviews) the enforcement of these standards.

Recommendation 24: The Group recommends that, based on clear objectives and timetables, the Financial Stability Forum (FSF), in conjunction with international standard setters like the Basel Committee of Banking Supervisors, is put in charge of promoting the convergence of international financial regulation to the highest level benchmarks.

In view of the heightened role proposed in this report for the FSF, it is important that the FSF is enlarged to all systemically important counties and the European Commission. It should receive more resources and its accountability and governance should be increased by more closely linking it to the IMF.

The FSF should regularly report to the IMF's International Monetary and Financial Committee (which should be transformed into a decision making Council) about the progress made in regulatory reform implementing the lessons from the current financial crisis.

Recommendation 25: In its bilateral relations, the EU should intensify its regulatory dialogue with key financial partners.

III. ENHANCING COOPERATION AMONG MICRO-PRUDENTIAL SUPERVISORS

229) In order to address the serious supervisory failures experienced in the past, strengthened international collaboration in the supervision of large complex cross-border financial groups is of crucial importance. For this purpose, international **colleges of supervisors** should be set up before summer 2009 for all the largest financial institutions along the lines prepared by the FSF. Pragmatic solutions must be found on host supervisor involvement, striking the right balance between efficiency and adequate representations and information. As agreed by the G20 summit, major global banks should meet regularly and at least once per year with their supervisory college for comprehensive discussions on the assessment of their risks.

230) With a view to ensuring consistency and to identify potential systemic risks, in addition to the participation of macro- and micro-prudential authorities, the participation of an official from an international body like the Basel Committee in these colleges would be highly desirable. On this basis, best practices could also be identified and promoted and coherence could be ensured.

231) The emergence over the last few years of **financial giants** who are active in many different business segments throughout the world represents a particular supervisory challenge. This trend is likely to intensify as a result of the crisis (e.g. the merger between commercial banks and investment banks), as ailing institutions are being acquired by stronger and healthier ones.

232) These institutions pose specific challenges both for their managers and their supervisors: most frequently, increasing size goes hand in hand with increased complexity and increased cross-border activity. Such financial giants are so vast and complex that it is a huge challenge to assess in an adequate way the risks to which they are exposed or the risks that they may represent for the wider economy. Given their size and the structural function they have for the financial system as a whole, they are *"too big to fail"* – which means that they can expose the rest of society to major costs and are subject to acute moral hazard; in some instances, these institutions can even be "*too big to save*", for example when they are head-quartered in a relatively small country or when the organisation of a rescue package is simply too complex to implement. However, although this may be desirable in instances of excessive market dominance under anti-trust law, it is unlikely that large financial institutions will be broken up into component parts.

233) All this calls for a particularly stringent supervision of these institutions. Supervisors should be particularly attentive to them, step up international cooperation to ensure the best possible oversight and carry-out robust comprehensive risk assessments. The extent to which these institutions are leveraged and how they are funded should in particular be closely scrutinised on an on-going basis. Anti-trust authorities will also have to enhance their vigilance in relation to these institutions and be ready to take any appropriate measure.

234) Faulty risk management has played a key role in the run-up to the current crisis. International firm supervisors should therefore pay greater attention to banks' internal risk management practices and insist on proper stress tests.

235) In the light of the **corporate governance** weaknesses witnessed over the past few years, supervisors will also need to pay greater attention to the incentive effects of corporate remuneration schemes. Here as well, a common global approach would be optimal in order to avoid regulatory arbitrage. Supervisors should therefore agree on a common assessment of incentive alignment in financial institutions and apply such common criteria under pillar 2 of Basel II.

236) The IMF should play a significant role in surveying (in the framework of Article IV assessments) the enforcement by member countries of international standards.

<u>Recommendation 26</u>: The Group recommends that the colleges of supervisors for large complex cross-border financial groups currently being set up at the international level should carry out robust comprehensive risk assessments, should pay greater attention to banks' internal risk management practices and should agree on a common approach to promoting incentive alignment in private sector remuneration schemes via pillar 2 of Basel II.

The Financial Stability Forum (FSF), working closely with other relevant international bodies, should ensure coherent global supervisory practice between the various colleges and promote best practice.

IV. MACROECONOMIC SURVEILLANCE AND CRISIS PREVENTION

237) As has been described in chapter 1 of this report, international macroeconomic developments and global imbalances have played a major role in leading to the current crisis. While many were observing the emergence of at least some of these developments and imbalances, only few rang the alarm bells. While the lack of relevant aggregate data of a reliable nature admittedly rendered any such warnings less precise and thus less effective, this is no excuse for the fact that, where concerns were actually voiced, corrective action has been totally inadequate. Macroeconomic surveillance therefore needs to be significantly improved and needs to get more teeth.

238) The experience of the last few years has highlighted the importance of establishing a more robust macroeconomic framework for the global economy. To this end, the surveillance of macroeconomic policies, exchange rates and global imbalances needs to be reinforced. Central banks, on their side, should more closely monitor the growth in monetary and credit aggregates.

239) Beyond the strengthening of the IMF's existing macroeconomic surveillance mechanisms one of the priorities in crisis prevention should be the strengthening of international early warning mechanisms building on the swift identification of systemic vulnerabilities. A comprehensive early warning system, jointly run by the IMF and the FSF, could build on the existing analytical framework for bilateral and multilateral macroeconomic surveillance, but would have to give greater emphasis to macro-prudential concerns. The existing financial reviews are not designed to provide an assessment on macro-prudential risks or vulnerabilities ahead of crises. Drawing the lessons from the past, it will moreover be important to ensure that any effective early warning system is able to deliver clear and unambiguous messages to policymakers and recommend pre-emptive policy responses. The key failure in the past was not so much a lack of surveillance, although the messages emerging from the surveillance could have been sharpened, but a lack of policy action. Thus, the follow-up to any such financial system assessments needs to be strengthened significantly.

240) A comprehensive early warning system could also usefully be complemented by the creation of an international risk map and an international credit register. The purpose of such a **risk map** would be to build up a common data base containing relevant information on risk exposures of financial institutions and markets, both at the national and the international level. The risk map should contain all the information needed for

identifying systemic risks on a global scale. Clearly, in order to be effective, the risk map should go beyond the banking sector and include major other financial institutions like insurance companies and hedge funds. It should also include all major financial products. Subject to suitable rules for protecting confidentiality of firm-level data, such a risk map would close the information gap revealed in the current crisis and could become an essential tool for everybody interested in assessing risks to financial stability.

241) An international **credit register** could be instrumental when preparing, on a regular basis, a global financial risk map. Such a credit register, to be set up by the BIS in cooperation with other relevant bodies like national central banks and the IMF, would consist of a database compiling a coherent set of interbank and customer-specific credit data (above a certain threshold and collected at regular intervals) for the major creditors. It would therefore allow to better assess the risk exposure of key financial players. Complementing existing national credit registers, an international credit register, accompanied by a comparable securities register, would be a useful tool for all bodies concerned about assessing risks to financial stability.

242) The International Monetary Fund (IMF) is in principle uniquely placed for playing an over-arching role in ensuring high-quality macroeconomic and macro-prudential surveillance even if it may need to further deepen its analysis of financial market developments. The IMF has already, in collaboration with the FSF, undertaken substantial work on setting up an early warning system (including a possible early warning list) and on procedures for a future Early Warning Exercise (EWE). The purpose of such a EWE should be to increase peer pressure in order to trigger timely corrective action. The IMF, in cooperation notably with central banks, would also seem to be the international institution best suited for preparing a global risk map.

243) In addition, the IMF/World Bank FSAP should in the future become compulsory for all IMF member countries, based on a fixed schedule particularly for systemically important countries. It should be at the same level as macroeconomic surveillance and be fully integrated into the Art. IV consultation process. Furthermore, the FSAP results should be published and countries should be obliged to set out their reasons for not following IMF recommendations, similar to the "comply or explain" procedure now used in the EU's level 3 committees.

244) When reinforcing global early warning mechanisms concerning risks to financial stability, close cooperation between the IMF with its expertise in macro-prudential matters, the FSF and the BIS/Basel Committee with their knowledge of micro-prudential supervision will be required. These different tasks and warnings would be regularly reported to the IMFC or to the IMF Council as suggested above. Moreover, in order to build up an international credit risk map and credit register, market participants and national regulators will need to be involved.

245) However, allowing the IMF to play its full role in addressing global macroeconomic imbalances and in promoting financial stability will require a strong political will to accept its independent professional advice. Too often in the past, the IMF was hindered by the (large) member countries concerned either from undertaking the necessary analysis (e.g. Financial Sector Assessment Programme, FSAP) or from voicing publicly its concerns. It is therefore particularly important that the IMF reinforces its surveillance over systemically important countries in an even-handed manner and that member countries increase their commitment to implementing the IMF's precise policy

recommendations. Even acknowledging that there may always remain legitimate intellectual disagreements, the objective must be to effectively address domestic policies in systemically important member countries of the IMF which present a serious risk to the stability of the international economic and financial system. The IMF's recommendations – discussed and endorsed by the IMFC – should therefore become internationally shared macroeconomic policy objectives. In this context, the IMF could also usefully resume its multilateral consultations with key member countries.

246) As the experience of the last few years has demonstrated, analysis alone is not enough. Corrective action is required. Although a high-level ex ante political commitment to the implementation of IMF recommendations would help, more ambitious steps should be taken. In particular, when thrashing out the early warning system, thought should be given to the possibility of identifying "danger zones" for key variables, the entry of which would be to trigger the presumption of the need for intervention, thus reversing the "burden of proof".

Recommendation 27: ***The Group recommends that the IMF, in close cooperation with other interested bodies, notably the FSF, the BIS, central banks and the European Systemic Risk Council (ESRC), is put in charge of developing and operating a financial stability early warning system, accompanied by an international risk map and credit register.***

The early warning system should aim to deliver clear messages to policy makers and to recommend pre-emptive policy responses, possibly triggered by pre-defined "danger zones".

All IMF member countries should commit themselves to support the IMF in undertaking its independent analysis (incl. the Financial Sector Assessment Programme). Member countries should publicly provide reasons whenever they do not follow these recommendations.

247) Any efforts to reduce the risks to financial stability are in danger of being undermined by systemically relevant jurisdictions that refuse to use internationally agreed standards. The international community therefore has to deal with **jurisdictions that have weak regulatory and governance standards, lack transparency and are not cooperating in exchanging information, like certain offshore financial centres**. Leaving aside money laundering and tax issues, and focusing only on financial regulation, offshore financial centres can pose a risk to financial stability and also create a substantial level playing field problem: registration of financial institutions can be weak; initial capital requirements (for services to non-residents) are low; and supervision substandard or even inexistent.

248) In order to correct the associated risks to the global financial system, different measures have been proposed. These range from added financial statement disclosure rules (requiring the disclosure of off balance sheet structures on a jurisdiction by jurisdiction basis in a separate annex to the financial statement, accompanied by a risk statement for assets held in poorly regulated or otherwise uncooperative financial centres) to more far-reaching rules prohibiting regulated financial institutions from transacting with entities located in uncooperative jurisdictions.

249) Without judging the merits of these proposals at this time, the Group considers that, already today, group supervisors have the possibility of increasing capital requirements for those financial institutions that take higher risks by holding assets in poorly regulated financial centres or where supervisors feel hindered in getting pertinent information. Where necessary, these existing powers should be used to the full.

250) The effectiveness of these arrangements should be monitored on a regular basis under the auspices of the IMF. More generally, a transparent evaluation and benchmarking process should be set up by the IMF and the FSF, in cooperation with the World Bank, the FATF and the OECD, in order to regularly assess the regulatory framework in off-shore centres and other financial centres, the results of which would be made public.

Recommendation 28: ***The Group recommends intensifying co-ordinated efforts to encourage currently uncooperative jurisdictions to adhere to the highest level international standards and to exchange information among supervisors.***

In any event, in order to account for the increased risks, group supervisors should increase capital requirements for those financial institutions investing in or doing business with poorly regulated or supervised financial centres whenever they are not satisfied by the due diligence performed or where they are unable to obtain or exchange pertinent information from supervisors in these offshore jurisdictions.

The IMF and the FSF, in cooperation with other relevant international bodies, should assess the existing regulatory standards in financial centres, monitor the effectiveness of existing mechanisms of enforcing international standards and recommend more restrictive measures where the existing applied standards are considered to be insufficient.

V. CRISIS MANAGEMENT AND RESOLUTION

251) Even improved crisis prevention will not completely avoid crises from happening. However, the current crisis has revealed a lack of effective crisis management and coordination framework at the international level. There are no clear multilateral arrangements for coordinating national responses to financial crises. Furthermore, the difficulties in separating liquidity from solvency crises have again become apparent.

252) The experiences of the last twelve month have demonstrated the need for close coordination between supervisory, monetary and fiscal authorities. Effective information sharing and close cooperation are essential not only for efficient crisis management, but they are also indispensable for avoiding negative spillovers, distortions to competition and regulatory arbitrage.

253) In this context, strengthening the IMF's capacity to support countries facing balance of payment problems in a financial crisis is critical. The Fund currently has insufficient resources for assisting its members. EU Member States should therefore show their readiness to contribute to increasing IMF resources.

***Recommendation 29*: The Group recommends that EU Member States should show their support for strengthening the role of the IMF in macroeconomic surveillance and to contribute towards increasing the IMF's resources in order to strengthen its capacity to support member countries facing acute financial or balance of payment distress.**

VI. EUROPEAN GOVERNANCE AT THE INTERNATIONAL LEVEL

254) While the European Union is one of the key international players, its representation in international organisations and other international bodies is fragmented and lacks coherence and continuity. In some cases, the EU's representation is incomplete (e.g. the FSF or G20 at Ministerial level), while in other cases the EU as a whole – i.e. including its Member States - is even perceived as being over-represented, to the detriment of emerging market economies. This weakens the possibility of the EU speaking with a single voice, and it is something that is also increasingly criticised by the EU's international partners. It is therefore essential to organise a coherent European representation in the new global economic and financial architecture. In the context of a more ambitious institutional (and quota) reform of the IMF, this could imply re-arranging constituencies and reducing the number of Executive Board members for the EU to not more than two. A similar consolidation of the EU's representation should be installed for other multilateral fora.

***Recommendation 30*: The Group recommends that it is essential to organise coherent EU representation in the new global economic and financial architecture.**

In the context of a more ambitious institutional reform, this could imply a consolidation of the EU's representation in the IMF and other multilateral fora.

VII. DEEPENING THE EU'S BILATERAL FINANCIAL RELATIONS

255) The EU has every interest in leading and developing its relations with the major financial powers of the world. Over the past years, good technical work has been carried out with the United States on complex regulatory and supervisory issues and these efforts should be intensified with the new US administration to find the broadest and deepest common ground. Likewise, with Japan and China, Brazil, India, Russia, Saudi Arabia, and other emerging countries the EU should work to develop common understanding on the global financial reforms that are needed. The EU has a unique opportunity to strengthen its global influence and to promulgate its ideas and approaches. But for this to happen – the EU's own supervisory and regulatory model must not just be fit for purpose but a global example of effectiveness, utility, fairness, cooperation, consistency and solidarity.

***

This report sets out the regulatory, supervisory and global reforms that the Group considers are needed.

Work must begin immediately.

ANNEX I: Mandate for the High-Level Expert Group on financial supervision in the EU

The current financial crisis has highlighted the weaknesses in the EU's supervisory framework, which remains fragmented along national lines despite the substantial progress achieved in financial market integration and the increased importance of cross border entities. If financial integration is to be efficient in terms of safeguarding systemic stability as well as in delivering lower costs and increased competition, it is essential to accelerate the ongoing reform of supervision.

Supervisory reform has so far relied on an evolutionary approach, whereby the so-called Level 3 Committees in the Lamfalussy framework are expected to achieve significant convergence in supervisory practices and procedures across member states. While certain progress in convergence has been achieved, this progress has not allowed the EU to identify and/or deal with the causes of the current financial crisis. The current national-based organisation of EU supervision lacks a framework for delivering supervisory convergence and limits the scope for effective macro-prudential oversight based on a comprehensive view of developments in financial markets and institutions.

The Group is therefore requested to make proposals to strengthen European supervisory arrangements covering all financial sectors, with the objective to establish a more efficient, integrated and sustainable European system of supervision.

In particular the group should consider:

- how the supervision of European financial institutions and markets should best be organised to ensure the prudential soundness of institutions, the orderly functioning of markets and thereby the protection of depositors, policy-holders and investors;

- how to strengthen European cooperation on financial stability oversight, early warning mechanisms and crisis management, including the management of cross border and cross sectoral risks;

- how supervisors in the EU's competent authorities should cooperate with other major jurisdictions to help safeguard financial stability at the global level.

The Group will examine the allocation of tasks and responsibilities between the national and European levels.

The Group should present a report to the European Commission in view of the Council of Spring 2009.

The Group will conduct hearings and organize a consultation as appropriate.

ANNEX II: Meetings of the Group and Hearings in 2008 - 2009

The Group began its work in mid-November and held 11 full day meetings. It received oral evidence from the following personalities and representatives of European financial services associations:

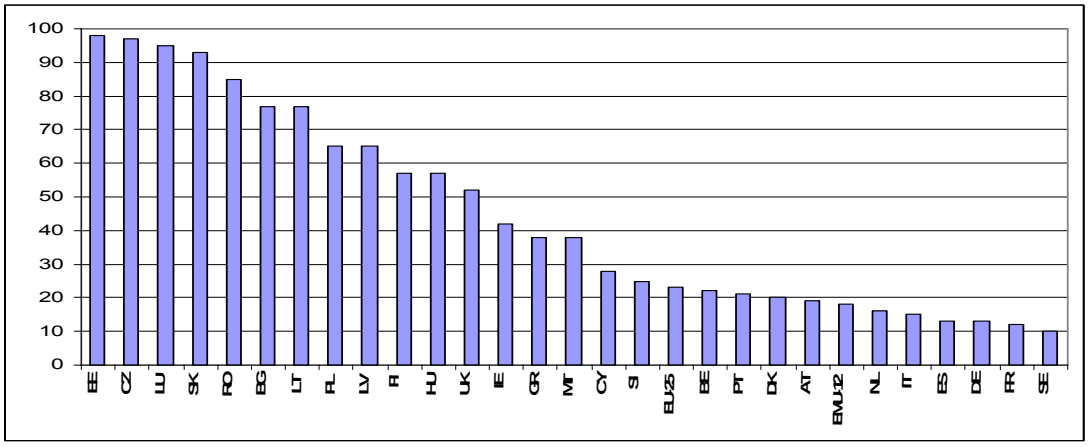
- The Chairs of the 3 Level 3 Committees (CEBS, CEIOPS, CESR);
- European Commissioners Charlie McCreevy and Joaquin Almunia;
- Dr A.H.E.M. Wellink, Chairman of the Basle Committee and President of the Netherlands Central Bank;
- Mr Jean-Claude Trichet, President of the ECB;
- Mr Mario Draghi, Chairman of Financial Stability Forum and Governor of the Bank of Italy;
- Mr Marek Belka, Head of the European Desk of the IMF;
- Mr Xavier Musca, Chairman of the Economic and Finance Committee;
- Mr Peter Praet, Chairman of the Banking Supervisory Committee at the ECB and Executive Director at the National Bank of Belgium;
- Baron Alexander Lamfalussy;
- The CEA (Comité Européen des Assurances) and AMICE (Association of Mutual Insurers and Insurance Cooperatives in Europe);
- The EBF (European Banking Federation), ESBG (European Savings Banks Group) and EACB (European Association of Co-operative Banks);
- The Federation of European Securities Exchanges (FESE), ICMA (International Capital Market Association), EFAMA (European Fund and Asset Managers Association), ISDA (International Swaps and Derivatives Association), FOA (Future and Options Association), AMAFI (French Association of Financial Markets), LIBA (London Investment Banking Association), European Issuers and ISCS (Investicni společnost Ceske sporitelny);
- Representatives of large insurance companies (AXA, Munich Reinsurance Company, Aegon and AVIVA plc.).

ANNEX III: An increasingly integrated single European financial market

Looking ahead, it is important to ensure that the way in which supervision is organised in the Single Market allows supervisors to meet the objective of maintaining financial stability (in both normal and crisis conditions), while allowing to the greatest extent possible financial institutions and customers to benefit from the advantages of the Single Market as set out in the Treaty.

EU financial markets are increasingly integrated, especially in the wholesale markets. The banking and insurance markets are dominated by pan-European groups, whose risk management functions are centralised in the group's headquarters. There has been an increase in cross-border M&A transactions in terms of value since 2003. This trend was particularly strong in 2005, when several large-value transactions were conducted, amounting to over 50% of the total M&A value in the euro area banking system. EU banks have become more international than ever, expanding into foreign markets both in Europe and beyond. Currently around 70% of EU banking assets is in the hands of 43 banking groups with substantial cross-border activities. Especially in the Central and Eastern European countries, the banking sectors are dominated by foreign (mostly Western European) financial groups (see figure 1). The present crisis is likely to lead to further consolidation across borders, although the economic slow-down may limit consolidation in the short to mid-term.

Figure 1. Market share of foreign-owned banks (% of total assets)



As for financial markets, the available evidence suggests that the integration has progressed considerably, but varies depending on the market segment, and is to a large extent correlated with the degree of integration of the underlying financial infrastructure. Table 1 provides an overview of the level of integration of the various segments. It should be noted that due to intensive cross-border consolidation of stock exchanges, concentration of the underlying infrastructures is increasing (i.e. the market share of the five largest stock exchanges in Europe exceeded 90% in 2006).

Table 1. Integration of various market segments

Market segment	Degree of integration
Money market	High degree
Bond markets	
• government bonds	Considerable degree
• corporate bonds	Considerable degree
Equity markets	Increasing integration
Banking markets	
• interbank/wholesale activities	Increasing integration
• capital market related activities	Increasing integration
• retail banking activities	Fragmented

This evolution towards large cross-border groups does not imply any judgement on the benefits or the possible drawbacks (the last global chapter will touch on the concept of 'too big too fail') of this phenomenon. But it is important that any reflection on the EU supervision framework should take into account these trends.

The emergence of an increasingly integrated financial market in the EU is indeed a major challenge for financial supervision – a challenge which goes to the heart of the objective of supervision: integration increases contagion risks, and thereby jeopardises financial stability; integration makes it more difficult to ensure a level playing-field if rules and supervisory practices differ; integration means the development of large cross-border groups, which will require more streamlined and cost-effective supervisory organisation.

At the current juncture, the supervision of EU firms remains largely based on national, home state supervision – but where cross border firms have set up subsidiaries under local law these subsidiaries are regulated finally at host state level. Cross border branches of firms are regulated by the home country – but safeguards have been provided in EU law for host state supervisors to act for example in emergency situations to protect depositors (Article 33 CRD). In the case of investment services, host state supervisors have significant areas of control - including the right to examine branch arrangements (Article 32 MIFID). Host supervisors retain control of liquidity in branches as well and should be informed of all relevant information about the group (Article 42 CRD and its recent strengthening).

This organisation is a very complex one, leading to multiple reporting lines between supervisors and supervised entities and to complex mechanisms of cooperation between home and host supervisors. Some argue that the present arrangements should be preserved because, in certain cases, it could be better to handle complex financial institutions with different supervisors holding different views on a number of issues. However, such a view would have to be backed by a precise and convincing analysis. In any case, such an approach has the potential of leading to cross border and cross-sectoral risk and distrust between supervisors.

Be that as it may, what seems difficult to contest is that fragmentation in supervision has shown to be the source of major dangers. The case of AIG in the US is noteworthy. No one in

the US and elsewhere denies that the collapse of that major institution was the result of a weak state-by-state insurance regulatory system and of the absence of a single responsible supervisory body at the Federal level. More generally, the US authorities are likely to restructure what most consider as a too fragmented supervisory system. The EU must obviously avoid such pitfalls.

Some argue that there is, at the moment, insufficient mechanisms allowing for real and effective collaboration between home and host supervisors:

- host supervisors do not have comprehensive means to challenge the home state supervision of a group which has branching activities in its territories;

- there is no binding mediation mechanism arbitrating between home and host supervisors, whether for banks, insurance companies or investment firms;

- if a national supervisor fails to take a necessary measure, there is no quick mechanism allowing for a collaborative decision to be taken in relation, for example, to the liquidity or solvency position of a group;

- there are no effective cross border crisis management arrangements, as illustrated by the table below.

1. Cross-border institutions operating in a branch structure:

Responsibility, information and tools are asymmetrically distributed and concentrated in the home country. In a crisis situation where the institution is *systemically important both in the home and the host country* authorities have incentives to find a solution since a branch cannot fail or be reconstructed on its own. However, problems may arise if both authorities seek to rely on the incentive and willingness of the other authority to contribute to a solution for the group. The host country, even though having a clear economic interest in a solution, may try to avoid or limit any contribution to sharing the burden and point to information and supervisory responsibilities in the home country. The home country may comparably try to shift the largest possible burden to the host country and argue that the crisis is not due to regulatory failure and/or that actions of their independent supervisors do not entail fiscal responsibility.

If the institution is *only systemically important in the home country* the host country will be reluctant to contribute in crisis management when a financial burden is involved. The home authorities have the incentives, instruments and access to information to ensure a solution. The *Icelandic cases* provide tangible examples.

Turning to the opposite case where the institution is *only systemically important in the host countries* significant conflicts of interests may arise. Host authorities lack the information and tools to act (except for the corner solution where the host country intervenes to rescue the entire group). Moreover, in case of a failure of a group with a large branch, the burden on the home country deposit guarantee scheme (DGS) may be substantial.

2. Cross-border institutions operating in a subsidiary structure:

Responsibility, information and tools are shared between the countries where the institution operates. Both home and host competent authorities should have access

to information and tools to use in a crisis situation, if necessary. If an institution is *systemically important both in the home and the host country* both authorities have incentives to ensure a solution. In theory, the problems can either be solved individually or jointly. However, host authorities may have an incentive to ring-fence the subsidiary in some cases (and almost all Member States may be legally obliged to do this), while home authorities may have an incentive to seek the centralization of a bank's assets and keep liabilities decentralized. The functional, managerial and operational structure of the group and mismatch between the distribution of assets and liabilities could result in difficulties in restarting the subsidiary on its own and more generally in restructuring the group. Both authorities may need to rely on the incentives and willingness of the other authority – which will often not have legal flexibility - to provide a solution as the home and host country authorities are not accountable to each other in the event of insolvency. The management of *Fortis-group* serves as a real example of this case.

As in the case with branches, for an institution that is *only systemically important in the home country,* the host country will be reluctant to contribute in crisis management when a financial burden is involved.

If the subsidiary is *only systemically important in the host country* host authorities in principle have the adequate tools and sufficient information to act independently in a crisis situation, but may in practice find it difficult to restart the subsidiary on its own due to the ownership structure of the bank.

It is important to note that consolidated group structures vary from among Member States as well as their legal obligations. Missing as well at EU level are early intervention tools, common winding up procedures, rules on transferability of assets and common approaches to bankruptcy.

Given the above, the current supervisory arrangements are not optimal to contribute to a high degree of financial stability in the Single Market. Host Member States, in particular, largely depend on the effectiveness of supervision carried-out in the home Member States. And one supervisory mistake can have major consequences throughout the Single Market.

The appropriateness of current arrangements also fails from an efficiency standpoint. Currently, financial institutions operating in different markets have to cope with different national supervisory rules and practices. They have to commit extensive resources to deal with numerous supervisors and differing supervisory requirements, for example in the area of reporting. This entails administrative costs without any added value[15].

Finally, one can question whether the current arrangements provide for a level playing-field between financial institutions. Cross-border institutions have different home supervisors, depending on the Member State where they have established their headquarters. These various supervisors may have different views on major supervisory issues, such as for example the validation of internal risk models. The Colleges of Supervisors may also take different views in equal situations, leading to different supervisory outcomes for groups who compete with each other.

[15] The ongoing compliance cost as a percentage of operating expenses for large banks and financial conglomerates is on average around 1%. Large pan-EU institutions could save at least several million euros every year, if they could benefit from a more streamlined supervisory structure.

ANNEX IV: Recent attempts to strengthen supervision in the EU

Over the last few years, a number of attempts have been made to introduce greater coherence between the reality of an integrated market and the organisation of supervision. The EU has tried to increase cooperation and coordination between national supervisory authorities, including for crisis management. This applies especially to the implementation of the Lamfalussy process across the banking, securities and insurance sectors and the recent MOU on crisis management.

The first aim of the Lamfalussy report in 2000 was to speed up the adoption of EU financial services law – providing a framework and mechanism for timely decision making based on the technical expertise of the level 3 committees, open consultation, transparency and political accountability. Good results have been achieved in this respect. The Lamfalussy process did not deal with strengthening prudential oversight – but the report warned: *"While the committee strongly believes that large deep, liquid and innovative financial markets will result in substantial efficiency gains and will therefore bring individual benefits to European citizens; it also believes that greater efficiency does not necessarily go hand in hand with enhanced financial stability"*.

Another aim of the Lamfalussy process was to converge supervisory practices; agree common day to day interpretations and applications of EU rules with non-binding guidelines; foster greater trust among supervisors. These tasks have proven to be very difficult.

Without recourse to qualified majority decision making until very recently, and without legal powers the level 3 committees have been unable to converge their activities sufficiently. Some of this is due to the fact that some directives in levels 1 / 2 of the Lamfalussy process allowed for optionality and gold plating – so level 3 could not resolve the problems left over from levels 1 and 2. But in other cases, national supervisors did not cooperate sufficiently to converge either supervisory practices or interpretations – whether the reason is to protect a national champion, restrict competition, preserve a national practice viewed as a competitive supervisory or regulatory advantage or just sheer bureaucratic inertia.

Some recent examples of supervisory difficulties within the Lamfalussy framework[16]:

- No common reporting formats have been agreed, and are unlikely before 2012.
- Lengthy blockages resulting in no agreement on CESR-ESCB standards for clearing and settlement.
- Unified registration and supervision of credit rating agencies at EU level cannot be granted to CESR because it lacks the legal powers resulting in the Commission proposing complex national registration with non-binding coordination by CESR.

Over the past decade, the Commission, supported by the level 3 committees, has worked hard to try and further reinforce supervisory cooperation in the EU. The latest attempt has been in its recent proposals for the revisions of the CRD and its proposal for a home country based

[16] A number of examples on regulatory divergences are provided in the chapter on regulation.

group support regime for Solvency II. The aim in both cases was to move towards stronger group wide supervision.

For the CRD, the Commission proposed:

- Installing colleges of supervisors for major cross border groups and ensure an effective decision-making process within the colleges.
- Strengthening home country control for capital add-ons in subsidiaries in other Member States;
- Strengthening host state branch supervisory with more information.

For Solvency II – the group support regime proposed by the Commission, inter alia, would:

- Install colleges of supervisors for cross-border groups and ensure an effective decision-making process within the colleges;
- Allow the home based firm to allocate capital throughout the group in an efficient way, subject to safeguards to protect the financial soundness of all the legal entities belonging to the group.

In both cases a strong number of countries - including all new Member States for Solvency II and Member States unanimously in the case of the CRD – have decisively rejected changing the current balance of home and host state regulation.

At the heart of this, are three major problems:

(i) A perceived lack of adequate processes and guarantees in the case things go wrong for host country depositors and policy-holders that do business with foreign branches and subsidiaries, linked to local requirements for all supervisors to protect local interests and apply local laws first.

(ii) Lack of a sufficiently clear framework agreement on at the EU level on burden sharing principles in rescue operations with a cross-border character.

(iii) A lack of trust among EU supervisors, which recent events have accentuated further.

The majority of Member States are not confident that, should a cross-border crisis occur, it will be managed and resolved in an optimal way for their citizens. And indeed, some recent examples, highlighted in hearings organised by the Group, have shown that the division of responsibilities between home and host supervisors have been far from satisfactory which has complicated the coordination of crisis management. Many Member States, therefore, object to major modifications in the allocation between home and host authorities. They will not, in particular, accept that the level of regulatory capital to be held by the subsidiaries established in their territories is decided by a competent authority in another Member State.

The absence, therefore, of a sound framework for crisis management and resolution (with sufficiently clear principles on burden sharing, customers' protection, assets transferability and winding up) complicates the introduction of an effective and efficient supervisory system to avoid financial crises in the first place. Any proposals to modify the organisation of supervision in the EU therefore have to be accompanied by the setting up of a more convincing framework for crisis management in the EU.

Furthermore there could be cases where Member States disagree with the monetary policy choices made elsewhere in the EU, seeing them as too lax and jeopardising the stability of the financial system. Given the impact of excessive credit expansion, especially in some host countries, safeguards for such countries could be justified. If a host supervisor detects such deviations, it should be able to act by tightening credit conditions or increasing reserve requirements. The following safeguards should be considered:

- if there were to be significant mismatches in terms of borrowing in foreign currencies, the host supervisor should have the leeway through appropriate regulations to curb those currency mismatches in both subsidiaries and branches;

- particular attention should be dedicated to the appropriate degree of liquidity of branches and subsidiaries in host countries.

If the implementation of such safeguards were to create a problem with the group supervisor, it would be useful if the host supervisor could bring the case to an independent body for arbitration and decision.

The Commission's proposal for mandatory colleges of supervisors for cross-border firms has fared better politically, although there are no clear decision-making processes in case of disagreements among supervisors in colleges nor mechanisms for dealing with disputes. And some have estimated there will need to be up to 123 colleges which will make the application of consistent supervisory practice essential, but very difficult to achieve.

Against this background, the Group considers that it is crucial that in the future EU supervisors exercise their competences in a more effective, collaborative and coordinated way than today. The existing level 3 committees have clearly reached their limits in terms of informal cooperation methods.

The fact that EU supervisory arrangements may not have been one of the major causes of the crisis, and that the supervisory systems of some third countries have not performed better, cannot be excuses for inaction. Given their complexity and fragmented nature, EU supervisory arrangements have, in the context of an increasingly integrated EU market, the potential of being inadequately prepared for a future crisis. This pertains to the future and cannot be demonstrated. It nevertheless appears that it would be wise for Europe to organise itself in order to limit further damage if new crisis were to appear. Making recommendations to facilitate this is the very essence of the mandate that has been given to the group. The aspirations of global G20 convergence – important though it is – cannot be delivered without effective supervision in the biggest capital market in the world, the EU.

The Group considers it is now pressing to establish a more effective supervisory system in the EU. One which will better meet the objective of financial stability. Ensure a level playing-field. Be as cost-effective and underpin real European capital market integration.

ANNEX V: The allocation of competences between national supervisors and the Authorities in the ESFS

BANKING SUPERVISION

Stage 1

SUPERVISORY TASKS	NATIONAL LEVEL	EU LEVEL
Licensing of banks, e.g., fit and proper test, business plan, and minimum capital.	**X**	
Compliance with CRD minimal capital requirements (Pillar 1)	**X**	
Review of bank's internal capital assessment and supervisory review process of bank's adequacy of capital (Pillar 2)	**X**	
On-site inspections	**X**	
Review of banks' disclosure framework (Pillar 3)	**X**	
Enforcement and sanctions	**X**	
Internal governance/control	**X**	
Supervisory assessments of mergers and acquisitions.	**X**	
Hybrid funds, i.e., compliance with eligibility requirements	**X**	
Large exposures requirements	**X**	
Qualified holdings	**X**	
Reporting	**X**	
Know your customer rules	**X**	
Provisioning policy	**X**	
Anti-money laundering rules	**X**	
Imposition of a conservator and possible revocation of licences	**X**	
Complaints	**X**	
Development and implementation of harmonised EU prudential regulations and requirements, including advice to the Commission	**X**	**X** (see § 203)
Defining overall supervisory policies		**X** (see § 203)
Convergence of supervisory rules and practices		**X** (see § 203)
Financial stability monitoring		**X** (see § 203)
Oversight on colleges		**X** (see § 203)
Crisis management/resolution	**X**	

Stage 2

SUPERVISORY TASKS	NATIONAL LEVEL	EU LEVEL
Licensing of banks, e.g., fit and proper test, business plan, and minimum capital.	**X**	
Compliance with CRD minimal capital requirements (Pillar 1)	**X**	
Review of bank's internal capital assessment and supervisory review process of bank's adequacy of capital (Pillar 2)	**X**	

On-site inspections	**X**	**X** (Joint inspections of LCFIs, see §205)
Review of banks' disclosure framework (Pillar 3)	**X**	
Enforcement and sanctions	**X**	
Internal governance/control	**X**	
Supervisory assessments of mergers and acquisitions.	**X** (National)	**X** (pan-EU, in combination with national assessments, see §205)
Hybrid funds, i.e., compliance with eligibility requirements	**X**	
Large exposures requirements	**X**	
Qualified holdings	**X**	
Reporting	**X** (To be included in an EU database)	
Know your customer rules	**X**	
Provisioning policy	**X**	
Anti-money laundering rules	**X**	
Imposition of a conservator and possible revocation of licences	**X**	
Development and implementation of harmonised EU prudential regulations and requirements, including advice to the Commission	**X**	**X** (incl. binding technical interpretation of level 1 and level 2 measures, see §205)
Defining overall supervisory policies		**X** (see § 203)
Ensure consistent supervision, e.g., defining common supervisory standards and practices as well as arrangements for the functioning of colleges		**X** (incl. binding supervisory standards, see §205)
Binding mediation, e.g., in case of disagreement between national supervisors		**X** (see §205)
Designation of group supervisor		**X** (see §205)
Complaints	**X**	**X** (e.g., on discrimination by national supervisors, see §205)
Financial stability monitoring		**X** (see §205)
Binding cooperation and information sharing procedures with the ESRC for macro-surveillance		**X** (see §205)
Evaluate supervisory processes though peer review		**X** (see §205)
Collect and make available all relevant information pertaining to cross-border institutions to members of colleges of supervisors		**X** (see §205)
Prepare and/or adopt of 3rd country equivalence decisions		**X** (see §205)
Represent EU interests in bilateral and multilateral discussions with third countries on supervision		**X** (see §205)
Crisis management	**X**	**X** (Coordinate national efforts, e.g., create and lead groups of national supervisors, see §205)

Crisis resolution	**X**	**X** (Coordinate national efforts, e.g., facilitate cooperation and exchange of information, act as mediator and help to define and implement the right decisions, see §205)

INSURANCE SUPERVISION

Stage 1

SUPERVISORY TASKS	NATIONAL LEVEL	EU LEVEL
Licensing of insurance firms, e.g., fit and proper test, business plan and minimum capital.	**X**	
Checking the calculation of the Minimum Capital Requirement (MCR) and the Solvency Capital Requirement (SCR)	**X**	
Impose capital add-ons	**X**	
Evaluate the level of eligible own funds	**X**	
Evaluate the quality of eligible own funds	**X**	
On-site inspections	**X**	
Asses technical provisions	**X**	
Assess investment rules	**X**	
Assess the system of governance	**X**	
Asses internal models	**X**	
Approve ancillary own funds	**X**	
Authorise hybrid capital items	**X**	
Enforcement and sanctions	**X**	
Supervisory assessments of mergers and acquisitions.	**X**	
Reporting, including decisions on public disclosure by insurance undertakings	**X**	
Know your customer rules	**X**	
Anti-money laundering rules	**X**	
Revocation of licences	**X**	
Complaints	**X**	
Development and implementation of harmonised EU prudential regulations and requirements, including advice to the Commission	**X**	**X** (see § 203)
Defining overall supervisory policies		**X** (see § 203)
Convergence of supervisory rules and practices		**X** (see § 203)
Financial stability monitoring		**X** (see § 203)
Oversight on colleges		**X** (see § 203)
Crisis management, including assessing the viability of recovery plans and/or financing scheme	**X**	
Crisis resolution and insolvency proceedings	**X**	

Stage 2

SUPERVISORY TASKS	NATIONAL LEVEL	EU LEVEL
Licensing of insurance firms, e.g., fit and proper test, business plan and minimum capital.	**X**	
Checking the calculation of the Minimum Capital Requirement (MCR) and the Solvency Capital Requirement (SCR)	**X**	
Impose capital add-ons	**X**	
Evaluate the level of eligible own funds	**X**	
Evaluate the quality of eligible own funds	**X**	
On-site inspections	**X**	**X** (Joint inspections of LCFIs, see §205)
Asses technical provisions	**X**	
Assess investment rules	**X**	
Assess the system of governance	**X**	
Asses internal models	**X**	
Approve ancillary own funds	**X**	
Authorise hybrid capital items	**X**	
Enforcement and sanctions	**X**	
Supervisory assessments of mergers and acquisitions.	**X** (National)	**X** (pan-EU, in combination with national assessments, see §205)
Reporting, including decisions on public disclosure by insurance undertakings	**X** (To be included in an EU database)	
Know your customer rules	**X**	
Anti-money laundering rules	**X**	
Revocation of licences	**X**	
Development and implementation of harmonised EU prudential regulations and requirements, including advice to the Commission	**X**	**X** (incl. binding technical interpretation of level 1 and level 2 measures, see §205)
Defining overall supervisory policies		**X** (see § 203)
Ensure consistent supervision, e.g., defining common supervisory standards and practices as well as arrangements for supervisory colleges		**X** (incl. binding supervisory standards, see §205)
Binding mediation, e.g., in case of disagreement between national supervisors		**X** (see §205)
Designation of group supervisor		**X** (see §205)
Complaints	**X**	**X** (e.g., on discrimination by national supervisors, see §205)
Financial stability monitoring		**X** (see §203)
Binding cooperation and information sharing with the ESRC for macro-surveillance		**X** (see §205)
Evaluate supervisory processes through peer reviews		**X** (see §205)
Collect and make available all relevant information pertaining to cross-border institutions to members of colleges of		**X** (see §205)

supervisors		
Prepare and/or adopt of 3rd country equivalence decisions		**X** (see §205)
Represent EU interests in bilateral and multilateral discussions with third countries on supervision		**X** (see §205)
Crisis management, including assessing the viability of recovery plans and/or financing scheme	**X**	**X** (Coordinate national efforts, e.g., create and lead groups of national supervisors, see §205)
Crisis resolution and insolvency proceedings	**X**	**X** (Coordinate national efforts, e.g., facilitate cooperation and exchange of information, act as mediator and help to define and implement the right decisions, see §205)

SECURITIES SUPERVISION

Stage 1

SUPERVISORY TASKS	NATIONAL LEVEL	EU LEVEL
MiFID		
Authorisation		
- Investment Firms	**X**	
- Regulated Markets and Multilateral Trading Facilities	**X**	
Calculations	**X**	
Suspense of trading	**X**	
Compliance conduct of business	**X**	
Inspections	**X**	
Reporting	**X**	
Enforcement	**X**	
Post-Trading		
Authorisation	**X**	
Supervision	**X**	
Enforcement	**X**	
Access to other systems	**X**	
Credit Rating Agencies		
Authorisation	**X**	
Supervision	**X**	
Enforcement	**X**	
Prospectus		
Authorisation	**X**	
Transparency		
Officially Appointed Mechanisms	**X**	
Notification shareholders	**X**	
Market Abuse		
Market supervision	**X**	

Enforcement	**X**	
Emergency powers	**X**	
EU investigations	**X**	
Accounting		
Mandatory recommendations	**X**	
Enforcement	**X**	
UCITS		
Authorisation	**X**	
Enforcement	**X**	
Others		
Compliance conduct of business by other financial institutions, e.g., banks and insurance firms	**X**	
Supervisory assessment of mergers and acquisitions	**X**	
Development and implementation of harmonised EU prudential regulations and requirements, including advice to the Commission	**X**	**X** (§ 203)
Defining overall supervisory policies		**X** (see § 203)
Convergence of supervisory rules and practices		**X** (§ 203)
Financial stability monitoring		**X** (§ 203)
Oversight on colleges		**X** (§ 203)
Crisis management/resolution	**X**	

Stage 2

SUPERVISORY TASKS	NATIONAL LEVEL	EU LEVEL
MiFID		
Authorisation		
- Investment Firms	**X**	
- Regulated Markets and Multilateral Trading Facilities	**X**	
Calculations	**X**	
Suspense of trading	**X**	
Compliance conduct of business	**X**	
Inspections	**X**	
Reporting	**X**	
Enforcement	**X**	
Post-Trading		
Authorisation	**X** (national)	**X** (pan-EU, see §205)
Supervision	**X** (national)	**X** (pan-EU, see §205)
Enforcement	**X** (national)	**X** (pan-EU, see §205)

Access to other systems	**X** (national)	**X** (pan-EU, see §205)
Credit Rating Agencies		
Authorisation		**X** (see §205)
Supervision		**X** (see §205)
Enforcement		**X** (see §205)
Prospectus		
Authorisation	**X**	
Transparency		
Officially Appointed Mechanisms	**X**	
Notification shareholders	**X**	
Market Abuse		
Market supervision	**X**	
Enforcement	**X**	
Emergency powers	**X**	**X** (Coordinate national efforts, see §205)
Investigations	**X**	
Accounting		
Mandatory recommendations		**X** (see §205)
Enforcement	**X**	
UCITS		
Authorisation	**X**	
Enforcement	**X**	
Others		
Compliance conduct of business by other financial institutions, e.g., banks and insurance firms	**X**	
Supervisory assessment of mergers and acquisitions	**X** (National)	**X** (pan-EU, in combination with national assessments, see §205)
Development and implementation of harmonised EU regulations and requirements, including advice to the Commission	**X**	**X** (incl. binding technical interpretation of level 1 and level 2 measures, §205)
Defining overall supervisory policies		**X** (see § 203)
Ensure consistent supervision, e.g., defining common supervisory standards and practices as well as arrangements for the functioning of colleges		**X** (incl. binding supervisory standards, see §205)
Binding mediation, e.g., in case of disagreement between national supervisors		**X** (see §205)
Complaints	**X**	**X** (e.g., on discrimination by national supervisors, see §205)
Financial stability monitoring		**X** (see §205)
Binding cooperation and information sharing procedures with the ESRC for macro-surveillance		**X** (see §205)

Evaluate supervisory processes through peer review		**X** (see §205)
Collect and make available all relevant information pertaining to cross-border institutions		**X** (see §205)
Prepare and/or adopt of 3rd country equivalence decisions		**X** (see §205)
Represent EU interests in bilateral and multilateral discussions with third countries on supervision		**X** (see §205)
Crisis management	**X**	**X** (Coordinate national efforts, e.g., create and lead groups of national supervisors, see §205)
Crisis resolution	**X**	**X** (Coordinate national efforts, e.g., facilitate cooperation and exchange of information, act as mediator and help to define and implement the right decisions, see §205)



Reform of deposit guarantee systems and impact of government interventions

Bouke de Vries

Presentation for the European League for Economic Cooperation

Madrid, 30 January 2009

Program

- Introduction
- Credit crisis: emergence and burst of the bubble
- A view on the government interventions
- The case of the deposit guarantee schemes
- Conclusions


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ONE DOLLAR

Crisis in U.S. housing market reveals widespread problems

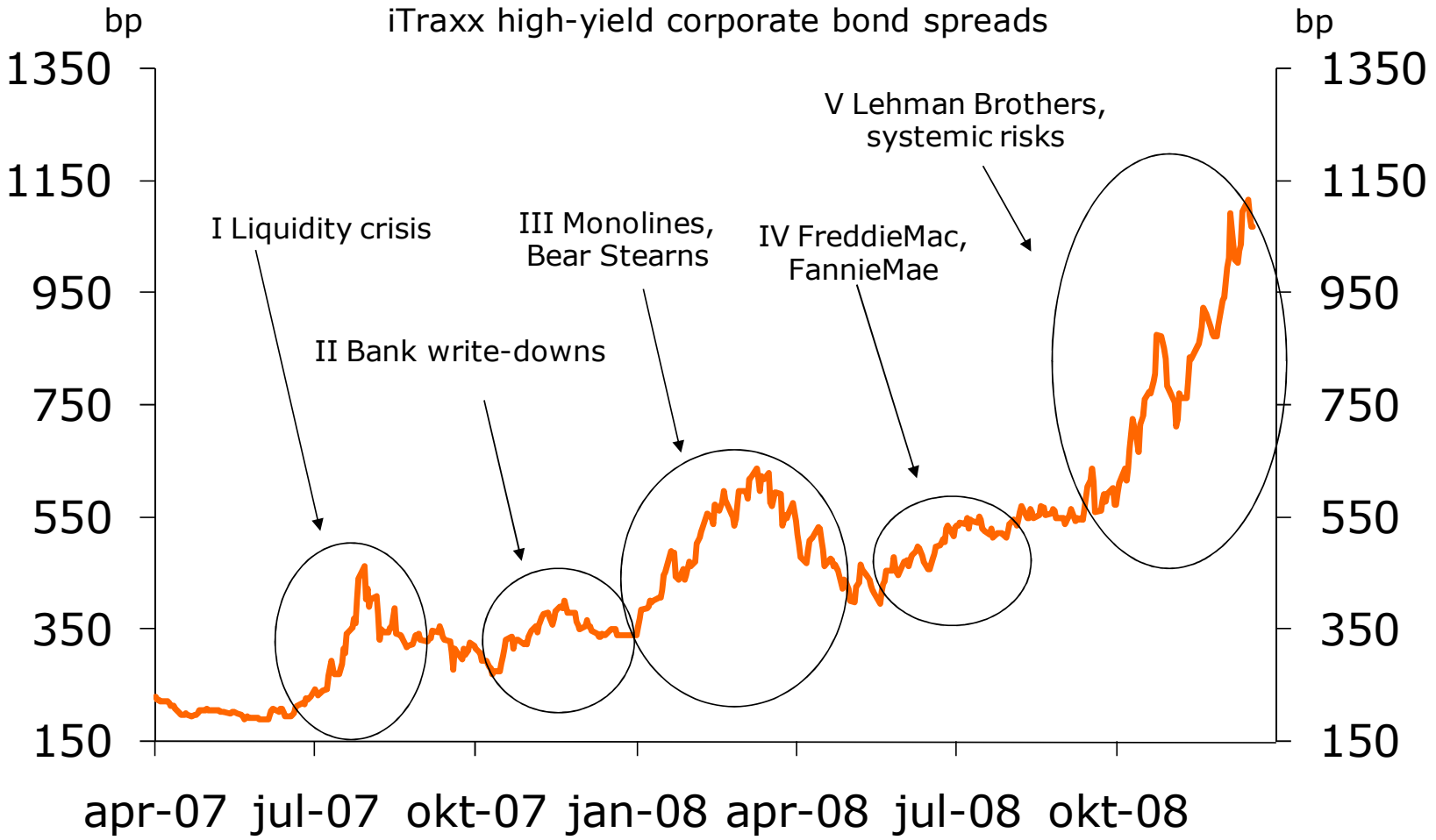


A seemingly classical housing market crisis…..

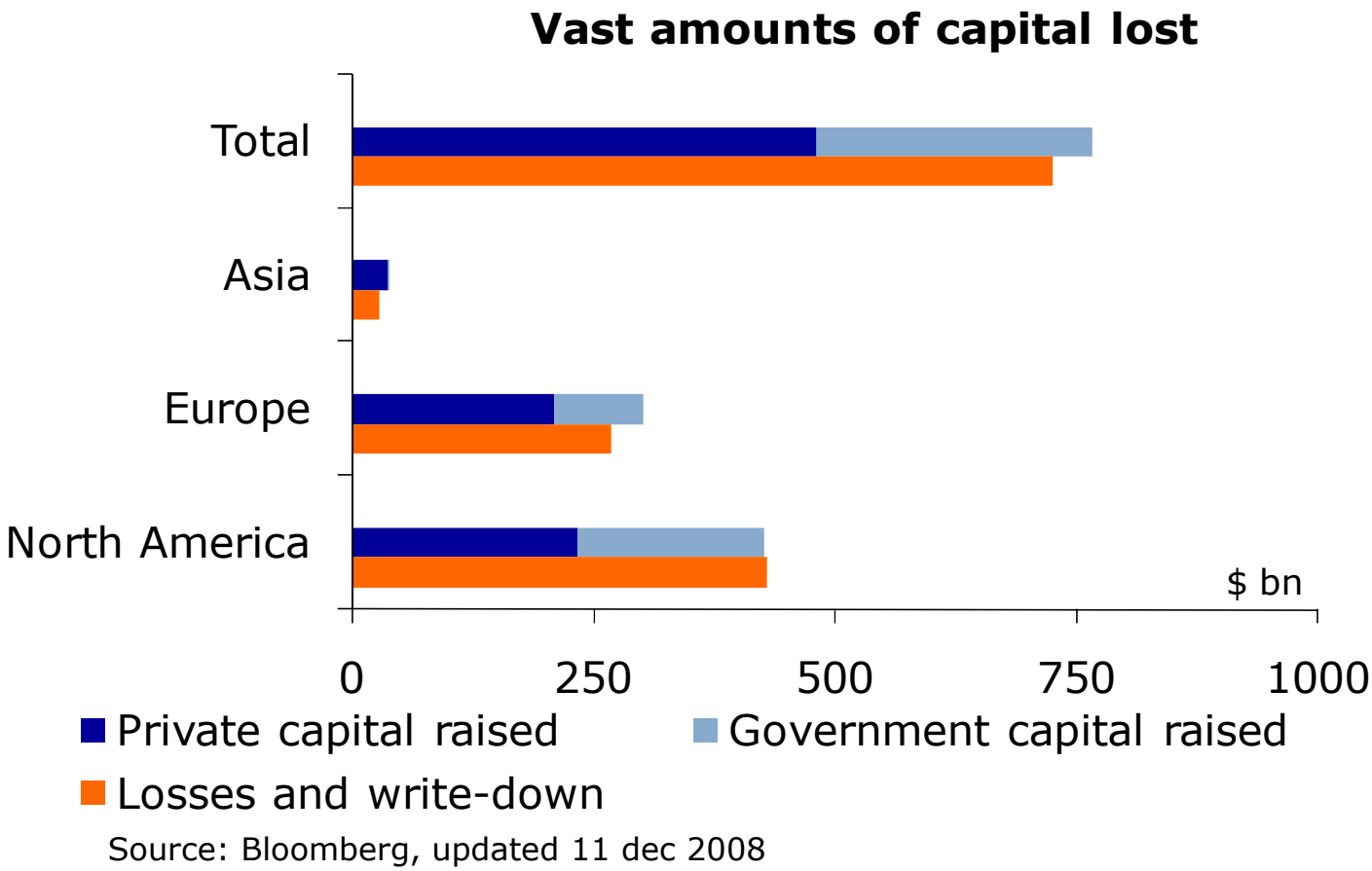
… leads to large financial crisis



Start of the crisis: june/july 2007

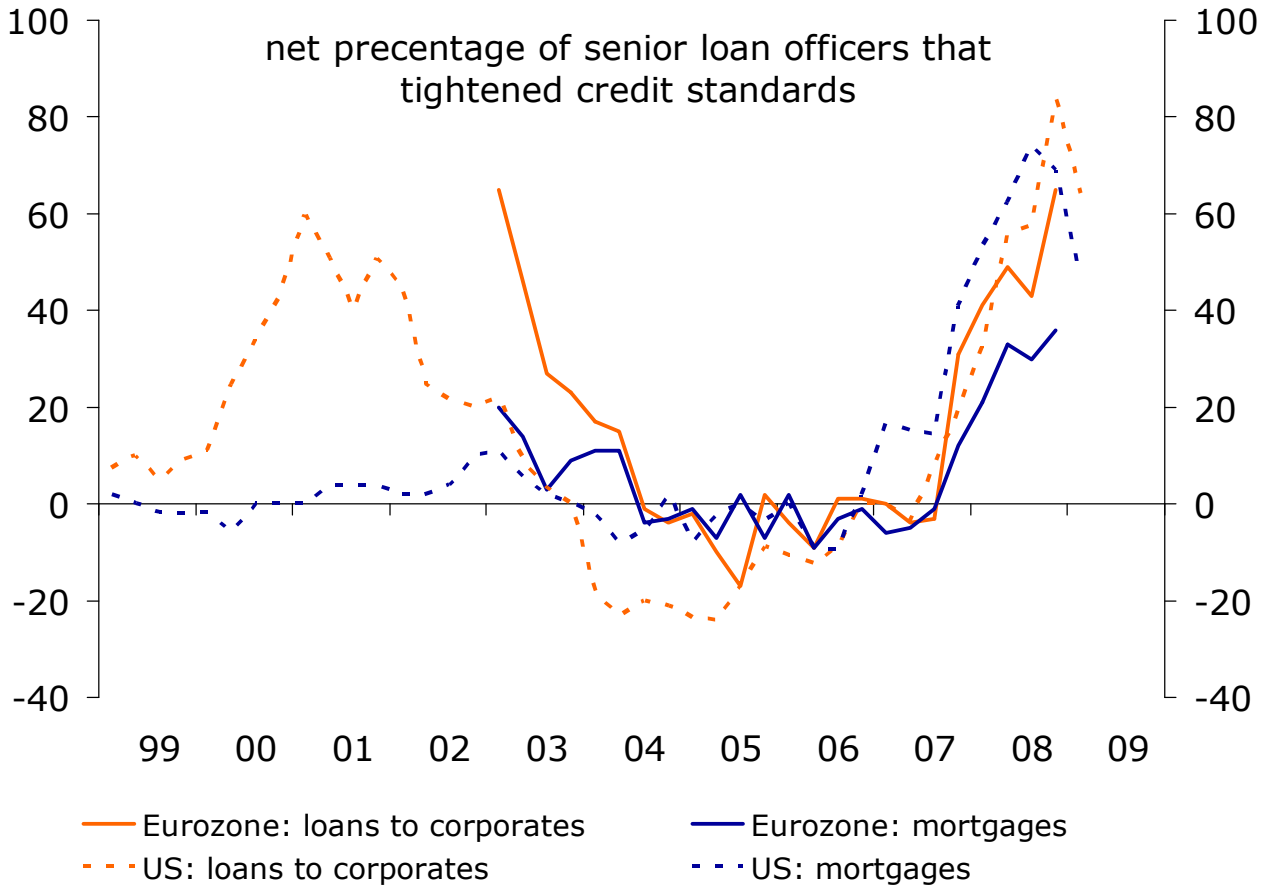


A snapshot of the losses and write downs of banks



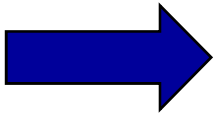
Source: Bloomberg, updated 11 dec 2008

Lending standards are being tightened



Emergence of the bubble: what happened?

1. Monetary policy was too loose
2. Favourable economic circumstances
3. Easing credit criteria
4. Financial innovations
5. Incomplete supervision
6. Doubtful role of rating agencies



Increase in asset prices

Strong credit growth

Risk underestimation

Collective overoptimism

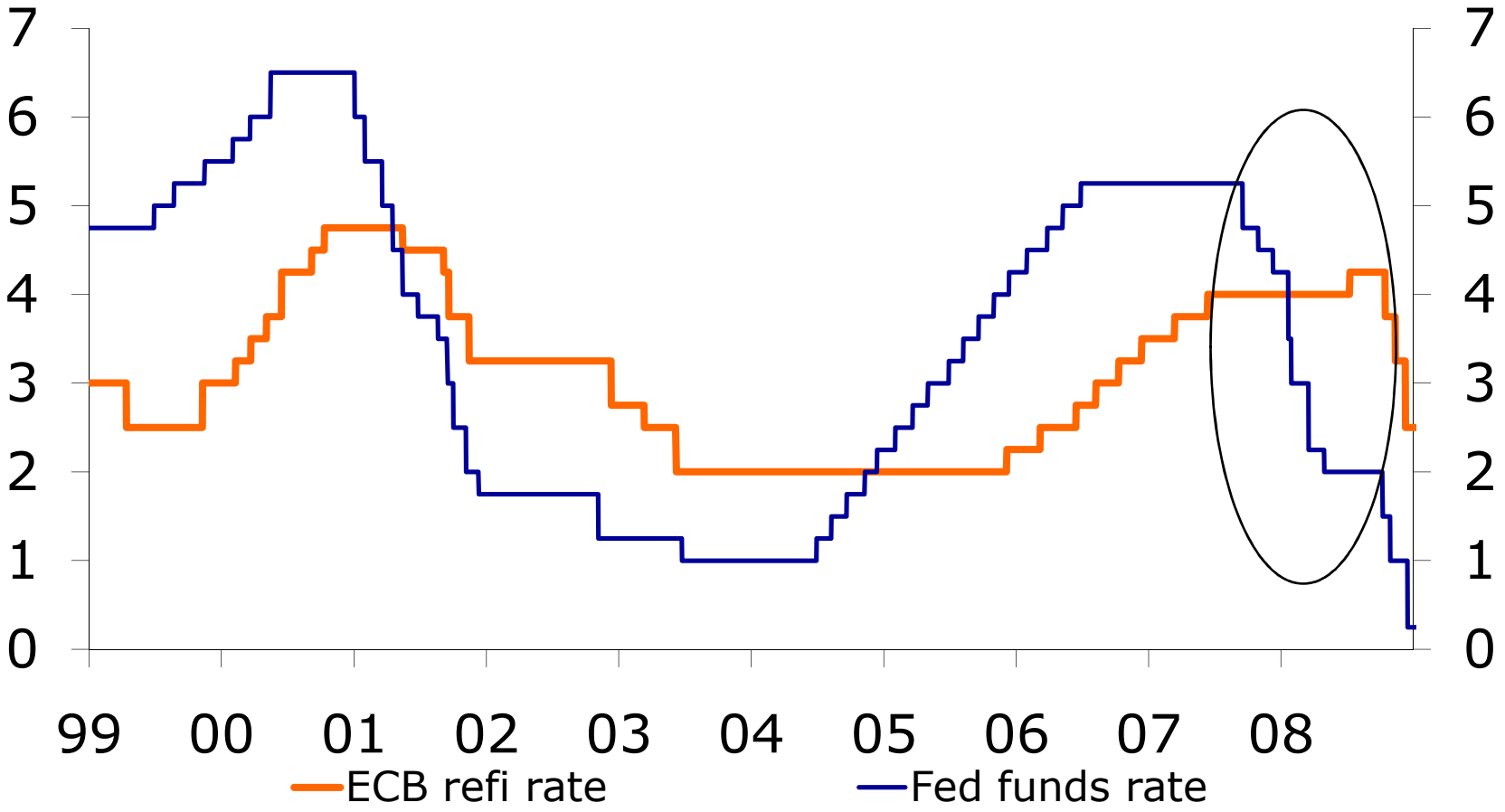
Bursting of the bubble: chain of events

- Liquidity problems
- Uncertainty about pricing of asset backed securities
- Solvency problems
- Support of the state and central banks
- Higher risk premiums and more risk differentiation: credit crunch?
- Loss of trust: in banks, in the system
- Global recession fears, contagion effects, positive feedback loops
- Deleveraging

Crisis management by governments and central banks

Measure	Policy goal
• Liquidity support	➔ Safeguards sufficient liquidity
• Buying bad loans, initial plan Paulson (US)	➔ Removes source uncertainty from the system
• Recapitalisation and nationalisation of banks	➔ Strenghthens solvency
• Guaranteeing savings	➔ Prevents bank runs
• Interest rate cuts by central banks	➔ Makes credit cheaper, stimulates investments
• Guaranteeing interbank loans (ECB)	➔ Aims to repair interbank money market
• Support for real economy	➔ Limits the effects on real economy

Monetary easing



Does it work?

- It could have been much worse
- However, we have not seen the end
- Tax payers money is down the line
- The financial sector and the real economy are hurt seriously
- Reforms take time and monetary effects as well
- Negative effects of interventions are the market distortions
- Risk of political influence on market decisions
- Procyclicality of higher capital ratio's (regulation) is not positive for lending

Period of deleveraging and correction of imbalances

- Back to a normal price for risk, deflate the bubbles
- Painfull adaption proces
  - Insecurity
  - Volatility
  - Contagion effects, self re-enforcing mechanisms
- Opportunity of the crisis to restructure the economy and diminish global imbalances

Some first lessons

- Put the focus back on the client and all stakeholders
- Improve internal risk assesments and awareness: e.g. stress testing,
- Take a look at the influence of bonusses on risk taking
- Increase openess and accountability
- Improve supervision and regulation

The case of deposit guarantee schemes

- State of affairs
- Main goal and starting points of DGS
- Main dilemma’s
- Input from Rabobank to the debate

State of affairs

- More unified approach after initial ad hoc measures in each country
- Level of DGS protection to be raised to 100.000 EUR in EU (2010)
- Own risk of depositors is abolished
- Many differences in Europe in the systems
- More harmonization has been announced: EC will publish a report by the end of March/April and then start consultation

Main goals and starting points

Main goal
- Contribution to safeguarding stability, prevent bank run
- Protect savers

Starting points/pre-conditions for a good functioning
- Stable, predictable, limiting risk
- DGS is not a crisis instrument
- DGS cannot replace good supervision
- All parties concerned have an own responsibility
- Positive or at least neutral for competition
- Transparent
- Affordable
- Executionable

The main dilemma's

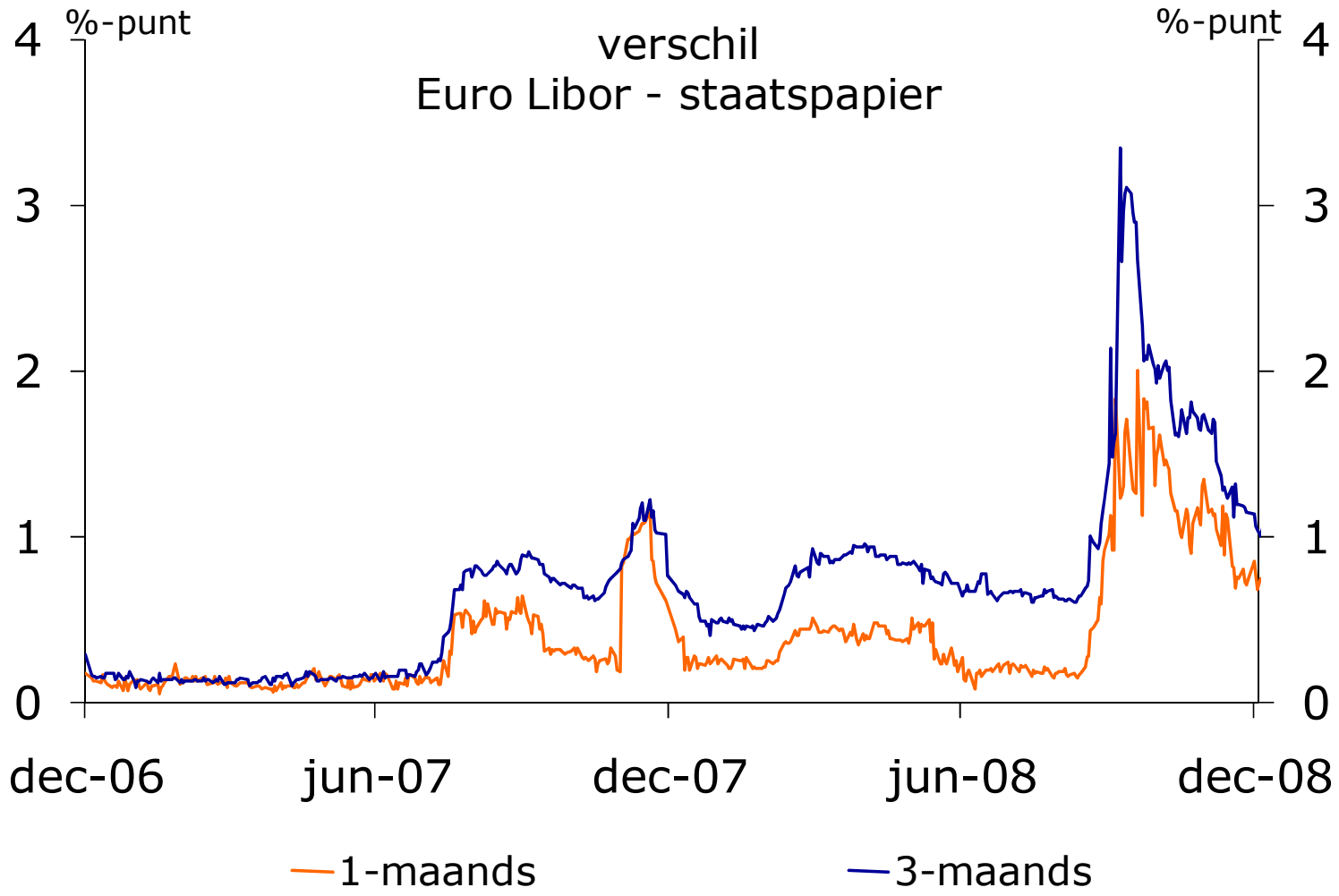
- Stability versus competition
- Protection versus own responsibility
- Keep it simple but with the right incentives
- Who pays the bill?
- Prevent free riding and moral hazard

Recommendations from Rabobank

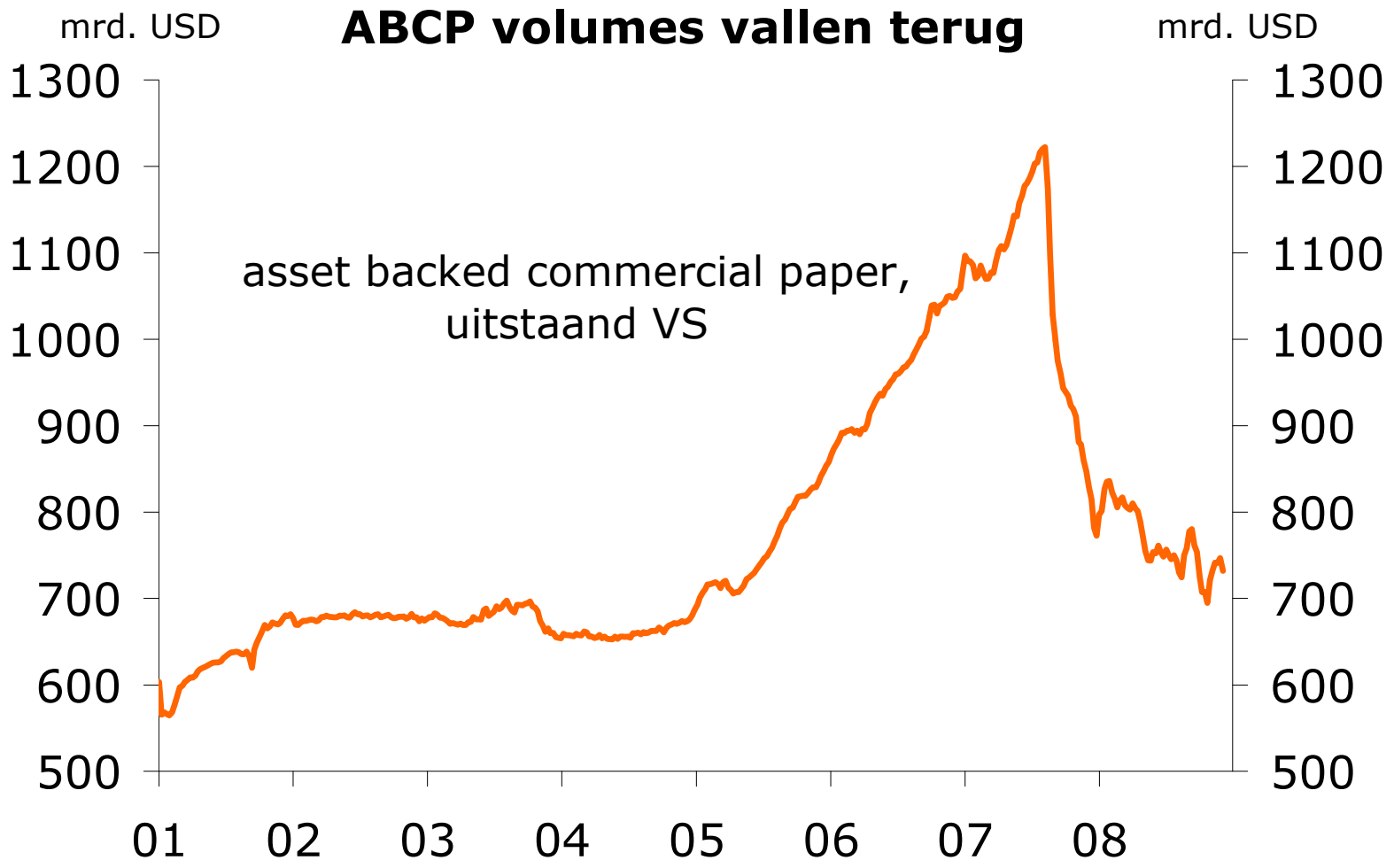
- Harmonise DGS within Europe: one guaranteed amount
- Set maximum amount of DGS to responsible level
- Keep risk incentives in the DGS: risk weighted premium, co-insured risk
- Be open to all forms of funding, provided they support the basic premises of the scheme
- Examine the consequences of the European passport in greater depth
- Cap the funding contribution for banks
- Adapt the oversight, e.g. on branches

Reserve

Libor rate and government bonds



Asset backed securities



Fixing Bankers' Pay in Europe: Governance, Regulation and Disclosure

Guido Ferrarini [1]
Maria Cristina Ungureanu [2]

Abstract

Corporate governance variables such as board structure, ownership structure and compensation structure have different features at banks; this creates special compensation settings. After the reforms set around the 2004-2006 period, international policy makers are engaging in a new round of reforming the directors' pay system. The European Union provides a fertile ground for the discussion on directors' remuneration. Our insight into the particularities of the pay structure of banks' boards assist in gaining an understanding of the interaction between public regulation and corporate governance. We emphasise the role of disclosure as a remedy for solving the weaknesses in the design of pay contracts and governance structures. An analysis of the disclosure behaviour by Europe's largest banks is conducted using criteria based on the European Commission's Recommendations.

Keywords: Directors' remuneration, European banks, disclosure, corporate governance, regulation

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2. PhD, Researcher, University of Genoa; Fellow, Genoa Centre for Law and Finance

Corporate governance of banks

Governance structures are industry-specific. Sound corporate governance practices of banks are of particular concern to regulators, investors and public. Such concerns are warranted because of the unique role played by banks in the global economy and their particular features, which put them at the core of the financial crisis. Banks are an important source of liquidity; they provide maintenance of deposits backed by government insurance; they coordinate the nation's payment system. The health of economy depends on the performance of banks.

Moreover, banks possess unique features that engage and challenge policy makers to make important reforms during times of financial distress. These features have been brought into a stronger light during the crisis. Banks are complex organisations, most havin a significant size: the wave of mergers from the latest decade has increased the sizes of banks and cross-border operations[1]. The variety of stakeholders enhances banks' complexity: in addition to investors, depositors and regulators also have a direct interest in bank performance. Banking is a highly leveraged industry and possible failures may lead to negative externalities. Banks' capital structure is different: i) little equity relative to other firms (financing mostly from debt), ii) illiquid assets that often take the form of loans without maturity; iii) liabilities in the form of deposits to other firms. The information flow is complex due to the opaque environment in which banks operate. These characteristics lead to the banking industry being highly regulated comparing to other industries.

Board structure, ownership structure and compensation structure are determined by one another and by a range of variables such as risk, real and financial assets, cash flow, firm size and regulation. These variables have specific features at banks and this creates different compensation settings. Theory and practice have shown us that there are higher anticipated gains in banks.

An analysis of the executive compensation framework initiates from banks' unique features, pointing us to the need for a "spring-clean" of the compensation system. Banks' lack of credibility is related to low levels of transparency and to the reward for failure. It is important that banks regain analyst and investor confidence, so that they can resolve the stringent issue of raising capital. In the same time, there is a call for investor and taxpayer protection in order to re-launch economies. The European Union (EU) provides a fertile ground for the discussion on directors' remuneration[2]. After the reforms set around the 2004-2006 period, international policy makers are engaging in a new round of reforming the directors' pay system[3].

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[1] Other industries that have experienced this effect are the oil industry in the 1970s and the defense industry in the late 1980s.

[2] For previous studies on executive remuneration and respective EU reforms see the following: Ferrarini, G., N. Moloney, *Executive Remuneration in the EU: The Context for Reform*, 21 Oxford Review of Economic Policy, 2005, p. 304; Ferrarini, G., N. Moloney, *Executive Remuneration and Corporate Governance in the EU: Convergence, Divergence, and Reform Perspectives*, in Ferrarini, Hopt, Winter, Wymeersch (Eds.), *Reforming Company and Takeover Law in Europe*, Oxford University Press, 2004, p. 267; Ferrarini, G., N. Moloney, C. Vespro, *Executive Pay: Convergence in Law and Practice Across the EU Corporate Governance Faultline*, in *Journal of Corporate Law Studies*, Hart Publishing, Cambridge (UK), 2004, p. 243; Ferrarini, G., N. Moloney, C. Vespro, *Executive Remuneration in the EU: Comparative Law and Practice*, ECGI Law Working Paper 09/2003.

[3] In the US, the "The American Recovery and Reinvestment Act of 2009" bill (February, 2009) will significantly rewrite the original executive compensation and corporate governance provisions of Section 111 of the Emergency Economic Stabilization Act of 2008 (12 U.S.C. 5221, "EESA") and will apply to all institutions that have received or will receive financial assistance under the Troubled Asset Relief Program ("TARP").
In the UK, in October 2008 the FSA issued a statement to all bank CEOs setting out high-level criteria for good and bad remuneration policies for directors' remuneration. The FSA makes clear that it does not want to become involved in setting remuneration levels but explains that it wishes to see firms adopt remuneration policies which are aligned with sound risk management systems and controls.

Considerations on banks' pay structure

By understanding the particularities of the pay structure of banks' management we gain understanding of the interaction between public regulation and corporate governance.

The executive compensation issue derived from the theory based on i) managerial productivity; and ii) optimal incentives. The theory aligning managerial interest with the *interest of shareholders* is well-known and followed by the traditional firm. In banks this theory sees aligning management incentives also with the *interest of nonshareholder constituencies*. The scope of the duties and obligations of corporate officers and directors should be expanded in the special case of banks (Macey and O'Hara, 2003).

The typical elements of the remuneration package for executive directors are basic salary and benefits, a performance-related annual incentive plan, a contributory pension scheme and participation in the share incentive plans. Performance-related awards based on measured targets are a key component of remuneration. The role of *incentive contracts* in ameliorating agency problems is also well-known. Over the last decade the policy to grant options to key management has become popular with the justification that option plans encourage identification with shareholders' interest. However research shows that compensation structures that have low pay for performance sensitivity are more effective, restraining risk-shifting incentives on the part of the managers, thus minimising the agency cost of debt . This was predicted by John & John (1993) and empirical evidence is brought by John & Qian (2003), Adams and Mehran (2003). Holmstrom and Milgrom (1987) argue that the optimal performance-related compensation component for risk-averse managers should be inversely related to firm's risk[4]. As Jensen and Meckling (1976) observed, risk-shifting incentives of management closely aligned with equity interests are stronger in high-leveraged firms. In this sense, banks with controlling shareholders, which are mostly encountered in Continental Europe, have a higher tendency to risk-taking.

Literature has observed that banks may have a different structure of executive pay and the compensation structure has effects on banks' performance. A higher level of stock options motivates executives to pursue riskier investment strategies; nonshareholder constituencies do not benefit from this. We have also seen that executives started to hedge their options in the market. This can destroy the incentive character of the award, constituting a redistribution income from shareholders to management (Kichmeier, 2008). Poor performance is easier to identify at banks; consequently, stock options tend to be less important in homogenous industries such as banking. A number of stock options larger than needed may be issued by banks, which creates a dilution effect.

The financial crisis that started in 2007 showed us that banks' risk models failed to capture risks. Managers with large off-balance sheet exposures did not appreciate the full magnitude of economic risks they were exposed to. Remuneration itself can be a risk. Despite the concerns of regulators, promoting risk taking is not the only (or perhaps even the most important) factor influencing the structure of banks'compensation contracts (Houston, James, 1995). The structure of

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At the beginning of 2009, the French government toughened its approach to pay at banks receiving public money. In return for a €10.5bn tranche of state capital in December 2008, it required them to curb severance payments and only offer share options to management if they were available to all employees, which the banks have complied with.
In October 2008 the German government approved strict conditions for banks that make use of its rescue package, including limits on managers' salaries, bonuses and severance.

[4] In 1992-1993, the SEC required enhanced disclosure on executive compensation and Congress enacted tax legislation, i.e. Internal Revenue Code Section 162(m), limiting the deductibility of non-performance related compensation over one million dollars. Studies (e.g. Perry and Zenner, 2000) show that the pay for performance sensitivity has increased following the regulations, especially for million-dollar firms.

bank compensation contracts will reflect *factors* such as: the cost of monitoring managers; the nature of the assets managed; the regulatory environment; the firm's investment opportunity set[5]; the capital structure.

The way in which directors are remunerated determines the way they drive the business, therefore it should relate not only to the performance of the business but also to its strategic objectives. How can performance and strategic objectives be best measured in order to align banks' interests with the interest of shareholders, creditors and customers and, ultimately, the overall economy? Company's profits may be unsustainable (as it has been proved by banks' latest financial results); individual performance may be too short-lived, hence the manager's pay could be reduced to nil. Nonetheless economy still needs a process that rewards success, motivate and attract talent.

Most banks state that their policy on directors' remuneration is designed to attract and retain directors of the highest caliber and to reward performance. Perhaps one of the criteria for setting incentives should be the measure of bringing good governance to the firm. This will ensure the alignment of banks' interest with the interest of all stakeholders, as well as full compliance with regulation.

Regulation and market

We refer to 'regulation' as the mix of public regulation, recommendations and best practice codes.

A proper understanding of the incentive structures of top management compensation can be important for designing effective regulation in the banking industry (John & Qian, 2003). Bank supervision that ensures that the bank complies with regulatory requirements could play a general monitoring role (Adams and Mehran, 2003). John, Mehran, and Qian (2003) support this argument by showing that weak bank holding companies' examination ratings are correlated with high pay-performance sensitivity of CEO compensation. John, Saunders and Senbet (2000) predicted that regulation that takes into consideration management incentives will be more effective than capital regulation in ameliorating risk-shifting incentives. The argument is extended, proposing that bank regulation and pricing of FDIC insurance premium incorporate incentive features of top management compensation.

The *ability to attract capital* is extremely important for banks. This ability depends on the expected returns for potential investors. Especially in a turbulent market where quality matters more than ever, investors are integrating corporate governance research into the investment decision-making process in a number of interesting ways. Some use governance research as an adjunct to traditional security analysis, others to support engagement programs; some use it to support dedicated ESG (Environmental, Social and Governance information) research and investment products, others to adjust the discount rate in capital asset pricing models. Several studies found a positive relationship between corporate governance and shareholder returns, return on equity, return on assets and return on capital, among other parameters[6].

[5] For example, Gaver and Gaver (1993), Smith and Watts (1992), and Kole (1993) find higher levels of cash compensation and greater reliance on stock-based incentive compensation for firms with more growth options relative to tangible assets. These studies also find that the reliance on incentive compensation varies with the regulatory environment that the firm operates in.

[6] See for example Gompers et al. (2003), Brown and Caylor (2005), Durnev and Kim (2005), Black et al. (2006).

Investors are not in the position to supervise pay across the banking system. There are three angles in the remuneration system: policy makers represented by regulators and supervisors, the market represented by investors, creditors and customers, and the banking system, which assumes the top angle. The market interacts with the policy makers in order to set up the remuneration framework. The three components of the remuneration framework have a common objective: to underpin and reinforce an ethical culture. Public regulation has been written and implemented at a EU centralised level and at national levels. In their corporate governance statement, banks generally affirm that they comply with national regulation and corporate governance guidelines. Since the market has not been content with the regulation on remuneration, we can conclude that regulation and guidelines have not been appropriate, either being too lax or insufficient. Regulators have placed additional expectations on banks; more so, in case they are owners, governments have had a role in setting the pay policy for boards.

Because governance might have limited effects in preventing excessive risk taking by banks, the intuitive reaction is to request tighter public regulation. Enhanced public regulation then becomes a substitute for governance. In practice this model has not proved efficient, as a general reliance on regulation has lead to the weakening of internal governance mechanisms. Do market solutions work better than enhanced regulation? How to avoid overregulation? In order for the regulation to be properly reformed and applied, the functioning of banks' boards and the remuneration structure have to be improved, meaning that public regulation and governance need to complement themselves and not substitute. The presence of regulation should affect the design of internal governance mechanisms.

Markets can fulfill an important role in the remuneration process on two conditions: they must be empowered with the necessary rights and they should be provided with the appropriate disclosure framework. Supervision with an enhanced role in the governance of banks would lessen, or at least would reason, with capital markets' demand for the increasing of disclosure. This is where market discipline plays a role. *Market discipline* has taken up an important place in the conduct of the banking industry in recent years[7]. It encompasses the concept that shareholders, creditors, and peers can influence the investment, operational, and risk-taking decisions of bank managers (Flannery 2001, Bliss and Flannery 2002). Bank supervisors have embraced market discipline as a complementary element to supervision and regulation for monitoring risk at individual banks and for mitigating systemic risk in the banking system. For market discipline to be effective, market participants need sufficient information to assess banks' current position and future prospects. This has prompted a range of proposals for enhanced public disclosure by banks. Greater disclosure can also serve as commitment from the part of the bank, by providing sufficient information to the market about its condition and future prospects; in this way, the bank is constrained from altering its risk profile in a way that disadvantages either investors or creditors (Cumming and Hirtle 2001; Hirtle, 2007).

A positive relationship between disclosure levels and the performance of firms has been acknowledged. This relationship is also applicable to the EU banking industry in particular (see empirical evidence Burghof & Hofmann, 2000; John and Qian, 2003). Transparency can be a powerful tool in banking regulation. It enhances the accountability and the transparency of banks' governance and affairs[8]. The mere fact that governance structures or particular actions have to be

[7] The Basel II regulatory capital regime incorporates market discipline as the "third pillar" along with minimum capital standards and supervisory oversight (Basel Committee on Banking Supervision, 2004).

[8] In the UK the Cadbury Committee (1992) advocated disclosure as a mechanism for accountability, emphasising the need to raise reporting standards in order to bypass the threat of regulation. The Hampel Committee constituted in 1995 consolidated the recommendations of the Cadbury Report in 1992 (focusing on financial reporting) and the Greenbury Report in 1995 (focusing on directors' remuneration), into a 'Combined Code' on corporate governance. The aim of the

disclosed, and therefore have to be explained, creates an incentive to renounce structures outside what is considered to be best practice[9]. High quality, relevant information is an indispensable adjunct to the effective exercise of governance powers. If the disclosure system is not properly designed, costs will exceed benefits. Disclosure must be comprehensive to prove that remuneration ties to company's long-term performance as measured by recognised criteria. Previous studies[10] show that the level of disclosure is important for banks' performance and that harmonisation of disclosure is an efficiency factor for the capital markets. However, harmonisation should be limited to promoting convergence in disclosure, which is central to effective pay practices and effective governance in pay-setting (Ferrarini and Moloney, 2005).

There is a conflict of interest when executive directors take part in setting their own pay. Shareholders should be better informed: they are the owners of the company, not the management. They want to make sure that the remuneration policy gives enough incentive to directors and is right for the company. An investor provided with sufficient information on the remuneration policy for directors may be able to infer agency costs and the management potential to implement decisions that align with the objectives of shareholders. Proper disclosure and giving shareholders effective control are therefore essential to restore confidence in the EU banking system.

EC Recommendations. Findings

The Recommendations on directors' remuneration[11] and on the role of non-executive directors[12] are part of the European Commission (EC) Plan of Modernising Company Law and Enhancing Corporate Governance in the European Union[13]. This plan aims to strengthen shareholder rights and third party protection and to foster efficiency and competitiveness of business, with special attention to specific cross-border issues. The EC Recommendation on directors' remuneration contains provisions for enhancing company accountability through appropriate disclosure of the remuneration policy, enabling shareholders to appreciate the remuneration in the light of the overall performance of the company. This initiative aims to make remuneration systems subject to appropriate governance controls based on adequate information rights. The Recommendation on the role of non-executive directors and on the board committees published two months later complemented the former through enhancing the role of the non-executive board and its committees, eliminating and preventing conflicts of interest.

These reforms, albeit not binding law, contain provisions already dealt with by certain EU Directives[14]. The EC does not envisage the adoption of binding rules, but rather relies on national corporate governance codes based on the "comply or explain" principle to complement public laws.

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code of corporate governance was not to prescribe corporate behaviour in detail, but to encourage disclosure so that investors and others can assess companies' performance and governance practice and respond in an informed way.

[9] See the report "A Modern Regulatory Framework for Company Law in Europe: A Consultative Document of the High Level Group of Company Law Experts http://ec.europa.eu/internal_market/company/modern/index_en.htm.

[10] See for example Cumming and Hirtle (2001), (Flannery 2001).

[11] EC Recommendation fostering an appropriate regime for the remuneration of directors of listed companies (2004/913/EC).

[12] EC Recommendation on the role of non-executive or supervisory directors of listed companies and on the committees of the (supervisory) board (2005/162/EC).

[13] Modernising Company Law and Enhancing Corporate Governance in the European Union - A Plan to Move Forward (COM (2003))

[14] For example, the Transparency Directive and the Accounts Modernisation Directive call for transparency and consistency and a forward-looking approach in corporate reporting. The "family" of accounting directives including the Fourth Company Law Directive (78/660/EEC) and the Seventh Company Law Directive (83/349/EEC) have already defined the circumstances in which consolidated accounts are to be reported, laying down rules on disclosure and content of reports.

In the same time the two Recommendations respect the diversity of corporate governance systems within the Community. This in fact puts additional responsibility on each Member State to transpose the Community regulation timely and comprehensively. Effective transposition would ensure more transparency and consistency in corporate reporting when companies follow their laws and guidelines.

Transparency and harmonisation are therefore essential ingredients for the EU reforms on directors' remuneration. The comparability of financial statements prepared by publicly traded companies is important because it enables them to compete on an equal footing in the international capital markets[15]. Disclosure must be comprehensive to prove that remuneration ties to company's long-term performance as measured by *recognised criteria*. Moreover in the case of banks, due to externalities, disclosure can have strong impact on banks' valuation, third party relationships and competition, hence on the entire banking system. In order to ensure a solid banking system, bank competition (product competition, market competition, monetary variables) must be protected and sustained.

We have carried out a study on firms' behavior towards the disclosure of directors' compensation. Our dataset consists of Europe's largest 300 companies by market capitalisation[16]. The analysis is based on the annual financial statements and corporate governance reports for the financial year ending December 2007 or March 2008. Amongst the overall company data, we address the 48 European banks, with headquarters in 15 countries. The sample may not be large enough to be considered representative for the entire European banking sector, therefore generalisations are to be avoided. However these banks have relevance for the new unified European market, most have a complex structure and wide cross-border operations and are representative in their home state. We used a set of 25 criteria for measuring the level of disclosure, under the main areas of *governance*, *remuneration policy* and *individual disclosure*. In setting the criteria we followed the provisions stated in the EC Recommendations and in the international best practice guidelines.

The results show very dispersed levels of compliance with the underlying requirements for disclosure within the main areas of governance, remuneration policy and individual disclosure. Given that the sample is made up of a small number of banks in a variety of countries, the dispersion is mainly explained by the variations between national regulatory requirements. Banks tend to follow their national regulation, while national regulations have not implemented the provisions in full. The UK had implemented many of the provisions (found later in the EC Recommendations) into public regulation already in 2003 and banks have generally complied with these ever since. Banks from Continental Europe comply with the recommendations only in part and there are differences regarding the levels of disclosure between banks.

There are situations where banks do not comply with their national corporate governance recommendations and provide explanations on their approach. Non-compliance with certain criteria can also be "blamed" on the national regulations for not having implemented the provisions. An additional explanation can lay in the fact that banks that are part of the eurozone, supervised by their National Central Banks and protected by the European Central Bank to which they have transmitted some of their responsibilities, tend to focus more on national responsibilities than on

[15] The Lisbon European Council of 23 and 24 March 2000 emphasised the need to accelerate completion of the internal market for financial services, set the deadline of 2005 to implement the Commission's Financial Services Action Plan and urged that steps be taken to enhance the comparability of financial statements prepared by publicly traded companies (Recital 1, of Regulation (EC) 1606/2002 of the European Parliament and of the Council of 19 July 2002 of the application of the international accounting standards.

[16] FTSEurofirst 300 as November 2008.

Community responsibilities. In the same time, they put stronger emphasis on profit achievements, thus focusing more on operational responsibilities and less on best practice compliance. Moreover, European old banking groups have preserved their fundamental articles and codes of conduct.

The levels of disclosure and the requirement for a comprehensive remuneration policy are different across states and across banks. In some cases banks are more transparent on the individual disclosure of remuneration and provide a less comprehensive remuneration policy; or vice versa.

We included a criterion allowing us to observe the way that the information relative to remuneration is consolidated under the statement. Although results indicate that the majority of banks have a remuneration statement in the annual report, the "consolidation" criterion achieved a low level amongst European banks, which concluded our observation that banks do not have a consolidated remuneration report. With the exception of the UK firms, most of the European banks lack exhaustive reporting. Elements of the remuneration policy are scattered throughout the annual report. "A clear and comprehensive overview of the company's remuneration"[17] has not been achieved by the majority of banks, which creates impediments on governance controls and on the assessment of the remuneration system adopted by the firm. We consider this to be an important requirement in order to gradually move towards consolidated, bottom line reporting on remuneration.

The disclosure of the policy on directors' remuneration is the area that banks comply least with. Indeed the requirements regarding the presentation of the remuneration policy statement, the terms of contract, the information on the preparatory and decision making for the remuneration process and the information that needs to be set out under the remuneration statement (related to the importance and performance criteria of variable and non-variable remuneration) are followed partially by banks. Re-confirming directors on a yearly basis would assure investors and give them a stronger voice in banks' affairs. In fact, not disclosing the terms of office or the role of the General Meeting reveals the limited role that shareholders have in the process of setting the remuneration policy and in elections.

Remuneration policy's focus on subsequent years is the less compliant criterion; approximately 20% of the banks have a forward-looking approach of the remuneration policy. Benchmarking, as a criterion found mostly in the UK remuneration reports, is not a rule for disclosure at other EU banks. A right balance between the benefits of disclosing forward-looking information and withholding sensitive information could be found. This approach could be an opportunity to provide board's view on the fundamentals of value and to stress the link between rewards and the objectives of the bank. It is important to set up an employment market peer group, not limited to national banks, which acts as reference for the remuneration levels of the (supervisory) board to ensure an adequate alignment with the relevant market competitive standards as adopted by banks of similar size and complexity.

The area of governance represented by the requirements for boards to have a remuneration committee is best complied with. However, the presence of a remuneration committee is not always associated with the compliance with the membership requirements for having non-executive, majority independent directors. This criterion is applied differently among banks from various states, which is explained by the differences in the corporate governance codes, reflecting the different governance structures[18]. However even acepting that the corporate governance framework

[17] Preamble (5), Commission Recommendation 2004/913/EC.

[18] For example, German banks do not have separate remuneration committees; the German Corporate Governance Code, whilst recommending the presence of a special committee that deals with the remuneration of directors, does not

needs improvement in thea area of directors' compensation, designing measures that can bolster independence of the remuneration committee is a better remedy than the expansion of the shareholder power (Gordon, 2005).

The level of compliance with the requirements for individual disclosure of remuneration is 60%. This area contains criteria for individual disclosure of the remuneration components of executive and non-executive directors and of any share-based remunerations schemes granted to directors. Not all the banks that disclose individual remuneration of non-executive directors provide individual disclosure of their executive remuneration. Only 35% of banks provide disclosure of remuneration for the preceeding financial year. However, it is important to provide shareholders with information on the basis of which they can hold the individual directors accountable for the remuneration they have earned, and appreciate the remuneration in the light of the overall performance of the company. The criterion requiring individual disclosure of share incentives details has an approximate 50% achievement level. This justifies current concerns on the high levels of pay that are not supported by performance: either the issuers do not disclose enough or the link between remuneration and rewards is non-existent. Either way, investors do not feel assured.

Conclusions

Consistent with previous findings on the approach to remuneration, we find that the levels of disclosure of the remuneration policy reflect the differences in regulations across the EU[19]. Considering our analysis, a first step to a better disclosure of the remuneration policy by the European firms is a complete transposition of the Community requirements into national law and best practice gudelines. This is not aimed at tightening regulation at Community level but rather at aligning national regulation to the level recommended by the EC. Public regulation and corporate governance guidelines need to be complementary, perhaps with listing rules supporting the corporate governance guidelines[20].

Secondly, regulators and supervisors should take a special interest in banks, issuing specific regulatory and best practice provisions for the banking sector, directors' compensation being one of the key points. This would reduce the managerial pressures on boards and facilitate supervisors' control. Examples of such initiatives already exist: the Bank of Italy issued in March 2008 "Supervisory provisions concerning banks organisation and corporate governance". The corporate governance arrangements adopted by Italian banks must ensure full, substantial compliance with these provisions. The effect of this regulation will be evaluated after the deadline for the implementation by the Italian banking firms[21].

Thirdly, avoiding conflict of interest by enhancing the role of an independent remuneration committee would not only reinforce governance principles, but would also put more ethical responsibilities on boards against managerial pressure, giving banks more credibility.

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require majority independence of its membership, but rather what the Supervisory Board "considers an adequate number of independent members".

[19] See Ferrarini, G., N. Moloney (2005) who found that the degree of sophistication of regulatory intervention on pay, and the extention to which highly-powered, equity-based incentive contracts are adopted, reflects governance systems across the EU.

[20] For example, the UK Combined Code on Corporate Governance (2006) is a non-statutory Code which sets the principles of good corporate governance for UK listed companies, applied through the Listing Rules.

[21] Document available at:
http://www.bancaditalia.it/vigilanza/banche/normativa/disposizioni/provv/en_disposizioni_040308.pdf.

An analysis of the disclosure behaviour of banks from Continental Europe, where there is no legal requirement for a separate remuneration report, and the disclosure provided by UK companies and by a small number of European companies that produce a separate remuneration report, leads to our next conclusion: that only a separate remuneration report providing a bottom line evaluation of the different compensation elements could provide a consolidated, clear and comprehensive overview of the remuneration policy[22]. Member States should move this requirement into public regulation, also for the sake of a speedy compliance.

Some of the measures already taken by the EC and several national supervisors may already help improve banks' remuneration framework, if introduced in national legislation and applied in practice. Some extra measures that either enforce or complement the existing ones could further help. Disclosure may be a remedy for solving the weaknesses in the design of pay contracts and governance structures.

[22] Gordon (2005) had similar recommendations for US companies to adopt a separate remuneration report, named "Compensation Discussion & Analysis".

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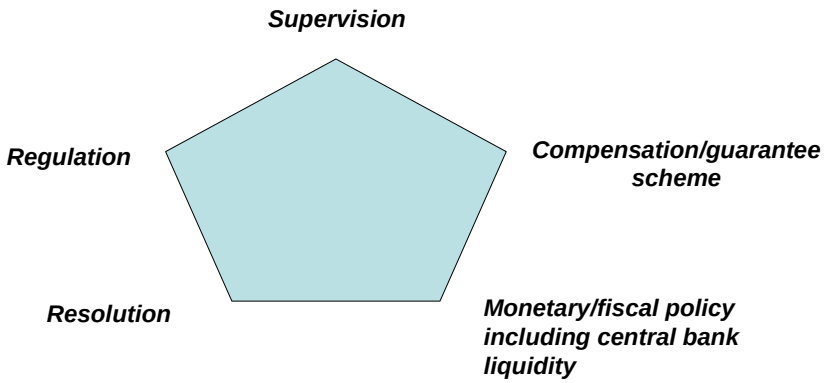
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The Rationale for and Limits of Bank Supervision

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Bank regulation and bank supervision go hand in hand. Indeed, the rationale for bank regulation – the protection of depositors and the preservation of economic stability – dictates that societies supervise as well as regulate banks.[1]

Supervision is part of a broader tapestry



But supervision can only be as effective as regulation and macroeconomic policy will permit. Excellent supervision of poorly framed regulations will not necessarily produce good outcomes. And, excellent supervision of well framed regulations will not necessarily offset poor monetary and fiscal policies. Supervision is but one corner of a broader tapestry that includes regulation, resolution and compensation/guarantee arrangements as well as monetary and fiscal policies. All need to work together, but the same entity need not conduct them all. Indeed, there is much to be said for assuring that there remains a division and a dialogue between supervision on the one hand and monetary/fiscal policy on the other.

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[1] In this respect financial intermediaries (especially banks) differ from non-financial companies, which may be regulated, but are not subject to prudential supervision.

Nor can excellent supervision supersede banks' own management and governance. The task of supervision is to enforce regulation, not to run banks. It is up to the bank's management and shareholders to assure that the bank meets its regulatory requirements. If the bank cannot or will not, it falls to the supervisor to impose sanctions on the bank, so that the bank remains in compliance with the regulation or the bank ceases operations. Indeed, the final act of supervision may be to determine that a bank no longer meets threshold conditions and that the bank should be put into resolution.

The rationale for bank regulation

Generally, societies deem that banks are vital to economic stability, and societies recognise that bank deposits form a significant share of the liquid assets that consumers and small businesses possess. For this reason, societies judge, as amply demonstrated in the current crisis, that banks are worthy of extraordinary government support to keep them functioning. Indeed, the amount of such support on a global basis during this crisis is now approximately $7 trillion , or some 12% of global GDP.[2]

Effectively societies take a credit risk (actual or contingent) on banks. Regulation can be seen as equivalent to the covenants that a commercial lender would impose, if it were to serve as a liquidity backstop to the bank and/or guarantor of a bank's deposits (Dewatripont and Tirole 1994: 31 -32, 87 – 92). These covenants or regulations pertain to both condition and conduct. Banks must remain in a healthy condition – they have to maintain minimum amounts of capital and liquidity. They need to limit large exposures, control lending to connected counterparties such as affiliates and to account accurately for assets and liabilities. Banks must also conduct themselves appropriately. Their managers and owners have to be "fit and proper" and they have to act with integrity. Banks cannot employ a business model that entails market abuse or manipulation, mismanages conflicts of interest, misappropriates client assets, misinforms customers or mis-sells products. Banks have to operate with due care, skill and diligence, and they have to have appropriate systems and controls.[3]

What should be the style of supervision?

Supervision is the mechanism by which society monitors banks' compliance with regulation and imposes remedies for breaches of those regulations. Such remedies include the transfer of control rights over the bank to a resolution authority, if the bank fails to meet its minimum requirements (threshold conditions).

For supervision to be effective, it should be risk-based and proactive, akin to the monitoring that a lender would impose on a borrower. This will allow the supervisor to assess the likelihood that the bank will come close to breaching its covenants/regulations and to impose

[2] This extraordinary support comes on top of what is usually referred to as the safety net for banks – the provision of insurance or guarantees for the deposits that banks issue to retail customers and the provision of liquidity by the central bank in the form of lender of last resort assistance.

[3] Cf Basel Committee 2007, FSA Handbook PRIN 2.1. In addition, there may be limitations on the activities that may be conducted directly within the bank itself (e.g. in practically all countries it is prohibited for a bank to underwrite insurance directly in the bank itself) or via affiliates (in the United States there remain some restrictions on the association of banks with non-financial enterprises.

conditions on the bank that will reduce the risk of a breach occurring. If breach does occur, supervisor should have ability to impose sanctions on the firm, including fines and cease-and-desist orders or variations of permission, so as to assure that the firm corrects the breach and to limit the possibility that the breach would recur. And, if the breach is so severe and/or incapable of correction, the supervisor must have the possibility of placing the firm into resolution.

This approach calls for supervisors to exercise judgment about firms' business models and firms' managements – whether the bank has a viable business model and whether management can execute the strategy effectively even if the economic environment turns adverse.[4] To reach these judgments the risk-based and proactive supervisor must have an open dialogue with the management of the firm whilst avoiding being captured by the firm.

Recently, the UK has taken two steps to greatly strengthen its capabilities to execute this approach. The FSA itself has taken the first step. In response to the failure of Northern Rock, the FSA undertook a comprehensive review of its supervisory practices (FSA 2008a) and is now implementing a wide-ranging supervisory enhancement programme (FSA 2008 b) that includes both training for existing staff and extensive recruitment of additional supervisors.

More importantly, the FSA has, in conjunction with the deterioration in the economic and financial environment, become much more interventionist and intrusive in terms of its supervision. As banks have moved toward the point where they would no longer have adequate capital or liquidity, the FSA has greatly intensified its monitoring of the bank in question and greatly accelerated its demands that the bank take corrective action to raise capital and/or replenish liquidity.

As well as insisting that the bank in question engage in risk mitigation, the FSA has, together with the other Tripartite authorities, also engaged in extensive contingency planning that would either help effect a private sector solution prior to failure or a prompt resolution, if failure could not be avoided.

Bradford & Bingley is a case in point. As the risk of Bradford & Bingley increased during 2008, the FSA intensified its monitoring of the bank, required the bank to undertake actions to mitigate that risk, including raising new capital. The FSA also worked with private sector investors to find a solution to the bank's problems. In addition, the FSA engaged in extensive contingency planning with the Bank of England, the Treasury and the FSCS so that a resolution (through taking the bank into TPO and transferring its deposits to Abbey) could be effected over a weekend following the FSA's determination that the bank no longer met threshold conditions (Pym 2008).

Strengthening resolution and speeding compensation

[4] For this reason supervisors place a great deal of emphasis on firms' conducting adequate stress-testing of their businesses (see FSA 2008c).

The second step taken in the UK was to strengthen its compensation and resolution regime. When the crisis broke in 2007, the UK did not have a deposit guarantee scheme that was set up, or equipped, to pay out covered deposits within a short period after the bank's failure. The UK deposit guarantee scheme also called for co-insurance for deposits above £2,000 but below £35,000. Hence, those depositors who understood the way the FSCS worked at the time could reckon that if their bank were to fail, they faced the possibility of having to wait weeks or months to get back 90% of their deposits. In such an environment it was rational for depositors to run on a bank that was in deep trouble – and that is exactly how many Northern Rock depositors interpreted the BBC's announcement on 13 September 2007 that the Bank of England was considering providing emergency liquidity assistance to Northern Rock in its capacity as the lender of last resort.

Nor did the UK have, when the crisis broke in 2007, an effective regime for the resolution of failing banks. There was no effective mechanism for the authorities to resolve a failing institution (other than outright liquidation) without seeking shareholder approval. This put the authorities in the untenable position of having to guarantee Northern Rock's liabilities without having the ability to force the shareholders to inject new capital or to cede control of the institution.[5]

The immediate remedy to the deficiency in the compensation system was the guarantee of all Northern Rock liabilities and a statement by the Chancellor [17 September 2007] that the UK government would intervene in a similar fashion in similar circumstances to protect UK retail depositors. The FSA also took measures to strengthen the deposit guarantee scheme, including the elimination of co-insurance [1 October 2007] and raising the overall limit from £35,000 to £50,000 [7 October 2008].

More substantive and permanent changes have required primary legislation. In February 2008 Parliament passed the Banking Special Provisions Act 2008 which facilitated the government's taking Northern Rock into temporary public ownership (TPO) and enhanced the authorities' ability to resolve bank failures promptly. Indeed, the authorities have used the powers in the Special Provisions Act to facilitate the prompt resolution of Bradford & Bingley (see above) as well as the UK subsidiaries of Icelandic banks.

However, this Act has a one-year sunset clause and will expire in February 2009. To put a more permanent regime in place, the government introduced a Banking Bill in October 2008 based on extensive joint consultation papers (Tripartite 2007, 2008a, 2008b, 2008c and Treasury 2008) published by the Tripartite authorities (in coordination with the FSCS) and extended discussion, debate and dialogue with industry, academics and other stakeholders.

The Banking Bill calls for the creation of a special resolution regime for banks and greatly strengthens the ability of the FSCS to pay out covered deposits promptly (ideally within seven days of the failure of the bank). The "trigger" for placing the failing bank into the resolution regime is a determination by the Financial Services Authority, the bank's supervisor, that the bank in question no longer meets threshold conditions.[6] Threshold

[5] The authorities were able to exercise some control through covenants on the loan extended by the Bank of England to Northern Rock, but these fell short of what would have been required to effect prompt resolution.

[6] The Bank of England and the Treasury may provide a recommendation to the FSA that a bank should be placed into the special resolution regime.

conditions include the requirement that the bank in question have adequate capital and adequate liquidity. This is necessarily a judgment rather than a simple quantitative test, but the bill plainly envisages the possibility that the bank could be put into resolution whilst it still has positive net equity. The resolution regime is very much an early intervention regime to allow the authorities to intervene well in advance of the point at which corporate insolvency procedures would permit intervention. This early intervention feature broadly implements the lessons drawn from the theory of early intervention and the practice of early intervention in other countries, namely that early intervention limits both the losses at the troubled institution in question as well as potentially in society at large.

Resolution tools envisaged under the Bill include liquidation (and payoff of covered deposits via the FSCS), the transfer of an institution's deposits to a third party, the transfer of the troubled bank's assets and liabilities in whole or in part to a bridge bank, or taking the bank into temporary public ownership (TPO). Under the Bill the Bank of England makes the choice of the resolution tool to be used (subject to approval by the Treasury, if the tool involves the use of taxpayer funds and/or is TPO), and the Bank of England is responsible for executing the resolution (unless the bank is taken into TPO in which the case the Treasury will be responsible for exercising ongoing oversight as the institution's shareholder).[7]

The introduction of an effective early intervention mechanism greatly enhances the ability of the supervisor to exercise proactive supervision. Indeed, the prospect of early intervention should concentrate the mind of a bank's management and the resolve of its shareholders to take timely corrective action, including, if necessary, the sale of the institution to a third party, before the authorities invoke early intervention (in which case the shareholders would likely get little or nothing). Indeed, it is envisaged in the consultation documents supporting the Bill that private sector solutions are the first recourse for resolving troubled banks and that the Financial Services Authority would remain responsible for finding such private sector solutions prior to the invocation of the resolution regime.

Supervision, resolution and market discipline

The effect of the resolution regime will depend critically on how it is implemented. In estimating risks inherent in exposures to financial institutions, market participants consider two factors: the probability that resolution will be required, and the loss given resolution. The first involves not only a judgment about the risks that the bank assumes, but also a judgment about the effectiveness of supervision in identifying those risks and getting the firm to mitigate them before resolution is required. In this respect financial institutions differ from non-financial institutions. The latter are generally not subject to supervision. The only monitoring is the monitoring that occurs in the market, and there is no expectation that some authority will act to force management to turn the firm around before it runs aground.

Loss given resolution is much more difficult to predict than loss given default. Experience suggests that the distribution of loss given resolution may be much more binary that the distribution of the loss given default in a non-financial corporation. Either the authorities intervene in a manner that protects practically all stakeholders (except common shareholders and management), or the government may let the firm go into liquidation where the losses

[7] The Financial Services Authority has the right to recommend a choice of resolution tool to the Bank of England.

given resolution may be proportionately much greater than the losses that result from a routine corporate bankruptcy.

So forming a view on the risk of a financial institution involves forming a view on what the authorities would do, if the institution required resolution. It is part and parcel of the risk assessment. Until the onset of the crisis resolution of troubled financial institutions was a relatively rare event (certainly compared to the numbers of corporate bankruptcies that occur each year). So the way the authorities resolve a particular institution may have a marked impact on the market's expectations of how the authorities might resolve the next.

The cases of Bear Stearns (March 2008) and Lehman Brothers (September 2008) illustrate this well. In March the US authorities elected to rescue Bear Stearns on the grounds that its failure could cause repercussions in financial markets that were too complex to contemplate. No stakeholder in Bear Stearns experienced any loss with the exception of Bear Stearns' management and stockholders. This rescue created expectations in the market that larger broker dealers would be resolved in a similar manner, if the broker-dealer were to require resolution.

The resolution of Lehman Brothers abruptly reversed that expectation. Contrary to expectations in the marketplace, the US authorities allowed Lehman Brothers to fail. Although the decision to keep the US broker dealer in operation for a few days after the holding company had declared bankruptcy permitted the settlement of outstanding trades with that particular entity, the bankruptcy of the entire group caused severe disruption in markets around the world. The failure of Lehman caused market participants to review quickly their securities lending arrangements, limit rehypothecation and reallocate free cash balances. That had very significant knock-on effects on other broker dealers.

The resolution of Washington Mutual, also in September, compounded these effects. The US authorities failed to keep whole the senior debt holders in the bank. This contrasted markedly with their behaviour in resolving other bank failures. This change in resolution practice caused market participants to revise their estimates of risk in senior, unsecured obligations of banks, further aggravating the funding squeeze.

Other bank failures compounded the problem, including Bradford & Bingley here in the UK, Fortis in Belgium/Netherlands, HRE in Germany, and the collapse of much of the Icelandic banking system. So did the extended debate in the United States about whether and how to enact the $700 billion TARP programme as well as the growing realisation that, even it were enacted, it would take time to implement.

The implications of these resolution practices for supervision are profound. First, reversals of resolution practice can have very significant impacts on market expectations and therefore on the liquidity and capital of banks. Such reversals of resolution practice may be difficult for supervisors to forecast or take into account, particularly if the resolution authority is in another country. Indeed, the Lehman bankruptcy demonstrates that financial institutions may be global in life, but they are national in death -- they become a series of local legal entities when they become subject to administration and/or liquidation.

Second, resolutions have followed the principle "the home country pays, therefore the home country decides". In practically all cases, the institution's home country has assumed sole responsibility for deciding the timing and method of resolution for the group as a whole.

There has been little or no burden-sharing and practically no co-decision across countries.[8] This exposes host countries to the risk that home countries would take decisions that could harm host countries' depositors or host countries' markets and economies.

This is deeply dissatisfactory. Absent some progress toward effective international cooperation, the danger must be that host countries will take measures to protect their depositors and markets, either through forcing subsidiarisation and/or constricting access. Within the EU, this would constrain, if not reverse, the movement toward the single market (Davies 2009).

Measures to assure greater supervisory dialogue and coordination (such as the proposals to give colleges more responsibility) can only go so far. The key aspect is resolution, and this will require something like the cross-border stability groups envisioned by the FSF (2008), but ultimately some agreement on measures that would greatly reduce the need for resolution and/or pre-package resolution in a manner that would tackle burden sharing (see below).

Improving liquidity

In addition to reforming resolution, the United Kingdom has taken steps to reform liquidity regulation and liquidity provision by the central bank. The FSA has recently published a Consultation Paper outlining a new liquidity regime for banks (FSA 2008c). This builds on international work undertaken by the Basel Committee (2008) and in CEBS (2008). Under this regime each deposit taking institution will be required to undertake an individual assessment of its liquidity risks. These risks include those that could crystallise as a result of a name-specific stress, a market-wide stress and a combination of the two. The regime will also require a bank to manage its liquidity risk – either by managing its assets and liabilities to reduce possible liquidity demands or to hold truly liquid assets to offset possible liquidity demands.

The Bank of England (2008) has also taken steps to clarify the terms on which it will provide liquidity to banks. It has proposed revisions to its so-called Red Book that introduce a Discount Window Facility. This broadens the range of collateral eligible for discount at the Bank. The pricing for the Discount Window Facility is somewhat lower than the rate which had been imposed on the Bank's Standing Facility. Loans under the DWF are for one-month, renewable at the discretion of the Bank of England.

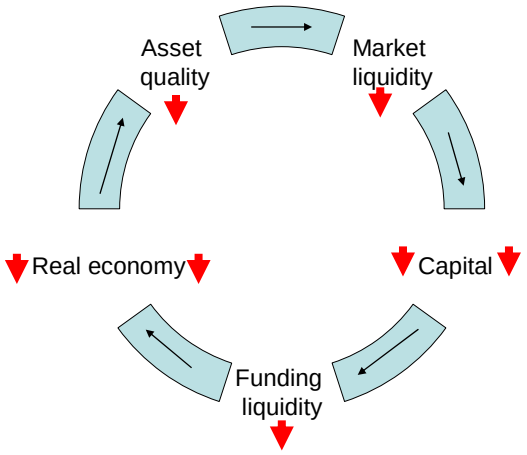
Ideally, the two regimes will operate in tandem with one another. Indeed, the FSA will have to consider, in framing its liquidity guidance for particular institutions, the degree to which the institution can regard borrowing from the Bank under the Discount Window Facility to be a right rather than a privilege. The more it is considered to be a right, the greater the reliance banks and the supervisor can place on the availability of liquidity from the central bank and the less is the danger that borrowing from the Discount Window Facility will cause the bank to be stigmatised in the market.

Combating debt-deflation

[8] The possible exceptions to this statement are the resolutions of Dexia and Fortis, although the initial co-decision and burden sharing with respect to Fortis quickly devolved into a separate transaction where the Dutch authorities took over the Dutch-incorporated vehicles within Fortis in order to protect Dutch depositors.

The above measures – proactive supervision, early intervention and an open discount window facility – are particularly well suited to dealing with problems at a troubled bank in the context of a financial system that is robust overall. That is not the current situation, and further measures are being taken in order to contain the crisis so that the economy does not descend into a debt-deflation spiral.[9]

Debt – deflation spiral



Such a debt-deflation spiral had its origins in the puncturing of the asset price bubble. This led in 2007 and 2008 to a decline in market liquidity of trading assets and to a decline in the capital of banks. That in turn caused investors to increase their concern about the creditworthiness of banks and other leveraged financial institutions (such as conduits and structured investment vehicles), leading to a squeeze on these institutions' ability to fund their assets, especially for longer tenors. To conserve liquidity and capital, financial institutions tightened credit standards, reducing the availability of credit to the real economy. This adversely affected demand and led to contraction in the real economy.

To counteract this authorities around the world have embarked on a three-pronged programme consisting of:

- *Massive monetary and fiscal policy stimulus*. Central banks have dramatically reduced interest rates. As rates have approached zero, consideration is being given to quantitative easing, whereby the central bank would purchase outright large amounts of financial assets, including private sector assets. On the fiscal side, countries have implemented or announced very large fiscal stimulus packages, the largest of which is President-elect Obama's $700 billion programme.

- *Provision of structural liquidity to the financial system in general and the banking system in particular*. Governments around the world have provided various guarantees to their banks and financial institutions to permit them to issue deposits

[9] For a discussion of the economics of a debt-deflation spiral see Fischer (1933) and Bernanke (1983).

and other liabilities to investors. In addition, central banks have provided special liquidity facilities to banks (such as the Bank of England's Special Liquidity Scheme) or instituted asset purchase programmes that buy securities directly in the market (e.g. the Federal Reserve has instituted commercial paper and asset-backed securities purchase programmes, and the UK has (19 January 2009) commissioned the Bank of England to institute a similar programme in the UK).

- *Recapitalisation of the banks, if necessary through the provision of capital from the government*. As a condition for qualifying for the credit guarantee scheme, the UK asked its banks to increase their capital, so that they would have enough capital to withstand the losses that could result from a severe downturn. If banks could not raise the necessary capital privately, the government stood ready to inject the funds into the banks itself. As a result, the government has injected £20 billion into RBS and £17 billion into the merged Lloyds-HBOS. Other countries, notably Germany, France, Netherlands, Ireland, the United States and Switzerland, have also implemented capital injection programmes in order to assure that their major banks have the ability to survive the recession.

  Regulators and governments have also clarified that these recapitalisations do not imply a new capital standard. They are intended to provide banks with a buffer that will enable banks to absorb losses and to sustain lending (Basel Committee 2009).

Although this three-pronged programme has prevented an outright implosion of the financial system, the question remains whether sufficient credit will be available in the economy to arrest the debt – deflation spiral. During the boom households and non-financial corporations obtained credit from many sources, including direct issuance into the securities markets, trade credit, foreign banks as well as domestic headquartered banks. During 2007 and 2008 some of these sources of credit began to dry up or even contract. This contraction in non-bank credit implies that bank credit may have to grow quite rapidly indeed in order to sustain total credit to households and non-financial corporations.[10]

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[10] In grossly oversimplified terms, the debt – deflation theory posits that

$$Y^* = f(C^*)$$

Where Y is GDP in nominal terms and C is the aggregate amount of credit supplied to resident households and corporations, and the superscript * denotes percentage change.

Bank credit (C_B) is only a part of the credit extended to households and corporations. Non-bank credit sources include trade credit, non-bank financial intermediaries and direct issuance of securities (collectively C_{NB}). So total credit is

$$C = C_B + C_{NB}$$

The growth of total credit is therefore

$$C^* = b\, C_B^* + (1 - b)\, C_{NB}^*$$

This implies that total credit to households and corporations could be falling, even if bank credit is increasing. For total credit growth to remain at levels required to sustain the economy, bank credit may have to increase at very significant rates indeed. In effect, the growth in bank credit would have to make up for the decline in non-bank credit.

To sustain the flow of credit to the economy governments are looking at two further measures:

- *Provision of guarantees for new lending*. In order to sustain the level of lending to healthy borrowers in a deteriorating economy, governments have offered to guarantee new loans, either directly or indirectly by providing guarantees on securities backed by such loans. For example, on 19 January 2009 the UK government announced a programme to guarantee asset-backed securities based on residential mortgages and other assets. The first loss on such securities would be met from the cash flows from the assets in the pool, but the government would assume responsibility for loss that could arise if the economic downturn were to become severe.

- *Provision of tail-risk insurance on troubled assets.* To resolve the uncertainty concerning the value of troubled assets on banks' balance sheets governments have provided tail-risk insurance on such assets on a bank-by-bank basis. This has generally taken the form of a non-recourse loan against a ring-fenced pool of assets, where the bank retains first loss on the asset pool and the government shares with the bank any loss in excess of this first loss with the bank. The bank pays a premium for this insurance, either in cash or by issuing a security to the government, such as warrants for the government to buy the common stock of the bank. This enables the taxpayer to participate in the upside that the cleansing of the balance sheet could produce. The United States has implemented such transactions with Citigroup and Bank of America as has Switzerland with UBS. On 19 January the UK announced that it would offer a similar programme to UK banks, provided the banks signed up to a commitment to sustain lending to the UK economy.

  This non-recourse finance has proved easier to implement than the Troubled Asset Relief Programme (TARP) originally proposed by the United States on 20th September 2008. This programme envisioned the outright purchase of troubled assets from the banks. However, no solution could be found to the practical problem of how to value the assets. On 14th October 2008 the United States took the decision that it would not purchase troubled assets at all. This led to a marked decline in the price of

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A simple hypothetical example illustrates this effect. Suppose the pre-crisis growth in credit was 10% pa, with bank credit and non-bank credit each growing at 10% pa. If the rate of growth of non-bank credit falls to zero (i.e. non-bank credit remains constant), then the rate of growth of bank credit may need to be considerably higher than 10%, if the total growth of credit is to reach the level required to sustain economic activity. Indeed, the growth in bank credit will have to be higher, the lower is the share of bank credit in total credit and the higher is the rate of growth in the overall level of credit required to sustain the economy (C^). The following table illustrates these effects:

Rate of Growth of Bank Credit Required to Sustain Economic Activity

b	C^		
	5%	8%	10%
25%	20.0%	30.0%	40.0%
50%	10.0%	15.0%	20.0%
75%	6.7%	10.0%	13.3%
100%	5.0%	7.5%	10.0%

those assets and further aggravated the situation at institutions, such as Citigroup, that had extensive amounts of such assets.

Taken together, these programmes amount to a concerted and massive attempt by governments to arrest the debt-deflation spiral.

From containment to cure

In addition to seeking to contain the crisis, officials are already considering measures that will "cure" the system by making it less prone to crises in the future. There is a vast catalogue of measures under consideration, many of which aim to reduce "pro-cyclicality" (FSF 2008, Wellink 2008), and there is considerable pressure to produce recommendations for action in time for the G-20 summit in London in April 2009.

Capital regulation – the type and quantity of capital that banks should hold – is the focus of much of the debate. This stems from an assumption that banks are a fulcrum through which the economy can be steered so that assuring that banks remain healthy will largely assure that the financial system remains sound and will greatly promote stability in the economy overall.

Banks hold two types of capital, in Basel jargon, Tier I and Tier II capital. Broadly speaking, Tier I capital should be capital that is available to absorb losses on a "going-concern" basis, or capital that can be depleted without placing the bank into insolvency, administration or liquidation. Tier II capital should be capital that can absorb losses on a "gone-concern" basis, or capital that absorbs losses in insolvency prior to depositors' losing any money.

The purest form of Tier I capital is shareholders' equity, but this is the most expensive. Shareholders' equity certainly absorbs losses; indeed it bears first loss. It is permanent in the sense that it does not have to be repaid at any time. It is also flexible, in the sense that there is no obligation to pay dividends or to effect distributions to shareholders. The failure to pay a dividend is not an event of default and cannot give rise to insolvency or bankruptcy proceedings – a stark contrast to debt finance where the failure to make an interest payment could be an event of default and ultimately the grounds for a bankruptcy proceeding or winding up order.

But equity is costly. It is risky, and investors require a return commensurate with that risk. Dividends are not tax-deductible, so it takes a higher amount of operating earnings to generate a pound of dividends than a pound of interest payments on debt capital, such as long-term subordinated debt.

The conundrum facing banks is how to secure capital that protects deposits and cossets shareholders; how to strengthen the creditworthiness of deposits whilst saving costs for shareholders and boosting the return on equity.

The answer to date has been hybrid capital – capital that acts like debt as far as the taxman is concerned, and capital that acts like equity as far as the depositor is concerned. This hybrid capital is junior to deposits, but senior to equity. To qualify as Tier I equity hybrid capital must be fully issued and paid up and it must meet certain characteristics, including the ability to absorb losses, permanence and flexibility (CEBS 2008b).

But there are limits to hybrid capital – in the marketplace and in regulation. Unless hybrid capital converts at some stage into common equity, the depletion of common equity through absorbing loss will jeopardise the continuation of the firm as a going concern. For this reason, there is a limit on the total amount of hybrid capital that can count as Tier I capital. Hybrid capital can be no greater than the amount of core Tier 1 equity.

Given the emphasis on maintaining banks as going concerns and use of recapitalisation as a tool to effect this, consideration could be given, when capital rules are ultimately rewritten in the wake of this crisis, to changing this restriction and instituting a separate requirement that banks put in place contingent or "top-up" capital. Such capital would be convertible at the option of the bank's supervisor into core Tier I capital, if the institution's core Tier I capital ratio dips below a certain threshold.[11]

Effectively the use of contingent capital could amount to a "pre-pack" recapitalisation. Under this approach banks would effectively have to arrange in advance for at least for the first round of their own recapitalisation rather than turning to government for assistance once losses have been incurred. This would effectively limit the size of a bank to the amount that the market is willing to recapitalise – potentially an effective limit on a bank's leverage.

The costs of such a proposal should be kept in perspective. It should certainly be easier and cheaper to raise such contingent or "top-up" capital for banks during good times than in the midst of a crisis, when recourse may need to be made to governments as a capital provider of last resort. By arranging for at least the first round of recapitalisation in advance, the bank potentially reduces the risk of its debt and may limit the amount of core Tier I equity that it needs to hold. The bank's weighted average cost of capital need not rise.

The quantity of capital is also under review both in the Basel Committee and in the EU, particularly with respect to requirements for the trading book. The broad assumption underlying the Basel Capital Accord – that regulators around the world could rely on firms'

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[11] Although the suggestion to consider the imposition of a contingent or "top-up" capital requirement is analogous to proposals that banks be required to issue subordinated debt (Benston et al [1986] and White [1991]) as well as related to earlier requirements that imposed double liability on shareholders in national banks in the United States, the intent of contingent capital is different. It is to assure that the bank remains a going concern and that is has capital to absorb losses as a going concern. Subordinated debt and double liability for shareholders only absorb loss in a gone concern scenario. Tipping a bank into gone concern status is precisely what society seeks to avoid, if not eliminate entirely. This dictates that some method be found to force the shareholders to accept a recapitalisation well before the point at which it would become profitable for the shareholders to default and "put" the bank's assets to the debt-holders (depositors).

Contingent or top-up capital could take a number of forms, including instruments that today qualify as hybrid capital (such as preferred stock), provided the instruments could be converted into core Tier I capital (stockholders' equity) at the option of the supervisor if the bank's core Tier I capital fell below a threshold level. Alternatively, the proceeds of a contingent or top-up capital issue might be segregated into a separate investment vehicle that invested in low-risk securities (such as government bonds) pending the conversion, if needed into core Tier I capital (the FSA proposed such a structure for insurance capital in the form of an insurance SPV).

If conversion were triggered, it can be envisaged that the bank would have a certain period to replace the hybrid capital through the issuance of new hybrid capital. As to the amount of contingent capital that would be required, this should be enough that its conversion into core Tier I capital would effectively recapitalise the bank. For example, if banks were required to have a minimum core Tier 1 capital equal to 4% of risk weighted assets, banks might also be required to have 4% of risk weighted assets in the form of hybrid capital convertible into core Tier I capital.

own risk models as the basis for capital requirements – has not turned out to be correct, at least for the trading book. Losses in trading books have been several orders of magnitude larger than the capital which the models said had to be held against those risks.

At a minimum, revisions to capital requirements will, in my view, have to take into account the volatility that we have seen over the past year, so that firms would be capable of withstanding extreme events. It would also mean taking into account the possible evaporation of market liquidity. Current proposals for an incremental risk charge, including a charge for event risk, on the trading book point in this direction.

The Basel Committee and the EU will also consider means to reduce or eliminate pro-cyclicality in capital requirements, or the tendency of capital requirements to decline in ratio terms as the economy improves (because the immediate risk falls) and to increase in ratio terms as the economy deteriorates (because the immediate risk increases). This will involve technical measures such as the re-examination of the value at risk (VaR) methodology for determining risk and capital in trading books. More importantly, the review will also look at the feasibility of imposing measures such as dynamic provisioning that would require banks to build up capital buffers during the boom time that can be run down as the economy deteriorates. Finally, the review will also look at the wisdom of a "belt and braces" approach with the imposition of a leverage ratio as a supplement to the risk-based capital approach.[12]

In designing and implementing any type of leverage ratio, we will confront two boundary problems: which activities within a group should be subject to the ratio, and which firms should be subject to the ratio. The Swiss, for example, are suggesting that the domestic Swiss retail banking activities should be exempt from the ratio, whilst the international, investment banking activities of the group should be subject to the ratio. Experience has shown, however, that firms are quite adroit at arbitraging differences in requirements across different books within the same group. Indeed, some of the current crisis can, in my view, be traced to firms' placing assets that did not trade and were not liquid, such as super senior tranches of CDOs, into trading books, so as to benefit from lower initial capital requirements. So, if leverage ratios are to be employed, consideration should be given to applying them to the group as a whole.

The second boundary problem is more difficult. How do we decide which entities should be subject to the leverage ratio? Should this be restricted to entities that take retail deposits on the theory that society provides a safety net in the form of deposit insurance to protect the depositor? Or should the leverage ratio apply to any firm or group that would have access to liquidity facilities from the central bank? Or should the leverage ratio apply to any entity, including hedge funds and possibly non-financial corporations, whose failure could disrupt financial markets?

Subjecting one type of firm to leverage ratios whilst others are exempt is an open invitation for business during the boom to flow to the unconstrained sector. Indeed, one could imagine

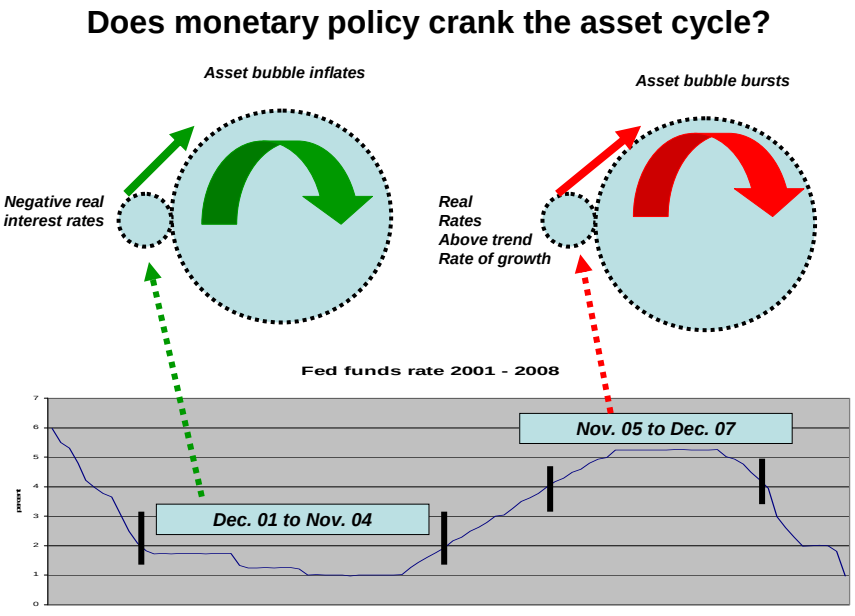
[12] Proponents frequently note that the US has employed a leverage ratio for a number of years. However, the leverage ratio employed in the US did not prevent firms from suffering very large losses on large concentrations of sub-prime assets. Nor did the leverage ratio prevent firms from sponsoring SIVs and conduits – vehicles that ultimately contributed to severe liquidity pressures. Nor did the leverage ratio prevent problems from arising at Citigroup, Wachovia or Washington Mutual. So if a leverage ratio is to be employed as a countercyclical device, it should certainly not be the US version as is.

that stringent leverage ratios on financial intermediaries could further promote direct capital markets issuance by frequent issuers. If business does flow out of the constrained sector, will the constrained sector have the opportunity to build up the capital and reserves necessary to be able to provide credit to the economy as the boom turns to bust, and margins increase? Will subjecting banks to countercyclical measures such as dynamic provisioning and/or leverage ratios aid the resiliency of banks but undermine banks' role as a fulcrum for the economy?

The limits of regulation and supervision

Although changes to regulation and supervision can potentially reduce pro-cyclicality and therefore diminish the amplitude of the economic cycle, we should be under no illusion that on its own regulatory and supervisory reform will be enough to prevent future crises. What central banks do with respect to interest rates, reserve requirements and the interest payable on reserves, and liquidity policy (including collateral eligibility, haircuts and rates charged for borrowing) has significant effects on financial stability. Can these classic central bank tools really be used effectively to puncture asset price bubbles before they get out of hand? If so, financial stability will in my view be much enhanced.

Chairman Greenspan once famously testified that it was not the role of the central bank to puncture asset bubbles, but to clean up after they had burst. Surely, in light of current events, that stance must be re-examined. Indeed, it is just as important to ask what causes the cycle to reverse direction from forward (higher asset prices to greater market liquidity, etc) to backward (lower asset prices to lower market liquidity, etc.), as it is to ask how one might dampen the amplitude of the cycle.



The answer, I would suggest, may lie in the realm of monetary policy. Changing the level of interest rates has a powerful, albeit lagged, effect not only on the real economy but also on asset prices. Driving real interest rates below zero is an excellent way to heat up not only the

real economy but also asset prices. And that is exactly what the Fed did in 2002 and 2003 and practically all of 2004.

Slamming on the brakes by raising interest rates can have the opposite effect. And that is exactly what the Fed did starting in late 2004. Real interest rates rose dramatically. By the end of 2006 housing prices in the US had stopped rising, and sub-prime borrowers had begun to default on their payments.

A mere coincidence, or cause and effect? If the former, it makes the regulatory and supervisory reforms all the more urgent. If the latter, is this not an argument for better monetary policy as much as for better regulation, and is not better monetary policy as much or more part of the cure for crises as better regulation and supervision?

Indeed, that suggests that macro-prudential supervision should be a two-way street. It should not only encompass warnings from the central bank that various trends in the marketplace pose risks to financial stability. It should also encompass reminders from an independent supervisor that monetary policy may adversely affect financial institutions and financial stability. The gravest risk to financial stability could at times be coming from the central bank's own policies.

Conclusion

Supervision does not stand alone. It is part and parcel of a broader tapestry that encompasses regulation, resolution and compensation arrangements as well as monetary and fiscal policy. Supervision alone cannot assure financial stability. The other elements of the tapestry – most notably monetary policy – must function as well.

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CONCRETE STEPS TOWARDS MORE INTEGRATED FINANCIAL OVERSIGHT

THE EU'S POLICY RESPONSE TO THE CRISIS

CEPS TASK FORCE REPORT

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BRUSSELS

The Centre for European Policy Studies (CEPS) is an independent policy research institute in Brussels. Its mission is to produce sound policy research leading to constructive solutions to the challenges facing Europe.

This report is based on discussions in the CEPS Task Force on Concrete Steps towards More Integrated Financial Oversight in the EU and was complemented by substantial internal research. The members of the Task Force participated in extensive discussions in the course of several meetings, and submitted comments on earlier drafts of the report. Its contents convey the general tone and direction of the discussions, but its recommendations do not necessarily reflect a common position reached by all members of the Task Force. Nor do they represent the views of the institutions to which the members, the Chairman or the rapporteur belong. A list of participants and invited guests and speakers appears in Annex 4 at the end of this report.

The rapporteur of the Task Force is Karel Lannoo, Chief Executive Officer at CEPS. He wishes to thank Alastair Sutton for chairing the meetings, the members of the Task Force for their helpful remarks and suggestions, and Chris Napoli and Emrah Arbak for research assistance.

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EXECUTIVE SUMMARY

A quantum step needs to be taken to upgrade and adapt the structure of financial oversight in the EU. The financial crisis exposed dangerous weaknesses in the regulatory and oversight structure that need to be urgently corrected to restore confidence in the financial system and to keep the single market alive. To date, EU policy-makers have not been sufficiently willing to consider changes in the institutional structure. We believe that this position is no longer tenable, for the following reasons:

- The EU Council of finance ministers has increased the number and magnitude of tasks assigned to the supervisory (Level 3 or Lamfalussy) committees – CESR, CEBS and CEIOPS – to absurd levels, tasks that far exceed their mandate, capabilities or competences.
- Supervisory opinion-sharing and information consolidation remain the Achilles heel of the single financial market. A common data pool, a succinct number of common supervisory data formats and data-sharing with non-supervisory authorities simply do not exist.
- Placing trust in Colleges of supervisors is a provisional solution for the present, not a sustainable one for the long-term. Colleges strengthen the bilateral spaghetti model of European supervision, at the expense of a truly integrated and consolidated oversight. In addition, colleges need to work in a context of non-harmonised statutes, mandates and powers of national supervisors, which greatly undermines their effectiveness.
- The basis for cooperation between national treasuries, central banks and supervisors are Memoranda of Understanding. The total number of authorities involved in such MoUs and their non-binding nature make these instruments almost entirely unworkable in an EU context, and all the more so in times of crisis.

Certain conditions are of critical importance during a financial crisis: a clear hierarchy in the decision-making structure, up-to-date supervisory

information and competence to act. As events have demonstrated, with a multitude of supervisory authorities in charge, these conditions are not in place in the EU today. On the contrary, the asymmetries in the supervisory systems in the EU are widespread, rapidly causing confusion, misunderstandings, and even mistrust and ring-fencing in times of trouble.

The creation of a European System of Financial Supervisors (ESFS), modelled upon the ESCB, is the way to overcome these weaknesses. Under an ESFS, EU supervisors would work under a single umbrella, a single institutional structure, on the basis of harmonised principles and statutes, but with full application of the subsidiarity principle.

Against this background, this report puts forward three recommendations:

1) The European Council should formally mandate the High-Level Expert Group on EU financial supervision to analyse the optimal structure of financial oversight and propose concrete steps leading to a European System of Financial Supervisors;
2) A European Financial Institute should be created to lay the groundwork for the establishment of the European System of Financial Supervisors; and
3) The European System of Financial Supervisors should be given definitive target date to commence operations.

The intention of the ESFS would not be to create a single European Financial Services Authority (FSA). Rather, it would follow the 'twin peaks' or objective-based model of supervision, based on the subsidiarity principle. Only those tasks that can be better performed at the European level would be centralised, namely crisis management, data-sharing and macro-prudential oversight, pooling of expertise in the supervision of large systemically important financial institutions, mediation amongst supervisors and supervisory decision-making. In this spirit, conduct of business control would largely remain at national level.

A European Resolution Trust should be created to work in tandem with the ESFS as a mechanism to address solvency problems in systemically important European-wide financial institutions. The European Resolution Trust would be managed by the European Investment Bank.

These moves should be widely communicated to European citizens to restore confidence in the financial system and in the single financial market.

INTRODUCTION

The financial crisis sounded a rude wake-up call for EU policy-makers and confronted them with the limits of the present framework for European financial supervisory cooperation. What had been established and functioned well during good times proved completely inadequate for crisis situations. In the absence of a European safety net or a European crisis coordination mechanism, EU member states fell back on national responses, which now threaten to unravel the single market.

Financial market integration had made powerful strides in the years leading up to the start of the financial crisis. Assets held by the 15 largest EU banks in other EU countries had doubled in the period 1997-2006. Several EU countries had become bridgeheads to a mighty financial services industry, active all across the globe. But financial supervision had not kept pace with these developments. Supervisors are by and large still working within the same structures as before the start of monetary union, with the home country ultimately in charge of the supervisory and lender of last resort functions. In several EU member states, including a country as large as the UK, the total sum of assets controlled by the banking sector is five (5) times larger than the GDP of the country in question (see the table in Annex 1).

This CEPS Task Force was launched on 10 March 2008, in connection with a CEPS meeting on the EU's reaction to the global financial market turmoil, with Pervenche Beres, MEP, and David Wright, Deputy Director-General of the EU Commission, as keynote speakers. The name of the Task Force is reminiscent of a CEPS study published some 18 years ago, entitled *Concrete Steps towards Monetary Union* (Gros & Thygesen, 1990). Although we are fully aware of the difference in significance between both plans, now is the time to put in place realistic roadmap to move to a more integrated structure of financial oversight. The methods and steps that were taken in the run-up to monetary union can serve as a useful model.

This report starts with an overview of the 2007-08 financial crisis from a European perspective. We will thereby often distinguish between two different phases, the period from August 2007 until August 2008, and the period following. In the second section, we analyse the reaction of policy-makers to the crisis, focusing initially on the roadmap of the finance ministers, and successively on the attempts to unfreeze the interbank market and the large bail-out plans of national governments. In the third section, we analyse the proposals for European regulatory and supervisory reform, and put forward a set of concrete proposals.

1. THE 2007-08 FINANCIAL CRISIS: A EUROPEAN PERSPECTIVE

The impact of the US subprime crisis on the European financial system went far beyond what most had dared to predict. What started as a problem related to one specific asset class in one region, rapidly affected the entire financial system in industrialised countries throughout the world, and the non-financial economy. The market for structured products collapsed, investors withdrew from the asset-backed securities market and the fear that some banks may be in trouble provoked a gridlock in the interbank money market, spreading in a second phase to citizens. The growing mistrust in the financial system led European governments, following the US initiative, to orchestrate a massive bail-out of €1,873 billion by mid-October 2008.

The 2007-08 financial crisis can be subdivided into two phases. During the first, lasting from August 2007 to August 2008, many banks took on ever-increasing amounts of losses related to asset-backed securities. In the second phase, starting in September 2008, with the bail-out in the US of Fannie Mae and Freddie Mac, the insurance group AIG and the bankruptcy of Lehman, the crisis became systemic, because of the generalised loss of confidence, leading to the massive bail-out plans on both sides of the Atlantic. To date, the costs suffered by the financial system related to the subprime losses and write-downs was estimated to amount to almost $1 trillion, of which over one-quarter was carried by European banks. In the second phase, the issue was no longer the total amount of write-downs, but rather how to keep the system afloat at (almost) any cost.

The financial crisis was not a European crisis, nor was there a European response. Throughout the crisis, the impact on and the response from European countries have been heterogeneous. During the first phase, it was clear that the write-downs and losses concerned some banks more than others: it impacted, in decreasing order of importance, mainly banks in Switzerland, Germany, the UK and France. Banking sectors were affected in more countries in the second phase, but the response varied,

depending upon local circumstances. The UK plan, announced by Gordon Brown on 7 October 2008, was the first large European plan, followed by varying degrees and in different ways by other European states.

Judging from the continuing spreads in the interbank market, the financial problems are far from over. The period of de-leveraging and re-capitalisation in the financial sector can be expected to last for a long time. A prominent characteristic of the product to which the financial turmoil is related, real estate, is that prices are sluggish to react to changes in trends and hence cycles tend to be long (Gros, 2007).

The question arises what the impact of this crisis will be on financial disintermediation in Europe, which had developed at impressive rates since the start of monetary union. The development of mature capital markets in Europe was one of the hallmarks of the EU's Financial Services Action Plan (FSAP), but recent developments have put a sharp brake on this process. Recent Commission proposals would reverse the trend, penalise securitisation and strengthen financial intermediation.[1]

1.1 Impact on the European banking system

The financial sector is going through a lengthy period of de-leveraging, which will take many years to accomplish. As banks need to improve their capital ratios, liquidity premia can be expected to be high for a long period of time. As could be observed in the first year of the crisis, there are several ways in which banks can improve their balance sheets: through rights issues, capital injections by sovereign wealth funds or the state, asset sell-offs and cost-cutting. Banks can be expected to focus more on recurrent forms of income in the retail and corporate lending side of the business. At the same time the profitability will decline considerably from the high levels that were recorded over the last three years.

What is remarkable from a European perspective is not only that the exposure of the European banks to the US subprime market was so pronounced, but also that this vulnerability was not evenly spread across countries. Banks in countries such as Italy and Spain were less affected by

[1] See Art. 122a proposed amendments to the Capital Requirements Directive (CRD) in the area of securitisation, in which the European Commission proposed that banks should hold capital for at least 10% of their securitised exposures. This was reduced to 5% in the EU Council compromise, reached on 2 December 2008 (see p. 22 below).

the crisis, whereas in others, most notably Switzerland, Germany and the UK, the losses were serious, leading to national debates about bank governance and supervision in the first phase, and large bail-outs in the second.

It is difficult to calculate an exact figure for the losses the European banking system incurred in the subprime crisis. The data published to date are mostly based on 2007 annual reports and are thus incomplete, as they do not include the write-downs announced since early 2008. One may have to wait for the 2008 reporting season to get the full picture. It must be kept in mind that the losses are often write-downs on the value of the asset-backed securities. As long as the banks that purchased them will hold on to them, these securities may still be re-valued, if the value of the underlying property recovers. In addition, it is difficult to determine what exactly a European bank is. A bank like HSBC, which suffered write-downs of about $33.1 billion, is headquartered in the UK, but has strong south-east Asian roots. IKB, in contrast, which had losses of about $13 billion, is an entirely German bank.

Table 1. Subprime losses and write-downs (up to 17/11/08)

$ billions	Losses/write-downs	Capital raised
Worldwide	966.1	827.4
Americas	664.4	483
Europe	272.6	303.5
Asia	29.1	40.8
EU27-based banks	**206.2**	
…EU27 % of total	**21.3%**	

Source: Bloomberg.

The estimates of the total losses related to the subprime crisis to date amount to $966 billion, of which more than $272 billion is with banks headquartered in Europe ($206 billion for the EU or 21%).[2] Should this be considered as a huge oversight on behalf of European banks? As the underlying assets are largely based in the US, and mostly in a high-risk segment (subprime), it could be considered as a large exposure of the European banking system to a part of the US market. However, a write-down of $206 (€160) billion on a balance sheet total of €41,072 billion of the

[2] Data until 17 November 2008 (source: Bloomberg).

EU banking system (2007 data) corresponds to 0.4%, which is not excessive. Moreover, the balance sheet total of the European banking system is four times larger than in the US, which stands at €7,688 billion (2007, only commercial banks). Hence the European exposure to the subprime is, *ceteris paribus*, limited as compared to that of the US.

A similar situation occurred during the East Asia crisis of 1998, when it appeared that the aggregate exposure of European banks to debt from Asian, Latin American and East European countries stood at about €400 billion (end of 1997). This corresponded to 2% of the total balance sheet of €19,636 billion of the European banking system, or about three times the €125 billion exposure of the North American banks (US and Canada). Moreover, lending by European banks to these regions had increased strongly in the three years up to the crisis, even after the first signs of trouble in the emerging markets became apparent in July 1997 (BIS, 1998). That crisis also raised questions about internal risk management within European banks, and external control over lending policies.

With regard to the exposure from a national perspective, similar considerations apply *a fortiori* as to what extent a bank can be called national. German Landesbanken are by and large German, but British and Swiss commercial banks are internationally very active, especially in the US, and hence it is probable that they suffered losses in their international activities, and in particular in the US. The large losses by the German state-owned banks thus stand out as surprising. The combined write-downs of IKB, Bayerische Landesbank, West LB, LB Baden Württemberg and LB Sachsen stood at about $28.4 (€22) billion (on total assets of the German savings banks of €1,045 billion (2007)). Nevertheless, as the internationally active banks are headquartered and have their consolidated oversight in their home countries, it raises the question whether there is a certain analogy with a governance and supervision system. Also, from a national perspective, the combined write-downs of the two dominant Swiss banking groups of $54.2 (€42) billion (on a Swiss GDP of €309 billion in 2007!), raises existential questions about the Swiss banking industry and the Swiss financial centre.

This observed difference in the impact on national banking systems can be traced in the profitability figures, but not in the Basel tier 1 capital ratios data. On the basis of data published in the 2007 Annual Report of the BIS, profits of the major banks in Switzerland, Germany and France fell seriously and to a lesser extent in the UK. Spanish banks on the other hand saw an increase in pre-tax profits, even with a sizeable increase in loan loss

provisions, whereas Italian banks withstood the crisis well. The 'regulatory' capital ratios seemed to be much less affected, and certainly not yet a reason for concern, although the question can be raised whether they are sufficiently indicative. The (non-weighted) average tier one in the panel below declined from 8.2 to 8% in 2007. The same could be said for the loan-loss provisions, which has to take into account the major that the major losses of the banks discussed above were not on the banking book, but on the trading book.

Table 2. Profitability ratios of major banks[a] (as a percentage of total average assets)

	Pre-tax profits			**Loan loss provisions**			**Net interest margin**			**Operating costs**		
	2005	**2006**	**2007**	**2005**	**2006**	**2007**	**2005**	**2006**	**2007**	**2005**	**2006**	**2007**
Austria (3)	0.85	1.64	1.29	0.30	0.38	0.28	1.64	1.90	2.24	2.10	2.40	2.40
Australia (4)	1.52	1.62	1.67	0.14	0.13	0.15	1.92	1.96	2.01	1.70	1.64	1.63
Canada (5)	1.01	1.32	1.27	0.10	0.10	0.14	1.79	1.64	1.68	3.00	2.56	2.57
Switzerland (6)	0.66	0.87	0.31	0.00	0.00	0.01	0.63	0.53	0.45	1.67	1.73	1.70
Germany (7)[b]	0.38	0.55	0.28	0.06	0.07	0.04	0.65	0.68	0.52	0.96	1.32	0.98
Spain (5)	1.15	1.51	1.65	0.23	0.33	0.41	1.55	1.78	1.94	1.70	1.91	1.96
France (5)	0.76	0.87	0.41	0.06	0.06	0.09	0.93	0.76	0.47	1.47	1.43	1.28
United Kingdom (8)	0.87	0.97	0.67	0.23	0.27	0.23	1.23	1.26	0.94	1.59	1.70	1.36
Italy (4)	1.23	1.12	0.88	0.23	0.26	0.25	1.95	1.93	1.71	2.34	2.34	2.01
Japan (13)[b]	0.66	0.67	0.50	0.12	0.15	0.13	0.89	0.97	0.75	1.05	1.15	0.80
Netherlands (4)	0.58	0.57	0.38	0.05	0.10	0.10	1.09	1.17	0.99	1.29	1.48	1.37
Sweden (4)	0.90	1.06	0.98	0.01	-0.03	0.01	1.03	1.08	1.07	1.07	1.11	1.07
United States (11)	1.93	1.82	1.02	0.20	0.20	0.56	2.72	2.50	2.47	3.44	3.12	3.51

[a] All values are IFRS; the number of banks included is shown in parentheses.

[b] Values are a mix of local and US GAAP.

Sources: Bankscope; FitchRatings.

Table 3. Capital and liquidity ratios of major banks[a]

	Tier 1 capital/risk-weighted assets			Non-performing loans/total assets			Net loans/total deposits		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
Austria (3)	7.7	8.9	8.1	2.3	2.1	1.8	56.4	58.1	63.2
Australia (4)	7.5	7.2	6.8	0.1	0.2	0.2	88.3	89.8	85.1
Canada (5)	9.9	10.4	9.6	0.3	0.2	0.2	58.3	56.2	57.2
Switzerland (4)	11.7	11.7	9.8	0.2	0.2	0.1	25.2	26.1	27.3
Germany (7)	8.4	8.4	8.0	1.0	0.6	0.8	36.2	30.4	25.4
Spain (5)	7.9	7.6	7.9	0.5	0.5	0.6	69.9	76.7	76.1
France (4)	8.1	7.9	7.4	1.2	1.2	1.3	32.3	36.5	25.8
United Kingdom (7)	7.5	7.9	7.6	0.8	0.7	0.8	54.8	54.5	51.1
Italy (4)	4.7	5.0	6.6	4.0	3.2	3.1	42.7	49.6	70.9
Japan (10)	7.3	7.9	7.4	1.1	1.0	0.9	53.1	55.1	62.5
Netherlands (4)	10.4	9.4	10.0	0.6	0.6	0.4	54.1	55.8	55.1
Sweden (4)	7.1	7.2	7.1	0.4	0.4	0.3	71.7	74.2	74.9
United States (11)	8.4	8.6	8.0	0.3	0.3	0.6	63.4	63.6	61.5

[a] Weighted averages by banks' total assets; in per cent; the number of banks included is shown in parentheses.

Source: Bankscope as reproduced in BIS (2008a), 2007 Annual Report, BIS, Basel.

As indicated above, the full cost of the crisis will only be known from the 2008 reporting season onwards. The year 2007 was the combination of a sparkling first half, and the start of the crisis and the write-downs in the second. The full impact of the crisis will thus only be reflected in the profitability and capital ratios from 2008 onwards. However, it is clear that 2007 will be a trend break of continuously rising profits in the banking sector since 2003. The post-crisis period will be a different era altogether.

The same disconnect between a fundamental decline in profitability figures and capital ratios can be observed in the US. Whereas the profitability of US commercial banks was cut in half, the capital ratios stayed almost at the same level. The write-downs since mid-2007 eliminated all of the profits made by the 10 largest US banks over the period 2004-07.[3]

The big difference between the EU and the US banking system, however, is the level of leverage, or the share of core capital on total assets. A rough comparison reveals that the level of leverage in the EU is almost double that in the US, or to say it the other way around, the level of own

[3] "Vanished profits", *New York Times*, 17 October 2008.

funds in the EU is half what it is in the US, with all the problems this can entail in a context of loss-taking. Table 4 below shows the size of total bank assets as a share of GDP of the top five banks based in a selected group of countries, the loan-to-deposit ratio, or the degree of underfunding, and the leverage ratio. The Basel tier 1 ratio is added as a point of comparison (based on BIS data referred to in the previous table). It shows worrying low levels of core capital, and an unclear relationship between the Basel tier 1 and the core capital ratio. For the EU, it also demonstrates marked differences in the average capital ratios between the southern and northern European countries (see also Table A1 in Annex for a full overview).

Table 4. Core bank soundness ratios in selected EU countries and the US, 2007

	Top 5 bank assets as % of GNP	**Loans to deposits**	**Core capital ratio**	**Basel tier 1 ratio**
Belgium	463	104	4	
France	293	101	3.5	7.4
Germany	165	94	2.6	8
Ireland	404	197	3.6	
Italy	131	161	7.4	6.6
Netherlands	521	125	3.8	10
Spain	184	250	7.2	7.9
UK	313	125	3.9	7.6
EU 27	**237**	**133**	**4.3**	
Switzerland	756	69	3.2	9.8
US	**44**	**91**	**7.6**	8

Sources: Bankscope, Eurostat, BIS.

The difference between the core capital ratios and the Basel ratios is even more pronounced in individual cases. The Belgian bank Dexia, an early casualty of the crisis, had a Basel tier 1 ratio of 11.4% in June 2008, but a core capital ratio of only 1.6%.

Table 5. Basel tier 1 and core capital ratios for selected banks

	Basel tier 1 ratio		**Core capital ratio**	
	end 2007	**Jun-08**	**end 2007**	**Jun-08**
Fortis	9.5	7.4	3.8	3
Dexia	9.1	11.4	2.4	1.6
ING	7.4	8.15	2.8	2.2

Sources: Annual and half-yearly reports of banks.

1.2 Impact on the European insurance sector: Less discussed

The insurance sector is a much smaller actor in the financial system than are the banks. Total assets are about one-fifth of the banking sector in the EU. They are thus systemically much less important. Insurance companies are mostly liability-driven, meaning, as long as their risks on the liabilities side (life insurance, mass risk) are well controlled, and the assets to cover these risks are well diversified, they should not face too many problems. Unlike banks, insurance companies are less cyclical: demand for mass risk and life insurance should be fairly stable over time. The main risk in the context of this crisis should be related to bad investments, or overexposure to the real estate markets, as seems to have been the case with some companies. Notwithstanding this fundamental difference with the banking sector, it seems that markets have put the insurance sector in the same basket as the banks. Indexes have gone down almost to the same degree as banks.

The concern about the insurance sector increased as a result of the bail-out of AIG in the US. However, this problem, together with the bankruptcy of Lehman, affected the banking sector more negatively, as it appeared that AIG had written coverage for over $300 billion of credit insurance for European banks. AIG itself explained these positions by commenting that they were "…for the purpose of providing them with regulatory capital relief rather than risk mitigation in exchange for a minimum guaranteed fee".[4] A formal default of AIG would thus have had a devastating impact on banks in Europe, which explains why AIG's problems sent shock waves through the share prices of European banks.

One reason why the insurance sector has been less affected by the crisis is the limited transparency of the published accounts. There is no common method to date at European or international level to measure the minimum solvency requirements of insurance companies, which means that prudential supervision is conducted in different ways across the EU. The European Commission's Solvency II proposal would introduce a single method, but it is still under discussion in the EU Council and Parliament. In addition, the application of International Financial Regulatory Standards (IFRS) is also more limited as compared to the banking sector.[5] This has not

[4] K-10 annex of AIG annual report, quoted in Gros (2008).

[5] See for example the announcement by Allianz of the valuation of its stake in Commerzbank at double the market price, 10 November 2008.

prevented some groups to be exposed, and request participation in the state bail-out plans, such as Aegon in the Netherlands or Ethias in Belgium.

1.3 Impact on financial market activity

The impact on financial market activity was probably the severest, where the crisis broke a trend of growth in European capital markets. The hardest hit were the leveraged finance, asset-backed paper and securitisation markets, which became almost entirely frozen, whereas other segments remained stable, such as corporate bond issuance, at least from a European perspective. Issuance of corporate bonds and notes picked up in the second quarter, after having got off to a very low start in the first. Forecasts for the full year 2008 could end up at the same levels as in 2007. Leveraged finance issuance, on the other hand, which includes leveraged loans and high-yield bonds, declined to €67.0 billion for the first three quarters of 2008 compared to €243.3 billion over the same period in 2007.[6] Securitisation issuance declined over the same period from €309.2 for the first three quarters of 2007 to €26.3 billion over the same period in 2008.[7] IPO activity was still strong until the end of 2007, but declined sharply in the first half of 2008.

European mortgage-backed securities (MBS) issuance activity picked up during the second quarter of 2008 as compared to the previous quarter. By nationality, the largest increase was from UK borrowers, following the Bank of England's announcement in April 2008 of a Special Liquidity Scheme that enabled UK banks to swap illiquid assets, such as mortgage-backed securities, against UK Treasury bills (BIS, 2008b). However, the activity is largely concentrated in the residential MBS segment, which will overtake 2007 in issuance volume, whereas other segments, including ABS, CDOs and commercial MBS, were halved.[8]

The clearest market indicator of persistent stress is the interbank money market rate. Since the start of the credit crisis in August 2007, 3-month spreads of interbank (euribor) over overnight rates have jumped from about 10 basic points before the crisis to about 50 in the early days of the turmoil and about 80 basic points until the end of the summer, to reach

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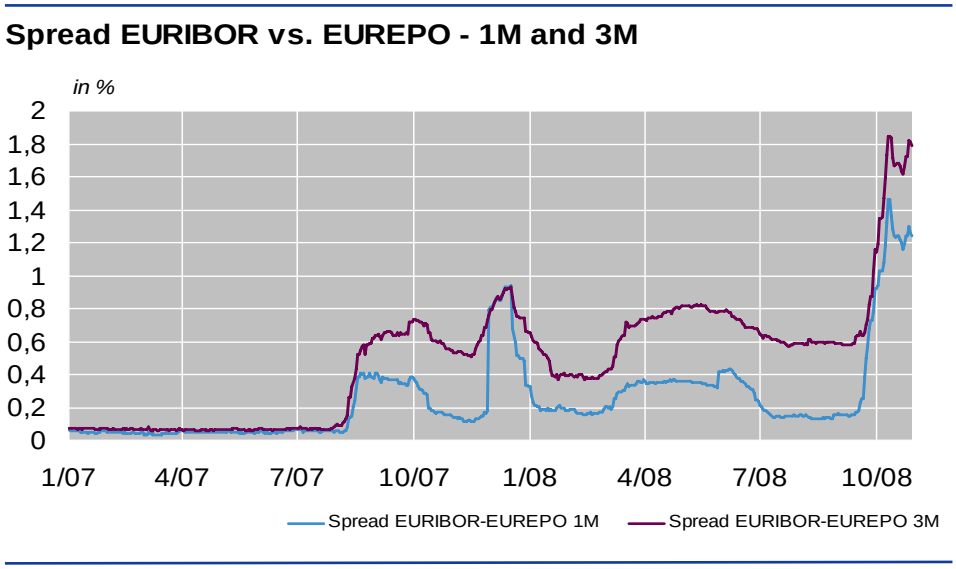
[6] European Third Quarterly High Yield and Leveraged Loan Report for 2008 (available from www.ehya.com).

[7] 2008 Q3 Securitisation Data Report (www.europeansecuritisation.com).

[8] Ibid.

over 100 basic points in the aftermath of the Lehman bankruptcy. Throughout this period, central banks actively intervened to reduce tensions in the interbank markets, but apparently with limited success. It was only the government actions taken in the second half of October to guarantee interbank claims that managed to bring a halt to the widening spreads. Figure 1 shows the spread of the euribor over the eurepo rate, which is the rate at which one prime bank offers funds in euro to another prime bank in exchange for collateral – the spread of the unsecured over the secured lending. It shows the growing cost for unsecured lending since mid-2007.[9]

Figure 1. Spread of the interbank money market rate (euribor) over eurepo, January 2007 - October 2008



[9] Drawn from Ewald Nowotny (2008).

2. THE POLICY RESPONSE

Policy-makers reacted early on to the mounting problems in the financial sector, as well at international, European and national level. The question that arises is what went wrong to prevent this crisis from turning into a full-blown systemic crisis. More especially from a European perspective, the Ecofin roadmap, put in place from October 2007 onwards, seems not to have been sufficient to stop financial instability from spreading and spiralling out of control. Were ministers underestimating the depth of the problem? Were they too complacent in the belief that it was an essentially US grown problem? Or was it related to a policy coordination problem, as the inter-linkage between international, European and national policy levels gives rise to an unclear division of roles and confusing mandates?

In October 2007, the G7 finance ministers and central bank governors asked the Financial Stability Forum to analyse the situation and make recommendations on how to improve the resilience of financial markets and institutions. At European level, the finance ministers discussed the problems in financial markets at the informal Ecofin Council in September 2007, and came up with detailed conclusions during their October, December 2007, May and October 2008 meetings. But as these reactions seemed insufficient and the financial crisis became full-blown, heads of state and government stepped in and orchestrated the response within the Eurogroup and European Council.

But it is above all at national level that the response was initiated, first as a debate about bank governance and supervision in those countries whose banks were badly hit. Once the crisis spilled out of control, one government after the other stepped in to prepare plans to re-capitalise its financial sector and unlock the interbank market, with differing degrees of conditionality.

One of the reasons why Europe disappeared from the scene is the non-existence of a 'European Treasury'. Although central banks played a dominant role in the first phase of the crisis, treasuries became the leading

actors in the second. As banks had to be recapitalised, or interbank lending markets guaranteed, national treasuries had to step in. The 12 October Eurogroup meeting tried to give some coordination to these national plans, which was endorsed by the European Council three days later, but it did not come up with a European plan.

2.1 International level

The lead in the reaction to the crisis was initially taken by the Financial Stability Forum (FSF), which issued its recommendations in April 2008, but it was overtaken in the second phase by the G-20, convoked at the initiative of the French President. The G-20 foresees a reform of the Bretton Wood institutions with a broader participation of countries and a central role for the IMF to detect financial system problems.

The FSF urges actions including strengthened prudential regulation and oversight, transparency in securitisation practices, limitations in the use of rating agents and better tools to detect stress, but it does not propose any fundamental shifts in the regulatory framework. Basel II and its 3 different pillars, with some adjustments, remain the basis for financial oversight. The capital requirements for the trading book remain largely unchanged, but liquidity regulation becomes a new objective. The report puts a considerable burden on the Basel Committee and national supervisors to improve things, but it is questionable whether they will be capable of coping, given the fatigue related to the long and protracted efforts which led to the Basel II Accord in 2006 and the huge oversight failures that were highlighted by the crisis. The immediate requirements for market participants on the other hand are limited, and essentially focused on more disclosure.

To improve the oversight of large internationally active groups, the FSF recommended the expanded use of international colleges of supervisors, as is also proposed by EU finance ministers. The FSF however stopped short of proposing any enhanced role for the IMF or BIS, or any other body in monitoring exposures in the financial system at large, or in allowing information from the colleges to be amalgamated and monitored more centrally.

The G-20 meeting in Washington (15 November 2008) addressed the issue of strengthened international cooperation, but nothing concrete was decided. It proposed an enhanced role for the IMF to better identify vulnerabilities in the financial system and requested all G-20 members to undertake Financial Sector Assessment Programmes (FSAPs) by the end of

March 2009, to review the compatibility of the local regulatory systems with the international financial system. FSAPs have been undertaken by the IMF since May 1999 to analyse financial systems across the globe, but it is unclear how, in the current global governance framework, their enforcement can be strengthened.[10]

What the role will be for the European Commission in this global governance framework remains to be seen. The Commission has over the last years been strongly involved in regulatory dialogues with the US and increasingly with other third countries, but was not represented in international fora such as the FSF. Reporting lines from the G-7 or G-20 go directly to its member states, and the international organisations involved. Regional organisations, such as the EU, seem not to have a clear role.

2.2 European level

The EU response was initially crystallised in the 'roadmap', adopted in October 2007, and further enhanced and updated in successive EU Council of finance ministers meetings. The roadmap moved to a second plan from October 2008 onwards, as the main concern became the national bail-out plans and their implications for European integration.

2.2.1 The Ecofin roadmap and the 1st phase of the crisis

The 'roadmap' is an extensive action plan, with a long series of measures to be taken by certain target dates. It was an early indication of the EU's responsiveness to the crisis and its preparedness to make the adaptations in the regulatory and supervisory framework. At the same time, however, it emphasised at several occasions that no deep structural change would be undertaken. On the contrary, the prevailing view was that the current institutional structure should suffice, which is entirely unrealistic, as the analysis below will show.

The October 2007 Ecofin Council, in response to the first signs of market stress, agreed on common principles for cross-border financial crisis management and on a roadmap to practically enhance supervisory cooperation. The common principles aim to protect the stability of the financial system and to minimise harmful impacts on the economy. In the

[10] See http://www.imf.org/external/NP/fsap/fsap.asp for hundreds of FSAP country reports.

statement released to the press following the meeting, the Ministers insisted that they will "carefully cooperate" in the case of a cross-border crisis and will react "based on common terminology and on a common analytical framework". It built upon difficult work undertaken in recent years in the context of the Economic and Financial Committee (EFC) on financial crisis management and burden sharing.[11]

The December 2007 Ecofin Council spelled out the role of the EU's regulatory and supervisory committees in this context. It asked the Commission to consider various options to strengthen the Level 3 Committees, but "without unbalancing the current institutional structure", a sentence that was repeated by later Ecofin Councils. The Level 3 Committees, which have a mere consultative role, were requested to strengthen the national application of their guidelines "without changing their legally non-binding nature", and to enhance their efficiency "by introducing…qualified majority voting where necessary". The Level 3 Committees were asked to analyse the options of "voluntary delegation of supervisory competences". To deal with the growing workload of the Level 3 Committees, the Commission was asked to consider more financial support under the EU budget.

In a letter to all his European colleagues dated 26 November 2007, the Italian minister Tommaso Padoa-Schioppa, called for formal changes in EU legislation to entrust the Level 3 Committees with the powers to adopt binding decisions, and to endow them with adequate financial and human resources to perform their tasks.[12] He observed that, in view of the financial market turmoil, the European financial system was still unable to effectively respond to the challenges of a globally integrated market. Voluntary agreements, the Italian minister remarked, proved incapable of ensuring an efficient area-wide supervisory teamwork during crisis episodes. The Level 3 Committees should therefore be turned into agencies, with the power to set binding standards and to take decisions in a limited

[11] Work on crisis management and burden-sharing started in the EFC in 2004, but was the subject of deep controversy between the member states on the need for a formal agreement on these matters. Cross-border crisis management exercises and simulations have been conducted on a regular basis in recent years.

[12] The letter was published in abridged form on 11 December 2007 in the Financial Times.

number of areas. The proposal however was hardly discussed in the Ecofin Council.

The debate on the appropriate governance structure accelerated in the run-up to the informal Spring Ecofin Council, which took place in Lublijana in April 2008, with clearer positions from different member states. The British Chancellor Alistair Darling proposed to establish supervisory colleges by EU law and create cross-border stability groups to respond to financial crisis (3 March 2008). The Italian Minister reiterated his proposal to turn the Level 3 Committees into EU agencies. And the Hungarian Prime Minister proposed a uniform European financial supervisory authority, based on the model of the ESCB (21 February 2008). The informal Ecofin, to which Alexandre Lamfalussy was invited, discussed the EU dimension of supervision, but without coming to a concrete proposal.

The May 2008 Ecofin Council affirmed and increased the tasks assigned to the Level 3 Committees. In addition to the earlier tasks, these bodies were asked to develop a common European supervisory culture, to ensure efficient cooperation across financial sectors and to monitor financial stability and reporting risks to the Economic and Financial Committee (EFC). On the latter task, the Council stressed "that the EU Committees of supervisors should be able to gather aggregate information in order to assess these features within and across financial sectors and to alert the EFC on potential and imminent threats in the financial system." One may wonder however whether the Council fully realised what it was asking of the Committees, with each of them employing only about 15 persons. Asking ECB's Banking Supervision Committee (BSC) to join forces with CEBS and to "ensure an efficient and appropriate division of labour amongst these two" is unrealistic, as the institutional contexts in which both bodies operate is entirely different and not comparable.[13]

On the supervision of EU-wide financial groups, the May 2008 Ecofin Council put its faith in the colleges of supervisors, as the FSF had also proposed. To allow these entities to function, a new memorandum of understanding (MoU) on cross-border financial stability was signed amongst the supervisory authorities, central banks and finance ministries. It specifies a much clearer and more explicit division of responsibilities and

[13] 2866th Council Meeting, Economic and Financial Affairs, Brussels, 14 May 2008, Council Conclusions, p. 13.

tasks amongst the signatories than what had been in place so far.[14] It spells out common definitions and principles, rules on information exchange and cooperation agreements applicable in normal times and periods of crisis. No less than **113 (!)** authorities are signatories to the agreement, which is a very high number considering that close to one-half of the member states have a single FSA, and that EEA countries are not included. In case of specific agreements pertinent to the supervision of financial groups, however, only those national authorities will be involved where a financial group has a presence. The agreement takes the form of an MoU, i.e. it is not legally binding and cannot give rise to any legal claim, although it was, for the first time, made public in full.

2.2.2 A full-blown systemic crisis

Policy-makers only started to realise the full scale of the financial crisis by the end of September 2008. Before that time, they continued to believe that this was essentially a US-grown problem, and that it would not affect the European financial system profoundly.[15] The succession of events in October 2008 dramatically brought home the message that Europe had an enormous problem of undercapitalisation in the banking sector, and that only a massive state-led recapitalisation would bring the systemic crisis to a halt. Calls for a European solution fell on deaf ears, and the reaction to the problems from Fortis onwards were entirely in national hands, with only an appearance of European coordination.

The state-led rescue of Fortis during the weekend of 27-28 September 2008 signalled the start of a series of bank bail-outs across the EU, on a case-by-case basis, or as part of a general plan. The EU was absent during the earlier part of the crisis, and it was only the emergency Eurogroup meeting on October 12th in Paris, convoked at the initiative of President Sarkozy as President of the European Council, that provided some

[14] In March 2003, the ECB initiated a memorandum of understanding on 'high-level principles of co-operation between the banking supervisors and central banks of the European Union in crisis management situations', which was updated in 2005.

[15] This was the main message of the historic press briefing given by the German Minister of Foreign Affairs Steinmeyer in front of NYSE building, on 24 September 2008, in the margins of his participation in the UN annual meeting (see for more info: http://www.auswaertiges-amt.de/diplo/en/AAmt/BM-Reisen/2008/VN-Woche/vn-letzter-Tag.html). Two weeks later, the German government announced a €500 billion support plan for the financial sector.

European coordination to the national rescue plans. A call for a European bail-out fund, as informally discussed within the French Ministry of Finance, and also supported by a large group of European economists, was not withheld by the European G-4, which met in an emergency meeting in Paris on October 4th, as Germany was said to be radically opposed to any such fund.[16] Two days later, the British prime minister was the first to formally announce a national bail-out plan for a select group of large British banks, although he added explicitly that this should "ideally be solved at European level."[17]

The main concern of the G-4 meeting was to get the European Commission's flexibility in the approval of the national bail-out plans, as well from a state aid and stability pact perspective, because of the exceptional circumstances. The meeting called for a new framework of financial supervision, and suggested an international meeting on financial sector governance. The meeting requested the Commission and the International Accounting Standards Board (IASB) to allow banks to reclassify trading book as banking book assets in order to embellish their balance sheets, on which a decision was taken by the finance ministers on October 7th.

The Eurogroup meeting on October 12th was the first to come up with a European response to the crisis, in the form of a concerted action plan of the eurozone to temporarily guarantee bank refinancing and keep important banks from failing. The meeting was convened at the level of heads of state and government, under the chairmanship of the French President. The ECB president and the British prime minister Gordon Brown were also invited. The Eurogroup decided that:

- governments can provide state guarantees to bank debt issues for up to 5 years under well-determined conditions, and can participate in these issues. All banks should eligible to these operations, including foreign-owned banks; and
- governments can take equity stakes in financial institutions and recapitalise banks in trouble.

Moreover, the ECB was requested to ease its rules on collateral.

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[16] "European banking crisis, A call to action" (available from www.voxeu.org) *Financial Times*, 2 October 2008.

[17] Gordon Brown on BBC News, 6 October 2008.

Governments were asked to avoid national measures that would negatively affect the functioning of the internal market and harm other member states. They committed to 'coordinate in providing these guarantees, as significant differences in national implementation could have a counter-productive effect, creating distortions in banking markets.' The support actions would be 'designed in order to avoid any distortion in the level-playing field and possible abuse at the expense of non-beneficiaries of these arrangements.'[18]

The Eurogroup decisions were endorsed by the European Council, which met a few days later in Brussels. In addition, the European Council decided to establish a 'financial crisis cell' to act in crisis situations. This mechanism will bring together representatives of the Presidency-in-office, the President of the Commission, the President of the ECB (in conjunction with the other European central banks), the President of the Eurogroup and the governments of the member states. The Council also welcomed the setting up of a high-level group by the Commission to strengthen the supervision of the financial sector.

The Ecofin Council had decided in the meantime to increase the minimum level of deposit protection to €50,000, leaving the possibility to the member states to increase it to €100,000. A formal Commission proposal on the subject was adopted a week later. The urgency of the review of the 1994 deposit guarantee directive (1994/19/EC) was widely acknowledged since the September 2007 Northern Rock bail-out, but it took the European Commission more than one year to have a new proposal on the table. The Ecofin Council also adopted conclusions on executive pay and reiterated its call for a timely implementation of the roadmap.

The December 2008 Ecofin Council reached a political consensus on four financial services directives, including the amendments to the deposit guarantee and the capital requirements directive, and draft solvency requirements directive. The agreement on the latter directive confirms the retreat of the European approach and asserts a prominent role for nation states in supervision. The ministers at the Ecofin Council rejected a draft clause, referred to as 'group support', which would have allowed capital to be shifted from subsidiaries in other member states to the parent company, and gave local supervisors the power to block such transfers. This change greatly disappointed the European Parliament and industry alike. The

[18] Eurogroup Summit, 12 October 2008, Press Release, pp. 2-3.

December 2008 Council emphasised the need to establish, without delay, national schemes to support the banking sector, with respect to guarantees, but also and especially recapitalisation plans, in order to sustain credit. It called upon the European Commission to publish guidelines distinguishing between sound and distressed banks, and on the principles governing state support.

2.3 The local debates and national bail-out plans

Although the credit crisis is a global phenomenon, the debates remained largely national, with important nuances in the response. This must be kept in mind when considering an eventual European solution, as discussed in the next section. For some, the crisis has clearly demonstrated the limits of the current cooperative model of financial supervision, whereas for others, it has demonstrated the dangers of too much of a harmonised approach. Some countries have already made adjustments to the supervisory framework. Most interesting from our perspective are the changes that were proposed in the institutional structure at national level and how the roles of the different actors in financial supervision were altered.

The Paulson report, published by the US Treasury (2008) a few days after the Bear Stearns collapse, is the most instructive. Although the drafting of the text had started well before the crisis erupted, in the context of the debate on the competitiveness of the US financial markets, and its contents essentially concern the re-design of the US supervisory system, the report is also relevant for the EU debate. Not only does it demonstrate a willingness to embrace radical change, which many in the US thought to be almost impossible, it also has implications for the EU structure. It should be recalled that US policy-makers and officials have over the last few years been impressed by the EU's capacity to adapt its financial system in the Financial Services Action Programme (FSAP), to implement the Lamfalussy proposals and to create a more competitive financial market.[19]

The Paulson report sees the 'twin peaks' model as the long-term ambition for the US, in which supervision is organised by objective, i.e. prudential versus conduct of business supervision. Such an objective-based model of financial supervision is in place in the Netherlands and in

[19] See, for example, the report by the General Accountability Office (US GAO, 2004) as well as the Paulson Report.

Australia.[20] It recommends an enhanced regulatory and oversight role for the Fed, as the central authority, with day-to-day supervision in the hands of a prudential and a conduct of business supervisor. Today, the Fed is one of the four federal bank prudential supervisory authorities, and supervises about 15% of the top 50 US-based banks (Petschnigg, 2005, p. 35), whereas prudential supervision of the (until recently) powerful investment banks was formally in the hands of the Securities and Exchange Commission (SEC), although it is debatable whether this was properly done.[21]

In the UK, the Northern Rock bank run, the first since Victorian times, and the losses incurred by several blue chip financial institutions led to broad debate about the adequacy of the structure of financial supervision. Although the FSA model was not called into question, the Bank of England was given a more important role. The UK Parliament report on Northern Rock criticised the lack of leadership in handling the bank failure and thus the non-functioning of the Tripartite Agreement between the FSA, the Bank and the Treasury. It proposed the creation of a new post of Deputy Governor of the Bank of England and Head of Financial Stability.[22] In his Mansion speech on 18 June 2008, the Chancellor of the Exchequer, Alastair Darling, said the Government intended to provide a formal legal responsibility for financial stability to the bank as well, alongside its existing role in monetary policy. These proposals were confirmed in the Banking Bill of October 2008, which is expected to come into force in early 2009. In Germany, the large losses in state-owned banking institutions sparked a new debate about the relevance of the FSA model, put into place with the Bafin (the German financial services authority) in 2002, and led to calls for a greater role of the Bundesbank in banking supervision.

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[20] The Paulson Report came out clearly against the FSA model: "An objectives-based approach also allows for a clearer focus on particular goals in comparison to a structure that consolidates all types of regulation in one regulatory body" (p. 14).

[21] According to Calomiris (2008), the Basel II rules were effectively applied by the SEC to investment banks.

[22] "There is a need for 'creative tension' within the regulatory system, and so these powers and responsibilities should not be granted to the Financial Services Authority. We propose the creation of a new post of Deputy Governor of the Bank of England and Head of Financial Stability." See UK House of Commons Treasury Committee (2008, p. 4).

Further discussion on the structure of financial oversight was overtaken by the urgency of national bail-out plans for the financial sector. At the same time, the acceptance that radical change was needed grew further during the month of October 2008. On the other hand, the need for financial assistance brought the discussion back to the member state level, as there is no European Treasury, and plans for a European fund were shelved by the German government. By October 14th, European governments had committed some €1,873 billion, or about 15% of GDP of the EU15, to national bail-out plans in one form or another. This sum increased to over €2,170 billion by the end of December, and is further growing (see Table A3 in Annex).

The emergence of the national treasuries in dealing with the crisis raises some fundamental problems for the single market. While the European Commission recognised the urgency of the situation, it published guidance for state aid measures to banks in crisis.[23] The Commission stresses in this document that any measure taken should be exceptional, and that the situation in the financial sector should be reviewed every six months. They could otherwise "generate harmful moral hazard".[24] The European Commission specified several conditions that must be met in national support schemes:

- Non-discriminatory access, eligibility for support should not be based on nationality;
- State commitments to be limited in time and scope, while excluding unjustified benefits for shareholders;
- Adequate remuneration of the state financial support;
- Private sector contribution;
- Behavioural rules for beneficiaries that prevent an abuse of state support, such as expansion and aggressive market strategies on the back of a state guarantee;
- State aid should be followed by structural adjustment measures for the financial sector; and
- Winding-up procedures should be open and take place on market terms.

[23] See State aid: Commission gives guidance to Member States on measures for banks in crisis, 13 October 2008 (http://ec.europa.eu/comm/competition).

[24] European Commission (2008b, p. 10).

It was added that observance of these principles, including in individual aid measures, is the responsibility of the member states, and subject to monitoring by the Commission.

A quick review of the measures adopted at member state level indicates that these rules have already been violated several times (see the table in Annex 3). Overall, most schemes are only open for domestic banks, without a clear definition of what this means, thus leaving much discretion in the hands of the minister of finance. The Dutch scheme for example is only open for systemically important Dutch banks.[25] State-sponsored subordinated debt schemes, which were used in the Dutch and Belgian context, are not permitted, according to the European Commission, as they protect the interests of shareholders.[26] And the Fortis liquidation procedure was not open. The European Commission has, under the state aid rules, been notified of and responded to most of the general national bail-out plans, and also to some specific cases. It concerns so far the support schemes of 15 member states, in chronological order: Denmark, Ireland, the UK, Germany, Sweden, Portugal, the Netherlands, France, Spain, Finland, Italy, Greece, Belgium, Austria and Slovenia. It approved many individual cases of aid (including Bradford & Bingley, Hypo Real Estate, Roskilde Bank, IKB) and launched in-depth investigations into the Northern Rock and WestLB bail-outs.[27]

The difficulties these schemes pose to free competition led the EU Commission to publish a further Communication in December 2008 on the principles governing State recapitalisation of financial institutions (European Commission, 2008c). State capital injections need to be appropriately remunerated to avoid distortions of competition at EU level, but need also to take into account the different circumstances of the banks and financial markets in question. Lack of differentiation may also weaken the overall competitiveness of European banks. The Commission Communication therefore proposes some pricing mechanisms, and a price

[25] For a bank to qualify as an Eligible Bank under the Dutch scheme, it must satisfy the Bank Eligibility Criteria: 1) be a bank as defined by the Dutch Financial Markets Supervision Act; 2) have a corporate domicile in the Netherlands; 3) have substantial business in the Netherlands; and 4) have an acceptable solvency ratio. See Clifford Chance (2008).

[26] European Commission (2008b), p. 3, Art. 23.

[27] See http://ec.europa.eu/comm/competition/state_aid/what_is_new.

corridor, determined by the (i) the required rate of return on subordinated debt representing a *lower bound* (being 7%) and (ii) the required rate of return on ordinary shares representing an *upper bound* (being 9.3%).

3. MODELS FOR A EUROPEAN REGULATORY AND SUPERVISORY REFORM

The debate on the reform of the European regulatory and supervisory structure has been running for at least a decade. It started in the wake of the start of monetary union, with the launch of the Financial Services Action Programme (FSAP) and the proposals of the Lamfalussy Committee. Until recently, the EU demonstrated that it was capable of adapting the supervisory structure and instituting a much greater degree of supervisory cooperation than had existed previously.

The reform, however, had not been subjected to a crisis situation, having been crafted during good weather conditions, not stormy ones. Discussions had been going on since 2005 over burden-sharing in the event of cross-border bank failures, but without much result.

The following discussion in section 3.1 should illustrate that we have probably reached the limits of what is possible under the current system, and that a quantum step needs to be taken. We review the shortcomings in the present regulatory and supervisory model, as the basis for formulating in section 3.2 a proposal for a European System of Financial Supervisors.

3.1 Shortcomings in the present regulatory and supervisory model

Two proposals have been debated for quite some time concerning desirable changes to the present supervisory model: i) upgrading the Level 3 Committees and ii) strengthening the role of the supervisory colleges. In the context of European supervisory cooperation, two further issues need to be analysed: the functioning of memoranda of understanding, as they underpin cooperation among supervisory colleges, and the role of the ECB, as it will need to be part of a European solution.

3.1.1 The role of the Level 3 Committees

The Level 3 Committees have managed to achieve a lot in a limited period of time, and with scarce resources. They can be credited with having eased the Commission's work on the implementing measures for framework directives and to have contributed to supervisory convergence and a European supervisory culture by continuously bringing together supervisors from the different member states on a wide variety of matters.[28] However, it rapidly appeared that their purely advisory role was hampering their drive. A discussion was kicked off in 2004 by the oldest of the Committees, the Committee of European Securities Regulators (CESR), with publication of the Himalaya report (CESR, 2004), which proposed an enhanced role for CESR in mediating between supervisory authorities and in delegating supervisory responsibilities.

Four years on, the issue is still on the table. Although the Committee of European Banking Supervisors (CEBS) has taken sides with CESR, it seems that ministers are unwilling to change the role of the Committees, as is evident from the Ecofin Council deliberations in May 2008, referred to above. CESR, and also the former Italian finance minister, argued that it should not be difficult to turn the Committees into formal EU agencies, like the existing 28 European regulatory agencies. However, this would expand the mandate of the Level 3 Committees from essentially regulatory concerns to also include supervisory matters. This raises important legal, accountability and eventually fiscal issues. With formal mediation and delegation of powers come enforcement and the authority to sanction. This, in turn, raises the sensitive matter of sovereignty. How will accountability be organised if the Committees have a more formal role? In addition, such changes touch upon, or could alter the allocation of responsibilities between home and host supervisors as set out in the EU directives. And what if they incur formal responsibilities in the context of a troubled bank, as the coordinator of national authorities, which may raise financial issues?

Assigning a more formal role to the Committees could give them more clout in discussions with the member states, but this is possibly what some authorities are afraid of. So far, the Committees have acted more as an informal mediator, often coming up with the broadest possible consensus to come to an agreement between the member states. An

[28] See Casey & Lannoo (2005), for a more extensive discussion on this issue.

example is the COREP (Common Reporting Framework) project of CEBS, which creates a common format for banks to use in reporting solvency ratios. Table 6 shows how many reporting cells for core (83%) and detailed information (63%) banks have to use on average in COREP. The maximum number of cells in which a bank could be asked to report is about 18,000, according to CEBS, as not all detailed information is applicable to all banks. This very high number is seen by bankers as the lowest common denominator, representing a totally unworkable compromise and a symptom of the lack of powers on the part of CEBS to impose a truly common (and integrated) reporting framework in the EU.

Table 6. Framework for common reporting of the new solvency ratio

	Number of Cells	Average Use % (non-weighted average)	Minimum use %	Maximum use %
Core	1,227	83% for all; 90% disregarding securitisation and market risk templates	20%	100%
Detailed	21,606	63%	5%	100%

Source: CEBS (2006).

The best example of the unwillingness of the May 2008 Ecofin Council to revisit the structural framework is the demand to the Committees to report to the EU Council on key developments, risks and vulnerabilities that could affect the stability of the financial system, as referred to above. This is not a core task of the Committees in the context of the Lamfalussy framework, nor do they have the means to undertake it. That the Council also requests the involvement of the ECB's Banking Supervision Committee (BSC) only emphasises the absence of realism of this request.

Another example of the unclear division of roles was the demand to banks by the European Commission in reaction to the subprime crisis to provide more information on securitisation. The European Commission did not have up-to-date information on securitisation, nor did the Committees for that matter, and it had to rely on sector organisations to provide insights into the size and functioning of these markets.

3.1.2 The model of colleges

The main means by which the EU Council proposes to improve the supervision of with EU-wide financial groups are the supervisory colleges.

Colleges are established in case a financial institution operates in another member state through one or more branches or subsidiaries. The college is chaired by the home supervisor of the group's parent and made up of authorities from all the countries in which the holding company has established a presence through subsidiaries or branches. Colleges function on the basis of mandatory written arrangements agreed upon *ad hoc* by the competent authorities to allow the home country to carry out consolidated supervision of the group (Art. 131 CRD, Directive 2006/48/EC).

In reaction to the financial crisis, the Ecofin Council requested that the role of the colleges should be strengthened, and asked, again, that the EU Committees should play a role "in giving operational guidelines to provide consistency in the working procedures of the different colleges and effectiveness of the decision-making process and provide reassurance to supervisors involved in the colleges, as well as monitoring the coherence of the practices of the different colleges of supervisors and sharing best practices".[29] This demand was reiterated after the summer 2008, and also reflected at international level in the G-20 conclusions. Amendments to the EU's capital requirements directive aimed at strengthening the role of colleges were proposed by the European Commission on 1 October 2008.[30] Such proposals are also mirrored in the draft solvency requirements directive for insurance companies.[31]

The extensive reliance on colleges raises three major issues. Although supervisors work in a college, their statute, mandate, accountability, modus operandi and enforcement powers continue to differ importantly across the EU. EU legislation has introduced the single licence, and obliges supervisors to cooperate, but has not harmonised the national structures. Hence a home country authority may not have the same powers in the host country to enact certain disciplinary measures. The degree of independence

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[29] 2866th Council Meeting, Economic and Financial Affairs, Brussels, 14 May 2008, Council Conclusions, p. 13.

[30] Proposal for a Directive of the European Parliament and of the Council amending Directives 2006/48/EC and 2006/49/EC as regards banks affiliated to central institutions, certain own funds items, large exposures, supervisory arrangements, and crisis management, Brussels, COM(2008) 602/3.

[31] Proposal for a Directive of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance - Solvency II, COM/2007/0361 final of 10/07/2007.

and accountability of the supervisory authority differs. And the formal responsibility for financial stability is limited to the national boundaries. Although the same problem exists at a global level, the legal framework and the degree of market integration differ significantly, thereby raising the question of whether colleges are still appropriate in the EU context. From this perspective, colleges were the solution for the past and may be for the present, but not for the future.

The second issue raised by colleges is whether the information obtained is sufficiently shared and merged to have a broader picture on exposures in the interbank market and risks to stability of the European financial system. A basic problem is that the home country is supposed to have the full picture, not necessarily the host countries. The latter may in case of trouble rapidly feel badly informed, with the result that trust in the college disappears, and the college can no longer function as a college. This is related to a third problem, whether colleges effectively function as college in times of crisis. The information emerging from the rescue of Fortis in the weekend of 27-28 September 2008 is not reassuring in this context. The Belgian policy-makers and supervisors contacted the two most important host countries, the Netherlands and Luxembourg, only after about 48 hours of discussions.[32]

Comparing the location and geographical presence of banking groups in the EU and Switzerland, 123 colleges should have been established in the EU. With 29, Germany chairs the highest number of colleges, followed by Switzerland (13), Italy (10), France (8) and the UK (7).[33] Taking into account the importance of groups of which a country chairs the college, based upon the weighted average market shares of the countries in which the banks are active of which a certain country is the lead supervisors, the ranking is topped by Spain, followed by Belgium and the UK. The question can thus be raised whether these countries have the capabilities and the means to exercise the supervisory tasks as home country of globally active banking

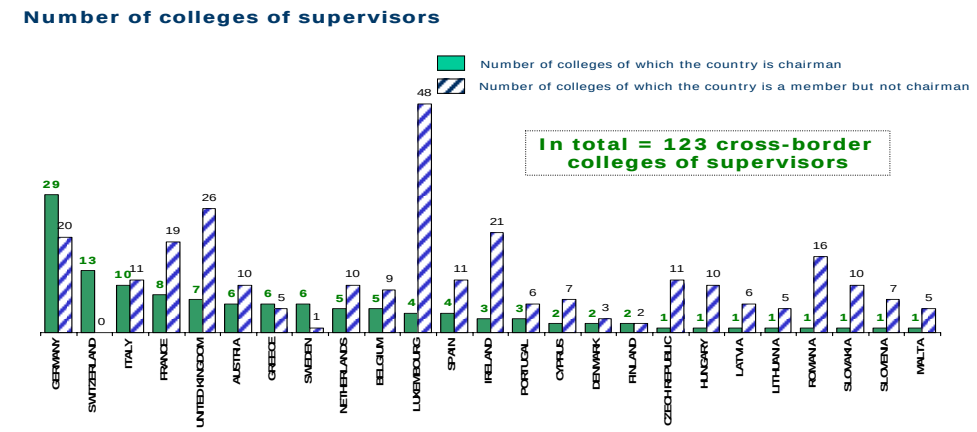
[32] According to an article by Pascale Den Dooven, a journalist for *De Standaard*, 15 November 2008, the Belgian authorities only called their Dutch counterpart on midday on Sunday, inquiring why the Dutch had not taken contact, whereas the Dutch replied that they were waiting for a call. This anecdote is highly revealing about the efficacy of colleges, home-host relations and memoranda of understanding.

[33] Data collected by the Italian Bankers Association (ABI), April 2008.

groups, and second, whether the information emerging from so many colleges gets sufficiently coordinated and amalgamated at European level.

Figure 2. Colleges of supervisors per EU member state

Torriero, Aggiornare il sistema bancario: cosa significa in una parola?



3.1.3 Memoranda of Understanding: A good basis?

Memoranda of understanding (MoUs), which essentially have a bilateral nature, provide the legal basis for cooperation between colleges. The recent capital requirements directive (2006/48/EC and 2006/49/EC) further harmonised the structure of cooperation between the home and host country authorities, and clarified the obligations on both sides.[34] It requires competent authorities to have written coordination and cooperation arrangements, or MoUs, in place for the supervision of banking groups. MoUs are not legally binding, however, and cannot give rise to any legal claim. The Northern Rock collapse demonstrated already how difficult it is for MoUs to work even at national level. At international level, the limited information available so far on the rescue of Fortis indicates that they are not effective, as discussed above.

[34] A proposal for amendment of this directive was recently made by the European Commission (2008c), and provisionally agreed upon by the Ecofin Council of 2 December 2008.

MoUs are also used as a framework for information-sharing and coordination between the various authorities of different states to contribute to financial stability and crisis management. A first MoU was concluded by the ECB's Banking Supervision Committee (BSC) in 2003, setting the specific principles and procedures for the responsible authorities in crisis management situations. This MoU was extended in 2005 to also include finance ministries, and recently radically upgraded (see above).

The core issue of MoUs, i.e. information exchange, continues to be the Achilles heel of the single financial market. At a European Commission conference on the allocation of supervisory responsibilities, organised on 26 June 2007 just before the current financial crisis started, it was apparent just how little progress had been made on information exchange between supervisory authorities. The lack of information exchange had already been criticised in the 2001 EFC report (Brouwer II report), but had hardly been acted upon. This was also highlighted in an IMF report, published in May 2007, which found existing practices for supervisory cooperation and MoUs out of line with market developments. It called for much more ex-ante cooperation and information sharing than was the rule.[35]

The market turmoil, which started in August 2007, highlighted that the reach of the MoU between supervisors, central banks and finance ministries was insufficient. ECB officials have on several occasions complained about the lack of supervisory information to make financial stability assessments and monitor financial stress.[36] Supervisors are often hindered on professional secrecy grounds from exchanging this information with non-supervisory authorities in normal times. When they share the information in emergency situations, it is usually too late. It is highly questionable whether the new updated MoU will change this practice.

Even at national level, it seemed that MoUs are precarious, as illustrated by the Northern Rock case, and the ensuing discussion between the Bank of England and FSA. After the extension of the Bank of England's powers, as was proposed by Alastair Darling, the discussion still revolves

[35] See IMF (2007).

[36] See e.g. Bini-Smaghi (2008a).

around who will have the formal power to pull the trigger for a bank in trouble.[37]

3.1.4 Role of the ECB: Not clarified

Unlike the Fed and the Bank of England, European authorities have not acted so far to clarify the mandate of the European Central Bank. In addition to establishing a good reputation as a new central bank for Europe, the core task of the ECB is to maintain price stability. In 2002, Wim Duisenburg attempted to broaden the ECB's role to include banking supervision, but he was rebuked by the finance ministers.

According to the EU Treaty, the ECB is in charge of monetary policy and the smooth operation of payment systems, whereas financial supervision and stability remain the competence of the member states. Emergency liquidity assistance can be provided by national central banks in the Eurosystem to an institution operating in its jurisdiction, but at the costs to the central bank in question.[38] The ECB can contribute to the smooth conduct of policies pursued by the competent authorities relating to prudential supervision and financial stability (Art. 105.5). Specific tasks concerning policies relating to prudential supervision of banks and other financial institutions, with the exception of insurance companies, could be conferred to the ECB, according to Art. 105.6, but this is seen as a last resort and requires the unanimity of the member states.

Early on after its creation, the ECB attempted to enlarge its powers into the area of prudential supervision. In 2001, the ECB issued a paper on the role of central banks in prudential supervision, in which it argued strongly in favour of combining prudential supervision and central banking (ECB, 2001). It even detected a trend in this direction and refuted the arguments against combining both: "Arguments in favour of a separation of prudential supervision and central banking lose more of their force, while those in favour of combining become more prominent" (ECB, 2001, p. 7). It concluded that "when viewed from a Eurosystem perspective,

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[37] "FSA should have sole right over bank rescues", *Daily Telegraph*, 17 September 2008.

[38] This happened for example with Fortis Bank, when the Belgian central bank provided €45 billion in emergency liquidity over the weekend of 28-29 September 2008. The provisions applicable to these operations within the Eurosystem were clarified by ECB in its 1999 Annual Report (see ECB, 2000, p. 98).

the attribution of extensive supervisory responsibilities (i.e. both macro- and micro-prudential) is likely to prove beneficial" (Ibid., p. 9).

The ECB attempts however lead to a fierce reaction from the finance ministers in the Ecofin Council in 2002, with which the Ecofin until today may want to remain consistent. The May 2002 meeting (EFC, 2002, p. 10) explicitly stated that the structure for financial regulation and supervision must be consistent with:

- "The allocation of powers and responsibilities as set out in the Treaty;
- Appropriate accountability to EU institutions, in particular political accountability to the Ecofin Council;
- Subsidiarity, since supervisory tasks are best performed as close as possible to supervised entities and since financial crises may have implications for public finances;
- Neutrality with respect to models adopted at the national level."

Since that time, the ECB has kept a low profile on banking supervision matters. The ECB was part of the MoUs that were concluded on financial stability, but it did not make any political statements as it did in 2001. Only recently, it repeated on several occasions the need to have more supervisory information on financial institutions. As the ECB injects liquidity to the banking system based on appropriate collateral, it could suffer losses in case an illiquid bank appears to be insolvent, thereby underlining the "need of timely and exhaustive transmission of supervisory information at European level".[39] But the ECB was hardly in the scope of the discussions of the Ecofin Council during the first year of the crisis. Only its Banking Supervision Committee (BSC) was asked to step up the cooperation with CEBS.

3.2 A European System of Financial Supervisors (ESFS)

To respond to the shortcomings and inconsistencies discussed above, and to establish an effective supervisory system dealing with the current and future supervisory challenges, EU policy-makers will need to take a quantum step. With the reforms undertaken over the last years further to the Lamfalussy proposals, the limits of what can be done within the current EU supervisory structure have been reached, particularly when dealing

[39] Lorenzo Bini-Smaghi (2008b), slides from his presentation at the Conference on the ECB and its Watchers, 5 September.

with the cross-border banking crisis. "It is only when the frameworks for regulation, supervision and crisis management match the actual structure of financial markets, that the negative externalities of financial crises can be managed properly," to quote the Swedish central bank governor.[40] A further step forward will thus require deeper institutional changes. We propose to follow *mutatis mutandis* the roadmap that led to the creation of the European System of Central Banks (ESCB) in 1998. A European System of Financial Supervisors would bring all financial supervisory authorities in Europe under a single roof, while maintaining a plurality in the operational structure.

3.2.1 A roadmap

The roadmap would be composed of 3 parts: 1) the European Council formally mandates the High Level Expert Group on EU financial supervision (the de Larosière Committee) to analyse the optimal structure of financial oversight and propose concrete steps leading to a European System of Financial Supervisors; 2) European Financial Institute is created to lay the groundwork for the establishment of a European System of Financial Supervisors; 3) the European System of Financial Supervisors starts at a certain target date.

Committees have been widely used in the European integration process, for broader political as well as for more technical issues. Not only are they apolitical in nature, but they also allow the pooling of the necessary technical expertise and knowledge. In addition, as a consensus has not yet emerged at European policy level of the need for a radical change in the structure of European financial supervision, which is also caused by the lack of a European public debate (as opposed to national policy debates) on the subject, a Committee could contribute to creating the necessary consent.

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[40] As remarked by the Swedish Governor Stefan Ingves, "Regulatory challenges of cross-border banking: Possible ways forward", Conference on the Financial System, Reserve Bank of Australia, Sydney, 21 August 2007 (http://www.riksbank.com/pagefolders/31131/070821e.pdf). The Governor referred to the concrete challenges posed for supervisors by a bank like Nordea and called in this speech for a European Organisation for Financial Supervision (EOFS), a variant of the proposal discussed above. The Governor had already made this proposal in a speech in October 2006, in which he emphasised that upgrading CEBS was not the solution, as it would not make it a supervisor.

The Committee's mandate should be fourfold: 1) map the context; 2) analyse the different possible modalities in the institutional design of financial supervision and recommend the optimal structure for the EU; 3) outline in detail the objectives of the ESFS, its statute, primary tasks, administration, governance and financial resources; and 4) assess the relationship between the ESFS and the deposit insurance and resolution authorities. The context should provide the rationale why the current structure is no longer sufficient, and to what extent the supervisory structure is no longer in line with market integration. The different possible responses should emerge from this. It should set out which tasks can be better executed at a centralised level, and which at national or local level.

Depending upon the specific recommendations of the Committee, a European Financial Institute should be created soon after the delivery of the recommendations of the Committee. Its task should be preparatory and at the same time operational. It should do the operational work for the establishment of an integrated ESFS and the structures that are needed to perform these tasks. Pending an eventual Treaty change, it could function as an EU-wide agency, set up by the European Council, and already be empowered to act on certain matters, such as the collection and amalgamation of supervisory information, the execution of certain supervisory tasks such as mediation and delegation of tasks amongst national authorities, and performing a crisis cell function. It could at the same time continue to perform the regulatory tasks of the actual Level 3 Committees.

In a third phase, the ESFS would start to function under:

- common objectives for financial supervision;
- a single statute; and
- a unified governance and accountability structure.

Objectives for financial supervision have so far never been formally harmonised at EU level. Although the broad objectives are the same, safeguarding the stability of the financial system and protecting consumers/investors, important differences may exist in other objectives. The UK Financial Services Authority (FSA) has as one of its objectives "the promotion of public understanding of the financial system", which means that it needs to help users to understand what financial products they buy. To our knowledge, this is not necessarily an objective of other supervisory authorities in the EU. Acceptance of this objective would come to meet a growing need of financial literacy in a world with an increasing complexity of financial products.

Much inspiration for the format of the statute and the governance and accountability structure could be taken from the ESCB statute. The Governing Council of the ESFS should consist of an Executive Board and of the Chairmen of the 27 national authorities, in the same way as the ESCB is governed. As with the ECB president, the chairman should report periodically to the Ecofin Council and the European Parliament on financial stability and supervisory issues.

The Committee should analyse two specific issues carefully in more detail:

i) To what extent should a functional approach be followed to financial regulation, or should a more objective-based model be followed?

ii) How will subsidiarity be applied to financial supervision, i.e. which tasks can be more efficiently exercised centrally as compared to locally?

The answer to the latter question could ease the response to the first, in the sense that conduct of business supervision will by and large remain at a local level, which implies that, from that perspective, a more objective-based approach would be easier. The current crisis has also indicated that one of the reasons for separation between banking and insurance (and investment banking) supervision, i.e. the likelihood of systemic effects, is no longer tenable. As demonstrated above, the insurance sector can also be regarded as systemically important, which supports an objective-based approach.

The Committee should also analyse how the links between the ESFS and the ECB will be worked out. This crisis has amply demonstrated that well developed communication lines between central banks and supervisors are extremely important, as are also clear divisions of responsibilities. We would strongly support a further clarification of the financial stability role of the ECB and the ESCB, while maintaining supervision outside their mandate.

Another tricky issue to analyse is the maintenance of the home country control. We would argue in favour of a two-tier system, whereby supervisory responsibilities for systemically important EU-wide groups are shared between the home country and the ESFS. The core supervisory

responsibilities would be delegated to a supervisory board in the ESFS, with day-to-day monitoring placed in the hands of the local supervisors.[41]

3.2.2 Other possible scenarios

Several other possible scenarios discussed above could be considered for moving forward:

i. Upgrading the Level 3 Committees into EU agencies

The upgrading of the Level 3 Committees is more of a short-term, interim solution that raises more difficulties than it solves. It gives more powers to the Committees without addressing the differences of statutes and powers of the national authorities, and the related issues of accountability and control. It does not solve the supervisory problems discussed above.

More generally, turning the Level 3 Committees into EU agencies would create three new regulatory agencies, in addition to the 28 that already exist at EU level. In the aftermath of the financial crisis, financial supervision issues could be better dealt under a single roof, and the institutional structure put in place as the result of a proper political process, rather than rapidly turning the existing Committees into agencies, and in this way circumventing a deeper discussion about the proper supervisory structure Europe needs.

ii. Using Art. 105.6 of the EU Treaty and giving more powers to the ECB for banking supervision

The Treaty article is limited to banking supervision and to 'specific tasks' as related to banking supervision. The fact that insurance companies could not be part of it, and that it is limited to specific tasks means that it poses too many constraints to be used as a long-term solution. In addition, the question remains whether it would be appropriate for the ECB to exercise banking supervision within the ECB, whose main mandate is ensuring price stability.

The report of the High Level Expert Group on EU financial supervision (de Larosière Group) would be of utmost importance in analysing the trends globally in this domain, and summarising the pros and cons of the different institutional models, to come to an optimal

[41] See Schoenmaker & Oosterloo (2008) for a more detailed elaboration on this issue.

structure for the EU, also including the degree of cooperation with the central bank.

iii. A European FSA, or single prudential and single conduct of business supervisor

A fully-fledged single FSA, or single supervisors-by-objective, would not be adapted to the state of European market integration, and would not pass the subsidiarity test.

3.3 A European Resolution Trust

A necessary corollary to an ESFS should be a European Resolution Trust, as a safety net for short-term financial problems of EU-based financial institutions. The European Central Bank can only provide liquidity against collateral to keep the money market functioning, but has no powers to resolve a solvency crisis. A European Resolution Trust could be managed by the European Investment Bank (EIB) (Gros & Micossi, 2008b). Appeals for its funds would be decided by the Governing Council of the ESFS. The EIB is a public agency and issues guaranteed bonds to finance its operations. Its Board of Governors is made up of the ministers of finance of the member states. At present, the EIB has capital and reserves of €30 billion, upon a total balance sheet of €300 billion. In addition, it can call upon an additional capital of €156 billion, which is currently uncalled for. Its capital is subscribed for on a proportional basis by the different member states.

A European Resolution Trust could take equity stakes in or provide guaranteed loans to financial institutions in trouble. Support by the Trust would be based on adequate remuneration, to preserve the value of the public investment and to make sure that those who mismanaged would pay for the consequences. Losses could be distributed across member countries according to where they arose.

A European Resolution Trust would be a much more appropriate safety net for European-wide active banks than having to rely on national solutions. It would be more neutral, as it would come from an EU-wide institution and do away with distortions created by national bail-out plans. It would be more efficient, as it would provide guarantees to depositors on a European-wide basis. And it would be more appropriate, certainly for those banks that have outgrown their national boundaries. The Trust would apply to troubled financial institutions of a certain size that have a Community dimension, based on a minimum share of their total EU assets outside their home country. The thresholds of the EU merger control

regulation could function as a benchmark to distinguish between Community and national competence.[42]

In this context, one could also consider creating a federal deposit protection fund in the EU. Rather than attempting to further harmonise the different national deposit protection schemes, as the European Commission did in its proposal of 15 October 2008, it may be easier, and probably more efficient to create an EU-wide deposit protection fund from the beginning.[43] Although the minimum level of deposit protection was increased, the Commission proposal continues to leave a large degree of discretion to the member states, and does not solve the home-host problem. As with the Icelandic banks, citizens cannot be expected to know whether a foreign bank in a given country is a branch or subsidiary, and the different implications this distinction may have on the insurance of their deposits under the host or home deposit protection scheme.

[42] Council Regulation (EC) No 139/2004. In addition, the merger control has two exceptions in the application: the 'Dutch clause' (article 22) and the 'German clause' (article 9), which add more flexibility to the system to decide whether a merger is Community or national competence.

[43] The Commission proposal (Art. 12) requests the Commission to report on the possible introduction of a Community deposit-guarantee scheme, together with any appropriate proposals by the end of 2009, Proposal for a Directive of the European Parliament and of the Council amending Directive 94/19/EC on Deposit Guarantee Schemes as regards the coverage level and the payout delay, COM(2008) 661 final. The EU Council endorsed the directive on December 2nd, the European Parliament on December 18th.

4. POSTSCRIPT: THE GLOBAL DIMENSION

EU policy-makers have rapidly brought the debate about the reform of financial regulation and supervision to the global stage by launching a debate for the reform of the Bretton-Woods institutions and calling for a G-20 meeting. While there rightly are certain issues that should also be discussed at global level, this should not stop the EU from bringing its own house in order. This is even more important since the EU represents more than 50%, on some accounts even more than 55%, of global bank assets. Seen from the perspective of developing countries, calling for concerted action on bank governance, supervision and oversight, means that those who are principally hosting these markets have to take the lead in controlling them.

Table 7. Main indicators of the size of the EU's financial markets, 2007 (€ billion)

	World	***EU***	***EU in %***	***US***	***US in %***
GDP	37,461.57	10,775.07	29%	13,682.43	37%
Gross national savings	8,647.60	2,344.96	27%	1,053.74	12%
Domestic stock market capitalisation	44,714.11	10,116.56	23%	13,682.43	31%
Total bank assets	58,229.99	29,632.88	51%	7,688.11	13%

Note: According to the ECB, total EU bank assets are €41,072 billion, meaning that the EU percentage of global bank assets could well exceed 51%. As the ECB does not offer statistics on bank assets at global level, it is not possible to use ECB data for purposes of comparison.

Sources: IMF, Global Financial Stability Report September 2008; IMF International Financial Statistics.

By taking a clear initiative along the lines outlined above, the EU could demonstrate to the outside world that it is assessing the full policy implications of the crisis and aligning its structure of financial oversight along lines similar to that used for monetary policy. It would at the same time be a clear indication globally that it is taking the lead in reforming the structure of financial oversight.

Asking the IMF to take a more important role in financial oversight, by undertaking Financial Sector Assessment Programmes (FSAP), is noteworthy, but nothing dramatic. The IMF has been undertaking these assessments since 1999, and the outcome has been used by besieged supervisors in EU countries to claim that they had high ratings. In addition, the enforcement powers of the IMF are limited. But should not the EU start to undertake its own assessments? Regulatory compliance can be enforced by the EU, but this is not so easily achieved in the area of supervision. The creation of an ESFS could fill this void.

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ANNEXES

Annex 1. Key financial indicators of the top 5 banks in the EU and selected other countries (2007)

Country	Total assets (mil €)	Total equity (mil €)	Loans to customers (mil €)	Deposits from customers (mil €)	Asset/ GDP (%)	Loans/ deposits (%)	Equity/ assets (%)
Austria	698475	44722	392763	299996	257.9	130.9	6.4
Belgium	1550751	62342	621514	598792	463.0	103.8	4.0
Bulgaria	17080	1976	11259	11126	59.1	101.2	11.6
Cyprus	83675	6623	44702	55020	535.1	81.2	7.9
Czech Republic	105850	7276	51718	74986	83.3	69.0	6.9
Denmark	625020	20960	373771	187028	274.5	199.8	3.4
Estonia	34665	2653	27278	14662	227.0	186.0	7.7
Finland	274996	21561	140087	91409	153.0	153.3	7.8
France	5550460	196302	1593553	1580763	293.3	100.8	3.5
Germany	3990498	104581	931919	988265	164.7	94.3	2.6
Greece	287210	22754	196660	165573	125.9	118.8	7.9
Hungary	69416	6359	49255	38481	68.6	128.0	9.2
Ireland	769816	27508	480773	244336	403.9	196.8	3.6
Italy	2006529	147987	1221732	758484	130.7	161.1	7.4

Latvia	21620	1797	14315	9899	108.4	144.6	8.3
Lithuania	23035	1540	17047	10418	82.2	163.6	6.7
Luxembourg	309875	15998	103668	104238	854.2	99.5	5.2
Malta	14010	1698	6421	8981	258.7	71.5	12.1
Netherlands	2954809	113227	1500757	1197983	521.1	125.3	3.8
Poland	106567	10756	62595	79588	34.5	78.6	10.1
Portugal	317520	18585	221113	144597	194.7	152.9	5.9
Romania	40746	3247	25360	23951	33.6	105.9	8.0
Slovakia	31029	2320	16240	22151	56.6	73.3	7.5
Slovenia	31719	2140	21896	16114	92.0	135.9	6.7
Spain	1934416	138873	1838315	734621	184.1	250.2	7.2
Sweden	1013630	40785	623086	327833	305.4	190.1	4.0
UK	6406952	248052	2846061	2280745	312.9	124.8	3.9
EU	**29270369**	**1272622**	**13433858**	**10070040**	**237.2**	**133.4**	**4.3**
Iceland	129934	8228	82684	39809	890.0	207.7	6.3
Norway	243316	13004	195088	110360	85.7	176.8	5.3
Switzerland	2357865	74747	557616	807249	756.3	69.1	3.2
USA	**4474314**	**339328**	**1966141**	**2156126**	**44.4**	**91.2**	**7.6**

Source: Bankscope, Eurostat.

Annex 2. Timeline of the main crisis events and policy responses, summer 2007-present

Date	Event
9 Aug. 07	BNP Paribas suspends redemptions of three money market funds exposed to US ABS assets. AXA had earlier announced support for its funds
9 Aug. 07	European Central Bank (ECB) injects €95 billion overnight to improve liquidity. Injections by other central banks
17 Aug. 07	Federal Reserve approves a temporary 50 bp reduction in the discount rate, extends term financing, and notes it will 'accept a broad range of collateral'
13 Sept. 07	Bank of England announces that it will widen the range on banks' reserves targets within which they are remunerated at bank rate
14 Sept. 07	Bank of England announces it has provided a liquidity support facility to Northern Rock
15 Sept. 07	Informal Ecofin Council in Porto at which ministers discuss financial stability arrangements
17 Sept. 07	Following a retail deposit run, the UK Chancellor announces a government guarantee for Northern Rock's existing deposits
9 Oct. 07	Ecofin Council decides on a roadmap for EU arrangements for financial stability
Oct. 07	Citi, Merrill Lynch and UBS report significant write-downs, top management changes
Nov. 07	Several banks support SIVs or take them on their balance sheet
4 Dec. 07	Ecofin Council discusses the EU's regulatory and supervisory architecture
11 Dec. 07	The Italian finance minister Tommaso Padoa-Schioppa calls for a single financial rulebook and European supervisory agencies
20 Dec. 07	Bear Stearns announces expected 2007 Q4 write-downs
Jan. 08	Announcements of significant 2007 Q4 losses by Citi and Merrill Lynch, among others
24 Jan. 08	Société Générale reveals trading losses resulting from fraudulent trading by a single trader

17 Feb. 08	UK government announces temporary nationalisation of Northern Rock
11 Mar. 08	Federal Reserve announces the introduction of a Term Securities Lending Facility and Bank of England announces it will maintain its expanded 3-month long-term repo against a wider range of high-quality collateral
16 Mar. 08	JPMorgan Chase & Co. agrees to purchase Bear Stearns. Federal Reserve provides $30 billion non-recourse funding
4 April 08	Informal Ecofin Council in Ljubljana agrees on an updated MoU between supervisory authorities, central banks and finance ministries
21 Apr. 08	Bank of England launches its Special Liquidity Scheme (SLS) to allow banks to swap temporarily their high-quality mortgage-backed and other securities for UK Treasury bills
15 May 08	Ecofin Council updates the roadmap and assigns new tasks to the Level 3 Committees. It publishes a new MoU
16 June 08	Lehman Brothers confirms a net loss of $2.8 billion in Q2
13 July 08	US Treasury announces a rescue plan for Fannie Mae and Freddie Mac
15 July 08	US Securities and Exchange Commission (SEC) issues an emergency order to enhance investor protection against 'naked short-selling'
7 Sept. 08	Fannie Mae and Freddie Mac taken into conservatorship
15 Sept.08	Lehman Brothers files for bankruptcy. Bank of America announces purchase of Merrill Lynch
16 Sept. 08	US government provides emergency loan to AIG of $85 billion, in exchange for a 79.9% stake and right to veto dividend payments
18 Sept. 08	Lloyds TSB/HBOS merger announced
18 Sept. 08	FSA announces regulations prohibiting short-selling of financial shares
19 Sept. 08	SEC prohibits short-selling in financial companies, followed by other securities commissions in the EU and worldwide
21 Sept. 08	Federal Reserve approves transformation of Goldman Sachs and Morgan Stanley into bank holding companies
29 Sept. 08	Bradford & Bingley is nationalised by the UK government. Abbey buys its branches and retail deposit book

29 Sept. 08	Belgian, Dutch and Luxembourg governments announce they will invest €11.2 billion in Fortis
30 Sept. 08	Dexia receives equity capital injection from Belgian, French and Luxembourg governments and from existing shareholders
30 Sept. 08	Irish government announces full guarantee of bank liabilities
3 Oct. 08	US House of Representatives passes $700 billion government plan to rescue the US financial sector (having voted against an earlier version of the plan on 29 September 2008)
3 Oct. 08	FSA raises the limit of the deposit guarantee to £50,000 (with effect from 7 October 2008)
3 Oct. 08	Dutch government acquires Fortis Bank Nederland (Holding) N.V.
4 Oct. 08	G4 meeting in Paris
6 Oct. 08	German authorities announce €50 billion package to save Hypo Real Estate
6 Oct. 08	BNP Paribas announces it has agreed to take control of Fortis' operations in Belgium and Luxembourg as well as the international banking franchises
7 Oct. 08	Ecofin Council agrees to raise the minimum level of deposit protection to €50,000 in the EU
7 Oct. 08	Icelandic banks Glitnir, Landsbanki and Kaupthing were put into administration, causing EU-wide ramifications
8 Oct. 08	UK financial sector support package announced, including provision of capital to UK incorporated banks and guarantees for new short to medium-term senior unsecured debt issuance
8 Oct. 08	Coordinated interest rate cut of 50 basis points (including the Bank of England, the ECB and the Federal Reserve)
12 Oct. 08	Eurogroup meeting in Paris at level of heads of state to which Gordon Brown is also invited
14 Oct. 08	Several EU governments announce national financial sector bail-out plans
16 Oct. 08	European Council meets, decides to create a financial crisis cell
19 Oct. 08	Dutch government injects €10 billion into ING as subordinated debt
26 Oct. 08	Belgian government injects €3.5 billion into KBC as subordinated debt
7 Nov. 08	Informal European Council meeting to prepare G-20

15 Nov. 08	G-20 Meeting in Washington
24 Nov. 08	US government injects €20 billion in Citi and guarantees $306 billion of its real estate loans and securities
28 Nov. 08	UK government takes a majority stake in RBS
2 Dec. 08	Ecofin Council agrees on the amendments to the EU's capital requirements and deposit guarantee schemes directive
4 Dec. 08	ECB cuts interest rate with 75 bp to 2.50%
11 Dec. 08	SEC charges Bernard L. Madoff for $50 billion Ponzi scheme fraud, exposing European banks and investors to losses of $10 billion
16 Dec. 08	Fed reduces interest rate to 0.25%

Source: Drawn and updated from Bank of England (2008), *Financial Stability Review*, Issue 24, London.

Annex 3. Government bail-out plans for the financial sector (as of end December 2008)

Country	€ billion	Tools/Legislation	Eligible Institutions	Conditionality	Date Approved by European Commission
Denmark	4.6	Guarantee scheme; bank wind-up scheme	All banks in Denmark that have a banking licence and participate in the Sector Fund	Limited to fundamentally sound financial institutions; banks pay premium to remunerate debt guarantee; insolvent banks to be wound up using private funds when possible	10 Oct 08
Ireland	n/a	Guarantee scheme for deposits and debt issued by credit institutions between 29 Sept 2008 to 28 Sept 2010	Banks with a systemic relevance for the Irish economy	Firm will be subject to specific terms and conditions so that the taxpayers' interest can be protected	13 Oct 08
United Kingdom	608	€60 billion used to buy preference shares in banks; €240 billion of short-term loans; guarantees of up to €308 billion	All UK financial institutions	Government will consider adjusting dividend policies and executive compensation	13 Oct 08 amended on 23 Dec 08
Germany	500	€400 billion in loan guarantees; up to €80 billion for recapitalisation of banks; €20 billion to cover potential losses from loans	Credit institutions, financial service providers, insurance companies and pension funds, operators of securities and commodities exchanges	Conditions on state remuneration; restrictions for executive pay; capital requirements; distribution of dividends; reporting requirements	28 Oct 08 amended on 12 Dec 08
Sweden	152	€150 billion in guarantee scheme covering new short and medium term debt and support for solvent banks and mortgage institutions, instruments with a maturity of three years maximum, or exceptionally five years for covered bonds, €2billion for equity participations	Open to all solvent banks incorporated in Sweden	Guarantees to be remunerated, restrictions on expansion and marketing of beneficiaries restrictions on compensation for their top executives	30 Oct 08

Portugal	20	State guarantees for financing agreements and the emission of non subordinated short and medium term debt	All banks incorporated in Portugal	The beneficiary who has called on a guarantee has to reimburse the state in full, either by paying back the loan or by exchanging it for preferential shares.	30 Oct 08
France	286	€21 billion capital injection into France's banks; bank debt guarantee of €265 bn.	All French financial institutions	Remuneration mechanism; banks will have to provide monthly reports on capital use. Firms will also have to sign a 'code of ethics'	31 Oct 08 updated on 08 Dec 08
Netherlands	200	Guarantees for unsecured loans.	Any institution defined as a bank and having its corporate domicile in the Netherlands; has substantial business in the Netherlands, and an acceptable solvency ratio	Guaranteed debt instruments are subject to a fee of 50 basis points if the tenure is no more than one year, and 50 basis points and the 5 year average if more than one year; remuneration restrictions	31 Oct 08
Spain	130-150	€100 billion in state guarantees; €30 billion - €50 billion to buy 'healthy assets' from banks.	All solvent credit institutions registered in Spain having a share of 1/1000 of the credit market	restrictions on expansion and marketing of beneficiaries	4 Nov 08 amended on 23 Dec 08
Finland	50	Guarantee to cover, against remuneration, the issuance of new short and medium term non-subordinated debt between 90 days and three years. Five year maturity for mortgage-backed bonds only	All solvent Finnish deposit and mortgage banks, including Finnish subsidiaries of foreign banks	Restrictions on beneficiaries' balance sheet growth with regard to national and EU averages, limitations on expansion and marketing and strict conditions for staff remuneration or bonus payments	14 Nov 08
Italy	60	Guarantee on new liabilities between 3 months and 5 years; 6 month renewable swap scheme between matching bank debt certificates and Treasury bills (max. €40 billion); recapitalisation scheme of €15-20 billion	Solvent banks authorised in Italy, including the subsidiaries of foreign groups	A market oriented pricing mechanism; appropriate safeguards against abuses. Remuneration clauses for recapitalisation, special redemption price	14 Nov 08 amended on 23 Dec 08

Greece	28	State to buy non core tier 1 preference shares; guarantee scheme for debt between 3 months and 3 years; securities scheme, government bonds lent against bank collateral	All financially sound credit institutions licensed in Greece	Beneficiaries to pay a market-oriented remuneration	19 Nov 08
Belgium	n/a	Guarantee begins 9 October 2008 and finishes 31 October 2009; Guarantees must be applied for between 9 October 2008 and 31 October 2009	Any institution that is facing liquidity or insolvency problems that could have implications on the Belgian economy	Firms must promise to use government aid to institute measures to improve the financial situation of their firm; the Minster of Finance determines the conditions of the guarantee, including issues of remuneration	20 Nov 08
Austria	100	Government to guarantee €75 billion in loans, inject up to €15 billion in capital, and allocate up to €10 billion to guarantee public savings		Dividend restriction and a remuneration corridor	10 Dec 08
Slovenia	12	The state guarantee covers, against remuneration, the issuance of new short and medium term non-subordinated debt with a maturity between 90 days and five years. The scheme's overall budget is capped at €12 billion.	The scheme is open to all solvent Slovenian credit institutions, including Slovenian subsidiaries of foreign banks.	Beneficiaries will be subject to behavioural commitments to avoid an abusive use of the state support	12 Dec 08
United States	557	€200 billion purchase of preferred shares with possibility of an additional €80 billion; further €277 billion for guarantees and deposit insurance	Bank holding companies, financial holding companies, insured depository institutions, and savings and loan holding companies; foreign controlled entities not eligible.	Restrictions on executive compensation; participation is not completely voluntary	n/a
Switzerland	45	Government to buy €41 billion in USD and non-USD debt; €4 billion capital injection.	UBS. Credit Suisse turned down state aid offer	UBS must commit to increasing its capital base	n/a

Sources: National Official Journals, Clifford Chance and European Commission.

Annex 4. List of Task Force Members and Invited Guests & Speakers

The recommendations of this report generally reflect a common position reached by the Task Force, yet neither the recommendations nor the report represent a fully unanimous position of the members of the Task Force. Accordingly, each member of the Task Force does not necessarily subscribe to each assessment contained in this report, nor does the report reflect the views of the respective institutions to which they belong.

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Global Financial Crisis and Japan's Capital Markets

A Conceptual Note for Europe-US Symposium, Turin Italy
March 26-28, 2009

Yoshio Okubo[1]
Senior Managing Director
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The crisis

Recently, I received an email from an American friend of mine in the financial services industry. He has a worldwide network of colleagues and spends much of his time travelling around the globe. He says that, as he interacts with people, he hears a lot of blame directed at the US, as the place that gave birth to the financial crisis that is impacting markets globally. He hears critics making a number of points, including reckless lending by mortgage lenders, excessive borrowing by consumers, extremely high leverage of financial institutions, exorbitant salaries and bonuses of the executives of financial institutions and inadequate oversight by regulatory agencies. He says that the prevalent view is that the US has created an illness in the financial system that has now infected everyone else.

While the current financial turmoil was triggered in the US, it is also clear that the current crisis is exposing the grim reality of the global connectedness of financial markets and the weaknesses in financial systems around the world. Indeed, the situation in Europe is equally serious and daunting. And Japan is no exception. This weakness in financial systems is impacting the real economy, as credit has become dangerously tight, consumer confidence has plunged, and unemployment has surged at an astounding rate everywhere. The deterioration of the real economy, in turn, is adversely affecting the soundness of financial institutions and increasing the risk of a serious vicious cycle. Financial institutions and governments are now responding quickly and boldly, but the outcome of their efforts remains nebulous. The trepidation engendered by this uncertainty is being reflected in stock market performances around the world.

Japan's "Lost Decade"?

In an effort to remedy the weakness of the financial system and to shore up the flagging economy, the motto worldwide now is to avoid Japan's mistake, the "Lost Decade", the vicious deflationary trap of prolonged stagnation. A close look at Japan's "Lost Decade" is therefore warranted.

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[1] The views expressed in this paper are strictly those of author's and do not necessarily reflect the views of the JSDA or any other organizations.

Since Japan launched its "Big Bang" in financial reform in 1996, both government and market participants have striven to make Japan's financial system competitive in international finance. Japan has reformed many domestic institutions, bearing in mind with the standards and codes promulgated by international groups and institutions, including the Basle Committee, IOSCO and other standard setters. In light of the accelerating integration of financial markets, Japan's reform of accounting and auditing standards has taken root, mindful of global convergence. Japan has also upgraded its regimes to combat money-laundering and financial crime.

These reform efforts were undertaken in earnest in Japan during this "Lost Decade", a period of mediocre economic performance when banks were struggling to deal with non-performing loans. In fact, the "Lost Decade" was not really lost, but rather a decade of very substantial reform of Japan's financial and economic systems. As a result, dynamism was created, contributing to structural changes in the Japanese economy and corporate governance. Cross-share holdings were unwound, labor mobility increased, company turnarounds became more acceptable and common and M&A activities, sometimes hostile, increased even among Japanese companies. During the process, foreign financial institutions operating in Tokyo expanded their role, contributing to deepening of the markets and changing the landscape of Japan's financial services industry, recruiting afresh many of the best and brightest from top universities. International investors now hold about 28 percent of shares issued by listed Japanese companies.

In my view, these efforts were not simply made to proactively *internationalize* Japanese markets. Certainly, the reform was designed, paying attention to consistency with international standards and practices, as well as the international competitiveness of the Tokyo market. Rather, these efforts were made more as a response to the need for modernizing the financial system in a rapidly globalized financial market. In those years, the international competition to create strong financial markets was becoming intense. Financial services industry was thought to be a source for future economic growth and innovation. Enhancing the competitiveness of national capital markets became a topic not just in Japan but in many places around the world—including even London and New York. It was thought that Tokyo should be one of the global centers for financial services industry and become as attractive as London or New York in international finance.

The past decade was also a period when international initiatives were launched more systematically to strengthen the foundation of capital markets. The financial crises in Asia and elsewhere in emerging markets, the collapse of LTCM, Enron, Arthur Andersen and many other events highlighted the vulnerabilities of national financial systems to events outside its borders, starkly reminding everyone of the interconnectedness of our financial markets and economies. They also raised awareness that efforts to enhance efficiency, transparency and integrity of financial markets should be pursued collectively as well as individually. In fact, a great deal of international standards and codes has been developed in the past decade; they are

relatively new in form if not in substance. They became operational and practical. Many countries have had their systems assessed against these standards and codes through an exercise called the Financial Sector Assessment Program (FSAP), with a few notable exceptions.

"Déjà vu?"

Last summer, when the drama of the Lehmann Brothers collapse was unfolding, major financial institutions were struggling for survival and the ripples of the financial earthquake were spreading throughout the global financial system, many analysts, journalists and policy makers in Japan initially seemed detached or complacent. At the outset, people thought the loans to subprime borrowers were relatively limited in scale. After all, the US economy is much larger and the potential losses also would be born by investors spread around the world.

The unfolding events in the US and Europe since last fall indeed reminded us of Japan's experiences in the late 1990s and early 2000s. The series of difficulties faced by the US and European financial institutions seemed similar to what we saw some years ago. The ensuing policy responses also looked strikingly alike: aggressive injection of liquidity into the money market by central banks and lowering of interest rates – effectively to zero interest rates–, capitalization of banks, creation of a policy instrument to clean up banks' balance sheet. Bankruptcy regimes were reformed to broaden flexibility in dealing with failing corporations and turn them around. The short-selling in stock markets was restricted, particularly in financial sector, and aggressive crackdowns were initiated against manipulating markets or spreading false rumors. The debate over whether to suspend fair value accounting in US and Europe was also a reminder that fair accounting rules exert an enormous pro-cyclical impact on financial institutions. It intensified the difficulty regulators face during financial crises in preserving the integrity of financial reporting processes amidst intense political pressures in an open democracy.

Consequently, many of us indulged in a false sense of "déjà vu", thinking that Japan had already gone through such struggles before and had gained enough experience to weather any forthcoming difficulties. In the days when Japan's previous crisis was at its height, some of these policy actions, including restricting short-selling, were criticized as heavy-handed or excessively interventionist. Japan was portrayed as unique, tinged with opaque capitalism, with outdated corporate governance practices. Swallowing all the high pride of the bubble years, many went off to the painful work of survival and reform. Having gone through these humbling, agonizing processes and witnessing the emergence of new crisis in US and Europe, many even felt proud of Japan's record in overcoming the previous crisis, containing the impact of the financial crisis mostly within the country. It was generally thought that Japan had already gone through necessary pains and substantially strengthened risk-management practices and soundness of financial institutions. The regulatory safety-net was believed to be sufficiently robust to cope with any crisis situation.

But in the light of what we are observing today, Japan's previous crisis was much smaller in scope. What seemed to be the weakness in Japan's financial system has also proved to be much more universal. The crisis was brought about by a euphoria in which people thought real estate price would never fall. It was a result of a prolonged period of low interest rates and easy monetary policy, combined with seeming macroeconomic stability, low inflation and unemployment. It was exacerbated by what turned out to be weak risk management by financial institutions and regulatory oversight.

But the similarity probably ends there. In Japan's case, the problem was mostly concentrated in the banking sector, which lent to corporate sectors with real estate as collateral. The non-performing loans were mostly concentrated in the real estate, construction and distribution sectors. And they were on the balance sheets of banks. In the present crisis, however, the core of the borrowers is the household sector, and less credit-worthy toxic loans have been packaged into securitized instruments, distributed and held by a wide range of investors around the world. The originate-to-distribute model of business was at the heart of the problem, with the extensive use of credit rating agencies. The aggressive use of credit derivatives, including the credit default swaps (CDS), has further complicated the situation, making it difficult to understand who is holding whose risk. It has become extremely difficult to assess the balance sheets of financial institutions or adequately price credit risks, further drying up liquidity in the securitized instruments markets.

There used to be a self-deprecating joke among Japanese bankers about their own financial institutions a few years ago. They were not in a position to boast about full mastery of cutting-edge financial engineering nor were they aggressive users of credit derivatives. They joked that their size did not match their ability to appreciate the complexity of innovative financial products: "too big to be smart", "small brains in big bodies!" Unfortunately, this is not a joke any more. It turned out that understanding the nature and magnitude of risks is not an easy task even for many smart institutions, particularly when surrounded by the news of booming economies. Many of the credit risk models used for the securitization process by many global institutions or credit rating agencies were based on the analyses of data of good times and suddenly became irrelevant in the rapidly changing environment.

Policy Responses and Corporate Governance

The gravity of the current crisis is thus much larger both in scale and in complexity. It is no wonder, then, that policy responses have to become intense and extraordinary. There seems much less hesitation to use policy instruments that are interventionist and unconventional. There is no time for procrastination. The central banks have rapidly expanded their tool kits, and public funds are more boldly being mobilized to rescue the financial systems. Even the use of public funds for capitalizing non-financial institutions no longer seems very extraordinary to protect key industries or employment, as long as the word "nationalization" is avoided.

Under these circumstances, it is no surprise that one loudly hears the outcry of the taxpayers against the salaries and bonuses of the executives of banks which received public money for capitalization. This is a touchy policy issue everywhere particularly when the governments want to inject public funds into banks to strengthen their capital base. The government would not want to create disincentives for bank executives to apply for help at a time when they want to remedy tight credit conditions and enhance banks' ability to lend to small and medium companies. The episode in Japan of several years ago now looks small in scale. In Japan's case, the criticism was not so much against executives' salaries but rather against bank employees' salaries in general. The ratio of the average pay of CEOs and workers is generally much lower in Japan. According to an Economic Policy Institute study cited in a recent Financial Times article, the ratio of the average pay of CEOs and workers in manufacturing is around 11 in Japan versus around 20 in Germany, 23 in France, 32 in the UK or 38 in the US (in 2005).

I only mention this to suggest that there may be some underlying uniqueness in the way many Japanese think of corporate governance. Bank executives may have been criticized as bad managers but were never viewed as greedy. Besides, a popular self-image of Japan is that of a nation of craftsman, artisan or manufacturers (Mono-tsukuri); the financial services industry should be their subordinate, not their boss. Japanese financial institutions have been humbled by the decade-long effort to overcome their difficulties through public support. Reading about unfolding events in the US or in Europe, many Japanese, particularly those working in the financial services industry, are probably in a process of deep soul searching about corporate governance or corporate cultures. I wonder if some aspects of Japanese corporations which used to be considered as weaknesses may have posed difficulties, or rather had some inherent advantages, in overcoming difficulties.

Economic downturn

Let me turn more specifically to the implications of the current crisis that is affecting Japan and its financial system.

Reflecting the global market trend, Japan's stock markets have had a collapse of historic proportions. In the period between the end of 2007 up to February 4 this year, Japan's Nikkei 225 index dropped almost by half or 47.5 %. The US stock market fell by 40 % (Dow-Jones Industrial Average index) in the same period. This compares with declines of 34.5 % in the UK FTSE; 44.3 % in Germany's DAX; 53% in Hong Kong's Hang Seng ; 37 % in South Korea's KOSPI, and so forth. About a third to a half of market capitalization was lost in world stock markets. These drops are denominated in local currency terms. If converted into US dollar terms, Japan's decline was 34.6 %, smaller than the falls of 40 % in the DJIA, 52.9% in the UK FTSE, 49.6% in Germany's DAX and so on. Japan's drop was generally larger than that of US or Europe in local currency but was smaller in US dollar terms, reflecting the significant realignment of

major currency values.

Japan's stock market decline was said to be triggered by the sales of international investors in a move to obtain liquidity under stress, their "flight to cash." The Japanese stock market is generally deep and liquid and the yen's appreciation may have made it relatively easier to grab liquidity through sales of Japanese stocks. One estimate shows that the net sale of foreign investors in 2008 was ¥ 3.7 trillion, reversing the net purchases of the previous several years on the order of ¥5 – 10 trillion.

But the impact of the current financial turmoil on the real economy worldwide is probably more important in explaining the market sentiments in Tokyo. Japan' s exports, long viewed as an engine for its economic recovery, are falling drastically in recent months; by 35 % in yen terms in December 2008, reflecting the slowdown in global economy and the appreciation of the yen. In fact, the year-on-year decline in exports to the US began in September 2007 and has continued for 16 months. The exports to Asia continued to grow throughout much of 2008, but they finally began to drop in October—declining by more than 36% in December. The sobering data and statistics reflect the deepening interdependence of our economies and the real global nature of the current crisis. While there are some signs of resilience in domestic services sectors, Japan's industrial production is forecast to record a year-on-year decline of 13 % in December. Many other indices, including retail sales and unemployment, are revealing the depth of the global recession.

Challenge Ahead

Despite the on-going crises, Japan's reform initiatives launched a decade ago are firmly on track. Domestic financial institutions have strengthened risk management practices and the institutional reforms are being implemented as planned, including the digitalization of stock certificates of listed companies, the deregulation of stock exchange businesses and the firewall rules between securities and banking operations. But the weakness in Japan's financial system still remains; the economic downturn is exposing the underlying stresses.

The most important challenge is to invigorate capital markets, diversify channels of financial intermediation and enhance efficiency, transparency and integrity. In my view there are three issues we have to address.

Individual investors

The first issue is the role of individual investors. Our household sector is still a minor player in our capital markets. The predominant portion of our household assets is still mostly comprised of cash and bank deposits (around 51%), as compared to higher levels of investment in securities in the US or Europe. Japanese households invest only about 11 % of their portfolio in equities and mutual funds. While it is not easy to make an international comparison, as national definitions somewhat differ, the low percentage of

securities in the household portfolios may be explained by following factors.

1) Deflationary macroeconomic tendencies in the past decade and lackluster stock market performances.
2) Demographic concentration of financial wealth. Around 60 % of the household sector's financial wealth is held by people over 60 years old, and around 70 % of investment products (equity and equity related mutual funds) are held by the same age group, whose risk preference is considered to be low.
3) Lower disparities of wealth distribution. While the total financial wealth held by the household sector is huge (¥ 1,500 trillion), it is distributed relatively flatly across the population, limiting the ability of individual households to take riskier investment decisions. Recently, Mr. Masaharu Takenaka, chief economist of the Institute of International Monetary Affairs in Japan has published a hypothesis that if the wealth distribution were as skewed as in the US, the percentage of wealth held in the form of equity products would be comparatively higher as in the US.
4) Promoting financial literacy. Investor education tends to lag behind rapidly changing market realities.
5) Tax regimes. JSDA is pleased to see that the government and the ruling parties agreed to extend the current simplified and preferential tax regimes for individual equity investors for three more years starting from April. We are strongly hoping that the legislation on this will be enacted expeditiously so that investors need not worry about the cumbersomeness of the taxation on dividends and capital gains. The ruling parties and the government also agreed to introduce a preferential taxation regime for small individual investors in line with the Individual Saving Account regime in the UK after the extension of the current preferential regime expires after three years. We intend to work with the industry and the government in the coming months to make this new scheme friendly to investors.
6) Last but not least, enhancing households' confidence in market institutions. Stronger enforcement of suitability rules is an important complement to these efforts. In collaboration with the FSA, SESC and other institutions, JSDA is intensifying its efforts in self-regulation and monitoring, including by strengthening its role of arbitration and mediation, and upgrading its approach to combat financial crimes.

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JSDA is looking at these and various other issues in a special taskforce involving industry and academic experts. The taskforce is expected to come up with policy proposals in early summer. As with previous taskforce reports, we expect a broader policy debate will ensue and the proposals will be taken up in the government programs.

Institutional players

The second issue is the role of institutional investors. One measure of the quality of capital markets is the volume of trade: it is an indicator of the depth of liquidity.

Fortunately, Japan's stock market is one of the most liquid in the world, thanks to trading activity by major players, including international investors. Foreign investors' share of trading has been around 60 % in the recent period. Of course, it is a welcome development, reflecting the openness and internationalization of the market. This, however, also means that there is room for domestic institutional investors to play a more active role in trading. They can play a more prominent role in pension management and in corporate governance as well.

While the current crisis brought out problems related to securitization, the merits of securitization for strengthening capital markets and economic systems should not be underestimated. The JSDA has been developing rules to enhance traceability of securitized products through the process of consultation with experts and public comment. A standardized information reporting package (SIRP) is being introduced so that investors' grasp of the risk of underlying assets will not be lost in distributing the products. This effort is mentioned in the Financial Stability Forum reports. A new self-regulatory rule will be put into effect in a few weeks. This will help institutional investors more proactively deal with securitized products.

Institutional players are also expected to play a more active role in the six trading markets for new and emerging companies; JASDAQ, Mothers (Tokyo Stock Exchange) and other such sections are established by the stock exchanges. In these markets, individual investors were active previously but retreated because of poor performance and the erosion of trust after a number of scandals involving companies listed on these markets. While many of the core issues are being addressed by the exchanges--most of which are now demutualized corporations-- there are broader issues for which industry-wide attention is warranted. The JSDA has been looking into the problems of these emerging markets from various viewpoints: listing and exit standards; underwriting practices; the role of venture funds, audit firms, analysts and other players; corporate governance, among others. JASDAQ was a subsidiary of the JSDA, but has now become part of the Osaka Stock Exchange. This is an opportune time to review these issues comprehensively. A taskforce is working on these issues and will publish an interim report sometime in this spring.

Self-regulation

The third issue is the role of self-regulatory organizations.

President Obama, in his inaugural address on January 20, said:

"Nor is the question before us whether the market is a force for good or ill. Its power to generate wealth and expand freedom is unmatched, but this crisis has reminded us that without a watchful eye, the market can spin out of control –and that a nation cannot prosper long when it favors only the prosperous…."

These are very profound words and I was struck by the thoughtfulness of this powerful

message. Trying to dismiss being dogmatically labeled as pro-market or anti-market, President Obama openly embraces the role of the market as having the power to generate wealth and expand freedom. The reference to freedom is particularly interesting, considering that freedom can sometimes be suppressed by political regimes in the name of reining in excessive market forces or that the access to finance by people can be deterred by disguised vested interest in the name of protecting public interest, not just in developing countries but also in developed and mature markets.

A more interesting aspect of this paragraph of the inspiring inaugural address, though, is the reference to a *"watchful eye."* What President Obama meant by a watchful eye is not clear. Naturally, he must have government agencies in mind and I am sure there are going to be many discussions and debate about the overhaul of the regulatory structure in the United States. He may also have meant good corporate governance; prudence on the part of borrowers; due diligence or risk management practices by financial institutions; strict audit by auditing firms or careful analyses by credit rating agencies. The market can get out of control if left without any of these attitudes or practices.

But I personally want to believe that he had also in mind the role of self-regulatory institutions. He appointed Ms. Mary Schapiro, a former CEO of the Financial Industry Regulatory Authority (FINRA), a self-regulatory organization, as the new Chair of the Securities and Exchange Commission (SEC). She is well known to and well respected by the colleagues in the international self regulatory community.

More importantly, whatever regulatory reforms are to be made in government agencies or supervisory rules, the burden of ensuring integrity and enhancing confidence in capital markets is bound to be shared by market participants themselves. Financial markets are inherently composed of a large number of diverse players not effectively covered by the governmental agencies alone. This is a challenge for Japan's SESC, which has more than nine thousand market operators to monitor and audit, many of them large and complex. There are similar issues for the regulatory authorities around the world, with increasing numbers of new institutions, domestic and international, including those established in offshore centers. At the same time, there are always new innovations, new products and new ways of conducting businesses. There are loopholes and gaps, leaving open the possibilities for non-compliance, abuse or even fraud. Those who operate in markets are the ones who have to fill the gaps and sound an alarm when necessary. It is market participants who has to maintain and strengthen "a watchful eye" in any free and open market to ensure integrity and confidence. The quality of a capital market certainly depends on the efficiency and effectiveness of the regulatory agencies and judiciary institutions. But it also depends on the effectiveness of its self-regulatory organizations. While there will always be limitations on the effectiveness of self-regulatory organizations, the importance of such organizations will no doubt increase, rather than diminish.

Multilateral Approaches

Amidst the ongoing financial turmoil, I begin to detect a sense of hope and determination. Many see that there are important opportunities right now and are looking for leadership. There is also clear collective political commitment to pursuing multilateral approaches. While there may be political temptations everywhere to resort to economic nationalism, globalization has become an irrevocable reality for political leaders around the world. The capital markets around the world are now so intricately interwoven that there is virtually little room left for an isolated unilateral approach that can be effective and enduring. Multilateral approaches can also provide an effective way to overcome parochial or disguised protectionism.

I would therefore like to conclude: *We must to pick ourselves up, dust ourselves off, and begin again the work of making the foundation of capital markets stronger and robust collectively.*

THE POWER TO KNOW.

Risk and Return: striking the right balance

The role of business analytics in banking

Forecasting the financial turmoil ahead

"The backwash from defaults in the US sub-prime market has been seen not just in the recent problems faced by some hedge funds exposed to this sector but in credit markets more widely…We have seen shocks to credit markets in the last two summers which were swiftly reversed. Could recent events be the beginning of a more lasting change?"

Sir John Gieve, Deputy Governor of the Bank of England, speech, London, 24 July 2007

In the eye of the storm: what to do next?

"In my view, the appropriate identification, assessment and handling of risks in the financial sector are the key issues to be considered most carefully amid the current global financial turmoil.

Looking back, the main factor that I would identify as underlying the turmoil is the broad-based under-appreciation of risk.

Looking ahead, the main lesson I believe we need to draw is therefore for the financial sector to establish a much more rigorous identification, assessment and handling of risk."

Jean-Claude Trichet, President, European Central Bank, speech, Paris, January 2009

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Foreword

Since the credit crunch hit with devastating effect in August 2007, the world's financial markets have been, and still are, in turmoil. A global economic downturn has followed, and many developed countries are already in recession.

Banks and other financial institutions know what they did wrong. By and large they lent and invested for short-term gain, without proper regard for the downside risks. As a result, they face a multitude of difficulties – reduced liquidity, lack of capital, impaired debts, falling asset values, low market capitalisation and damaged industry reputation, to name some.

So what should they do to get themselves out of this predicament? What do they need to do to survive and, hopefully, prosper again? How can they rediscover the days when they were able to strike the right balance between risk and return? How can a bank break down the silos between product, marketing, sales, finance and risk?

Those are key questions that this paper seeks to answer.

It also looks at some of the other, long-standing challenges that banks have always faced, before times got bad, such as the ever-present pressure on bank directors to improve performance and manage customer relationships. Today, these goals have to be achieved against economic uncertainty, and within the parameters of sustainable development because every bank must demonstrate that it is a responsible corporate citizen.

Finally, this paper explores how business analytics can help. This is where SAS has a vital role to play. We are the recognised leader in business analytics solutions and services; delivering the right insight at the right time to allow business leaders to make fact-based decisions about strategy and operations.

Business analytics is a powerful set of tools. Over 3,000 financial institutions worldwide, including 97% of banks in the FORTUNE Global 500, are using SAS software for the purposes outlined above.



Leigh Bates, Head of Banking, SAS UK
March 2009

What do banks need to do to survive and, hopefully, prosper again? How can they rediscover the days when they were able to strike the right balance between risk and return? How can a bank break down the silos between product, marketing, sales, finance and risk?

Executive summary

Banks and other financial organisations failed to manage risk properly in pursuit of rapid growth and quick profits. They were motivated more by short-term objectives than sustainable development and shareholder value. As a result, they created an unprecedented financial crisis which they are now struggling to get through.

Bankers have made a raft of recommendations on what they should do to survive the crisis and avoid repeating the same mistakes in the future. They have suggested fundamental reforms in areas such as risk management, compensation policies, liquidity management and the valuation of assets. In essence, they realise there has to be a return to traditional banking principles. Regulators and politicians have been no less active, publishing proposals on what should be done to strengthen the financial system and to improve the regulation and supervision of the institutions that operate within it.

Aside from the immediate and serious problems posed by the financial and economic crisis, banks have to deal with a range of perennial challenges which require close attention. They need to improve business performance, ensure their organisational structure is fit for purpose, attract and retain customers, remain good corporate citizens…and deliver shareholder value.

Banks need to improve business performance, ensure their organisational structure is fit for purpose, attract and retain customers, remain good corporate citizens…and deliver shareholder value.

Having outlined the challenges facing banks and looked at the possible solutions, the key question is, exactly which solutions should be developed and how should they be implemented? It's a complex answer, but part of the answer is to understand and exploit the full power of business analytics.

Business analytics is the collection of data – both structured and unstructured – flowing through the organisation, and then cleansing, managing and analysing it. The analysis provides decision makers with insight into their business, not only into what happened in the past, but why it happened and what may happen in the future. This insight can then be used to make fact-based decisions, decisions that will optimise and transform the business.

We then look at how business analytics can be used to develop solutions in the areas of:

- Business strategy
- Enterprise risk management
- Capital management
- Value-based pricing
- Legal and regulatory compliance
- Organisational restructuring
- Performance management.
- Finance

- Marketing
- Sales
- Customer management
- Debt management
- Financial crime
- Sustainability

Executives striving to put their bank on a safer, more promising footing will have a greater chance of success if they are armed with the facts and analysis that a business analytics framework provides. Such a framework will allow them to make decisions based on accurate information and true knowledge, adjusted for known risks. The outcome? Better business performance, higher profitability and satisfied shareholders and regulators.

> "I cannot recall a situation as complex as this one," he said. "Over the last year the financial markets have experienced widespread instability, dislocations, and a loss of confidence. Rebuilding confidence is essential. This requires both official concerted international actions and resolute efforts by financial firms themselves."
>
> **Dr Josef Ackermann**
> ***Chairman of the International Institute of Finance and Chief Executive of Deutsche Bank***

Managing risk to maximise return

Banks and other financial firms are facing problems of an unprecedented nature. The financial crisis has turned into a global economic slowdown, and in many countries a recession. These threats, combined with the damage to the financial services industry's reputation, jeopardise many organisations' survival, let alone their prosperity.

Firms have failed to manage risk properly in pursuit of rapid growth and quick profits, motivated, as critics argue, more by short-term objectives than sustainable development and long-term shareholder value. As a result, they have suffered catastrophic consequences. Now they are striving to redress the balance between risk and return and between short and long-term objectives.

Aside from these fundamental, systemic problems, which endanger banks' very existence, they face a series of continual challenges which require attention whatever is happening in the wider marketplace. They are constantly striving to manage their performance, ensure their organisational structure is still fit for purpose, improve their finance, marketing and sales functions, enhance the customer experience, and ensure they remain good corporate citizens.

In this chapter we first look at what banks must do to get through the financial crisis – as suggested by the banks themselves, as well as their supervisors and governments – and then at how they should address the more long-standing problems.

Surviving the financial crisis

Banks and other financial institutions have been sailing through uncharted territories ever since the sub-prime crisis erupted in the US in the summer of 2007. The sub-prime crisis soon became a global credit crunch. That, in turn, rapidly became a full-blown financial crisis, with banks suffering massive write-downs and losses. Governments were forced to inject extra capital into banks and, in the worst cases, failing banks were taken over by other banks, nationalised or left to go bust like Lehman Brothers.

Even if we have seen the worst of the financial crisis – and that is by no means certain – banks now have to contend with a global economic slowdown, which in many countries has become recession.

This series of unprecedented events has thrown up numerous challenges for banks in all sectors – retail, private banking, wealth management, corporate, wholesale, capital markets, insurance, investment management and securities services.

Problems	Responses (not 1 to 1)
• Failed business strategies • Reduced liquidity and weak capital positions • Excessive risk-taking • High levels of bad debts and other losses • Falling asset values • Reduced revenues • Reputational damage • Destruction of shareholder value • Falling profitability.	• Re-write their business strategies • Rebuild their liquidity and capital positions by finding new private sources of debt and equity capital • Improve their risk management, pricing and incentive payment policies • Identify and isolate as best they can badly performing and "toxic" assets • Improve the way they rate and value structured products and other assets • Boost revenues • Rebuild their reputations • Work hard, and intelligently, to enhance shareholder value.

Figure 1: The problems facing banks, and their possible responses

Where should the bank executive look for guidance? There has been no shortage of comment from the industry, regulators, standard-setters and governments on the causes of the crisis and the remedies.

Surviving the crisis: the industry perspective

Other banking basics that are back in vogue according to Mr Green are capital strength, more liquidity, and sustainable funding based on customer deposits.

The industry's most comprehensive response has come from the Institute of International Finance (IIF), which has more than 390 members worldwide. Its Committee on Market Best Practices' final report, Principles of Conduct and Best Practice Recommendations, published in July 2008, recommends what reforms banks and other financial firms should embark on in the critical areas of:

- Risk management
- Compensation policies
- Liquidity management
- Lending
- Underwriting and the rating of structured products
- Valuation of assets
- Improving transparency and disclosure.

(See Appendix 2 for a summary of the IIF's principles and recommendations on each of these areas.)

At the IIF's annual meeting in October 2008, Dr Josef Ackermann, the IIF's chairman, said that financial institutions had already started taking "vigorous action to strengthen their operations" in line with the report's recommendations.

Surviving the crisis: the regulators' and policymakers' perspective

All the relevant financial authorities – such as the Financial Stability Forum, the Basel Committee on Banking Supervision and the International Monetary Fund – have published recommendations on what should be done to strengthen the financial system and the institutions that operate within it. National regulatory and supervisory bodies, central banks and finance ministries throughout the world have also made their views known on the best way forward.

The Financial Stability Forum's (FSF) work in this area is the most instructive and widely accepted. The FSF – the group of international and national regulatory authorities – produced its Report on Enhancing Market and Institutional Resilience in April 2008. It recommended that action be taken in five areas, including strengthening prudential oversight of capital, liquidity and risk management.

A follow-up report in October 2008 reviewed progress on implementing these recommendations (see Appendix 2).

"What the current crisis is telling us is that we need a return to some basic banking principles.

"I believe we are entering an era in which the industry's recent propensity for high leverage – together with the extreme complexity of some investment vehicles – will no longer be acceptable. This means that sustainable and profitable growth will come through strategies that get back to the basic tenets of the banking profession.

"Strategies must focus on having good customer relationships based on fairness.

"And we should remember that a balance sheet is no substitute for knowing your customer – for that real banking relationship."

Stephen Green
Chairman of HSBC

The Basel Committee on Banking Supervision's contribution to the debate has been to revise key aspects of the Basel II framework to make the banking system more resilient to financial shocks. The main change is to set higher capital requirements for certain complex structured credit products, for liquidity facilities that support asset-backed commercial paper conduits, and for credit exposures in the trading book.

In the UK the raft of initiatives is growing continually, including the Recapitalisation Scheme, Asset Protection Scheme, Credit Guarantee Scheme, Enterprise Guarantee Scheme, and Special Liquidity Scheme to name just a few.

Dealing with the perennial challenges

Bankers face a number of challenges that have always been there, and will always remain, irrespective of whatever stage of the economic or financial cycle they find themselves operating in.

Successful bankers know they can never relax when it comes to fundamental areas of business practice: managing performance; ensuring better integration between the finance, marketing and sales functions; enhancing customer management; and believing in sustainable development.

Performance management

Performance is at the root of what determines success or failure. It is about how an organisation uses its assets (such as people, capital and technology) efficiently and cost-effectively to achieve strategic goals. One key asset that has often been undervalued in the past is data. In this digital age of almost infinite storage capabilities and high performance processing, bankers ignore this asset at their peril.

Data, both structured and unstructured (such as text, voice, video, etc), from the various parts of the business must be collated, analysed and the performance measured using a set of "key performance indicators" (KPIs) and a "balanced scorecard". The balanced scorecard "scores" performance in key areas, such as finance, customer relations, internal processes and learning. The results are fed back into the decision-making process, the aim being to drive improvements in performance.

But all too often this is like driving a car by looking in the rear-view mirror. Recent events have proven that steering the business based on where it has been is not sustainable during troubled times. Although the investment manager's adage that "past performance is not an indicator of future performance" is true, combining what we already know with insight into what we don't yet know, and modelling what could happen, does lead to sharper management of performance.

Combining what we already know with insight into what we don't yet know, and modelling what could happen, does lead to sharper management of performance.

Integrating the banking silos

Few would doubt the merits of building highly focused lines of business to build expertise and economies of scale. But there needs to be better integration between these business silos. Information is often a source of "power and influence", which acts as a barrier to collaboration.

Treasury and finance departments must reduce the cost of funding and optimise prices in conjunction with the product areas. Marketing must create successful campaigns which generate targeted sales leads, maintain customer satisfaction indices, acquire and retain customers at an economic level of profit. Channel distribution must increase efficiency while delivering appropriate levels of customer service. All of this must be done in close cooperation with the risk function to ensure that customer acquisition, retention and pricing is based on a solid assessment of the perceived risks and the expected returns.

■ Information is often a source of "power and influence", which acts as a barrier to collaboration.

Customer management

The history of financial services is littered with examples of banks getting their customer relationship management wrong. Inadequate customer data and profiling, outsourced contact centres, long waits on the telephone, poor service, unexciting products, mis-selling, untargeted marketing campaigns, slow response to complaints – the list of failings is a long one.

The complexity of new contact channels in financial services (such as the internet, mobile telephony and interactive voice response) has increased the challenge of delivering good, consistent customer service across all channels. The readiness of consumers to bank with multiple providers of financial services, and switch between each, challenges the principles of "know your customer" and begs the question, Which part of the customer does the bank know? Knowing which parts add value, and retaining them, is absolutely key.

BNL Banca Commerciale

BNL Banca Commerciale, the Italian bank owned by BNP Paribas, in a major customer refocusing exercise, re-segmented the customer base and revised the service model of its retail and private banking business. In addition, it revitalised its customer acquisition strategy through a series of campaigns and other measures. It also strengthened its customer retention policy by introducing a system for predicting which customers were most at risk of leaving the bank, monitoring them and then offering incentives to remain. Together, these initiatives made a significant contribution to the annual results.

For more information visit www.sas.com/success/bnl.html

Debt management is a vital part of customer management. It is especially important during an economic downturn when many more consumers and businesses find it difficult or impossible to service their debts, even with low interest rates. Lenders will increasingly be in competition to collect debts from the same customers. For secured lenders there is growing political pressure on them to prove that they carefully consider all the alternatives to re-possession.

An integrated and seamless debt management process has a number of key stages. First, pre-delinquency, when repayments and other aspects of the lending relationship are monitored and any possible future default is identified. Second, the collections process, when a customer in trouble is managed to minimise the likelihood of default and maximise payments.

Finally, recovery, when the customer has defaulted and the lender tries to recover as much of the debt as possible. Recovery needs to be as efficient as possible, using both in-house and out-sourced resources, accurately forecasting how the value of a portfolio will change based on the different intervention strategies. In some circumstances it may be best to sell portfolios to maximise cash-flow and reduce impairment. Finally, the recovery process needs to feed back to origination, when the loan is first requested, the customer is credit checked and the repayment terms are agreed.

Financial crime

Financial crime poses a significant reputational risk to banks in the eyes of customers, the media, the bank's peers and the regulatory authorities. A bank whose security systems are circumvented by fraudsters or terrorists, or whose monitoring processes are inadequate to identify money launderers, or whose employees are convicted of fraud, insider dealing or bribery and corruption, will face legal or regulatory action and endure brand-damaging attention from the media and the public at large.

Detecting and preventing fraud and other financial crimes is therefore essential for any bank if it is to maintain excellent customer service, protect its reputation and reduce the risk of financial loss (losses arising from both the direct transactional impact and fines by regulators). However, security measures must be balanced against the ability of customers to carry on their normal business without the bank placing too many obstacles in their way.

Given the complexity and speed of modern banking transactions, simple, often purely rules-based, methods of fraud detection and prevention may no longer be sufficient to meet the expectations of customers, shareholders and the authorities. The modern bank will therefore use the full gamut of statistical modelling techniques available today to combat fraudsters while minimising the level of false positives that can inconvenience customers.

■ The modern bank will use the full gamut of statistical modelling techniques available today to combat fraudsters while minimising the level of false positives that can inconvenience customers.

Sustainable development

All banks today have corporate sustainability, or "responsibility", programmes which seek to demonstrate that their activities have no unduly detrimental effect on society or the natural environment.

Banks have been talking about corporate responsibility and sustainability for years and while many are to be commended for their achievements, others have a long way to go. When it comes to managing this area of the business, two phrases come to mind: "What gets measured gets done" and "Out of sight out of mind". In other words, it is often the lack of metrics that prevents corporate sustainability being given the attention it deserves. Strong performers in this area capture, use and enhance their data assets to help them make the right strategic and operational decisions. Doing the right thing for the environment or society usually makes sound business sense, as those banks that have reduced their energy costs, or have increased their profile through charitable acts, have discovered.

"I passionately believe we have a responsibility to the communities that we are a part of.

"I like to think we can be profitable and help people and communities build a sustainable future – not just in the natural world, but in the economic and social dimension. Being a good corporate citizen involves instilling a new responsible culture of collaborating with staff, clients, business partners and the broader communities we belong to."

How to Run a Bank
Francesco Vanni d'Archirafi, Global Head of Treasury & Trade Solutions, Citi

The importance of business analytics

We have outlined the challenges facing banks today and we have looked at the recommended solutions. The question now is how should those solutions be developed and implemented? A key part of the answer to this question is to understand and exploit the full power of business analytics.

Business analytics provides decision makers with insight into their organisations, not only into what happened in the past, but why it happened, what may happen in the future and how the organisation can manage it's business to take into account unknown events, in order to achieve the best possible outcome. This insight can then be used to make fact-based decisions; decisions that will optimise and transform the business.

A retail bank's performance, for instance, is an aggregation of all transactions with its customers, and the bank's staff make decisions that will impact this performance at all levels within the organisation. For example, senior managers assess the bank's appetite for risk and set sales targets for different product divisions. Middle managers make operational decisions, like staff numbers in a contact centre or policies on credit scoring for lending products. Front line staff implement these policy decisions with customers and have some leeway as to how they do so; for example, they can decide whether to discuss a sales prompt with a customer.

In making each of these decisions staff look to achieve business objectives, such as profitability and market share. To do this they manage "events" they can control (eg pricing, marketing campaigns and risk policy), while trying to consider the incredibly diverse external events that they can't (such as interest rate changes, regulation, legislative change, competition, market demographics and new technologies) and how all of these internal and external events will affect the overall business performance.

- Business analytics provides decision makers with insight into their organisation which can then be used to make fact-based decisions; decisions that will optimise and transform the business.

This is a chaotic puzzle for a bank to follow let alone try to solve, with multiple distribution and marketing channels, hundreds of products, millions of customers and billions of transactions. Just tracking the events can be almost impossible; understanding the relationship between these events and the bank's business performance is even harder.

This is the problem that business analytics can solve. It provides a framework and capabilities to effectively slow this constant stream of internal and external events down (see figure 2a), and then to track, identify and understand the relationship between the events and the bank's performance (figure 2b). Whatever the expected operating conditions, business users can then be given time to react to unexpected events when they occur, understand how to innovate for the future and always make the optimal decisions to positively impact every page of the bank's annual report (figure 2c).

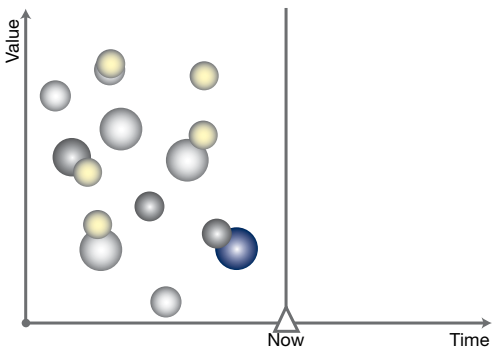


Figure 2a. Chaotic Business Events

Business events are chaotic and difficult to keep track of, let alone control.

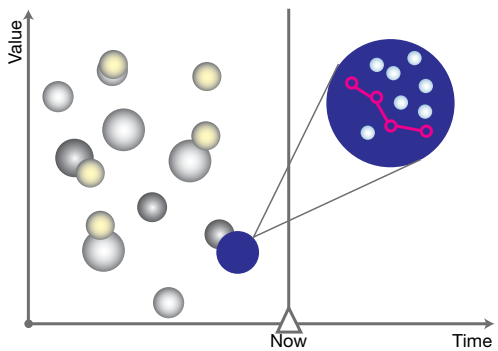


Figure 2b. Uncover Hidden Patterns

Business analytics enables you to examine events and gives you time to decide how to act.

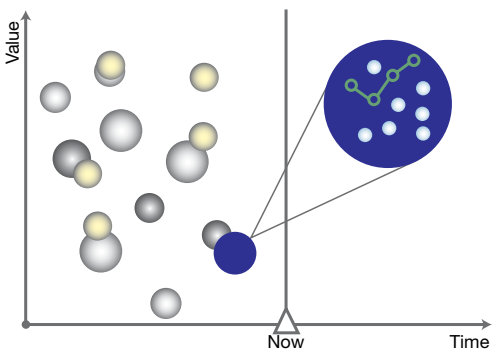


Figure 2c. Optimise Outcome

Business analytics enables you to optimise business resources to realise better outcomes.

Business analytics provides three key capabilities which allow users to:

- **Explore** business performance, transactions and internal and external events and to identify the relationships between them and the hidden opportunities.
- **Predict** what is likely to happen in the future, both at a macro level (eg forecast the trend of business performance) and at a micro level (eg whether an individual transaction is fraudulent).
- **Optimise** future business performance, by providing "what if" simulation to compare different scenarios (eg possible external events, available resources and credit policies) but always maximising the business goal.

The foundation of these three capabilities is appropriate data, irrespective of its structure or source. This should be cleansed, augmented and structured into a form that is fit for purpose. The regulators will increasingly look for clear evidence that data is gathered, analysed and properly understood. Business analytics should provide comfort to those owning the data, making key decisions and the regulators looking for evidence of due diligence.

The capabilities outlined above can be woven into a bank across multiple business functions to provide much greater insight into why things happened the way they did, what will happen next and what is the best strategy or approach that should be taken, given a number of business constraints or objectives. Used wisely, business analytics can pose the questions that senior management were not aware needed to be asked and provide answers to those questions.

Business analytics can help employees across different functions and levels of a typical bank to make more informed fact-based decisions:

- The board of directors are given understandable risk metrics embedded into every performance report, including a short and long-term view of the market with an economic and risk-adjusted view of current and planned performance. The directors can then set the enterprise-wide risk appetite, balancing risks with reward in executing business strategy.
- Marketing and sales managers can identify their most profitable markets and customers to meet customer needs with the right products through appropriate and timely sales campaigns. Through collaborating with risk they can ensure their strategies are appropriate for the bank's appetite for risk.
- Customer service executives can operate profitably, by ensuring that customer demand is anticipated across channels and therefore allow resources to be aligned with this. They can also improve the service experience by identifying process bottlenecks, channel design issues, staff training requirements and analysing complaints.
- Collections and recovery staff can accurately price debt portfolios and decide the most effective collection mechanism (eg internal strategy, outsource or sell) in order to reduce the impairment charge.

■ The foundation of business analytics' three capabilities (explore, predict and optimise) is appropriate data, irrespective of its structure or source. This should be cleansed, augmented and structured into a form that is fit for purpose.

The remainder of this chapter looks at some of the challenges and solutions recommended in the previous chapter and shows how they should be developed and implemented using a business analytics framework. The solutions we examine are in the areas of:

- Business strategy
- Enterprise risk management
- Capital management
- Value-based pricing
- Legal and regulatory compliance
- Organisational restructuring
- Performance management
- Finance
- Marketing
- Sales
- Customer management
- Debt management
- Financial crime
- Sustainability.

Business strategy

The objective

As we have shown, poor business strategies are at the root of many of the problems facing the banking sector. Board directors need to continually review their strategies in the light of rapidly changing conditions – the strategy setting process has becoming a rolling activity.

In many cases, they will need to write completely new strategies that reflect how they can maximise value from key assets and activities which focus on areas that add most value and differentiation as opposed to those that have become commodity functions that fail to offer differentiation.

	Commodity	Value Creating
Core Competency (Lending, deposits, managing risk)	**Improve** Eg. Internal Communications, Website	**Invest** Eg. Strategy, Sales, Customer Relations
Non-Core Competency (HR, Finance, Reporting)	**Minimise (Outsource)** Eg. Audit, Systems	**Share (between silos)** Eg. PR, Project Management, Legal, Risk

Figure 3: Examples of focusing strategy on activities that create the most value

A sound, well-crafted strategy will have many objectives, but the most important should aim to do the following:

- Set ambitious but realistic business and financial targets that take account of risk and reward over the short and long term.
- Ensure that pay and bonuses for high-performing executives are properly aligned to the risks taken and the long-term returns.
- Create a robust business model describing markets and the products and services that will serve them.
- Develop an efficient operating model that reflects those parts of the business in which to invest, improve, share or outsource / sell.
- Manage and develop talent.
- Enhance customer loyalty.
- Allocate capital effectively across the business.

The value of business analytics

A business analytics framework will help build the appropriate strategies that are agile and responsive to change. This framework will gather all relevant data in the areas highlighted above. It will then collate it, cleanse it and analyse it, to give senior management a clear understanding of their markets, customer relationships and the deployment of their human capital.

Analytics reveals problems executive management did not know they had, allowing them to ask questions they did not know to ask.

It will also show the various risks they face across the enterprise and how they are managed, the true costs of doing business and, finally, how well the organisation is performing in all areas. Analytics reveals problems executive management did not know they had, allowing them to ask questions they did not know to ask. Armed with accurate data and sound analysis, management will be in a good position to develop a winning strategy built on strong foundations.

Analytics can be used to explore the use of delivery channels and show how economic factors influence customer behaviour. This will help the senior management team optimise the investment in those channels in the future by, for example, indicating the optimum resourcing level at a call centre or how increased unemployment will affect branch use.

Enterprise risk management

The objective

Many banks are unable to apply risk management coherently across the entire organisation. This is because the different risks – credit, market, operational, liquidity and so on – often remain in separate “silos”. On the boundaries, where they should overlap, there is frequently a gap where major risks are never detected.

These risk silos are often accompanied by business (eg finance, product, marketing, sales) and data silos, where the views of the risk function cannot always be heard by the business and IT functions.

The answer to this problem is enterprise risk management (ERM) – an integrated approach which aligns strategy, processes, people, knowledge and IT so that risk is better understood and controlled throughout every part of the enterprise. In times of market disruption and reduced liquidity, a successful ERM strategy can enhance the stability, performance and profitability of an organisation.

The value of business analytics

Business analytics is invaluable in helping bank executives develop an ERM approach. The solution works by gathering structured and unstructured data on different risks, categorising them, and putting them into a single enterprise-wide risk portfolio.

This portfolio is then analysed to model future anticipated risk exposures, sensitivity risks and concentration risks, all from an earnings, liquidity and capital perspective. Such an advanced risk analytics framework will include data integration, data quality management, enterprise risk analytics, banking and risk intelligence, as well as a Basel II analysis and reporting framework.

It should also be able to detect relationships between those disparate data sources and risk types – relationships and dependencies that even the most experienced risk practitioners may miss.

Specifically, an enterprise risk management approach will:

- Improve credit, market and operational risk management.
- Make more efficient use of capital and liquidity.
- Encompass a holistic stress and scenario testing environment, including the ability to perform reverse stress testing.
- Give greater protection to shareholders and debt-holders.
- Improve risk and regulatory reporting.
- Improve risk-based performance.
- Better align marketing, sales and other business activities with the bank's risk appetite and the expectations of shareholders, bond holders, regulators and analysts.
- Enable integrated risk analysis of income streams across all risk types.
- Provide insight into risk relationships that were not previously apparent.

Used effectively, business analytics can, for example, provide insight into the risk-adjusted return on a lending product and help predict which changing economic factors are having the greatest impact on product profitability and the best course of actions that should be taken in the future.

■ Analysing a broad set of data and learning from past experience of loss and modelling future outcomes is key to understanding a customer segment in more detail; not just to eradicating future losses, but in minimising the negative impact on "good" customers.

HBOS Australia (Bankwest)

The SAS Risk Management solution provides the bank with excellent insights into the potential risk of loans, and enables relationship managers to adopt a risk adjusted profit approach rather than profit only. "It used to be that relationship managers were incentivised based solely on profit which did little to dissuade a manager from writing poor quality or low margin transactions. Now managers are able to conduct risk analyses which ensures that the risk / return equation is appropriate for the customer and the bank. Managers are then incentivised against risk adjusted profit measures. The increased sophistication in measuring and monitoring risk enables us to price for risk more accurately." Ed Bradley, Head of Portfolio Management and Models, Risk Management Division.

For more information visit www.sas.com/success/bankwest.html

Another use of ERM may be in the area of customer value and risk. As the recession deepens, past experience tells us that banks will have a tendency to treat customers in broad segments and for those that borrow, treat them as "guilty until proven innocent". Analysing a broad set of data and learning from past experience of loss and modelling future outcomes is key to understanding the segment in more detail; not just to eradicating future losses, but in minimising the negative impact on "good" customers.

Capital management

The objective

The global financial crisis has revealed major failings in risk management and shown how banks failed to allocate enough capital to match the risks taken. Banks need to strengthen their risk management frameworks, taking an enterprise-wide approach as outlined above. The next step is to review how they deploy and manage capital, the aim being to ensure that in future they maintain optimum overall levels of capital, and invest it in a carefully targeted, risk-weighted, regulatory-compliant way that enhances, not destroys, shareholder value.

The value of business analytics

Banks can improve their capital management through business analytics by taking the following steps:

- Implementing a self-documenting risk data infrastructure that automates the entire data management process – from extracting data from any source regardless of format, to finding and fixing bad data, to storing data in a repository specifically designed for Basel II analysis and reporting.
- Adopting a consistent credit risk methodology – standardised, IRB-F, IRB-A or mixed – across all portfolios.

■ By improving capital management through business analytics, the result will be a robust risk management framework for the more effective allocation and management of capital that meets economic and regulatory capital requirements.

- Creating a consolidated, group-wide view of risk, regardless of language, currency, aggregation hierarchy or local regulatory interpretations.
- Employing interactive regulatory and management reporting to get information to whoever needs it, in the form and level of detail they require.
- Providing transparency and traceability across the entire process so anomalies can be tracked down and regulator enquiries answered on demand.

The result will be a robust risk management framework for the more effective allocation and management of capital that meets economic and regulatory capital requirements. Staff, customers, shareholders, politicians, the media and the wider public will note the results, and give due credit to the bank for providing the necessary capital buffers to protect depositors and investors, and to maximise shareholder returns.

Value-based pricing

The objective

As banking products and services become commoditised and customers less loyal, it becomes harder for banks to differentiate themselves from the competition. Banks therefore need to price products and services that provide more value for customers, including incentives for loyalty, but which are still profitable for the bank.

The value of business analytics

To achieve value-based pricing, banks need a better understanding of costs and revenues on a risk-adjusted basis. Business analytics will give them this understanding. It will enable them to adopt customer-focused product and pricing management, resulting in longer, more profitable customer engagements, as well as process improvements that reduce costs and improve overall operational agility.

In times of rapid change, the ability to model and undertake “what if” analysis becomes a real differentiator. Value-based pricing is not new, but as the pace of change increases it becomes more important to explore which factors are influencing product profitability. These are not always obvious, but analytics can unlock this insight. Should a bundled premium services product be withdrawn, or should it be repositioned towards a different customer cohort? What are the key factors in overall product profitability and how could profitability be maximised while working within certain capital or liquidity constraints?

In times of rapid change, the ability to model and undertake “what if” analysis becomes a real differentiator.

Legal and regulatory compliance

The objective

The growing number of laws, regulations and standards (industry, internal and ethical standards) has increased the scope, complexity and burden of compliance on financial institutions. All too often, banks respond in piecemeal fashion, which leads to the duplication of processes, data gathering and testing. They need to take a holistic approach to legal and regulatory compliance that will minimise effort, maximise efficiency and reduce the risk of non-compliance.

The value of business analytics

Integrated data coupled with advanced analytical tools will provide the bank with all the information and analysis it needs to improve compliance with the multiplicity of laws, regulations and standards in all areas of financial services – retail, private, wholesale and investment banking, insurance and asset management.

For example, business analytics can fully support a bank's Basel II requirements in credit, market, operational and liquidity risk, regulatory and economic capital management, stress testing, sensitivity and concentration analysis and risk measurement reporting.

Another area where business analytics can play a crucial role is in assisting compliance with anti-money laundering regulations; advanced network analysis and statistical techniques can uncover suspicious transactions, not just money-laundering offences but all types of fraud.

Better compliance reduces the risk of breaking laws and regulations, and of the legal censure, penalties and reputational damage that follow if authorities detect the breaches. Good compliance has commercial benefits too: by improving compliance controls, systems and procedures, a bank will reduce its credit, market and operational risks; risks which the laws, regulations and standards were intended to reduce in the first place.

Organisational restructuring

The objective

Banks are constantly outgrowing and changing their original organisational structures. If they are not restructured to keep abreast of change, they malfunction, imperceptibly at first, but with increasingly damaging consequences. The objective of board directors should be to monitor the situation regularly, and re-shape the organisation when necessary.

For example, retail banks need to move away from product and channel silos if they are to improve the customer experience. They also need to break down the barriers that frequently exist between the product, marketing, risk and finance functions if they are to achieve a collaborative approach to developing products, determining pricing strategies and optimising marketing campaigns and sales distribution.

The entire organisation must therefore be oriented towards the customer. There must be a commitment to address customer needs from the very top of the bank and, in many cases, there needs to be a fundamental change of culture. A new organisational structure should ensure an integrated approach to strategy, marketing, risk, finance and other key functions so that when profitable customers are targeted, they are accurately risk-assessed and the products they are sold are properly priced to reflect those risks.

There must be a commitment to address customer needs from the very top of the bank and, in many cases, there needs to be a fundamental change of culture.

The value of business analytics

All too often the strategic intent to align the entire bank to the customer fails at the point of execution. Good data handling, analysis and reporting can play a part in delivering the right information to those responsible for the execution of that strategic intent.

It can provide a high-level summary executive performance dashboard, right down to customer transaction data needed to drive marketing, sales and risk analysis as well as operations and support areas such as human resources and finance. The data framework includes a physical and logical enterprise banking data model with an end-to-end data management and data integration methodology.

The past is no longer a reliable indicator of the future, which increases the challenge for those trying to define the optimum organisational design for different customer segments. By way of example, in small business banking what can static, behavioural, economic data do to predict future resource requirements? Would the cost of an increased local presence be outweighed by better management of risk and an improved ability to lend to those customers that are thriving? How might local factors and competitor activity influence the ideal resource levels? Business analytics can optimise strategic planning and operational execution.

Performance management

The objective

At times of economic stress there is always a renewed focus on improving performance. Banks now need to re-think their operating models to maximise efficiency, cut costs, boost revenue, increase profits, maintain their reputation and enhance shareholder value.

A performance management initiative should improve every aspect of the organisation – finance, marketing, product development, customer acquisition and retention, risk, to name just some – through to the integration of technology, processes, people and methodologies. It will identify the problems and their causes and effects, set goals, monitor performance against those goals, and propose how to correct performance.

- Banks need to make sense of the vast quantities of raw data that is scattered across the organisation, often in hard-to-access silos in business units.

The value of business analytics

Information is central to improving performance. Banks need to make sense of the vast quantities of raw data that is scattered across the organisation, often in hard-to-access silos in business units. Business analytics can help them do that. Using accurate, well-ordered intelligence about the business, the bank will be in a better position to make fact-based decisions about what must be done to improve performance.

Once every business unit, function, process, system, procedure and its contribution to the value chain has been evaluated, steps can be taken to make it more efficient, drive down costs, reduce risk and, ultimately, enhance business unit profitability. Strategic risk and performance dashboards are made available to executives to give them insight into performance and future likely performance.

Profitability management applications, for example, allow the bank to allocate direct, indirect and shared costs to products, services, channels and customers and then match those costs against revenues to arrive at an accurate calculation of profit. Such a profit-measuring exercise helps the bank understand how and why customers affect the bottom line and take steps to maximise profit further.

The introduction of new products is a typical example of the need for enterprise-wide analytics to work across business silos. Take, for instance, a new government loan guarantee scheme for small businesses: how will it impact lending teams? How will the balance sheet and liquidity be affected? How well will the current risk assessment fit the new product? What are the projected loss rates? How should the product be marketed or prioritised? The impacts are endless and many may not be obvious, but business analytics can help make informed decisions about how to execute the introduction of new products such as this.

Banco Popolare di Verona e Novara (BPVN)

Performance management interventions were conducted to improve operational efficiency so that the system could evaluate processes with a focus on specific activities or structures. “We chose a bottom-up approach, meaning a system for identifying, collecting and analysing performance indicators which can gradually be applied to all business areas based on product and service life cycles (in terms of the company and the market), together with a progressive alignment of indicators for profitability, risk, yield and efficiency.” Franco Arzuffi, Head of Management and Control Applications for Società Gestione Servizi.

For more information visit www.sas.com/success/bpvn.html 357

Breaking down silos: finance, marketing and sales

The objectives

Banks need to achieve greater integration between their finance, marketing, product, sales and risk departments in order to maximise the risk-adjusted returns, yet continue to provide value to customers. They need to ensure that finance, marketing and sales work closely with risk management when targeting and acquiring customers, setting credit risk limits and calculating prices.

The value of business analytics

When "what if" simulations and business optimisation are applied across end-to-end business processes, bank lines of business are increasingly forced to work together. For example, product marketing activity and credit limit increases can be planned in unison to maximise the business objectives of each part of the business; the objectives being to maximise revenues and profitability, achieve the desired market penetration, maintain risk portfolio scores for different market segments and control operational costs.

Looked at in isolation, each objective is clear to all, but when combined, the optimal approach is far from clear – intelligent use of analytics can solve this complex equation and encourage co-operation between departments.

■ When "what if" simulations and business optimisation are applied across end-to-end business processes, bank lines of business are increasingly forced to work together.

Customer management

The objectives

When examining how a retail bank manages its customers, it is essential to look at it from the customer's perspective. The current financial crisis has damaged the reputation of retail banking as an industry, and even before the crisis consumers were becoming more demanding. They are more likely to want to access products and services across multiple channels, they are more likely to complain if dissatisfied, they are more educated about financial services products and, largely driven by the industry's own product innovation, they now have more sophisticated product requirements such as offset mortgages and e-cash.

Consumers have become more discerning in all retail sectors, not just banking. Their attitudes are reinforced by media criticism of unpopular corporate practices such as the use of predictive telephone diallers and silent calls, overseas contact centres, data protection breaches and poor records on sustainability.

Against this difficult background retail banks have to manage and improve the customer experience. Product innovation can quickly be copied by competitors, but knowledge of one's customers' needs and preferences provides competitive advantage if it is used to improve the customer experience.

■ Knowledge of one's customers' needs and preferences provides competitive advantage if it is used to improve the customer experience.

The recession has placed banks' marketing departments under severe pressure to cut costs and do more with less. Now is therefore the ideal time to focus on increased marketing effectiveness to drive improved use of resources and promotional profitability.

The value of business analytics

Business analytics supporting a customer intelligence (CI) programme enables a bank to manage the complex balancing act between the various objectives of customer profitability, market growth, credit risk, operational risk and customer service. It provides a framework for marketers to collaborate with other functions, to manage the challenge of which products and services to market to which customers, through which channel. It also allows the bank to deliver a consistent quality customer service experience across all channels and continually improve it.

Banks that embrace business analytics can more effectively use information and use it to differentiate themselves from their peers and improve overall business performance. By driving more value from the vast amounts of structured and unstructured data they hold, banks can create products and services that will suit the requirements of specifically targeted customer segments and develop the best strategies to make those offerings available through multiple distribution channels.

In addition to a better understanding of customer needs, a robust analytical approach will yield more information about customer profitability and risk – especially important at a time of downward pressure on interest income and transaction fees. This risk adjusted understanding of customer profitability is the best way to evaluate the effectiveness of sales and marketing, and it can be used to develop pricing strategies, campaign planning and product innovation.

A robust analytical approach will yield more information about customer profitability and risk which is the best way to evaluate the effectiveness of sales and marketing, and to develop pricing strategies, campaign planning and product innovation.

Australia and New Zealand Banking Group (ANZ)

Quite apart from protecting ANZ's exposure to risk, the credit scoring system is regarded at all levels as a critical component in the bank's customer protection mechanisms. Credit scoring models developed by SAS help the bank identify credit applicants who could be at risk of overextending themselves.

"There is a great deal of responsibility for banks to enhance customer service and support by protecting customers from taking out credit facilities they will find extremely difficult to re-pay. SAS, along with the other components in our credit scoring system, assists us in developing tools to aid in the practice of responsible lending and therefore ensures our risk management policy is adhered to." Andrew Wilson-Annan, ANZ Senior Portfolio Modeling Manager.

For more information visit www.sas.com/success/anzcredit.html

Debt management

The objective

A constant challenge for banks is to manage their lending assets effectively, balancing the right level of reward against the risk undertaken and, when debt does become impaired, to recover the exposure as efficiently as possible. In times of recession and rapid market change, that challenge becomes even greater.

The business analytics solution

Through the recession, banks' debt management frameworks will need to be reviewed and their operating models will come under strain. How will changes in the cost of court actions influence recovery strategies? What is the effect of falling property values on the recovery strategy against homeowners? And how could local economic factors, such as a major employer closing down, force a change in the framework? The need to explore all these factors and model the potential outcomes are key to the optimisation of debt management at both account and portfolio level.

Credit and collection solutions can improve the management of impaired debt. These applications collect data from the wider economy, industry sectors, businesses and consumers and build up a comprehensive database which is often ill-structured. Analytical and predictive tools can look at trends and relationships across this data and detect a business or personal customer's change of circumstances and reassess the credit risk to the bank. These tools enable the lender to calculate not only the probability of default by a borrower, but also the severity of that default. They may also be used to inform the optimum recovery strategy.

In some cases lenders will choose to sell impaired portfolios to debt collection agencies. The price that can be obtained will be dictated by the quality of data available. The timing of disposal and the balance between the cost of in-house recovery and repayment can make a huge difference to the eventual profit or loss. As the pace and complexity of change in the market increases, applying "what if" modelling to the portfolio is critical to disposing of the debt at the optimum time.

Analytical and predictive tools can look at trends and relationships across this data and detect a business or personal customer's change of circumstances and reassess the credit risk to the bank.

Financial crime

The objective

Financial crime can never be eradicated, but it can be minimised. Internal fraud, bribery, external fraud, money laundering, unauthorised trading, market abuse, money laundering and terrorist financing all need to be combated. Financial crime rises during difficult economic times. Banks therefore need to put in place enterprise-wide automated controls and systems that can detect, prevent and investigate crime.

The value of business analytics

Business analytics can be used to:

- Implement rigorous detection, prevention and investigation rules using statistically derived models backed by flexible rules engines
- Accurately identify crime patterns and the perpetrators.
- Identify cross-channel crime.
- Monitor every transaction, in real-time where necessary.
- Comply with relevant laws and regulations on financial crime.
- Unify the financial crime management process across the entire organisation, and eradicate a compartmentalised approach.

Underpinning all of this is a knowledge base that incorporates data from the transaction systems in all the business units, as well as in functions such as human resources and internal audit, and even from external sources such as fraud consortium databases. Integrated data quality routines cleanse and validate the data. Advanced, large-scale analytics can then be applied to all the data to model fraudulent behavioural patterns and even link customers and accounts based on predefined rules, common attributes and other non-linear, subtle relationships.

As fraud increases, it becomes increasingly important to eradicate the number of false alarms which are costly to manage and stretch the patience of customers and those they are paying. Analysing a broad set of data and learning from past experience of fraud is key to answering questions like why there are so many false positives on a product, or what the impact will be of a shift to on-line purchases.

As fraud increases, it becomes increasingly important to eradicate the number of false alarms which are costly to manage and stretch the patience of customers and those they are paying.

HSBC

Using SAS Fraud Management, HSBC has improved fraud detection, false positive rates and fraud case handling efficiencies. Customer service is improved through the reduction of contacts regarding potentially fraudulent transactions, whilst HSBC delivers improved fraud protection to its customers.

"Our success with this partnership and with SAS Fraud Management shows that SAS understands and shares in HSBC's long-term goals and can work with us to deliver improved solutions. In a constantly changing fraud environment, SAS technology helps us keep ahead of criminals. We believe the SAS solution takes us a significant way forward in our fight against fraud." Derek Wylde, Head of Group Fraud Risk, HSBC.

For more information visit www.sas.com/news/preleases/103107/hsbcfraudprotection.html

Sustainability management

The objectives

Banks today need to show how sustainable their activities are, in terms of their impact on the economy, society and the environment. They need to prove they are good corporate citizens.

The value of business analytics

Gathering and analysing data on business activities will produce valuable intelligence on the sustainability of an organisation. This intelligence can then be used to modify activities where necessary and improve sustainability credentials.

Reporting sustainability performance will ensure transparency with key stakeholders and compliance with regulatory agencies. Establishing an integrated, consistent source of quality information, the organisation can bind initiatives to a common sustainability framework that ensures alignment across all lines of business.

Often the data to prove the effectiveness of a sustainability policy is available but inaccessible and cannot be linked to other data that creates meaning and quantitative information. Business analytics can make sense of this disparate data to show, for example, how video conferencing has contributed to a reduction in a bank's carbon footprint by cutting train, air, and car travel; or why some departments are better at recycling, and how that success can be emulated by other departments.

■ Reporting sustainability performance will ensure transparency with key stakeholders and compliance with regulatory agencies.

What next?

We have looked at the problems facing banks today and what they must do to survive and prosper. The answer, essentially, is that they need to redraw fundamental aspects of their business, as well as strike the right balance between the risks they take and the returns they seek. Risk management must pervade the entire organisation and be integrated with every function and business unit.

We then looked at the role of business analytics in solving challenges in various areas, including business strategy, risk management, capital management and performance. Each requires a complex, multi-layered approach. But if the approach is underpinned with sound data and intelligent analysis, senior management will be better equipped to make the right decisions.

So what next? Executives charged with the task of putting their bank on a safer, more promising footing should ensure they do so armed with the right facts and analysis. For that they need to use a business analytics framework.

Such a framework will mine data – structured and unstructured – from across the organisation. It will analyse it. It will then query it, issuing reports for other executives to share in the intelligence provided. Decisions taken will then be based on accurate facts and true knowledge, adjusted for known risks.

The outcome? Better business performance, higher profitability and satisfied shareholders and regulators.

About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions delivered within an integrated framework, SAS helps customers at more than 45,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world THE POWER TO KNOW®.
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Appendix 1

Several reports have been published by supranational and national regulatory bodies, finance ministries and industry associations on the financial crisis and other challenges facing banks today. These reports go into varying levels of detail on the causes and nature of the challenges, and then make recommendations as to what banks and their supervisors should do to tackle the immediate problems and prevent similar occurrences in the future. A list of some of them is given below.

Financial Stability Forum, Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience: Follow-up on Implementation, October 2008

Financial Stability Forum, Report on Enhancing Market and Institutional Resilience, April 2008

Basel Committee on Banking Supervision, Proposed Enhancements to the Basel II Framework, January 2009

Basel Committee on Banking Supervision, Principles for Sound Stress Testing Practices and Supervision, January 2009

Basel Committee on Banking Supervision, Revisions to the Basel II Market Risk Framework, January 2009

Basel Committee on Banking Supervision, Guidelines for Computing Capital for Incremental Risk in the Trading Book, January 2009

Basel Committee on Banking Supervision, External Audit Quality and Banking Supervision, December 2008

Basel Committee on Banking Supervision, Principles for Sound Liquidity Risk Management and Supervision, September 2008

Financial Services Authority, Consultation Paper: Stress and Scenario Testing, December 2008

Financial Services Authority, Consultation Paper: Financial Stability and Depositor Protection, December 2008

Financial Services Authority, Consultation Paper: Strengthening Liquidity Standards, December 2008

HM Treasury, Special Resolution Regime: Safeguards for Partial Property Transfers, November 2008

US Treasury Department, Blueprint for a Modernised Financial Regulatory Structure, March 2008

HM Treasury, Financial Stability and Depositor Protection: Further Consultation, July 2008

Institute of International Finance, Final Report of the IIF Committee on Market Best Practices: Principles of Conduct and Best Practice Recommendations, July 2008

Counterparty Risk Management Policy Group III, Containing Systemic Risk: The Road to Reform, August 2008

Appendix 2: The Institute of International Finance

The Institute of International Finance, in its Principles of Conduct and Best Practice Recommendations published in July 2008, set out a number of steps for banks and other financial firms to follow in the areas of risk management; compensation policies; liquidity management; lending, underwriting and the rating of structured products; the valuation of assets; and improving transparency and disclosure.

The IIF's principles and recommendations on each issue can be summarised as follows:

- Risk management. The IIF regards this as the central issue for improved performance by financial firms. The report's first Principle of Conduct states: "A robust and pervasive risk culture throughout the firm is essential. This risk culture should be embedded in the way the firm operates and should cover all areas and activities, with particular care not to limit risk management to specific business areas or to have it operate only as an audit or control function." Specific recommendations include ensuring that senior management, especially the CEO, is responsible for risk management; that the CRO has the ability to influence key decision-makers and to ensure that the risks taken by the firm are consistent with its risk appetite; and that stress-testing should be an integral part of risk management.
- Compensation policies. Greater self-discipline should be exercised on incentive payments and bonuses. In particular, "compensation incentives should be based on performance and aligned with shareholder interests and long-term, firm-wide profitability, taking into account overall risk and the cost of capital".
- Liquidity management. Liquidity management needs to be strengthened and well-understood and taken into account in planning, product design and decision making.
- Market Monitoring Group. The IIF will set up a Market Monitoring Group for the better and earlier detection of "emerging vulnerabilities" in the markets and financial system. The group will be made up of senior market practitioners, including "seasoned veterans in global finance", from all geographic regions.
- Lending, due diligence and ratings. Non-bank institutions originating mortgages should be held to the same standards as banks. Institutions originating and distributing structured financial products should apply the same credit due diligence that they apply to similar assets carried on their own balance sheets, and investors should demand this. Credit rating agencies should have robust procedures for validating the models they use to rate structured products.
- Valuation of assets. Firms need to ensure the consistent application of independent and rigorous practices for the valuation of their assets, especially for complex and illiquid instruments, in accordance with applicable accounting standards and regulations.
- Transparency and disclosure. Firms need to provide customers and the broader market with more accessible and useful information about their products.

Appendix 3: The Financial Stability Forum

The Financial Stability Forum's Report on Enhancing Market and Institutional Resilience, published in April 2008, made five key recommendations:

1. Strengthening prudential oversight of capital, liquidity and risk management – for example, beefing up elements of Basel II and reviewing supervisory liquidity guidelines.
2. Enhancing transparency and valuations, especially of structured credit products and off-balance sheet entities.
3. Improving the way credit rating agencies work.
4. Strengthening the authorities' responsiveness to risks.
5. Setting up robust arrangements for dealing with stress in the financial system.

A follow-up report in October 2008 reviewed progress made in implementing the April report's recommendations. The verdict was that the "work is proceeding well and in a coordinated fashion" and that concrete results would be seen by the end of 2008. However, it said work in certain areas needed to be speeded up, and in particular that credit rating agencies work harder to comply with the FSF recommendations and that the industry bodies that have recommended improvements to industry practices, such as the IIF, should rigorously monitor how quickly these practices are being adopted.

The October report also said it would address "the additional issues" that had emerged in the autumn, including monitoring the emergency arrangements made by governments to bail out banks and protect their financial systems, developing ways of mitigating sources of pro-cyclicality in the financial system, and reassessing the scope of financial regulation.



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MEMORANDUM

Brussels

Dictated, but not read, by Alastair Sutton

Date: 24 February 2009

From: Alastair Sutton

Re: Possible reform of financial supervision in the EU - Recommendations of High Level Group (the de Larosière Group) to the Commission (25 February 2009)

The report under reference will be made public tomorrow. It is likely to significantly influence decision-making in the EU on tightening up cross-border supervision of financial groups in Europe. It will also influence thinking in the EU about global cooperation between supervisors, which is a major theme of the ongoing discussions at G20 level.

We have not had time obviously to analyse this report which is long and detailed. It does however advance proposals towards:

- a new regulatory agenda (to reduce risk and improve risk management; to improve systemic shock-absorbers; to weaken pro-cyclical amplifiers; to strengthen transparency; and to get incentives in financial markets right);
- stronger coordinated supervision (macro-prudential and micro-prudential; stronger coordinated supervision for all financial actors in the EU, with equivalent standards for all thereby preserving fair competition throughout the Internal Market);
- effective crisis management procedures (the aim is to ensure that in all Member States investors, depositors and citizens are properly protected).

The report makes 30 specific recommendations. Amongst the more important of these are the following:

1) Fundamental review of Basel II rules;

2) New definition of "own capital" clarifying whether or which hybrid instruments should be considered as tier-1 capital;

3) New rules for credit rating agencies based on registration and supervision with a significant reduction over time in the use of ratings in financial regulation;

4) Fundamental review of the "mark-to-market" principle, with strengthening of oversight and governance by the IASB;

5) Solvency II to be adopted by May 2009, including a "group support regime", coupled with sufficient safeguards for host Member States, a binding mediation

process between supervisors and the setting up of harmonised insurance guarantee schemes;

6) National supervisors to be equipped with strong, equivalent and deterrent sanctions regimes to counter all types of financial crime;

7) As far as the "parallel banking system" is concerned, extend the regulatory net to all firms or entities conducting financial activities of a potentially systemic nature even if they had no direct dealings with the public. Improve transparency in all financial markets, especially "systematically important hedge funds". Impose direct information requirements on hedge fund managers, concerning their strategies, methods and leverage, including their worldwide activities

8) On securitised products and derivatives markets, simplify and standardise OTC derivatives, introduce clearing house for credit default swap, require issuers to retain "a meaningful amount of the issuance";

9) Identify and eliminate "national exceptions" amongst Member States to improve functioning of the single financial market;

10) Align compensation incentives with shareholder interests and long-term firm-wide profitability. Supervisors to oversee (with enforcement powers) adequacy of financial institutions' compensation policies;

11) Strengthen internal risk management within financial institutions, with increased inspections by national supervisors;

12) Establish coherent and workable regulatory framework for crisis management in the EU;

13) Implement harmonised deposit guarantee scheme, pre-funded by the private sector and topped up by the State in exceptional cases (covering banking, insurance and investment sectors);

14) Establish European Systemic Risk Council (ESRC) to be chaired by President of the European Central Bank (ECB) and composed of European supervisors (CEBS[1], CEIOPS[2] and CESR[3]) and the European Commission;

15) An effective risk-warning system to be put in place under the ESRC and the Economic and Financial Committee (EFC), with mandatory follow-up at EU and global levels if risks of a serious nature are detected;

16) Strengthen national supervisory authorities in the EU, focusing on increased personnel exchanges, strengthened personnel policies, better training, greater independence and (ultimately) creating a "strong European supervisory culture";

[1] Committee of European Banking Supervisors .
[2] Committe of European Insurance and Occupational Pension Supervisors.
[3] Committe of European Securities Regulators.

17) The EU should develop a more harmonised set of financial regulations, supervisory powers and sanctioning regimes by the beginning of 2013;

18) The EU should expand the use of "supervisory colleges" for cross-border financial transactions, involving a strengthening of the "level 3" committees (CEBS, CEIOPS and CESR), leading ultimately to an integrated European System of Financial Supervision (ESFS). In time, the Report envisages a European Banking Authority, a European Insurance Authority and a European Securities Authority. All of these should have a legal status and legally-binding powers of enforcement;

19) At the international level, the Report recommends that the Financial Stability Forum (FSF) together with international standard setters like the Basel Committee of Banking Supervisors promotes the convergence of international financial regulation to the highest possible level. The FSF should be enlarged to include "all systemically important countries and the European Commission". It should be linked more closely and report to the IMF;

20) Bilaterally, the EU should intensify regulatory dialogues with key financial partners;

21) Colleges of supervisors for large, complex cross-border financial groups must carry out robust, comprehensive risk assessments, including internal risk management practices. The FSF should ensure coherent global supervisory practice between the various colleges and promote best practice;

22) The IMF, working with the FSF, the BIS, central banks and the European Systemic Risk Council (ESRC) should be in charge of developing and operating a financial stability early warning system, based on an international risk map and credit register. "Danger zones" should be pre-defined;

23) Intensified coordinated efforts to encourage currently uncooperative jurisdictions to adhere to the highest level of international standards and to exchange information amongst supervisors. Group supervisors should increase capital requirements for financial institutions investing in or doing business with poorly regulatory or supervised financial centres whenever they are not satisfied by the due diligence performed or where they are unable to obtain or exchange pertinent information from supervisors in those offshore jurisdictions. The IMF and the FSF, in cooperation with other relevant international bodies, should assess the existing regulatory standards in financial centres, monitor the effectiveness of existing mechanisms for enforcing international standards and recommend more restrictive measures where the existing applied standards are considered to be insufficient;

24) EU Member States to support strengthening the role of the IMF in macro-economic surveillance and increase the IMF resources to support member countries facing acute financial or balance of payments distress;

25) The EU to organise more coherent EU representation in the new global economic and financial architecture, including "consolidating" the EU's representation in the IMF and other multilateral fora.

Preliminary conclusions. My first impression on speed-reading this long and "meaty" document is that it is remarkably substantial, having been produced in such a short time. The crucial question is the extent to which its recommendations will be endorsed by the Commission and (crucially) by the 27 Member States and the European Parliament. As far as the Commission is concerned, the fact that the Secretariat of the Group comprised senior officials such as David Wright, Matthias Mors and Martin Merlin means that President Barroso and his economic advisors will have been kept abreast of the main thrust of the Report as it was being developed. I have little doubt therefore that it will be endorsed by the Commission, not least because it envisages over time a substantial strengthening of the EU and its institutions, together with those of the Member States.

The proposals, both internal to the EU and international, are (in my personal view) overdue but, nonetheless, reflect the seriousness and probably duration of the current economic and financial crisis.

Given the slowness of the EU's legislative process, one vital question is how fast the EU "system" can react in a way which will "bite" immediately at national and private sector levels. In this respect, the Report may be said to focus on preventing a repetition of the current systemic breakdown, rather than remedying the disastrous situation which currently exists. In this respect, the short-term focus of the EU, its institutions and Member States, must be on preserving at all costs the benefits of the political, economic and legal integration achieved over the last 50 years (particularly in the Single Market since 1985 and EMU since 1999) in the face of unprecedented threats as a result of incipient or actual national protectionist measures, both in the services and goods areas. Urgent agreement is therefore needed on:

(a) the way in which state aids rules are to be applied both in goods and services in a realistic but equitable way;

(b) the legal and institutional means for dealing with "impaired assets";

(c) a common position on these and other measures to address the crisis so that the EU as a whole (i.e. the euro zone and non-euro zone members) can speak – to the extent possible – with a single voice both bilaterally and multilaterally.

The "acid test" for EU cohesion will be the G20 meeting in London on 2 April 2009.

We will report further when we have had time to digest and analyse the de Larosière proposals and to take soundings on the likely reaction by the Commission, Member States and the European Parliament. ⊕

APPENDIX III

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APPENDIX IV

SPONSOR PROFILES

Association of Italian Joint Stock Companies - was established on November 22, 1910 by a distinguished group of industrialists and financiers.

In its almost one hundred years of activity, Assonime has developed as a leading think-tank participating on behalf of its member companies in the analysis of key regulatory issues for market functioning and companies' activities and operations. In performing its tasks, Assonime regularly participates in public consultations on legislation and elaborates its own proposals to improve existing rules; it publishes systematic commentaries of legislation that are used as reference in the application of the law by member and non member companies and that represent a reference for the legal profession at large; it assists companies in the application of the law with its legal opinions and its contacts with responsible administrations. In the performance of its tasks Assonime maintains a constant dialogue with the main Italian and European institutions (Parliament, the Government, the European Commission, and independent authorities) as well as its sister organizations in other European countries and regularly organizes public conferences and scholarly seminars, research initiatives and contacts with the national and academic community so as to mobilize the best expertise.



The City of London Economic Development Office is part of the City of London Corporation, an unusually diverse organisation with three main aims:

- to support and promote the City, the financial and business heart of the UK, by maintaining and enhancing its status as the world leader in international finance and business services
- to provide the highest quality local government services within the Square Mile for the benefit of workers, residents and visitors alike
- to provide valued services to London and the nation as a whole, especially regeneration of the surrounding area in partnership with its neighbouring boroughs.

The City pre-dates parliament and its experience and tradition underpins its modern and efficient services. It operates on a non-party political basis through its Lord Mayor, aldermen and elected council members.

CLIFFORD

CHANCE

Clifford Chance is a truly integrated global law firm. We advise financial institutions, commercial enterprises, and state and regulatory bodies on complex and critical legal issues. Our aim is to provide consistently high quality advice that combines technical expertise, and an understanding of the commercial environment in which our clients operate. With 28 offices in 20 countries* throughout the Americas, Asia, Europe and the Middle East, we offer in-depth local knowledge and a uniquely global perspective. Clifford Chance lawyers advise internationally and domestically; under common law and civil law systems; in local and cross-border transactions; on day-to-day operations and the most challenging deals.

* Includes an associated office in Romania



Deutsche Bank is a leading global investment bank with a strong and profitable private clients franchise. With Euro 2.202 billion in assets (IFRS) and 80,456 employees, the bank offers unparalleled financial services in 72 countries throughout the world. Deutsche Bank is dedicated to excellence, constantly challenging the status quo to deliver superior solutions to demanding clients.

Deutsche Bank ranks among the global leaders in corporate banking and securities, transaction banking, asset management, and private wealth management, and has a significant private and business banking franchise in Germany and other selected countries in Continental Europe.

A Passion to Perform – this is the way Deutsche Bank does business.



The Law Department (Dipartimento di Scienze Giuridiche) is the centre coordinating research in the area of law at the University of Torino, one of the oldest and most reputed academic institutions of Italy. The research staff of the Dipartimento is composed of professors and researchers who teach law and law related subjects in different Faculties of the University of Torino. Its library has extensive historical and modern collections.

At the moment, the Department has 146 members and over 40 junior researchers. With these numbers, it is the largest research centre in the University of Torino and one of the largest in Italy. The Department leads a vast number of national and international research projects. The network of collaborations includes projects supported by the EU (e.g.: CoPECL – “Common Principles of European Contract Law” Network of Excellence; “Uniform terminology for European Private Law” project) as well as several transnational projects set up with other leading research institutions.


FLEISHMAN
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Since 1991, Fondazione CRT has established itself as one of the most significant nonprofit organizations in northern Italy. Among the largest of the 88 banking foundations in the country, Fondazione CRT is active in three primary areas: Programmatic Initiatives, Grant-making, and Venture Philanthropy.

In collaboration with community and civic organizations, Fondazione CRT develops and implements various programmatic initiatives each year. These programs focus primarily on Economic Development, Education, Arts and Culture, Scientific Research, and Public Health.

With grants totaling more than 969.000.000 euro since 1991, Fondazione CRT recently diversified its giving practices by providing resources and services to *Fondazione Sviluppo e Crescita CRT*, a subsidiary foundation committed to venture philanthropy projects. By partnering with investment managers, the foundation is able to identify long term investment opportunities and encourage the sustainability of organizations in the community.

Fondazione CRT Via XX Settembre, 31 10121 Torino – Italia
Tel: +39 011 662 2491 Fax: +39 011 662 2432 Web: www.fondazionecrt.it

Morgan Stanley

Morgan Stanley is a leading global financial services firm providing a wide range of investment banking, securities, investment management and wealth management services. The Firm's employees serve clients worldwide including corporations, governments, institutions and individuals from more than 600 offices in 37 countries. For further information about Morgan Stanley, please visit www.morganstanley.com.

OLIVER WYMAN

Oliver Wyman is an international management consulting firm that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, organizational transformation, and leadership development. With more than 2,900 professionals in over 40 cities around the globe, the firm helps clients optimize their businesses, improve their operations and risk profile, and accelerate their organizational performance to seize the most attractive opportunities.

Founded in 1984, Oliver Wyman works extensively with Global Top 100 financial institutions and possesses an unparalleled understanding of the market structure, economics, and possible future development of the financial services sector. The firm's practice areas reflect its distinct expertise: Corporate and Institutional Banking, Retail and Business Banking, Insurance, Finance & Risk, Corporate Finance and Advisory, Wealth and Asset Management, Strategic IT and Operations, and Public Policy.



Paris EUROPLACE is the association which represents the major players of the Paris financial marketplace: issuers, investors, banks and insurance companies, law firms and other ancillary professions operating from Paris, whether French or foreign. Its special characteristic is that it brings together the multiplicity of market participants in the financial industry.

Paris EUROPLACE conducts 3 main activities:

- Promoting the Paris financial marketplace to international investors: each year, Paris EUROPLACE organizes several Forums overseas which give its members the opportunity to present their expertise, services and products;
- Conducting “think tanks” in charge of making proposals for reforms to improve the regulatory and tax environment: Paris EUROPLACE “think tanks” explore and address themes of interest to the financial market and its various players;
- Contributing to works and programs related to European issues: Paris EUROPLACE acts on European issues and develops regular contacts with the European Commission and European Parliament.





Founded in 1976, and headquartered in Cary, North Carolina, SAS is one of the largest software companies in the world and is the leader in business analytics and services. SAS helps customers improve performance and deliver value by making better decisions faster through excellence in product development and customer support.

SAS solutions are used at more than 45,000 sites in over 113 countries, including 91 of the top 100 FORTUNE Global 500® companies. More than 11,000 SAS employees – in more than 50 countries and 400 SAS offices – provide local support for global implementations.

A stable business partner with revenue of $2.26 billion in 2008, SAS reinvests a substantial percent of revenues in R&D each year so it can continually improve its products (22% in 2008).

With 30 years of experience in financial services, SAS works closely with top financial institutions – including banks, credit unions, lenders and capital markets firms – to provide timely solutions that address critical business needs.

Today, SAS data management, enterprise risk management, regulatory compliance, marketing automation, CRM and other software is used by more than 3,000 financial institutions worldwide, including 97 percent of banks in the FORTUNE Global 500®.



STATE STREET.

State Street Corporation is a global provider of financial services, specialized in serving institutional investors in three primary business areas:

- Investment servicing, including fund accounting, custody, fund manager outsourcing services, securities lending, and performance and risk analytics;
- Investment management, through State Street Global Advisors (SSgA), one of the world's largest asset managers; and
- Investment research and trading, including foreign exchange, fixed income, equities, and derivatives trade execution, transition management, and quantitative research.

With $12.04 trillion in assets under custody and $1.44 trillion in assets under management at December 31, 2008, State Street operates in 27 countries and more than 100 markets worldwide. Our European-based workforce of over 6,500 employees provides European institutional investors with local support and service from our offices in Austria, Belgium, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Poland, Switzerland and the United Kingdom. State Street holds assets under custody from clients in Europe totaling $1.53 trillion and European clients' assets under management totaling $361.7 billion.

TLX S.p.A. organises and manages the TLX Regulated Market and the EuroTLX Multilateral Trading Facilities (MTF), a pool of circa 3,000 financial instruments aimed at the investment needs of non-professional investors and represented by Italian, European and U.S. government securities, corporate, financial and structured bonds, emerging markets, certificates, covered bonds, and European and U.S. equities.

The values of both markets are the following:

- Transparency: clear rules, real-time prices, pre- and post-trade information, and the characteristics of traded instruments through term sheets;
- Liquidity: guaranteed by the presence of at least one Liquidity Provider for each traded instrument;
- Extended trading hours: from 9 am to 6 pm.

TLX S.p.A. markets permit member brokers to offer their own networks an efficient, completely automated tool that is easily integrated into the most commonly used collection systems for the trading of securities that normally present a reduced level of liquidity and are traded on OTC circuits.

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UniCredit Group has a presence in 22 European countries, over 177,000 employees and more than 10,200 branches, making it one of the biggest franchises in Europe.

With a strong European identity complemented by an extensive international network, UniCredit Group benefits from its well-diversified revenue stream, strategic position in one of Europe's wealthiest areas (Bavaria, Northern Italy and Austria) and status as a first mover and market leader in Central and Eastern Europe.

UniCredit Group's strategic mergers and acquisitions have enabled it to be one of the top ranking financial institutions in the world.



Global reach and unmatched experience

International practice is the foundation of our firm, and we have been involved in transactions in virtually every corner of the world.

With 37 offices across 25 countries, our commitment to every region of the world is substantial. We have a critical mass of English, U.S. and domestic lawyers throughout the world who are either native to or fully integrated in the regions where they are based.

White & Case is distinguished not only by the depth and scope of its legal advisory services, but also by unmatched experience in the international arena, particularly in providing legal advisory services to, and in, developing or emerging countries.

Our lawyers have decades of experience in multijurisdictional issues in numerous legal systems — some well established, some in their infancy — as well as in transitional economic and political systems. Consequently, we are known for unusual effectiveness in helping clients accomplish their objectives in environments others find daunting and unfamiliar.

Our knowledge, like our clients' interests, transcends geographic boundaries. All of our clients have access to the expertise of our lawyers, wherever they are based. Our lawyers are linked by constant interaction and an electronic infrastructure that allows us to bring the Firm's wealth of experience and all its global resources to bear on clients' most demanding business and legal issues — promptly and efficiently.

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