

# Lessons from the Financial Market Turmoil: Challenges ahead for the Financial Industry and Policy Makers

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*This financial crisis, ending a period of search for yield and increased risk-taking, has triggered various policy responses, ranging from more ad-hoc measures initially to more structured and co-ordinated financial sector rescue actions as the crisis evolved. Lessons drawn so far should help to devise longer-term, more encompassing and more consistent policies. Various reforms are being proposed by the financial industry as well as by official authorities and international standard-setting bodies, many of which arrive at similar conclusions regarding the causes of and remedies for the crisis. Shortcomings in risk management, including compensation schemes, governance structures, liquidity and counterparty risk, need to be addressed. Enhancing transparency by improving disclosure, valuation and ratings should help to restore market confidence. Further regulatory reforms, striking a balance between stability and growth, are needed, but should be assessed with respect to their efficiency and effectiveness. Reform areas should cover cross-border regulation for banking and finance, capital requirements, the institutional scope of regulation and financial safety nets. Financial crisis mechanisms as well as multilateral global surveillance should be reinforced to make the financial system more resilient, sound and efficient.*

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## I. A brief retrospective of the crisis to reveal central reform issues

### *Current turmoil of global dimensions...*

Over the past few months the world has been witnessing financial market turmoil of global dimensions (Figure 1). What had become known as the ‘subprime crisis’ and by mid-2007 had already caused bank failures, a temporary freeze on money markets and sharp drops in equity markets worldwide, has spread to a wider range of asset classes and institutions, and forced governments and central banks to step in with drastic measures. Banks’ shares have drastically lost market value (Table 1).

### *...is ending a period of low risk premia and the search for yield*

Over the past few years, low interest rates, search for yield, financial innovation and new mortgage products, combined with often imprudent (and at times fraudulent) policies pursued by mortgage lenders, built up problems of a crisis to come. Lenders’ originate-to-distribute business model, the securitisation of risky mortgage loans, and the use of financial derivatives and financing vehicles to off-load these risks from balance sheets of regulated institutions helped to transfer and spread the risk in an increasingly leveraged global financial system, and was bound to act as a powerful amplifier of the crisis (see Figure 2).

### *Abundant liquidity and low interest rates led to more risk-taking...*

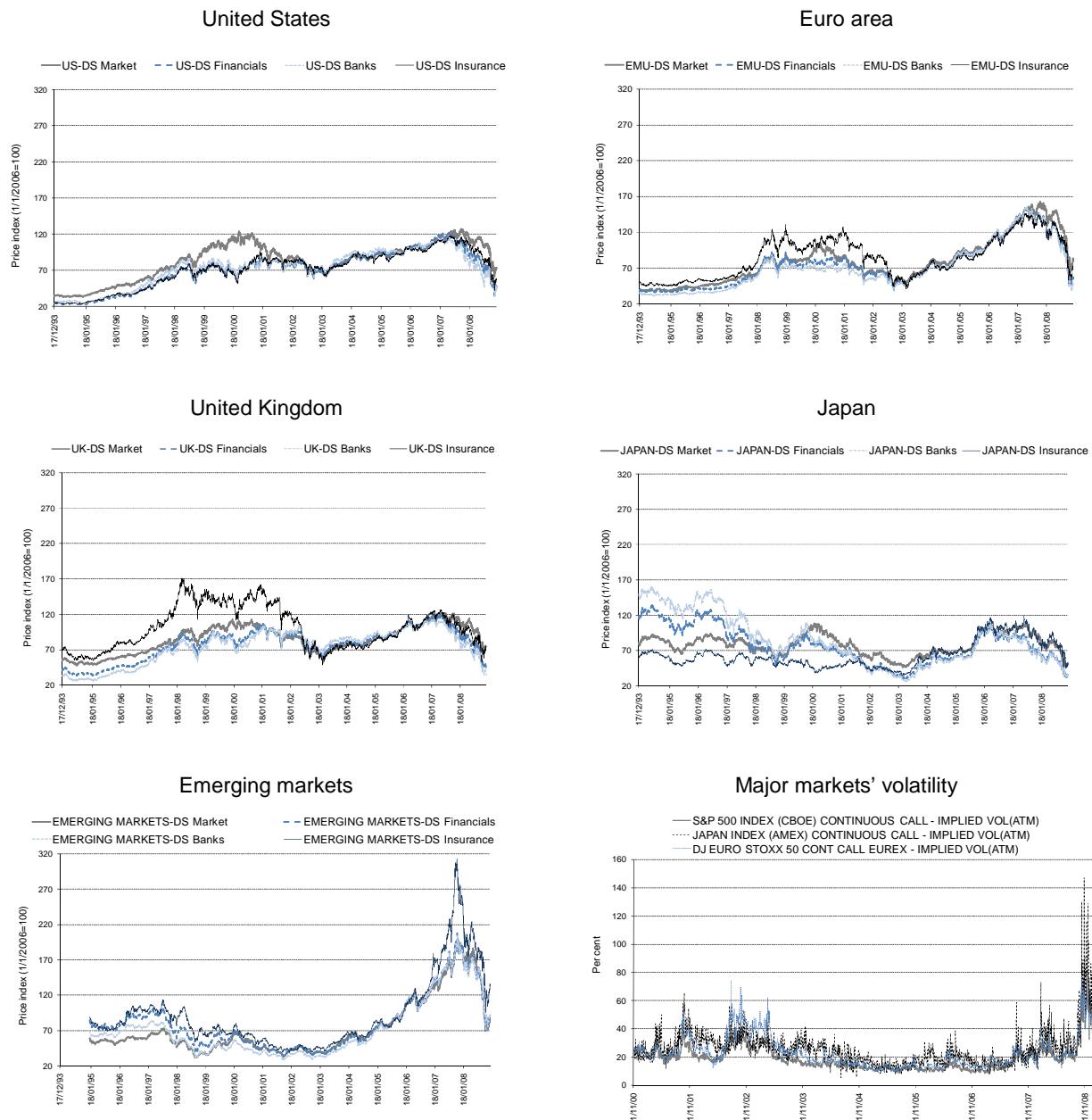
By several measures, global liquidity has been ample over the past few years, and has driven up various asset prices (Figure 3). Favourable supply conditions kept CPI inflation low and little regard to asset price inflation, in particular with respect to house prices, rendered monetary policy very accommodating. This supported a long period of historically low yield spreads, and the underpricing of risk led to excessive leverage even by otherwise more conservative financial actors. These developments were supported by incentive systems at the company level based on up-front payouts for short-run performance.

### *...encouraged by market pressures and supported by the originate-to-distribute model*

Such incentive systems were just one element responsible for risk taking, as they were encouraged by market pressures to generate returns in a low-interest rate environment. From poor underwriting standards of mortgage brokers to lack of due diligence by investors in structured products, complacency was widespread. Risk managers’ warnings often remained unheard under pressure not to lose out on a buoyant market. Securitisation and the originate-to-distribute model helped to off-load risks almost as quickly as they were generated (the remaining warehousing risk was becoming significant only once markets started to dry up).

Figure 1. The turmoil on equity markets

Datastream total market and sector indices, 1/1/2006=100



Note: Daily data until 19 December 2008.

Source: Thomson Financial Datastream.

Table 1. Banks' losses in market value

Change in market value of largest G10 banks (in USD billion)<sup>a)</sup>

	2008 <sup>b)</sup>	2007	2006	2005
United States	-423.7	-338.8	190.5	-26.7
United Kingdom	-307.1	-101.5	127.0	-17.7
Belgium	-204.3	5.5	54.0	20.0
Italy	-175.9	73.3	61.6	46.9
France	-157.0	-31.4	109.0	13.2
Switzerland	-107.5	-44.5	55.7	22.0
Canada	-105.5	12.2	31.1	37.2
Japan	-104.4	-112.3	-49.2	204.4
Germany	-83.8	-3.7	34.1	14.8
Sweden	-58.0	-4.3	26.7	0.7
Netherlands	-0.7	0.5	0.5	0.1
G10 total	-1,727.9	-545.1	641.0	315.0
EMU total	-938.0	79.2	421.1	116.0
<b>Global<sup>c)</sup></b>	<b>-3,068.0</b>	<b>-106.4</b>	<b>1,220.7</b>	<b>518.0</b>

a) Based on banks contained in respective countries' Datastream bank indices. Sorted by 2008 losses.

b) From 1-Jan-08 to 19-Dec-08.

c) Based on banks in Datastream worldwide bank index.

Source: Thomson Financial, OECD.

Figure 2. Evolution of the current crisis

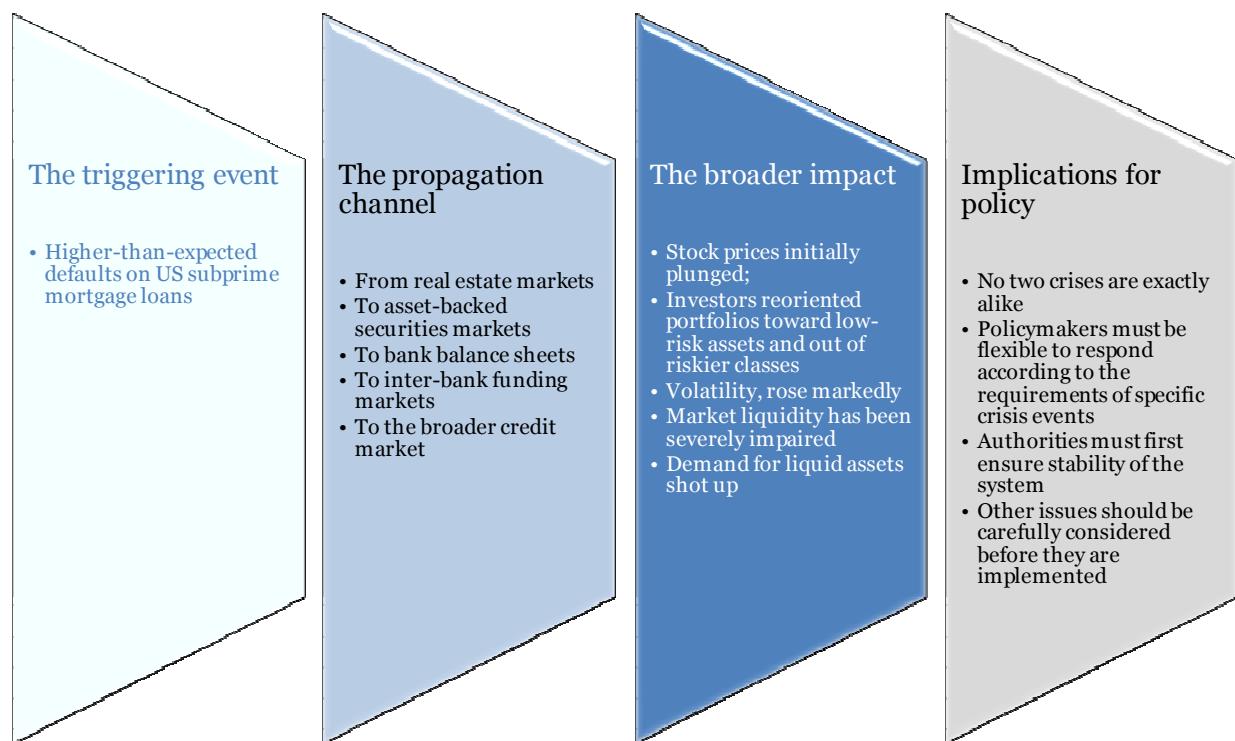
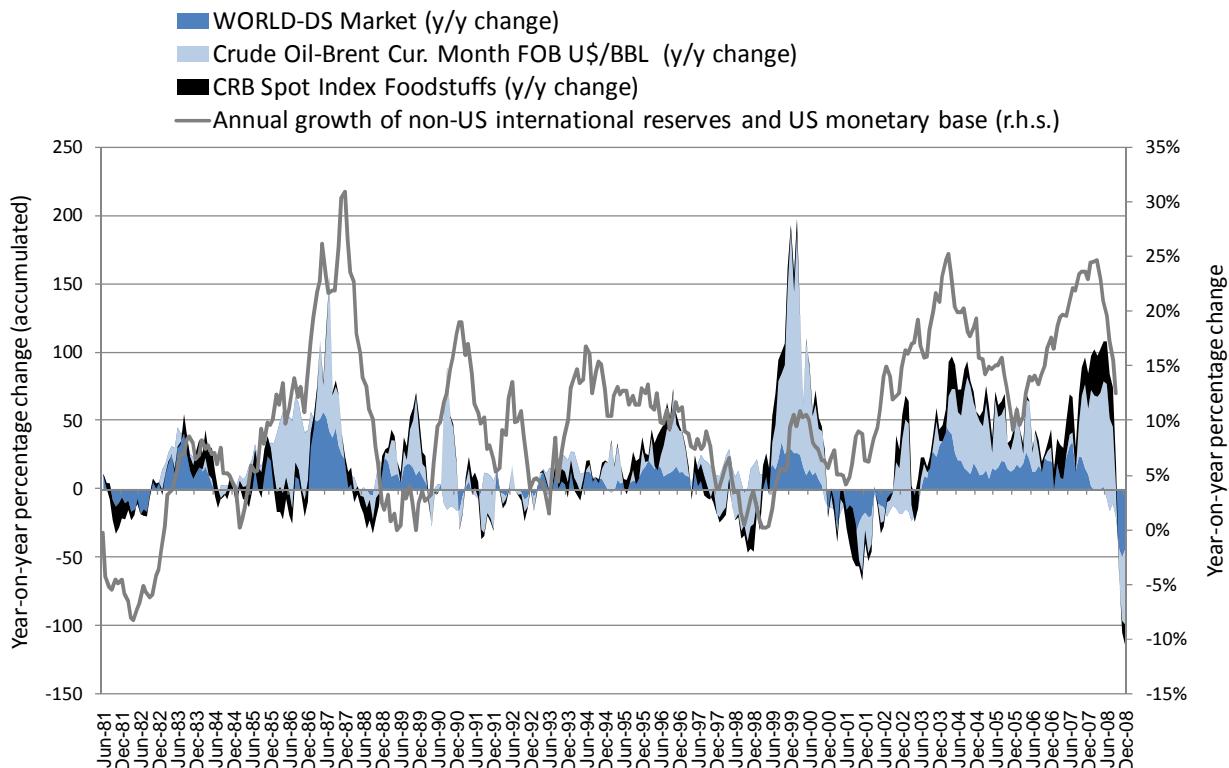


Figure 3. Asset &amp; commodity price bubbles vs. global liquidity



Source: Thomson Financial Datastream, OECD.

*Lack of due diligence on the part of investors was fostered by favourable ratings*

*Regulators and supervisors lacked diligence and vigilance, too...*

*...and the regulatory environment failed to arrest some of the*

Credit rating agencies, which could have been another element in the risk control chain, were overwhelmed by the amount of newly generated products to rate (often coming with thousands of pages of documentation) and gave in to the desire of their clients to deal fast with the ever increasing volume of issues to be brought to market. Bond insurers, which provided credit rating enhancement through guaranties for structured products, were in the same predicament.

But regulators and supervisors also lacked diligence and vigilance. They faced the challenge of attempting to control and oversee activities of globally active and diversified financial institutions within a national regulatory environment with little international co-ordination. But then again, they were in some cases sanguine about the strong growth in over-the-counter derivatives (Figure 4) and other instruments for shifting risks. These instruments have their benefits in the sense of enabling participants to manage risk exposures, but they also are not without risks, which have been raised in various circles.<sup>1</sup>

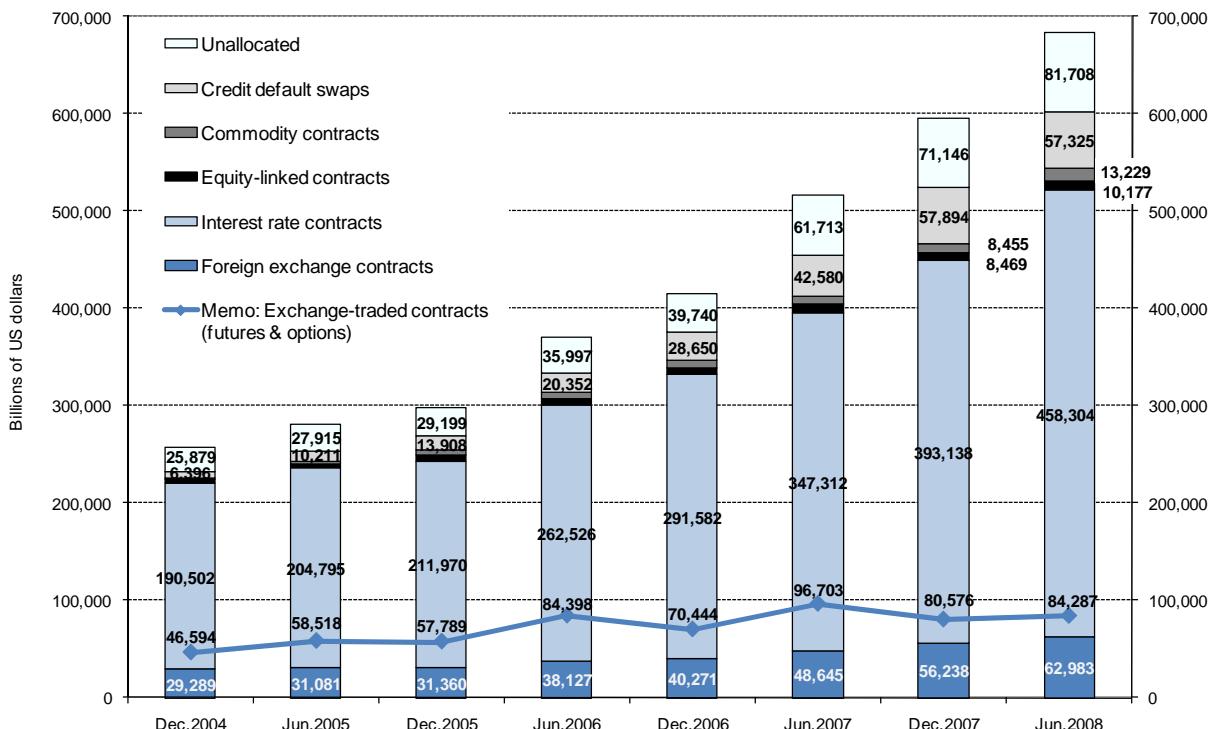
Some of the developments that played a core role in the lead-up to the crisis were partly driven by changes in the regulatory environment. Most prominently, the growth of structured investment vehicles (SIVs)

### *developments leading up to the crisis*

and conduits has been attributed to banks' capital requirements, especially those established under the first Basle Accord (Basle I, 1988). The creation of off-balance sheet vehicles allowed banks to circumvent minimum capital requirements established by Basle I and encouraged them to shift risky activities to such weakly regulated entities. Furthermore, due to their low capital requirements, mortgages were particularly favoured under Basle I. Under Basle II, effective as of the beginning of 2008 and devised to overcome some of these problems, risks from off-balance sheet vehicles have to be included in the more comprehensive and model-based calculation of capital requirements, but other loopholes remain. In particular, Basle II enables banks to reduce their capital requirements through securitisation. This provision was widely anticipated by banks before Basle II became effective, and is part of the explanation for the acceleration of RMBS issuance post-2004 (when Basle II was issued).<sup>2</sup>

Figure 4. Derivatives have grown strongly

Notional amounts of OTC derivatives outstanding, in USD billion



Source: BIS - Bank for International Settlements, *Over-The-Counter (OTC) Derivatives Markets Statistics; Statistics on exchange traded derivatives*; and BIS Quarterly Review.

### *Origins of the crisis reveal elements of future reforms*

All these elements are part of the idiosyncratic features of the current financial turmoil, which otherwise had displayed many of the traditional elements that led to financial crisis in the past (credit and

asset price growth in particular). But it is these specific elements of this crisis:<sup>3</sup>

- the spread of the originate-and-distribute model of transferring risk;
- a strong appetite for yield that nurtured a growing demand for high-risk assets;
- ex-ante ignorance and ex-post uncertainty about the risk features of mortgage-backed securities, related derivatives and credit-default swaps;
- inadequate corporate governance and management incentives in financial institutions; and
- the role of regulators and rating agencies;

that any reform measures by policy makers and the industry need to address in their longer-term responses to the turmoil.

## II. Overview of some major policy responses to this crisis

### *Policy actions to deal with the crisis have often been ad-hoc*

The financial industry as well policy makers have been struggling with the fallout of the turmoil. Many actions have been taken so far, often ad-hoc, to deal with problems that have arisen along the way. They include financial support to subprime lenders, central bank actions to enhance liquidity, rescues of individual major financial institutions, and – dropping the case-by-case approach – the establishment of more general and co-ordinated government guarantees and capital injections for the financial industry (see Table 2).

### *Bank bail-out policies have become bolder as the crisis evolved...*

Recapitalising banks has become the most important policy measure. Despite some state interventions to prevent bank failures over the past year or so (e.g. IKB in Germany, Northern Rock in the UK, and Bear Stearns in the US), there was still some hope that the market would provide the essential funds to recapitalise banks on a wider scale. However, after the US government took control of the weakened government-sponsored enterprises (GSEs) Freddie Mac and Fannie Mae,<sup>4</sup> and after the repercussions of Lehman's failure<sup>5</sup> and the rush of the government to support AIG,<sup>6</sup> it was becoming apparent for many policy makers that a more structured approach to support the banking sector was needed.

### *...and, on both sides of the Atlantic, also more structured and co-ordinated*

In the US, the Treasury proposed a 'Troubled Assets Relief Program' (TARP), which was revamped by lawmakers to become the more encompassing 'Emergency Economic Stabilization Act' (EESA; see Box 1). In Europe, after policy makers overcame an initial reluctance to accept

the severity of the problems for their respective banking sectors, and after some first uncoordinated responses (*e.g.* the Irish government issuing a blanket guarantee on Irish banks' deposits), a co-ordinated plan was agreed at the EU-wide level (see Box 1). Government support for the banking sector was also announced in other OECD economies like Switzerland, Iceland, Korea and Japan.

**Table 2. Main areas of policy measures by G7 countries and EU in response to the crisis**

As of end-October 2008

	United States	Japan	Germany	United Kingdom	France	Italy	Canada	EU/EMU wide <sup>a)</sup>
<b>Monetary Policies</b>								
Liquidity enhancing operations <sup>b)</sup>	●	●	●	●	●	●	●	●
Unsecured lending	●							
Lowering interest rates	●	●	●	●	●	●	●	●
<b>Regulatory interventions</b>								
Increase/introduce deposit insurance	●		●	●	○	●		○
Political guarantee of all deposits	○		●	●	○	○	○	
Further liability guarantees	○		○	●	○	○		○
Bank recapitalisation	●	○	●	●	●			
General guarantees to banks	○	○						○
Asset purchases	●			○				
Prudential oversight; surveillance <sup>c)</sup>	●	●	●	●	●	●	●	●
<b>(Other) Fiscal policies</b>								
Support for homeowners	●	○						
Rescue loans to non-financial sector			●		●			
Other fiscal measures (fiscal easing)	●	○	●	○	●			

*Legend:*

- Policy being implemented.
- Policy being planned or envisaged, or implicit in other policies.

*Notes:*

a) European Monetary Union (EMU) wide for monetary policy measures by the ECB, European Union (EU) wide for other measures.

b) Includes broadening of categories accepted as collateral, changing the terms and conditions of liquidity arrangements (*e.g.* longer maturity), increase in amount or frequency of actions, open market arrangements (*e.g.* overnight repurchase agreements, term repo, etc.), and swap arrangements with other central banks.

c) Measures include regulatory reform measures, stricter enforcement, broadening authorities of supervisory agencies, increase in on-site inspections, enhanced stress testing and monitoring of liquidity, enhanced marked surveillance and scrutiny of risk management practices (with focus on institutions with perceived exposures to troubled sectors), increased data collection (*e.g.* on subprime exposures), and the like.

Sources: OECD, ECB, EC, and national sources.

### Box 1. Key elements of major financial sector rescue plans, October 2008

#### **United States: Troubled Assets Relief Program (TARP) of the Emergency Economic Stabilization Act (EESA)**

On October 3<sup>rd</sup>, US Congress passed and President Bush signed into law the bipartisan *Emergency Economic Stabilization Act* of 2008. The 169 page bill is an extension of the original three page Treasury proposal of a plan to purchase bad assets, in order to reduce uncertainty regarding the worth of the remaining assets and restore confidence in the credit markets. An amended and extended version of that original *Troubled Assets Relief Program* is the core part of EESA and gives the US Treasury Secretary broad and flexible authority to spend up to USD 700 billion to purchase and insure mortgage assets, as well as equity securities, as needed to stabilise US financial markets. The law empowers Treasury to design and deploy numerous tools to strengthen banks' balance sheets. It allows not only, as in the original plan, direct purchases of illiquid troubled assets from banks (through a reverse auction procedure), but also equity investments in troubled banks, loan guarantees and more.

A first tranche of the assigned fund is to be used for a *TARP Capital Purchase Program* intended "to encourage U.S. financial institutions to build capital to increase the flow of financing to US businesses and consumers and to support the U.S. economy." Under the programme, Treasury will purchase up to USD 250 billion of senior preferred shares, qualifying as Tier 1 capital, of eligible US controlled banks, savings associations, and certain bank and savings and loan holding companies engaged only in financial activities. The minimum subscription amount available to a participating institution is 1 per cent of risk-weighted assets; the maximum is 3 per cent or USD 25 billion. During the period of their participation, institutions must adopt the Treasury Department's standards for corporate governance and executive compensation. On 14 October, nine major financial institutions, comprising more than 50 per cent of all US deposits and assets, signed into the program with USD 125 billion capital injections.

#### **European Union: Concerted European Action Plan by EU Council and national bank guarantees**

The Heads of State of the euro area countries agreed on 12 October on a concerted European action plan, supported by all EU member states at the European Council the following week. In order to restore confidence and proper functioning of the financial system, this co-ordinated approach aims at (i) ensuring appropriate **liquidity conditions** for financial institutions; (ii) as a complement to the ECB actions in the interbank money market, facilitate the funding of banks, notably through **government guarantees or insurances** of new medium-term bank senior debt insurance (these actions will be temporary, until 31 December 2009, and shall be designed to avoid any distortion in the level playing field); (iii) providing financial institutions with **additional capital resources**, by acquiring preferred shares, and urging national supervisors to implement **prudential rules** to stabilise the financial system, (iv) allowing for an efficient **recapitalisation of distressed banks**, regarding the interest of taxpayers and ensure that existing shareholders and management bear the due consequences of the intervention (emergency recapitalisation shall be followed by an appropriate restructuring plan); (v) ensuring sufficient flexibility in the implementation of the **accounting rules**, especially regarding the classification of financial instruments by banks between their trading and banking books, and allowing institutions to value their assets consistent with risk of default assumptions rather than immediate market value which for illiquid markets may no longer be appropriate; and (vi) **enhancing co-operation procedures** allowing the exchange of information among European governments, the President of the European Council, the President of the European Commission, the President of the European Central Bank and the President of the Eurogroup.

As part of the co-ordinated Action plan, various EU governments on a national level pledged a total of EUR 1,873 billion for guarantees of their banking sectors. The **German** government will issue up to EUR 400 billion in credit guarantees for inter-bank lending and create a EUR 100 billion fund to inject capital in financial institutions and acquire illiquid assets. **France** is committed to guarantee up to EUR 320 billion in inter-bank loans and provide EUR 40 billion in new capital for banks, with the aim of raising banks' tier one capital ratios to 9 per cent (to be on "a level playing field" with British banks). The governments of the **Netherlands, Spain, Italy, Austria, Portugal** and **Norway** joined the actions, pledging a total of EUR 501 billion in guarantees and capital. The government of the **United Kingdom** committed to provide GBP 37 billion in new capital to three of the country's largest banks as part of its bail-out plan of GBP 400 billion which was already announced ahead of the EU decision.

Sources: US Treasury, European Commission, national sources.

*Further analysis will help to devise longer-term and more encompassing reform measures*

The industry, regulators and other stakeholders have been discussing and developing these interventions. What is essential and will be needed to safeguard financial stability is to develop measures with a longer-term view. Ongoing work in this area by various institutions at the official and private sector level and enhanced dialogue between all stakeholders will help to suggest key areas for reform. It is not inconceivable that some of these more structural responses to the crisis may not be short of an overhaul of the rules and regulations of the financial system. From a politician's point of view, major reforms may be needed to mend a system in which gains are privatised and losses are socialised, which would no doubt strike the median voter as being fundamentally unfair.

### III. Some lessons for policy makers

#### 1. Complacency and leverage

*A benign economic environment should not lead to complacency with respect to collateral*

The benign economic environment that prevailed over the past few years, since the recovery from the tech bubble crash and especially during the period 2003 until August 2007, paired with underpricing of risks and rising asset prices, led to an expansion of asset-backed lending with a degradation of the credit process overall. Be it a mortgage borrower with little income or a bank with a weak income statement, lenders paid little attention to a borrower's ability to repay, instead focusing their lending decisions on the expected continued rise in the value of the collateral and whatever down payment or haircut the lender could secure.<sup>7</sup>

*The pro-cyclical nature of asset-backed lending makes deleveraging difficult and turns liquidity into solvency crises*

As the down payment or haircut, *i.e.* the slice of capital to absorb losses, is correlated with the asset itself, such asset-backed financing is also inherently pro-cyclical. As leverage in the system increases, deleverage during a downturn becomes increasingly difficult, and cannot be achieved by additional borrowing (*i.e.* leverage) as favourable as conditions may be. Thus official efforts to address the crisis by providing emergency liquidity to ailing institutions had limited success as the liquidity crisis became one of insolvency. This thin and shifting line between illiquidity and insolvency can be very hard or impossible to define in times of crisis.

*Increasing leverage leads to a build-up of overcapacity and is accompanied by asset-liability mismatches...*

The expansion of the balance sheets of 'traditional' banking sectors in the US and in Europe, of the 'shadow banks' (including off-balance sheet vehicles), of near-bank financial institutions, of monoline insurers, of hedge funds, of private equity funds and of other financial institutions have resulted in serious overcapacity in the provision of credit and other financial products. And these entities have not only become highly leveraged, but are also subject to asset-liability mismatches with respect to maturity, liquidity, currency denomination and other payoff-relevant characteristics. This makes them highly vulnerable to risks of failure in times of crisis. Banks' debt-equity ratios

are particularly high in Europe and have in many cases increased significantly over the past few years – an increase in balance sheet leverage not always well reflected in (low and declining) prudential risk ratios which are more closely observed by regulators (Table 3).

*...thus financial intermediation will have to improve to restore efficiency, confidence and stability*

The massive and excessive growth of the financial sector has led to an excess supply of financial services and products and an unprecedented degree of financial intermediation, with few direct transactions between ultimate savers and ultimate investors remaining. Many studies examining the finance-growth nexus find financial intermediation to be efficiency-enhancing, but it is harder to establish limits to such efficiency-enhancement and evidence for an optimum. Even so, it remains doubtful whether the massive profits and capital gains generated in the financial sector over the past few years all served to improve efficiency, and were not just “unproductive churning”.<sup>8</sup> Thus, the nature of intermediation would have to change in order to restore efficiency. As a result of the crisis, there will no doubt be some shrinkage in the overall volume of credit activity and some reduction in the information gaps that have opened up between ever increasing layers of financial intermediaries. This should also have positive effects on confidence and stability.

Table 3. Selected banks' debt-equity *versus* capital adequacy ratios

Total liabilities (net of equity) over common shareholders' equity *vs.* prudential ratios of largest G10 banks<sup>a)</sup>

	Total liabilities over common shareholders' equity			Capital Adequacy Ratios (in per cent)					
				Total capital			Tier 1		
	2007	2006	2005	2007	2006	2005	2007	2006	2005
United States	11.6	10.5	10.7	13.4	13.8	13.8	10.5	11.0	10.7
Japan	23.0	28.7	36.2	11.9	11.0	10.6	9.5	19.5	10.0
Germany	48.0	36.1	32.5	11.7	11.0	11.9	8.2	7.2	8.1
France	31.5	28.8	30.4	9.5	9.7	10.2	7.6	8.5	7.9
Italy	12.0	15.7	16.4	10.1	10.5	10.5	7.9	8.1	8.0
United Kingdom	28.5	24.0	24.2	12.5	12.3	12.0	8.3	8.2	7.9
Canada	23.8	22.6	22.7	12.3	12.9	12.7	9.5	10.3	9.9
Belgium	26.9	29.9	30.7	10.3	10.9	11.1	9.1	8.5	9.0
Netherlands	14.7	16.6	17.2	12.0	13.7	13.5	9.0	10.0	9.4
Sweden	23.9	23.8	25.0	9.8	10.1	10.3	7.0	7.2	7.1
Switzerland	37.7	33.1	33.2	14.2	16.1	14.9	14.2	15.8	18.0

a) Based on banks contained in respective countries' Datastream bank indices. Prudential ratios may not be representative and may not be fully comparable to other data categories due to missing values in reported prudential ratios for some institutions in the respective index.

Source: Thomson Financial, Worldscope, OECD.

## 2. Confidence, consistency and bailouts

*A lender of last resort is necessary to restore confidence...*

When the crisis first struck in August 2007, central banks on both sides of the Atlantic stepped in quickly to provide liquidity to a frozen money market, where banks had stopped lending owing to doubts about the quality of the widely used collateral, asset-backed commercial

paper (ABCP), which had become tainted by increasing mortgage defaults. As lenders-of-last-resort (LOLR), central banks succeeded in calming the markets somewhat, but not in regaining a sense of normal market functioning. Banks continued to hoard cash above normal levels; illiquidity reflected a serious lack of confidence, the result of fear of insolvency.

*...but not sufficient if  
trust in the system  
overall is low...*

Later, in the wake of Bear Stearns' collapse in March 2008 (*i.e.* the organised takeover by JPMorgan), the Fed created the Primary Dealer Credit Facility and the Term Securities Lending Facility, permitting financially distressed primary dealers to borrow from the Fed (overnight and at one month maturities, respectively) against illiquid collateral, and similar discount window operations were implemented by the ECB. While it was thought that this would abate the risk of fire-sales of assets and prevent further big bank failures, ensuing events proved otherwise. In a system in which the pricing of collateral becomes a matter of guesswork, confidence disappears.

*...and need to be  
complemented by asset  
purchases and capital  
injections*

The lack of trust keeps the volume of transactions low, and low liquidity will further impede price discovery and undermine confidence. In this case, LOLR operations are not sufficient on their own to break the vicious cycle, and need to be complemented by other support measures such as comprehensive guarantees and/or measures that reduce the level of illiquid ('toxic') assets and reduce leverage by restoring the capital base of affected institutions. These types of policies are part of the packages described in Box 1 and are briefly discussed below.

*Policies need to be  
predictable and time  
consistent...*

While in a crisis situation ad-hoc policy measures may be necessary, discretionary policies are problematic. As they feed back into economic or market behaviour, they may create instability and unwanted, suboptimal long-run outcomes, such as increased moral hazard and excessive risk-taking in expectation of a bail-out.<sup>9</sup> But then again, rule-based policies lack credibility if the short-run economic or political costs of sticking to them, for example during a crisis, are too high. Economic agents will take this into account and behave as if the rule didn't exist, which makes sticking to the rule even harder (more costly) for the policy maker.<sup>10</sup>

*...in particular with  
respect to rescue  
policies*

For example, announcing a no-bailout policy should deter excessive risk-taking, but letting a systemically important bank fail can be very costly. Knowing this, large banks would tend to engage in potentially higher-yielding but riskier projects and render the announced rule powerless. One solution then is to complement the rule by an enforcement policy that deters behaviour that could lead to excessive risk taking and higher risk of failure, such as tighter regulation and enforcement. However, tighter regulations are thought to be economically costly (control costs as well as foregone benefits from innovation) and in the end may not avoid the 'worst case' scenario.

Thus, rules should be designed in a way that they include explicit conditions and procedures for rescues in well-defined crisis situations, including imposing negative incentives on the beneficiaries of the rescue (*e.g.* restrictions on compensation of managers of restructured institutions).<sup>11</sup>

*Lehman's case had investors wrong guessing...*

Many investors appeared to expect some kind of rescue of the US investment bank Lehman, on grounds that it would be considered as 'systemically important', and thus, would not be allowed to fail. Bear Stearns, for which a takeover had been arranged some months before, was probably viewed as a model for likely future procedures. In this context, the rescue of the GSEs Fannie Mae and Freddie Mac was no surprise as an implicit government guarantee was in place and thus strongly expected in case of difficulties.

*...and left unclear the future of the stand-alone investment bank model*

With Lehman's demise the viability of the stand-alone investment bank model was seriously in doubt.<sup>12</sup> Investors also became unsure about the extent of the counterparty risk of investment banks' broker-dealer units. To abate such fears, immediately following Lehman's bankruptcy filing announcement, J.P. Morgan provided funds (USD 138 billion) to Lehman's broker-dealer unit to settle securities transactions with customers and clearance parties. The sale of investment bank Merrill Lynch to Bank of America was announced the same day. In a pre-emptive move, on September 21, a week after Lehman's bankruptcy filing, the remaining major investment banks and biggest prime brokers, Morgan Stanley and Goldman Sachs, converted to bank holding companies with the Fed's approval. This status made them subject to more regulation, but provided readier access to liquidity through the Fed's discount window.<sup>13</sup> Previously, investment banks had tried to fend off attempts to regulate them more tightly, so the decision by the banks to convert to holding companies made some observers speculate whether the Fed would seek to regulate hedge funds as well, as some of the largest funds closely resemble investment banks.<sup>14</sup>

*Explicit rules covering rescues should be established...*

If credibility is lacking, changing tack (from the market's point of view) and sticking to a rule that markets do not believe in can become very costly (and economically suboptimal). This difficulty became evident in the UK experience with the Northern Rock bailout in 2007. Probably such considerations led to the subsequent rescue of faltering insurer AIG, which then was explicitly tagged as systemically important and 'too interconnected', and were behind the more structural measures (TARP/EESA) that followed.

*... and avoid undermining the credibility of other rules*

Establishing exceptions from the rules under exceptional circumstances (and penalties) should also encompass, or make explicit reference to, related rules or polices. For example, in many recent policy actions, antitrust rules (large bank mergers) had been temporarily put aside for the sake of financial stability. Even though most of them were based on explicit exceptions, *e.g.* Lloyds TSB's takeover of HBOS citing

“public interest”,<sup>15</sup> such exceptions may need to be better clarified. On the matter of clearer definition, it is interesting to note that EU ministers already in October 2007 called for clarifying whether a banking crisis could be considered as “a serious disturbance for the economy” (under the EU Treaty and State aid rules) and asked the European Commission to consider streamlining procedures focusing on how State aid enquiries under such critical circumstances can be treated rapidly.<sup>16</sup>

Table 4. Some banks weigh heavy in their home economy

Weight in the national economy of selected systemically important globally active banks:  
selected balance sheet items, stock-market listed institutions only, end-2007

NAME	Country	Total assets	Total assets in per cent of GDP	Total liabilities in per cent of GDP	Demand, savings and other time deposits in per cent of GDP	Common shareholders' equity in per cent of GDP	Total liabilities over common shareholders' equity (leverage ratio)	Capital Adequacy Ratio – Tier 1	Capital Adequacy Ratio – Total Capital	Cash dividends paid - total in per cent of common shareholders' equity	Memo item: Loss in market value from end of 2007 to 19-Dec-08 in per cent
UBS 'R'	Switzerland	2,004.7	479.7	470.7	23.1	7.52	62.6	8.8	12.0	12.0	-61.1
KAUPTHING BANK	Iceland	85.2	410.1	382.7	106.0	26.53	14.4	9.6	11.8	3.0	-61.0
CREDIT SUISSE GROUP N	Switzerland	1,196.8	286.4	273.7	90.1	9.13	30.0	11.1	14.5	5.8	-57.7
FORTIS (BRU)	Belgium	1,270.0	284.3	273.1	69.4	10.81	25.3	9.5	10.1	5.9	-93.6
ING GROEP	Netherlands	1,906.3	248.9	242.1	-	6.33	38.3	0.0	0.0	9.2	-76.9
DANSKE BANK	Denmark	656.6	213.3	206.7	-	6.64	31.1	6.4	9.3	5.1	-74.8
ESPIRITO SANTO FINL.GP.	Luxembourg	104.2	212.6	196.6	62.7	2.59	75.9	7.1	10.6	24.8	-55.8
DEXIA	Belgium	882.3	197.5	192.2	53.6	4.75	40.4	9.1	9.6	6.9	-86.2
ROYAL BANK OF SCOTL.GP.	United Kingdom	3,777.3	134.4	127.9	48.3	3.75	34.1	7.3	11.2	6.4	-71.1
NORDEA BANK	Sweden	567.8	126.8	121.2	56.5	5.57	21.8	7.0	9.1	7.3	-56.2
KBC GROUP	Belgium	518.7	116.1	110.1	50.3	5.62	19.6	8.5	12.2	6.8	-76.7
BANK OF IRELAND	Ireland	276.0	107.2	103.4	39.6	3.81	27.1	8.2	11.8	8.0	-93.6
ALLIED IRISH BANKS	Ireland	259.7	100.9	93.9	41.0	5.58	16.8	7.5	10.1	7.0	-90.0
BNP PARIBAS	France	2,474.8	96.8	93.4	25.0	3.08	30.4	7.3	0.0	5.4	-60.7
BANCO SANTANDER	Spain	1,318.8	92.9	87.0	30.2	5.69	15.3	7.7	12.7	6.3	-43.6
DEUTSCHE BANK	Germany	2,946.8	90.1	88.3	20.5	1.66	53.4	8.6	11.6	5.4	-69.4
BARCLAYS	United Kingdom	2,440.3	86.8	84.5	20.9	1.65	51.2	7.6	11.2	11.0	-72.1
HSBC HDG. (ORD \$0.50)	United Kingdom	2,356.6	83.8	79.0	-	4.52	17.5	9.3	13.6	4.7	-44.2
SEB 'A'	Sweden	362.6	81.0	78.3	14.2	2.64	29.6	8.6	11.0	5.3	-71.9
CREDIT AGRICOLE	France	2,064.1	80.8	78.1	17.5	2.33	33.6	8.1	8.6	4.7	-56.0
ERSTE GROUP BANK	Austria	292.5	80.0	75.4	40.0	3.38	22.3	7.0	10.5	2.4	-73.6
UNICREDIT	Italy	1,482.9	71.5	67.1	21.5	4.07	16.5	6.6	10.1	4.3	-70.1
DNB NOR	Norway	271.4	70.4	66.8	25.7	3.50	19.1	7.6	10.2	7.3	-76.4
SVENSKA HANDBKN.'A'	Sweden	287.7	64.2	61.7	17.7	2.57	24.0	6.2	9.8	6.7	-49.5
SOCIETE GENERALE	France	1,562.3	61.1	59.3	21.2	1.56	38.1	6.6	0.0	8.8	-56.8
BCP 'R'	Portugal	127.9	58.1	54.9	25.8	2.40	22.8	5.5	9.6	8.5	-67.7
SWEDBANK 'A'	Sweden	248.8	55.6	53.2	14.0	2.35	22.6	6.2	9.3	6.3	-79.6
ANG.IR.BK.	Ireland	141.2	54.9	52.6	29.9	2.30	22.8	8.6	12.0	2.1	-97.0
NATIONAL AUS.BANK	Australia	494.7	53.7	50.8	19.8	2.40	21.1	6.7	10.0	11.6	-52.7
BBV.ARGENTARIA	Spain	727.6	51.3	48.4	18.6	2.79	17.4	6.8	10.7	9.0	-50.8
STRAMUR-BUROARAS	Iceland	10.4	50.2	39.2	-	10.97	3.6	0.0	23.7	5.3	-75.4
HBOS	United Kingdom	1,327.6	47.2	45.5	-	1.53	29.7	7.4	11.1	8.1	-77.4
BANCO ESPIRITO SANTO	Portugal	99.9	45.4	42.2	17.4	3.10	13.6	7.5	11.5	5.0	-59.3
NATIONAL BK.OF GREECE	Greece	131.7	42.6	39.0	-	3.06	12.7	9.2	10.2	8.8	-75.2
ROYAL BANK CANADA	Canada	607.0	42.0	40.2	12.9	1.57	25.6	9.4	11.5	10.2	-42.2
COMMONWEALTH BK.OF AUS.	Australia	372.5	40.4	38.1	13.8	2.19	17.4	7.14	9.76	9.9	-61.0
INTESA SANPAOLO	Italy	835.1	40.3	36.6	14.0	3.64	10.1	6.5	9	9.6	-54.8
MITSUBISHI UFJ FINL.GP.	Japan	1,674.1	40.1	37.9	-	1.62	23.4	7.57	12.54	1.4	-28.9

Note: Ranked by total assets as a share of GDP.

Source: Thomson Financial, Worldscope, OECD.

*Institutions 'too big to fail' and 'too big save' need co-ordinated international support*

Financial support, and stepping in as LOLR is essential for weak institutions which are systemically important and interconnected ('too big to fail'), and examples for such policy actions during this crisis are many. However, many systemically important, globally active financial institutions reside in relatively small countries and have reached such huge dimensions that rescue operations aimed at these institutions are beyond the capacity of the home country's central bank or fiscal authority (see Table 4). Thus, some of these institutions need to receive co-ordinated international support in order to make a rescue operation successful. As the recent Icelandic crisis has shown, it is problematic if

such international policies are not set up in advance, before a crisis erupts, perhaps in the form of guarantees or insurance. To have such guarantees in place beforehand could prevent bank runs and even nip a crisis in the bud.

*Stigmatisation in rescues should be avoided for stability reasons*

During a crisis situation it may be necessary for authorities to open special discount window facilities, offer to purchase ‘toxic’ assets, and provide capital injections. But for the affected institutions it can be problematic to take advantage of such assistance as they may become ‘stigmatised’ and risk being punished by depositors (with bank runs) and the market (bidding down share prices), and may thus get caught in a vicious self-fulfilling prophecy of failure the policy action was meant to avert. While such stigmatisation cannot be fully avoided, there are various ways to attenuate the problem. For example, authorities can make conditions so attractive that taking assistance may look like taking a good business opportunity, as was done in the US.<sup>17</sup> In France, officials emphasised that banks were given assistance not because they were weak, but with the obligation to increase lending to business and consumers, thus it was just another (indirect) form of fiscal stimulus.<sup>18</sup> In Germany, the government softened some elements of its bank rescue scheme (including a ban on dividend payments and caps on executive pay) over fears that banks using it would be stigmatised.<sup>19</sup>

*Rescues through asset purchase...*

One basic question for authorities providing assistance to banks is the form in which banks’ balance sheets should be aided.<sup>20</sup> The initial TARP proposal was designed to remove the subprime related ‘toxic assets’ from weak financial institutions’ balance sheets, and help price discovery through reverse auction purchases by the government, thus rebuilding a market in these otherwise illiquid assets. However, given the weak balance sheets of many of the institutions concerned, there was a fear that such price discovery, if at too low a level, could force the banks into further write-downs and leave them too thinly capitalised. Under such circumstances, banks would have difficulties in raising private capital, which could make official capital injections necessary. On the other hand, if authorities intended to overpay for these assets in order to boost weak institutions’ balance sheets, it would give them the wrong incentive and reward the shareholders of those banks that had taken the most risk (and would be more costly for taxpayers).

*...equity participation or guarantees*

While under these circumstances equity injections seem to be a more efficient way to use the funds of a financial assistance programme, there remains a problem with debt overhang: a highly indebted entity issuing equity also raises the value of its risky debt, which puts existing equity holders in a worse position. Another form of assistance is government guarantees for (bad) debt, thus abating the risks of speculations against the bank. In order to avoid moral hazard, such guarantees should be issued against fees or other conditions. But guarantees do not address the underlying problem and may, for weak institutions, have to be used in conjunction with other forms of support.

*Government investors may want to consider an exit strategy as banks' shareholders...*

*... or stay invested via an independent vehicle*

*Restrictions for short-selling were introduced ad-hoc...*

*...in the United States...*

*...and elsewhere...*

Finally, if governments become shareholders of banks, they may want to give incentives to banks to replace the government with private shareholders once the turmoil has abated, while seeking to recover their initial investments. Terms that make it preferable to seek private sector support can include expensive preference shares and restrictions on dividends. For example, in the current capital purchase programme of TARP there are certain provisions which tend to increase the cost over time to the institutions of having government shareholders as opposed to private shareholders.<sup>21</sup>

Governments may also want to find more indirect ways of staying invested in banks. One approach that has been proposed is the use of special funds ('sovereign wealth funds'). Ideally, such funds should be set up with a governance structure that guarantees independence from government. For example, the French government has recently planned to set up a fund to (strategically) invest in selected domestic industries.<sup>22</sup> Such funds, especially if they invest internationally, would have to follow the recently established codes of conduct for sovereign wealth funds.<sup>23</sup>

### ***3. Consistency of short-selling rules***

Another example of unexpected policy interventions during this crisis was the suspension of short-selling. In June 2007, the US Securities and Exchange Commission (SEC) announced measures to ban naked short-selling (whereby a stock is sold short without first obtaining it<sup>24</sup>) and introduced a temporary new rule to this effect.<sup>25</sup> This new rule, intended to prevent a run on banks, was in effect for 17 trading days and sparked a rally in some shares, but could not prevent further declines after it expired on 12 August. Academic studies and evidence gathered by the SEC showed that this emergency act had the unintended consequence of curtailing legitimate short selling in addition to naked short selling.

In September 2008, when volatility was high and financials tanked, the SEC prohibited short selling of shares of initially 799 financial companies completely, albeit temporarily (announced until 2 October), in a move that was meant to "protect the integrity and quality of the securities market and strengthen investor confidence."<sup>26</sup> The list was later extended to more than 900 firms, and so was the ban,<sup>27</sup> which came to an end three days after the EESA was signed.

Similar bans were introduced around the world around the same time. In the United Kingdom, the FSA prohibited short selling for financial companies,<sup>28</sup> and the Australian Securities and Investments Commission banned short selling completely in a ruling now extended to be in effect until 18 November 2008.<sup>29</sup> The Spanish market regulator CNMV (*Comisión Nacional del Mercado de Valores*) required investors to notify it of any short positions in financial institutions, if they exceed 0.25% of a company's share capital.<sup>30</sup>

*...should follow clear rules in order to avoid further market disruptions*

While these measures were expected to instil confidence in the market and prevent further declines in financial institutions' stock prices, they also had some unwelcome effects. Hedge funds, the strategies of which are largely based on short-selling, lost heavily during the bans. It may be too early to measure the full market impact of the restrictions, but reduced liquidity may have contributed to increased volatility. In particular, statistical arbitrage hedge funds, widely seen as providers of liquidity and smoothing price moves, stopped many deals as their models rely on short positions to offset the risk of long positions.

*An uptick rule would be helpful*

While from a structural perspective short selling can be seen as beneficial in that it provides liquidity and enhances price discovery, under severe market stress, drastic immediate measures to restrict short selling may be justified. However, such ad-hoc measures may have damaging effects for the long-run confidence in the market. For example, the confidence in regulation lets US markets generally enjoy higher premiums than many emerging markets. Rules that incorporate and foresee restrictions on short selling when a stock is falling, like the "uptick rule" which was in effect in the US until 6 July 2007, or perhaps a slightly more stringent measure, would be more helpful and avoid the problem of time inconsistency.<sup>31</sup>

*Incentives to stop lending to short-sellers as market-based contribution to restrict short-selling*

During a downward trend, there is also less incentive for large shareholders to lend stock to short sellers which would further undermine their value. Thus, in addition to or in support of the efforts by regulators to restrict short selling, large institutional investors reduced or stopped lending bank shares. Prime brokers and lenders reported in September that several big US, British and European investors, including major pension funds, had suspended all or part of their stock lending activities, in particular, with regard to their holdings of shares of Goldman Sachs and Morgan Stanley. Some of these investors were even pushing for a wider boycott to help shore up confidence in the banks.

#### IV. Selected reform proposals and areas of reform

##### 1. Major actors to propose financial sector reforms

*Various reform proposals by the industry...*

Since the subprime crisis broke out last summer, regulators and other official authorities as well as the financial industry started to draft – or intensified existing work on – reform proposals to address shortcomings in management, corporate structure, and the regulatory environment which were identified as underlying causes of the crisis. Among the most pertinent proposals by the industry in response to the crisis are those of the Institute of International Finance (IIF; see Box 2) and the so-called "Corrigan Report" of the Counterparty Risk Management Policy Group III (see Box 6).

### Box 2. Institute of International Finance: Main Proposals

In October 2007, recognising the depth of the global financial market turbulence and the need for the industry to support policy makers in their efforts to restore confidence in markets, regain credibility of the industry and avert future crises, the IIF Board of Directors established a *Committee on Market Best Practices* mandated to develop ways to address market weaknesses and rebuild confidence. The establishment of the Committee was also intended to facilitate the industry's co-operation with the official sector, the need for which was recognised by both sides.

In July 2008, the Committee concluded its work with the presentation of the *Final Report of the Committee on Market Best Practices: Principles of Conduct and Best Practice Recommendations – Financial Services Industry Response to the Market Turmoil of 2007-2008*. It represents the broad agreement of the Committee, endorsed by the IIF Board of Directors and other IIF member firms, on the need to address the many shortcomings highlighted by the market turbulence. The *Principles of Conduct, Best Practice Recommendations, and Considerations for the Official Sector* (section D of the Report) cover six key topics with their more specific issues; longer-term proposal regarding market monitoring are presented at the end of the Report (section E):

- **Risk management;** including issues of (i) Governance and risk culture, (ii) risk appetite, (iii) the role of the Chief Risk Officer, (iv) risk models and integration of risk-management areas, (v) securitization and complex structured products, and (vi) stress testing.
- **Compensation policies,** mainly avoiding incentives for excessive risk-taking, also through deferred or equity-related components of pay, and aligning incentives with shareholder interests and long-term, firm-wide profitability.
- **Liquidity risk, conduit, and securitisation issues,** addressing challenges of (i) liquidity-risk management, (ii) internal transfer pricing, (iii) liquidity-risk stress testing, and (iv) market liquidity; (v) considerations for the official sector with a view to international harmonisation of and clearer communication on central banks' liquidity provisions, and expansion of eligible collateral for central bank lending; and (vi) taking better account of structured finance off-balance sheet vehicles in liquidity planning, liquidity-risk management, and exposure tracking.
- **Valuation issues,** covering (i) management and governance of the valuation process, (ii) infrastructure for price discovery, (ii) valuation in illiquid and volatile markets, and (iii) the need for technical and high-level dialogues on these issues
- **Credit underwriting, ratings, and investor due diligence in securitisation markets,** addressing:
  - i. *Originators/Sponsors, Underwriters, and Distributors*, with the problem of (a) underwriting standards and (b) considerations for the official sector to review disclosure restrictions for critical data on credit underwriting which would be helpful for risk detection.
  - ii. *Rating Agencies*: (a) improving structured product rating reports, (b) establishing internal processes and monitoring of rating models, (c) establishing external review of the rating process, (d) Introducing different rating symbols or a scale for structured products.
  - iii. *Investors*: (a) enhancing investor due diligence, and (b) considerations for the official sector to reduce investors' over-reliance on ratings by reviewing and revising regulations that may create artificial requirements or inducements for investors to rely on credit ratings.
- **Transparency and disclosure issues:** At the
  - i. *Structured product level*: the need for (a) short-form summaries of offer documents highlighting key characteristics, (b) global harmonisation of market definitions and structures, and (c) development of harmonised principles for transparency and disclosure, as well as (d) adoption of common platforms and technology; and (e) support by the official sector to improve transparency via regulatory and accounting rules (e.g. clear and consistent accounting standards for structured products, without significant divergence between accounting and financial reporting standards).
  - ii. *Financial institution level*: (a) firms need to provide more useful – meaningful and comparable – disclosure to their shareholders, counterparties, and regulators regarding their overall, direct and indirect, exposures to securitised products, including risk profile, risk management and strategy, as well as valuation uncertainties and sensitivities; and funding requirements for off-balance-sheet vehicles; (b) the official sector needs to work with industry and market participants to improve market understanding of Pillar 3 disclosure; to be meaningful, requirements for risk disclosure should adopt a risk- and principles-based approach to qualitative and quantitative information.

### Box 2 (cont'd). Institute of International Finance: Main Proposals

- **Systemic Risks:** The IIF Board of Directors approved the formation of a **Market Monitoring Group** (MMG), under the auspices of the IIF. The MMG will serve as a forum for member firms to monitor global financial markets for early detection of vulnerabilities having systemic implications, to examine market dynamics that could lead to financial market strains, and to discuss ways to address such risks.

Source: Institute of International Finance (IIF), *Final Report of the IIF Committee on Market Best Practices: Principles of Conduct and Best Practice Recommendations*, available at [www.iif.com](http://www.iif.com).

*...as well as official authorities and international standard-setting bodies...*

The major official responses are co-ordinated by the Financial Stability Forum (FSF; see Box 3) which includes governments of major economies, international organisations working in the area of financial markets, and international standard-setting bodies and other groupings in the financial field. The FSF also engages in dialogue with the private financial sector and other relevant stakeholders. As a representative overview for government's proposals, those by the US President's Working Group on Financial Markets are summarised in Box 4, and the European Union's Roadmap for strengthening financial stability is outlined in Box 5. Of the international standard-setting bodies and other groupings gathered at the FSF, the Basle Committee on Banking Supervision (BCBS), for example, has contributed with proposals to improve liquidity risk management and supervision.<sup>32</sup>

*...arrive at similar conclusions regarding causes of and remedies for the crisis*

All these analyses and reform proposals – also due to the fact that they are based on communication, co-operation and co-ordination among major players in this field – arrive at similar conclusions with regard to the underlying causes of the crises (as outlined above) and the major areas of reform that are necessary to safeguard financial soundness and stability in the future. However, recommendations on how to achieve and implement reform in these areas may differ. Selected key issues addressed in these reform proposals are risk awareness and risk management (including liquidity risk), counterparty risk, transparency and valuation and will be briefly outlined in the following paragraphs. Some of the far-reaching, more systemic and long-term regulatory reform issues will be raised in the following section V.

### **Box 3. Financial Stability Forum: Recommendations and implementation**

On 10 October 2008, the Financial Stability Forum (FSF) presented to the G7 Finance Ministers and central bank Governors a follow-up report to its April *Report on Enhancing Market and Institutional Resilience*. The follow-up report reviews the implementation of the comprehensive set of consensus recommendations set forth by the April report. The proposed actions intend to address financial system weaknesses that are at the root of the present turmoil and to build a more resilient financial system. A well-defined process was created for follow-up the concrete actions in the following five areas for which recommendations were made (relevant main actors to help implementing them in parentheses):

#### **I. Strengthening prudential oversight of capital, liquidity and risk management**

##### ***Capital requirements***

- The Basle II capital framework needs timely implementation. Supervisors will assess the impact of the implementation (national supervisors, BCBS - Basle Committee on Banking Supervision).
- Supervisors will strengthen the Basle II capital treatment of structured credit and securitisation activities (BCBS, IOSCO - International Organization of Securities Commissions).
- Supervisors will continue to update the risk parameters and other provisions of the Basle II framework as needed (national supervisors, BCBS).
- Authorities should ensure that the capital buffers for monoline insurers and financial guarantors are commensurate with their role in the financial system (national supervisors, IAIS - International Association of Insurance Supervisors).

##### ***Liquidity management***

- Supervisors will issue for consultation sound practice guidance on the management and supervision of liquidity by July 2008 (BCBS, national supervisors, central banks).

##### ***Supervisory oversight of risk management, including of off-balance sheet entities***

- Supervisors will use Pillar 2 to strengthen banks' risk management practices, to sharpen banks' control of tail risks and mitigate the build-up of excessive exposures and risk concentrations (national supervisors, BCBS).
- Relevant regulators should strengthen the requirements for institutional investors' processes for investment in structured products (national regulators).
- The financial industry should align compensation models with long-term, firm-wide profitability. Regulators and supervisors should work with market participants to mitigate the risks arising from inappropriate incentive structures (national regulators, supervisors).

##### ***Operational infrastructure for OTC derivatives***

- Market participants should act promptly to ensure that the settlement, legal and operational infrastructure underlying OTC derivatives markets is sound (market participants, financial industry).

#### **II. Enhancing transparency and valuation**

##### ***Risk disclosures by market participants***

- Financial institutions should strengthen their risk disclosures and supervisors should improve risk disclosure requirements under Pillar 3 of Basle II (financial institutions, financial industry representatives, auditors, BCBS).

##### ***Accounting and disclosure standards for off-balance sheet entities***

- The IASB should improve the accounting and disclosure standards for off-balance sheet vehicles on an accelerated basis and work with other standard setters toward international convergence (IASB).

##### ***Valuation***

- International standard setters should enhance accounting, disclosure and audit guidance for valuations. Firms' valuation processes and related supervisory guidance should be enhanced (IASB, financial institutions, BCBS, IAASB - International Auditing and Assurance Standards Board, major national audit standard setters, relevant regulators).

##### ***Transparency in securitisation processes and markets***

- Securities market regulators should work with market participants to expand information on securitised products and their underlying assets (originators, issuers, arrangers, distributors, managers and credit rating agencies (CRAs), investors and their asset managers, securities market regulators, market participants).

**Box 3 (cont'd). Financial Stability Forum: Recommendations and implementation****III. Changing the role and uses of credit ratings*****Quality of the rating process***

- Credit rating agencies (CRAs) should improve the quality of the rating process and manage conflicts of interest in rating structured products. (IOSCO, CRAs, authorities).

***Differentiated ratings and expanded information on structured products***

- CRAs should differentiate ratings on structured finance from those on bonds, and expand the initial and on-going information provided on the risk characteristics of structured products (CRAs).

***CRA assessment of underlying data quality***

- CRAs should enhance their review of the quality of the data input and of the due diligence performed on underlying assets by originators, arrangers and issuers involved in structured products (CRAs).

***Uses of ratings by investors and regulators***

- Investors should address their over-reliance on ratings. Investor associations should consider developing standards of due diligence and credit analysis for investing in structured products (investors).
- Authorities will review their use of ratings in the regulatory and supervisory framework (international committees, national authorities).

**IV. Strengthening the authorities' responsiveness to risks*****Translating risk analysis into action***

- Supervisors, regulators and central banks – individually and collectively – will take additional steps to more effectively translate their risk analysis into actions that mitigate those risks (national supervisors and regulators, FSF).

***Improving information exchange and co-operation among authorities***

- Authorities' exchange of information and co-operation in the development of good practices will be improved at national and international levels (national supervisors, central banks, large banks).

***Enhancing international bodies' policy work***

- International bodies will enhance the speed, prioritisation and co-ordination of their policy development work (international committees, national supervisors, FSF, IMF – International Monetary Fund).

**V. Putting in place robust arrangements for dealing with stress in the financial system*****Central bank operations***

- Central bank operational frameworks should be sufficiently flexible in terms of potential frequency and maturity of operations, available instruments, and the range of counterparties and collateral, to deal with extraordinary situations (central banks).

***Arrangements for dealing with weak banks***

- Authorities will clarify and strengthen national and cross-border arrangements for dealing with weak banks (national supervisors, central banks, governments, BCBS).
- Authorities will review and, where necessary, strengthen deposit insurance arrangements (national authorities).
- Authorities will strengthen cross-border co-operation in crisis management (national supervisors, central banks).

*Note:* The Financial Stability Forum (FSF) was convened in April 1999 to promote international financial stability through information exchange and international co-operation in financial supervision and surveillance. Its members are major central banks and supervisory authorities, international organisations (BIS, ECB, IMF, OECD, World Bank) and international standard-setting bodies and other groupings (BCBS, CGFS, CPSS, IAIS, IASB, IOSCO).

*Source:* Financial Stability Forum (FSF), *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience: Follow-up on Implementation*, 10 October 2008, available at [http://www.fsforum.org/press/pr\\_081009f.pdf](http://www.fsforum.org/press/pr_081009f.pdf).

**Box 4. US President's Working Group on Financial Markets: Policy Statement Recommendations**

In March 2008, the US President's Working Group on Financial Markets (PWG) issued its “*Policy Statement on Financial Market Developments*” containing an analysis of underlying factors contributing to the current market turmoil. The PWG found that the **principal underlying causes of the turmoil** in financial markets were: (i) a **breakdown in underwriting standards** for subprime mortgages; (ii) a significant **erosion of market discipline** by those involved in the securitisation process, including originators, underwriters, credit rating agencies, and global investors, related in part to failures to provide or obtain adequate risk disclosures; (iii) **flaws in credit rating agencies' assessments** of subprime residential mortgage-backed securities (RMBS) and other complex structured credit products, especially collateralised debt obligations (CDOs) that held RMBS and other asset-backed securities (CDOs of ABS); (iv) **risk management weaknesses** at some large US and European financial institutions; and (v) **regulatory policies**, including capital and disclosure requirements, that failed to mitigate risk management weaknesses. To address those weaknesses, the PWG issued a comprehensive set of recommendations, with the broader objectives of mitigating systemic risk, helping to restore investor confidence, and facilitating economic growth, summarised as follows:

**Mortgage origination**

- State financial regulators should implement strong nationwide licensing standards for mortgage brokers.
- Federal and state regulators should strengthen and make consistent government oversight of mortgage originators.
- The Federal Reserve should issue stronger consumer protection rules and mandate enhanced disclosures regarding mortgage affordability and to facilitate comparison of mortgage products.
- Federal and state authorities should co-ordinate to enforce consumer protection and disclosure rules across all types of mortgage originators.
- Federal and state authorities should pursue fraudulent mortgage activities.

**Investors' contributions to market discipline**

- Overseers of institutional investors should require investors to obtain better information about securitised credits.
- Overseers should ensure that investors develop an independent view of risk and do not rely just on credit ratings.
- Sponsors of securitised products should disclose rating shopping and explain selective publication of preliminary ratings.
- Underwriters and sponsors of structured products, asset managers and financial institutions, including those running conduits, should improve disclosures to investors.
- Investors should take account of differences in risk between different classes of instruments.
- Investors should insist that consultants have an independent view of risk.
- The American Securitization Forum (ASF) should develop templates for disclosure to investors for other types of securitisations. Supervisors should encourage disclosure consistent with the templates.
- A private-sector group should be formed to develop best practices regarding disclosures to investors in securitised credits.
- Public-company sponsors of ABCP programs should increase disclosure of underlying assets.

**Credit ratings**

- CRAs should disclose reviews of originators and the due diligence done by underwriters.
- CRAs should reform their ratings processes for structured credit products to ensure integrity and transparency (conflicts, model assumptions, differentiation, performance, usefulness, monitoring/updating ratings).
- CRAs should be encouraged to conduct reviews of structured credit methodologies.
- IOSCO should be encouraged to revise its “Code of Conduct” to address credit rating issues.
- A private-sector group should be formed to recommend steps to ensure the integrity and transparency of ratings.
- The PWG agencies will revise supervisory policies and regulations that use or reference ratings, including capital requirements.
- The PWG will revisit the need for changes if reforms adopted by CRAs are not sufficient to ensure integrity and transparency of ratings.

#### Box 4 (cont'd). PWG Policy Statement Recommendations

##### **Risk management**

- Firms should promptly identify and address any weaknesses in risk management practices that the turmoil has revealed.
- A private-sector group should be formed to reassess the implementation of CRMPG II and make recommendations.
- Supervisors should ensure that firms address weaknesses in risk management and monitor their efforts.
- Bank regulators and the SEC should assess current guidance and develop common guidance to address the risk management weaknesses revealed by the recent market turmoil.
- US authorities should encourage supervisors of global firms to make complementary effort to develop guidance along the same lines.

##### **Regulatory policy**

- Regulators should improve incentives to hold capital and liquidity cushions against severe market events, through the credit cycle.
- Regulators should enhance guidance on OTD (originate-to-distribute) pipeline risk management.
- BCBS should update liquidity guidance.
- BCBS and IOSCO should review, with a view to increasing, capital requirements on ABS, CDOs and ABCP programs.
- Supervisors should review guidance on reputation risks.
- Supervisors should rigorously assess Basle II applications, including default loss estimates in downturns and the robustness of stress tests.
- Regulators should require better internal and external reporting of off-balance sheet commitments.
- Regulators should require better disclosure of fair value estimates for complex and illiquid instruments.
- State insurance commissioners should review capital requirements for monoline insurers.
- Regulators should distinguish between structured and corporate/muni ratings in rules and policies.
- Authorities should encourage FASB to evaluate the role of accounting standards in the current market turmoil.

##### **OTC derivatives markets**

- Supervisors should insist that the industry promptly sets ambitious standards for trade data and matching.
- Supervisors should urge the industry to provide for cash settlement in credit derivatives documentation.
- Supervisors should request that the industry develop a long-term plan for an integrated operational infrastructure for OTC derivatives that: (a) captures all significant processing events over the entire lifecycle of trades; (b) delivers operational reliability and scalability; (c) maximises the efficiencies obtainable from automation and electronic processing platforms by promoting standardisation and interoperability of infrastructure components; (d) enhances participants' ability to manage counterparty risk through netting and collateral agreements by promoting portfolio reconciliation and accurate valuation of trades; (e) addresses all major asset classes and products types; and (f) encompasses the buy side as well as the dealer community.

In its October *Progress Update on March Policy Statement* the PWG acknowledged that substantial steps toward implementing the Recommendations had been taken by market participants and supervisory authorities, and that co-operation on a domestic as well as international level (in particular through the Financial Stability Forum) was underway. The PWG also noted that implementation should avoid exacerbating strains on markets and institutions, and steps need to be prioritised to address the most immediate problems. Implementation must continue in order to address the abovementioned weaknesses, but the effectiveness of some recommendations will have to be assessed over a longer time period.

Note: The PWG was established in response to events in the financial markets surrounding 19 October 1987 ("Black Monday") to give recommendations for legislative and private sector solutions for "enhancing the integrity, efficiency, orderliness, and competitiveness of financial markets and maintaining investor confidence" (Executive Order 12631, at <http://www.archives.gov/federal-register/codification/executive-order/12631.html>.) The Group consists of the Treasury Secretary (Chairman), the Chairmen of the Fed, the SEC and the CFTC, or their respective designees.

Source: PWG (2008), *Progress Update on March Policy Statement on Financial Market Developments*, US Treasury, October, available at <http://www.ustreas.gov/press/releases/reports/q4progress%20update.pdf>; and PWG (2008), *Policy Statement on Financial Market Developments*, March, available at [http://www.ustreas.gov/press/releases/reports/pwgpolicystatementturmoil\\_03122008.pdf](http://www.ustreas.gov/press/releases/reports/pwgpolicystatementturmoil_03122008.pdf).

### Box 5. European Union: Roadmap for strengthening financial stability

In diagnosing the roots of the financial crisis and analysing measures in order to address the weaknesses identified in the financial system, the European Commission has developed a *Road Map* to strengthen the financial system in the medium and long term, agreed by Economic and Finance Ministers in October 2007. Its priority areas are to improve market transparency, valuation, and prudential requirements and to address the problems related to credit ratings and other market functioning issues. To implement it, the Commission has promptly initiated legislative or other reform actions in a number of areas:

- (i) **Capital Requirements Directive (CRD):** The proposal for amendments to the CRD was adopted on 1 October 2008. This initiative covers critical areas, such as large exposures, supervision of cross-border groups, quality of banks' capital and risk management. It will fundamentally strengthen the regulatory framework for EU banks and the financial system.
- (ii) **Deposit Guarantee schemes:** At the May 2008 ECOFIN Council meeting the Commission was requested to consider the possible enhancement of Deposit Guarantee schemes within the EU. The objective was to ensure their effectiveness in stemming a loss of confidence; and the possible link to early intervention and reorganisation of a financial group, as well as issues related to the sharing of financial burden. In view of this, commitments made by EU Finance Ministers on 7 October in Luxembourg led to a proposal by the Commission on 15 October 2008 to revise the existing Deposit guarantee directive. The proposal includes (1) increasing deposit guarantee protections for individuals to at least EUR 100 000, (2) a radical shortening of the payout delays, and (3) abolishing "co-insurance".
- (iii) **Accounting.** In order to mitigate the consequences of the financial turmoil, the Commission, with the unanimous support of Member States, adopted on 15 October 2008 IASB amendments to accounting standards (IAS 39 and IFRS 7) introducing a higher flexibility in the reclassification of financial instruments.
- (iv) **Credit Rating Agencies.** The Commission is currently finalising a legislative proposal concerning the conditions for the authorisation, operation and supervision of credit rating agencies in the EU for adoption in early November.
- (v) Other identified issues, such as **enhancing transparency in the structured product market**, have been addressed by other initiatives than legislation. The Commission has played a major role in ensuring that the financial industry comes forward with robust statistical data and investor information in the area of securitisation.
- (vi) The Commission is also working with the **implementation of the Lamfalussy Review Roadmap**, following the Council conclusions of December 2007 and May 2008, to promote supervisory convergence and co-operation within the EU.
- (vii) The **supervision of insurance** companies and groups is also in the process of being reinforced as a result of the Commission's proposal on Solvency II. The directive should modernise the solvency rules for EU insurance companies and strengthen the supervision of cross-border insurance groups.
- (viii) **Future of European supervision:** The Commission has also decided to establish a High Level Group on cross-border supervision under the chairmanship of Jacques de Larosière.
- (ix) The **Financial Stability Roadmap** a third roadmap with the objective of improving the co-ordination of financial crisis management among Member States in the future, was agreed by the September 2007 ECOFIN Council. The principles on crisis management that were agreed upon have formed a basis for an EU Memorandum of Understanding which have been signed and are under implementation in Member States.
- (x) The Commission will urgently pursue its work on **early intervention mechanisms** to develop the cross-border management toolkit, with the intention of publishing a White Paper in the first half of 2009.

The Commission is ensuring that the work is internationally co-ordinated. This was already the case with the Turmoil Roadmap, which is in line with the recommendations of the *Financial Stability Forum*. The Commission will continue to work with the international partners of the European Union to reform the global financial system based on the principles of transparency, financial stability, responsibility, integrity and global governance.

Source: European Commission.

## **2. Risk culture and risk management**

***Shortcomings in risk management exacerbated the crisis***

Shortcomings in risk management were diagnosed by many observers as one of the major factors underlying the crisis. Even though the triggering event – the sharp increase in (subprime) mortgage defaults – was outside the control of most of the companies that took a hit (except the banks that directly endorsed the poor underwriting standards of mortgage brokers or engaged in such poor underwriting themselves), by engaging in ventures that ultimately exposed them to risks buried in a panoply of – often little-understood – mortgage-backed products, deficiencies became apparent. In many instances, it was not the lack of scrutiny by risk managers, but market pressure that made management ignore these critics. To improve risk-management practices, levers have to be set at various levels. Included among them are incentives, governance, and external controls.

***Compensation needs to be compatible with risk over the time horizon of a project***

First, the incentive structure of compensation schemes have often led to excessive risk taking, and may undermine corporate risk culture more generally.<sup>33</sup> Of course, the level of risk which any specific institution either wants or is allowed to engage in needs to be defined ('pension fund vs. investment bank'), and this specific 'risk appetite' should become part of the corporate risk culture. Risk incentives implicit in compensation have often emphasised too much upside and too little downside. Moreover, upfront-pay of rewards does not take into account the time it often takes for a project to mature and to reveal its real long-term returns. More generally, compensation at all management levels should be compatible with long-term shareholder interest and value of the firm, which could be achieved by including deferred and equity-related elements in compensation schemes.

***Governance structure should incorporate risk managers at high level***

Second, there has often been a lack of risk culture, and perhaps (as noted above) some 'complacency' with regard to the build-up of risks. Much of this has to do with governance and internal controls, which may not give risk managers the appropriate voice. To increase the weight of risk management in corporate decisions risk managers should be placed at the board or equivalent level of an enterprise. The board will also have to establish and enforce clear lines of responsibility and accountability throughout the organisation to ensure the integrity of the essential reporting and monitoring systems. The board will also need to ensure that there is appropriate oversight by senior management, for example, through an internal audit system directly reporting to the board, or possibly an independent audit committee or equivalent body at board level.<sup>34</sup>

***Co-operation of risk managers is crucial in internationally active institutions***

While risk management should be implemented as a comprehensive, firm-wide approach, special challenges for risk management may arise in internationally active institutions, with business spread over several countries and perhaps over several different lines of activities and a variety of portfolios.<sup>35</sup> In such cases, improving the internal, cross-border communication is essential. Such

communication should take place at all appropriate levels of management, and in particular with regard to risk management. Control and processing of information is essential, too, in order to reveal interdependencies between various risk exposures and to get an assessment of overall risk.

*Overreliance on single models should be avoided, and stress-testing enhanced, also taking into account aggregate risk*

Various tail risks, which materialised during this crisis, revealed the shortcomings of some of the common risk models in use. Single risk methodologies and overreliance on specific models should be avoided, and some ‘common sense’ (e.g. ‘too-good-to-be-true’ returns may well be just that) should be applied in order to be able to assess risks under more extreme circumstances. Such a comprehensive approach needs to be reflected in stress testing, which should cover a wide range of risks as well as risk correlations. Specific complications arise with respect to concentration and aggregation of risks.<sup>36</sup> Thus policies and procedures to identify and manage risk concentrations and adequately aggregate risk exposures across a company should be in place, and should include exposure to contingent as well as non-contingent, and on- as well as off-balance sheet risk.

*Liquidity risk should be given more attention in risk management and funding strategies*

The current crisis also underscores the importance of liquidity risk, which has often not been taken properly into account in stress testing, funding strategies, and portfolio management. Benefits as well as challenges arise especially in large and complex institutions, with a potential for internal liquidity provision to seem adequate but with harder to assess funding risks at the aggregate level. Risks under stressed market conditions with severe liquidity shortages have to be included in designing funding strategies, in particular, for secured funding. Securitisation of assets and the use of conduits can also be subject to reputation risks. While under extreme circumstances firms may be able to rely on central banks as lenders of last resort, the conditions under which central banks provide special liquidity may need to be more clearly specified and consistently communicated. Also, risk management should take into account the fact that illiquidity can quickly lead to insolvency if liquidity problems weigh on investors’ confidence and weaken the company’s equity base.

### *3. Counterparty risk and derivatives*

*Counterparty risks pose special challenges as they are complex and difficult to measure*

A special challenge in dealing with risk is posed by counterparty credit risk, especially at large, complex banks. It involves the measurement and management of financial exposures of these institutions to a wide range of counterparty types (see also Box 6).<sup>37</sup> Counterparty credit risk can emanate from derivative trading (OTC as well as exchange-traded), from securities financing activities, and from foreign exchange settlements. Counterparties include government entities, regulated and unregulated financial institutions (such as hedge funds), and corporate entities of the investment-grade and below-investment-grade variety. The measurement of counterparty credit risk is thus a complex exercise, involving tracking exposures from

potentially millions of transactions (including those that exhibit optionality) across various time horizons and with various collateral and netting arrangements. Risk models, including stress tests, are unlikely to capture the full extent of all counterparty credit risk exposures, and there are particular shortcomings in dependency modelling related to CDS exposures.

**Box 6. Recommendations by the Counterparty Risk Management Policy Group III (CRMPG III)**

Recognising the severity of the current financial crisis, the Counterparty Risk Management Policy Group III, consisting of representatives of major internationally active banks, submitted on 6 August 2008 to the Chairpersons of the US President's Working Group on Financial Markets and the Financial Stability Forum a report on *Containing Systemic Risk: The Road to Reform*, as a private initiative to complement official oversight by insisting on industry practices that will help mitigate systemic risk. The Policy Group places particular importance on the five **core precepts for containing systemic risk**: (i) corporate governance, (ii) risk monitoring, (iii) estimating risk appetite, (iv) focusing on contagion, and (v) enhanced oversight. Its **recommendations** cover in much detail the following areas:

- (I) **Standards for accounting consolidation**, with a view to adopt a single, principles-based global framework, including disclosure of off-balance sheet activities, and endorsing a convergence with International Financial Reporting Standards (IFRS).
- (II) **High-risk complex instruments**: high-risk complex financial instruments should be sold only to sophisticated investors, and documentation for such instruments should be enhanced.
- (III) **Risk monitoring and risk management**, which should, *i.a.* be integrated at a high level of the firm, and well staffed, involve improved stress testing, analysis of correlation of exposures, and take into special account exceptionally large positions with margined counterparties and risk concentrations as well as systemic risk implications.
- (IV) **Enhanced credit market resiliency**, concerning recommendations with regard to trading, infrastructure, market participation, incentive structure, and monitoring; in this context, the Policy Group is also considering forming a “default management group”, composed of senior business representatives of major market participants, to work with the regulatory authorities on an ongoing basis to consider and anticipate issues likely to arise in the event of a default of a major market counterparty.

The final part of the report highlights some **emerging issues** regarding (i) **valuation and price verification**, for which reasonableness and consistency tests should be applied; (ii) **asset price bubbles**, the risk of which calls for sustained discipline in both public policy and private action; (iii) **near banks**, noting that standby supervision (e.g. when problems at one or more hedge funds raise systemic concerns) would raise moral hazard questions and, moreover, would be very difficult to administer (standby authority might be triggered too late or aggravate the very problem it is seeking to mitigate); (iv) **regulatory structure**, with an expedited consideration of the role of the central bank, and (v) **supervisory policy and practice**, calling for devoting greater resources to the supervisory effort and for further progress in implementing Basle II capital adequacy standards (stabilising methodology, common implementation date, competitive and supervisory level playing field across institutions and countries).

Source: Counterparty Risk Management Policy Group III (CRMPG III), *Containing Systemic Risk: The Road to Reform*, 6 August 2008, available at <http://www.crmpolicygroup.org/docs/CRMPG-III.pdf>.

*Tightening margin requirements would contribute to reduce risk*

One way to reduce not only counterparty risk, but also leverage in the system, would be to increase margin requirements (in case counterparties are margined). In fact, relatively low margin

requirements were at the heart of the increasing leverage in the financial system, and contributed to the significant rise of hedge funds and structured products over the past few years.<sup>38</sup>

*Counterparty risk from derivatives trading turned out to be most problematic...*

*... underscoring the need for improved settlement and trading procedures*

During the current crisis, of all counterparty risks the ones inherent in derivatives trading were brought to the fore, in particular, those in the credit-default swap (CDS) segment. Over the past years, CDS markets have grown rapidly and are now estimated to have reached a volume of USD 62 trillion (see also Figure 4). These markets have gained recent interest as they remained liquid even last year even when cash bond markets were drying up. These developments were also facilitated by a growing pricing infrastructure. Data on both individual CDS and indices of these derivatives have become more standardised, better faceted (including intraday CDS prices) and more widely disseminated (MarkIt as one of the lead providers). But recent events have exposed problems of CDS.

When the US government took over the two GSEs Fannie Mae and Freddie Mac in early September 2008, it triggered one of the largest defaults in the history of the credit derivatives market – a consequence the government may not have foreseen before taking action (the GSEs' move into 'conservatorship' counted as the equivalent of a bankruptcy in the credit derivatives market). This raised questions about how dealers would unwind billions of dollars' worth of contracts involving the two agencies – given the private nature of the market and the fact that the exact amount of CDS on Fannie Mae and Freddie Mac was not known in the beginning. The International Swaps and Derivatives Association (the private body that represents the industry) then launched a protocol to facilitate settlement of these CDS. Early in October came the Lehman bankruptcy, which again left investors guessing how their CDS contracts would be settled. These events – if not others before like the near-collapse of Bear Stearns in March – underscored the need for improved settlement and trading procedures in the CDS market.

*A CDS clearing house can help tracking risky OTC derivatives and be set up to alleviate counterparty default risk*

In the wake of these events a new infrastructure for over-the-counter (OTC) derivatives, CDS in particular, is beginning to evolve. CDS clearing houses are being established, which should enable better tracking of CDS OTC contracts. In principle, two possibilities for organising such a clearing house for settling derivative positions exist. The first is to make these derivatives exchange-traded, with the exchange itself becoming the counterparty for traders. The second form of a clearing house would allow the dealers to net their obligations to each other at the end of each business day (model of 'check clearing' mechanism in major financial centres). In both cases, a mutualised entity through which the participating parties share in any possible losses should be set up, thus alleviating problems were a participant to default on its obligations. Paying into such an 'insurance' entity could pose moral hazard issues. But the small number of parties and the clear

incentive of each of the participants to police its partners would help to create market discipline. Both types of clearing houses would necessarily require limiting the variety of contracts. While this would eliminate the very diversity that has made the market so attractive and useful for many, a limited number of standardised contracts traded (with a limited number of reference events, firms, notional amounts, maturity dates, strike prices, and the like) would be an important contribution to enhance transparency in that market segment.

*Recent clearing house initiatives will be helpful in this respect*

Recent initiatives, with active support from the US Fed, to set up clearing house mechanisms will certainly prove to be helpful in this respect. In early October 2008, the Chicago Mercantile Exchange (CME Group) and the hedge fund Citadel announced plans to create an electronic marketplace with central counterparty clearing for credit default swaps, to be operative within a month. To attract customers, the companies are offering banks and hedge funds that become founding members of this venture a 30 per cent equity stake in the new company. There are also plans by the Clearing Corporation, a consortium of investment banks and broker-dealers, with the Depository Trust & Clearing Corporation, the US post-trade service provider, to set up a similar project by the end of the year.

#### **4. Transparency: disclosure, valuation and ratings**

*Enhancing transparency helps restoring market confidence*

Much has been said about the role of transparency in the current crisis. While it is a multi-faceted issue, the current discussion focuses mainly on the opaqueness of structured, mortgage backed products – and thus the need to enhance their transparency – and ratings of credit rating agencies, which have shown some shortcomings in correctly assessing the risk involved in these products. Enhancing transparency is of the essence in order to restore market confidence, as discussed above, and improving disclosure is a prerequisite.

*Standardisation of structured securities help to enhance transparency*

An important step towards more transparency in the structured products area would be standardisation of documentation and of products. While this may come at the expense of variety – it may nonetheless better allow issuers and investors to fine-tune their risk exposures – a limited number of contract types would help to enhance their transparency and increase their tradability. As markets in these products may become more liquid, price discovery and the building of pricing infrastructures (including trading platforms, data gathering, indices etc.) would be facilitated.

*Improved disclosure by financial firms regarding subprime exposure would be helpful, too...*

There are also pressures on financial institutions to improve disclosure to shareholders, regulators and other stakeholders, the current discussion concentrating, in particular, on disclosure with respect to exposure to subprime loans, including through off-balance sheet vehicles. Only over the course of the past year or so have the problems with subprime exposures been revealed. Little by little

subprime-related losses began to be stated in quarterly reports and related communication. This left many investors uncertain about further losses down the road. Market conditions that could be assumed to weigh heavily on the valuation of subprime-related assets did not inspire any further confidence and gave little direction as to how to assess the size of the overall exposures and potential losses of many financial companies. Only a few of the large institutions tried to come forward with a more frank assessment of their problems, in order to clear the way to return to something akin to a more ‘normal’ business – a path that was fiercely blocked by the recent global turmoil.

*...and initiatives in this respect are underway, like guidelines for Pillar 3 securitisation disclosure...*

Besides discussions at the official level, there are many industry initiatives underway to improve the situation. For example, a European industry working group<sup>39</sup> has issued a consultative document on good practice guidelines with respect to securitisation disclosures as required by the Pillar 3 component within the Basle II framework, and plans for the industry to implement the revised guidelines in their reporting in early 2009. The objective of Pillar 3 is to encourage market discipline by developing a set of disclosure requirements to enable market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of an institution. The objective of the Industry Good Practice Guidelines is then to achieve sound, consistent and appropriately granular implementation of the Pillar 3 requirements and to enhance clarity and comparability of disclosure by means of a robust and comprehensive disclosure of securitisation related risks.<sup>40</sup>

*...and similar actions to rebuild confidence in securitisation markets*

Other industry initiatives include quarterly securitisation data reports, an ABCP Issuer Disclosure Code of Conduct, Term Securitisation Issuer Transparency and Disclosure Principles, opening access to transaction information, development of industry data portals, a centralised RMBS and CDO issuer/manager directory; improving standardisation, digitisation and granularity of information; standardising definitions; and developing investor credit assessment and valuations principles.<sup>41</sup> All these initiatives should help to rebuild investor and broader public confidence in the securitisation markets.

*Pro-cyclicality in accounting rules may exacerbate difficult market conditions, but they foster transparency*

In the course of this crisis, some arguments were made that the pro-cyclicality of mark-to-market or fair value accounting rules were responsible for the drastic worsening of financial institutions’ balance sheets, and there were calls for temporarily excluding mortgage-related assets from mark-to-market or ‘fair value’ requirements.<sup>42</sup> Having to take into account increases in risk or liquidity premia in difficult market conditions, these accounting rules may lead to write-downs which further affect market sentiment that in turn lead to further write-downs, margin calls, and capital impacts. While this pro-cyclicality raises financial stability concerns and may be a reason to consider allowing (temporary) exceptions from such accounting rules, the argument can be made that sticking to fair value accounting even under

difficult circumstances enhances confidence as it fosters transparency, discipline, and accountability. In this context it is also noteworthy that in order to enhance transparency the International Accounting Standards Board (IASB) is also consulting on new rules for off-balance sheet assets.

*Rating agencies can contribute to improve transparency*

Credit rating agencies (CRAs) can play a major role in enhancing transparency. Much discredited during the crisis for ‘wrong’ or ‘misleading’ ratings, in particular of complex structured products, the industry has been proposing improvements in the ratings process. Among these proposals are improving structured product rating reports, better monitoring of rating models, establishing internal control processes and external reviews of the rating process, and making clearer distinctions among complex products by introducing different rating symbols or a scale for structured products.

Such measures will certainly be further promoted by CRAs in Europe, if they, like their US counterparts, have to register with the regulators, and become regulated entities, a proposal recently adopted by the European Commission.<sup>43</sup>

## V. Selected issues for further regulatory overhaul

### 1. Some general considerations for reform

*Far-reaching reforms are needed to restore confidence*

Beyond the abovementioned proposals for more immediate measures to address shortcomings made apparent during the crisis, there are also discussions for far-reaching reforms in financial regulation in order to close loopholes in the global regulatory architecture and to restore confidence on a more sustainable basis. Some of these proposals and measure will also guide and impact on the building of a new financial landscape, perhaps including a new architecture of international organisations. A few of these issues shall be highlighted in the following.

*‘Good’ regulation has to strike a balance between stability and growth*

In this crisis, some calls for greater regulation were said to be the price financial institutions must pay for the greater protection they had begun to receive. But the question is not so much about more, but ‘better’ regulation. For this outcome, regulators and policy makers have to keep in mind that no regulatory system can ever be fail-safe, and ‘good’ regulation has to strike a balance between stability and growth, in supporting and maintaining financial stability without stifling financial innovation and growth.

*Embracing competition and innovation more carefully*

Regulatory reforms in the recent past were generally geared to allow for more competition and have often taken down – or avoided erecting – regulatory hurdles to financial innovation. This was done in the belief that ‘modern’ financial services regulation needed to distance itself from the ‘depression-era model’ focused on market segmentation

and failure prevention and promote a model focused on competition and failure containment.<sup>44</sup> A new approach may find a middle way by embracing competition and innovation more carefully without weighing too much on the incentives for risk-taking, while also recognising the convergence of the financial services industry.

*Regulatory arbitrage is omnipresent*

Policy makers have also to bear in mind that it is difficult for regulators to stay ahead of the curve, as competitive pressures are driving financial institutions to devise means to overcome the restrictions put on their business by regulatory measures. Such regulatory arbitrage can be minimised by designing rules that are relatively costly to circumvent (either lighter rules, which produce relatively lower benefits when circumvented, or tighter and better enforced ones, which increase the absolute cost of circumvention). After all, examples of overcoming regulatory restrictions are readily apparent, like the creation of SIVs to avoid Basle I capital requirements, or the move of part of the financial industry outside the US to avoid stricter Sarbanes-Oxley regulation, and the possibilities in general for regulatory arbitrage generated by large and global financial conglomerates.

*Assessing effectiveness and efficiency of regulation should be more widely promoted*

A new regulatory environment should also more actively promote assessing and reviewing regulations systematically with regard to their efficiency and effectiveness.<sup>45</sup> This assessment of quality and impact of (new) rules should involve all stakeholders affected by regulatory measures. However, the limits of such analysis should be acknowledged, *e.g.* when assessing a wider, macroeconomic impact of regulatory measures, and when applied to far reaching regulatory reform with various interrelated effects. In this respect, developing regulatory indicators and analysing their impact could be helpful.

## *2. Selected issues in banking regulation*

*Cross-border banking and finance requires cross-border rules*

Financial markets have grown international, while regulation remains nationally based, constrained by the domain of domestic jurisdictions. Cross-border banking and finance requires cross-border rules, not least because the effects of a financial crisis are borne by the international community. While a transnational super-regulator will likely not be a feasible option, the model of 'supervisory colleges' seems to be a valid compromise. At the European level, bank supervisors and finance ministers seek to improve co-operative structures and include them in the Capital Requirements Directive (CRD). The European Commission is also working on the implementation of the Lamfalussy roadmap review with the objective of promoting supervisory convergence and co-operation within the European Union.<sup>46</sup> The Level 3 Committees<sup>47</sup> in the Lamfalussy structure should be given a clearer role in mediation and consultation mechanisms and in providing recommendations, and they should be involved in supervisory information exchange, monitoring and reporting.

*Capital requirements  
may need to be  
reviewed ...*

*...with perhaps  
tightening in the  
medium and long term*

*Separating investment  
banking from  
counterparty and other  
activities...*

*...while including bank-  
like activities in  
regulation*

*Deposit and deposit-type  
insurance mechanisms  
need to be fostered...*

The current crisis has brought to the fore shortcomings in capital requirements. As discussed above, in order to avoid Basle I constraints banks created off-balance sheet vehicles, and in view of Basle II, which allowed them more leeway in determining their risk capital, mortgage securitisation boomed as mortgage-backed assets were treated more favourably with respect to these capital requirements. While policy makers now want to avoid increasing capital requirements<sup>48</sup> in order not to squeeze bank lending in an already difficult environment, capital requirements are due to be tightened in revisions of the CRD, including measures on securitisation and large inter-bank loans.

As discussed above, with Lehman's bankruptcy, the sale of Merrill Lynch to Bank of America and Morgan Stanley and Goldman Sachs having converted to bank holding companies, the stand-alone investment banking model has become extinguished. However, the different lines of banking business may still need some consideration with respect to their – specific, where needed – regulation. Their business model makes investment banks potentially very large entities and perhaps too interconnected to fail. But in order to avoid moral hazard, they should be allowed to fail. Thus, there are proposals to separate a bank's investment activities from its derivatives counterparty activities, with special safeguards for the latter similar to those for the payments system. In protecting the counterparty network from risky investment activities, counterparty activities would be recognised as fundamental and systemically important components of the financial system infrastructure.<sup>49</sup> Other proposals seek to 'ring-fence' banks to protect and separate them from the riskier investment banking business.

With the convergence of the financial services industry, and the potential of ever more financial companies engaging in banking or bank-like activities, the regulatory network may need to be reeled in, in order to encompass such institutions and activities. A clear definition is required for what the regulated bank and other financial sectors cover.<sup>50</sup> In particular, if hedge-funds were to engage in issuing, trading or other banking or insurance activities on their own account, they should be regulated accordingly, and should fall within the market integrity and consumer protection regulations. A single overarching regulator for prudential standards across all financial institutions (the so-called 'twin peaks' model used in Australia) could be a starting point.

Deposit insurance has become a well established mechanism to safeguard small savers and to avoid bank runs,<sup>51</sup> and many authorities have increased these insurance guarantees during the crisis to enhance the system (Table 2). But during the crisis authorities have also started to extend guarantees to other types of (bank) liabilities, but these kinds of insurance mechanisms should be used sparingly lest participants consider them to be permanent measures in a future financial safety net. In cases of systemic crises, broad-based guarantees may be

necessary to restore confidence and to avoid panic, but their use needs to be carefully managed and subjected to finite life spans to create proper incentives and minimise moral hazard.

*...for example an insurance scheme for the money market mutual fund industry*

Given the important role that money market funds play as a savings and investment vehicle as well as a fundamental source of financing for capital markets and financial institutions, maintaining confidence in the money market fund industry is critical to protecting the integrity and stability of the global financial system. Therefore, when the crisis put these markets in danger, the US Treasury Department established a temporary guaranty programme for the US money market mutual fund industry in September 2008. This programme will for one year insure the holdings of any publicly offered eligible money market mutual fund – both retail and institutional – that pays a fee to participate in the programme.

Both retail and institutional investors currently hold about USD 3.5 trillion in such funds. Much to the concern of regulators, these funds were perceived by many investors as being as safe as a bank account, without having the same Federal guarantee that bank accounts have. Given the systemic importance of these funds, it may be worthwhile to consider a more permanent, self financing type of insurance than the temporary one now put in place, in order to enhance market confidence in the longer run and alleviate investors' concerns about the ability of money market mutual funds to absorb a loss.

### *3. Financial crisis procedures and co-operation mechanisms*

*Clear procedures for unwinding large insolvent institutions are needed*

As discussed above, bank rescue policies need to be consistent, and need to credibly include the option of allowing banks to fail in order to avoid moral hazard effects of (even if only expected) bail-outs and government guarantees. In order to make these policies credible, well-defined resolution regimes are necessary, including protection for depositors and clear receivership processes for the closing down of banks.<sup>52</sup> In Europe, for example, there are over 8300 banks,<sup>53</sup> and certainly not all of them are systemically important, but there is no well-defined bankruptcy procedure to let them fail. In the United Kingdom, the government has introduced a 'special resolution regime' (SRR)<sup>54</sup> within which there are a range of tools to resolve a failing bank in a more orderly manner, including an accelerated method to transfer its business to a healthy bank, a 'bridge bank', deployment of a restructuring officer and a bespoke 'bank insolvency procedure'. While generally widely welcome by the banking industry, some concerns were raised *inter alia* regarding the cost of the procedure and the industry's contribution.<sup>55</sup> In the United States, the Chapter 11 procedure is an option, but does not allow a financial company to stay in business during the restructuring attempt. It has also been criticised as taking too long in cases where speedier procedures could avoid unnecessary

further losses.<sup>56</sup> More direct procedures, like debt for equity swaps would then be an option within legal liquidation procedures. Resolution procedures may also include creating incentives for takeovers, for example, via a bridge bank as proposed in the UK SRR or, as temporarily implemented by the US Fed in the September 2008 turmoil, through relaxation of the rules governing minority investments in banks.<sup>57</sup>

*International co-operation is essential in crises, perhaps drawing lessons from the financial management of large-scale catastrophes*

While cross-border co-operation between central banks, supervisors and regulators is important for regular financial stability monitoring (as, for example, established through the FSF), it becomes essential in a crisis situation. However, in such a situation, existing structures may not be sufficient to support speedy exchanges of information and deliver actions necessary to address the situation. During the current crisis, much of the co-operation and co-ordinated actions were organised on an ad-hoc basis. Thus there may be a case for establishing procedures, co-ordination mechanisms and institutions similar to those developed and proposed in order to deal with financial management of large-scale catastrophes.<sup>58</sup> Such arrangements should also be properly and regularly stress-tested through financial crisis simulation exercises aimed at verifying their effectiveness under extreme conditions. At the EU level and within the Eurosystem, such simulation exercises have been periodically conducted.<sup>59</sup>

*Reinforce multilateral global surveillance to better prevent crises*

Looking ahead, there may be a need to reinforce multilateral surveillance at the global level to improve crisis prevention, involving relevant international institutions and major national authorities. Initiatives by the private sector, like the Market Monitoring Group (MMG) proposed by the Institute of International Finance (IIF; see Box 2), may also be useful in this regard, and might contribute to further – and necessary – co-operation between all stakeholders.

*Reforming global institutions*

The recent initiatives at the G-20 level to redesign the world's financial architecture, including international financial institutions, may be seen as a first step towards more encompassing reforms to help cope with the problems that this crisis brought to the fore.

### Notes

<sup>1</sup> For example, in spring 1998 the head of the Commodity Futures Trading Commission expressed concern about the massive increase in over-the-counter derivatives and their counter-party risk, but such concerns were allayed by the Fed Chairman in a Congress hearing. An often cited example for a private sector warning of credit derivatives came from Berkshire Hathaway's Warren Buffett, who in 2003, in his 2002 shareholder report (see

[www.berkshirehathaway.com/2002ar/2002ar.pdf](http://www.berkshirehathaway.com/2002ar/2002ar.pdf)) called them “financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal.”

<sup>2</sup> See the article “The Current Financial Crisis: Causes and Policy Issues” in this volume of *Financial Market Trends*.

<sup>3</sup> For this list of elements see “The Global Economy and OECD: Distilling Lessons from a Financial Crisis”, Speech by Angel Guría, OECD Secretary-General, to the Parliamentary Assembly of the Council of Europe, Strasbourg, 1 October 2008, available at [http://www.oecd.org/document/12/0,3343,en\\_2649\\_34487\\_41420876\\_1\\_1\\_1,1.00.html](http://www.oecd.org/document/12/0,3343,en_2649_34487_41420876_1_1_1,1.00.html).

<sup>4</sup> On 7 September 2008, the director of the Federal Housing Finance Agency (FHFA) announced his decision to place the two GSE, Fannie Mae (Federal National Mortgage Association) and Freddie Mac (Federal Home Loan Mortgage Corporation), into conservatorship run by FHFA, a measure fully supported by the US Treasury and the Fed in their statements following this action.

<sup>5</sup> Lehman filed for Chapter 11 bankruptcy protection on 15 September 2008, the filing marking the largest bankruptcy in US history. Earlier takeover talks with Bank of America did not bear fruit, and then Merrill and Barclays withdrew from merger talks after the US government refused to provide interim guarantees to facilitate the takeover.

<sup>6</sup> On 16 September 2008, AIG American International Group, Inc. (AIG) suffered a liquidity crisis following the downgrade of its credit rating as its outstanding CDS on CDOs declined in value (AIG had issued many Lehman CDS).

<sup>7</sup> See Peter R. Fisher, *Comments on Franklin Allen & Elena Carletti “The Role of Liquidity in Financial Crises”*, prepared for the Federal Reserve Bank of Kansas City’s Symposium “Maintaining Stability in a Changing Financial System”, Jackson Hole, Wyoming, August 23, 2008.

<sup>8</sup> Willem Buiter, “Endgame in the banking sector”, *Financial Times*, September 13, 2008.

<sup>9</sup> The problem of rule-based *vs.* discretionary policies was first formalised by Finn E. Kydland and Edward C. Prescott, “Rules Rather than Discretion: The Inconsistency of Optimal Plans”, *The Journal of Political Economy*, Vol. 85, No. 3. (June 1977), pp. 473-492. The problem is that discretionary policies may be optimal in the short run as a response to changed conditions, but as they feed back into economic agents’ behaviour they may not produce the desired long-run optimum, *i.e.* they are time inconsistent.

<sup>10</sup> Taking lessons from central bank’s experience (and academic literature on it), it takes some time and many instances to establish credibility, *i.e.* convince investors (or trade unions in the stylised central bank case) that a policy maker is ‘hard-nosed’ (an ‘inflation fighter’ in the central bank case) and does not give in to moral hazard and market pressures (or pressure from trade unions), thus strictly abiding by an established long-term optimal rule. The problem for fiscal or related government policy is that usually the time it takes to establish credibility is longer than an average political cycle in a democracy (a restriction less relevant for an independent central bank).

<sup>11</sup> Another example for such a rule is written in the Maastricht treaty regarding the fiscal deficit limit, which can be breached should “exceptional circumstances” prevail – as is the case now and the justification for many EU countries to increase their deficits to stimulate their economies. Breaching the deficit in ‘normal times’ would invoke a penalty payment.

<sup>12</sup> The Glass-Steagall Act, devised during the Great Depression, separated investment banking from commercial banking, prohibiting a bank holding company from owning other financial companies and prohibiting a bank from offering investment banking and insurance services. This separation had already been abandoned, and the ‘pure’ investment banking model softened, in 1999 when the Glass-Steagall Act was repealed by the Gramm-Leach-Bliley Act, which allowed commercial and investment banks to consolidate. This made permanent a temporary waiver that was issued for Citibank’s merger with the insurance company Travelers Group in 1993 (finalised in 1994; in 1998 they formed the financial conglomerate Citigroup).

<sup>13</sup> As part of the Fed’s crisis measures, investment banks were already allowed to draw on temporary Fed lending facilities, but they were more restricted in their collateral as compared to commercial banks.

<sup>14</sup> See Andrew Ross Sorkin and Vikas Bajaj, “Shift for Goldman and Morgan Marks the End of an Era”, *The New York Times*, 21 September 2008.

<sup>15</sup> Lloyds TSB's takeover of HBOS, announced on 18 September 2008, was signed off suspending British competition rules aimed at preventing anti-competitive deals and curbing political interference. As the focus of both banks is British the deal did also not face problems from European Commission competition authorities. Under normal circumstances, Lloyds would have to refer this to the competition authorities, but the government's decision to suspend competition rules highlighted the severity of the crisis motivating the deal, using provisions in the 2002 Enterprise Act allowing potentially anti-competitive mergers "in certain public interest cases", a rule offering a wide range of interpretations, like preserving the integrity of the financial system.

<sup>16</sup> See "Council Conclusions on enhancing the arrangements for financial stability in the EU", 2822nd Economic and Financial Affairs Council Meeting, Luxembourg, 9 October 2007, available [http://www.consilium.europa.eu/ueDocs/cms\\_Data/docs/pressData/en/ecofin/96351.pdf](http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ecofin/96351.pdf).

<sup>17</sup> Such a strategy may have been partly behind the procedure in which the US Treasury's gave its first tranche of assistance under EESA to nine major banks in the form of preferred stock. These banks accepted mostly on grounds of 'unbeatable' conditions they were offered for raising such capital, even though they had to accept restrictions on executive compensation (including severance pay) during the period that Treasury holds equity issued through this program; see "The drama and discord over U.S. bank bailout", *International Herald Tribune*, 16 October 2008.

<sup>18</sup> See "French banks surge on state injection", *Financial Times*, 20 October 2008. More recently, the French president has been trying to increase his pressure on banks to stick to their lending 'promises'.

<sup>19</sup> See "Germany softens conditions for rescue", *Financial Times*, 20 October 2008.

<sup>20</sup> Some lessons on this may be drawn from past; see the article "Resolutions of Weak Institutions - Lessons Learned from Previous Crises" in this issue of *Financial Market Trends*.

<sup>21</sup> For example, the senior preferred shares through which the government invests "will pay a cumulative dividend rate of 5 percent per annum for the first five years and will reset to a rate of 9 percent per annum after year five." Moreover, there are restrictions on compensation etc. which may make the government intervention less attractive; see U.S. Treasury, "Treasury Announces TARP Capital Purchase Program Description", press release, 14 October 2008, available at <http://www.ustreas.gov/press/releases/hp1207.htm>.

<sup>22</sup> On 23 October, French President Nicolas Sarkozy announced that France would set up a new "strategic investment fund" to stop French companies from falling into the hands of foreign "predators". The new fund is to be operated by *Caisse des Dépôts et Consignations* which is the already existing sovereign wealth fund of France. However, the announcement said the special fund would be "more active, more offensive, more mobile" in defence of French industrial assets; see "Sarkozy plans new French wealth fund", *Financial Times*, 23 October 2008.

<sup>23</sup> See the *Generally Accepted Principles and Practices (GAPP) – Santiago Principles* by the International Working Group of Sovereign Wealth Funds, presented to the International Monetary Fund's International Monetary and Financial Committee (IMFC) on 11 October 2008; available at [www.iwg-swf.org](http://www.iwg-swf.org). Recipient countries would need to adhere to the OECD *Guidance on Recipient Country Policies Towards SWFs*, based on the two OECD investment instruments, the *Code of Liberalisation of Capital Movements* and the *Declaration on International Investment and Multinational Enterprises*, available at [www.oecd.org/daf/investment/foi](http://www.oecd.org/daf/investment/foi).

<sup>24</sup> In fact, this (unlawful) practice becomes apparent in delayed delivery for settlement which the SEC had observed to be rising at times. The rules governing short selling did not mandate a contract for borrowing equities, but under the SEC's new order introduced on 15 July short-sellers have to enter an agreement for borrowing shares, which reduces the actual amount of shares available for short sales to the extent of previously naked deals.

<sup>25</sup> "SEC Enhances Investor Protections Against Naked Short Selling", SEC press release, 15 July 2008, available at <http://www.sec.gov/news/press/2008/2008-143.htm>; and "SEC Extends Order Limiting Naked Short Selling Through August 12", SEC press release, 29 July 2008, available at <http://www.sec.gov/news/press/2008/2008-155.htm>.

<sup>26</sup> "SEC Halts Short Selling of Financial Stocks to Protect Investors and Markets", SEC press release, 19 September 2008, available at <http://www.sec.gov/news/press/2008/2008-211.htm>.

<sup>27</sup> "Statement of Securities and Exchange Commission Concerning Short Selling and Issuer Stock Repurchases", SEC press release, 1 October 2008, available at <http://www.sec.gov/news/press/2008/2008-235.htm>.

<sup>28</sup> "FSA statement on short positions in financial stocks", FSA press release, 18 September 2008, available at <http://www.fsa.gov.uk/pages/Library/Communication/PR/2008/102.shtml>. The new provisions will remain in force until 16 January 2009, but were to be reviewed 30 days after introduction, with a comprehensive review of the rules on short selling to be published in January 2009.

<sup>29</sup> "Covered short selling not permitted", ASIC press release, 21 September 2008; and "ASIC extends ban on covered short selling", ASIC press release, 21 October 2008; available at [www.asic.gov.au](http://www.asic.gov.au).

<sup>30</sup> See [www.cnmv.es](http://www.cnmv.es).

<sup>31</sup> The elimination of the uptick rule by the SEC after 70 years was preceded by a one-year suspension of the rule on select securities to study its effectiveness, with conclusion that it modestly reduced liquidity and that it did not appear necessary to prevent manipulation; see the 13 June 2007 SEC press release at <http://www.sec.gov/news/press/2007/2007-114.htm>. Short sellers, too, viewed the rule as largely symbolic without little effect. However, the rule was tested in a bull market, and several calls for its reinstatement have been launched during the recent bear market and when short-selling was at record levels. The SEC is now considering bringing back the uptick rule (according to remarks by SEC director Erik Sirri at an ICI conference on 6 October 2008).

<sup>32</sup> See Basle Committee on Banking Supervision, *Principles for Sound Liquidity Risk Management and Supervision*, draft for consultation, June 2008, available at <http://www.bis.org/publ/bcbs138.pdf>.

<sup>33</sup> Issues of compensation and corporate governance to strengthen risk culture and risk management are currently under review by the OECD Steering Group on Corporate Governance.

<sup>34</sup> See OECD (2004), OECD *Principles of Corporate Governance*, p. 62 (available at <http://www.oecd.org/dataoecd/32/18/31557724.pdf>). In this context, the importance of strengthening the implementation of these *Principles* should be highlighted. It is noteworthy that the *Principles* were first launched in 1999 and adopted by the Financial Stability Forum (FSF) as one of its 12 core standards for sound financial systems on 26 March 2000.

<sup>35</sup> Such problems were highlighted by the global insurance company AIG which was rescued from bankruptcy in a joint US Treasury and Federal Reserve operation; see above.

<sup>36</sup> See also chapter IV of Basle Committee on Banking Supervision - BCBS (2008), *Range of practices and issues in economic capital modelling*, Consultative Document, issued for comment by 28 November 2008, August 2008, available at <http://www.bis.org/publ/bcbs143.pdf>; and Counterparty Risk Management Policy Group III, *Containing Systemic Risk: The Road to Reform*, 6 August 2008, available at <http://www.crmpolicygroup.org/docs/CRMPG-III.pdf>.

<sup>37</sup> See also Annex 2 of Basle Committee on Banking Supervision (2008), *Range of practices and issues in economic capital modelling*, Consultative Document issued for comment by 28 November 2008, August 2008; available at [www.bis.org/publ/bcbs143.pdf](http://www.bis.org/publ/bcbs143.pdf).

<sup>38</sup> See Adrian Blundell-Wignall (2007), "An Overview of Hedge Funds and Structured Products: Issues in Leverage and Risk", *Financial Market Trends*, No.92, Vol. 2007/1. It is also noteworthy that the issue of increasing margin requirements had also been discussed in 1996, when there were concerns about an equity bubble building up. Then Fed Chairman Greenspan in a Federal Open Market Committee meeting in September 1996 conceded the fact, and admitted that proposals for tightening margin requirements would be effective: "I guarantee that if you want to get rid of the bubble, whatever it is, that will do it." But he added: "My concern is that I am not sure what else it will do."

<sup>39</sup> The Working group consists of the European Banking Federation (EBF), London Investment Banking Association (LIBA), European Savings Banks Group, European Association of Co-operative Banks, and the European Association of Public Banks and Funding Agencies (EAPB).

<sup>40</sup> See the Group's letter to EU Commissioner McCreevy, available at [http://www.europeansecuritisation.com/Communications/Archive/Current/0404-McCreevy-Final%20Letter%20on%20P3%20\(3\).pdf](http://www.europeansecuritisation.com/Communications/Archive/Current/0404-McCreevy-Final%20Letter%20on%20P3%20(3).pdf).

<sup>41</sup> See the letter to EU Commissioner McCreevy by ESF, SIFMA and CMSA, available at <http://www.europeansecuritisation.com/Communications/Archive/Current/Letter%20to%20Commission%20McCreevy%20Investor%20Issuer%20Initiatives%2025%20June%2008.pdf>.

<sup>42</sup> The US Financial Services Roundtable, conveying the view of large financial services groups, called on the SEC temporarily to exclude mortgage-related assets from fair value requirements. Regarding TARP, it also suggested that any prices paid by the government fund to buy these assets should not count as the reported market value since that would force other banks to mark down their holdings to those levels. In Europe, the British Bankers' Association called for a "mixed measurement" model that would use fair values for some items but not for those held for the long term. So far, the International Accounting Standards Board (IASB), backed by leading market regulators, has resisted such pressure over fair value accounting, but in October 2008 amended IAS 39 to permit some reclassifications with new IFRS 7 disclosures. This measure takes into account some recent US and EU proposals for certain exceptions for banks by allowing them to move some illiquid derivatives from the trading book, where they would have to be valued closer to (depressed) market prices, to the banking book, where valuation can be closer to (higher) historical prices.

<sup>43</sup> See the documents under the heading "Commission adopts proposal to regulate credit rating agencies" at [http://ec.europa.eu/internal\\_market/securities/agencies/index\\_en.htm](http://ec.europa.eu/internal_market/securities/agencies/index_en.htm).

<sup>44</sup> See also U.S. Department of the Treasury (2008), *Blueprint for a Modernized Financial Regulatory Structure*, March; available at <http://www.treas.gov/press/releases/reports/Blueprint.pdf>, and U.S. Treasury Department Office of Public Affairs (2008), *Fact Sheet: Treasury Releases Blueprint for a Stronger Regulatory Structure*, March, [http://www.treas.gov/press/releases/reports/Fact\\_Sheet\\_03.31.08.pdf](http://www.treas.gov/press/releases/reports/Fact_Sheet_03.31.08.pdf).

<sup>45</sup> Such issues are also under consideration by the OECD Committee on Financial Markets which has recently endorsed a *General guidance for effective and efficient financial regulation*. The practice of regulatory impact analysis and some successful case studies in the financial area are also being considered by the OECD Steering Group on Corporate Governance.

<sup>46</sup> See Commission of the European Communities (2007), "Review of the Lamfalussy Process – Strengthening Supervisory Convergence", Communication from the Commission, COM(2007)727 final, Brussels.

<sup>47</sup> These are the Committee of European Securities Regulators (CESR), the Committee of European Banking Supervisors (CEBS), and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS).

<sup>48</sup> With the exception of Swiss regulators, authorities have abstained for the moment to make any moves to impose higher capital requirements on banks.

<sup>49</sup> See Jaffee, Dwight M. and Perlow, Mark (2008) "Investment Banking Regulation After Bear Stearns," *The Economists' Voice*, Vol. 5, Iss. 5, Article 1; available at: <http://www.bepress.com/ev/vol5/iss5/art1>.

<sup>50</sup> See Adrian Blundell-Wignall and Paul Atkinson (2008), "The Subprime Crisis: Causal Distortions and Regulatory Reform", in: Paul Bloxham and Christopher Kent, *Lessons from the Financial Turmoil of 2007 and 2008*, Proceedings of a Conference held at the H.C. Coombs Centre for Financial Studies, Kirribilli, on 14-15 July 2008; Reserve Bank of Australia; available at [http://www.rba.gov.au/PublicationsAndResearch/Conferences/2008/Blundell-Wignall\\_Atkinson.pdf](http://www.rba.gov.au/PublicationsAndResearch/Conferences/2008/Blundell-Wignall_Atkinson.pdf).

<sup>51</sup> For a recent overview, see the article "Financial Crisis: Deposit Insurance and Related Financial Safety Net Aspects" in this volume of *Financial Market Trends*. See also Sebastian Schich (2008), "Financial Turbulence: Some Lessons Regarding Deposit Insurance", *Financial Market Trends*, No.94, Vol. 2008/1.

<sup>52</sup> See also the article "Resolutions of Weak Institutions - Lessons Learned from Previous Crises" in this volume of *Financial Market Trends*.

<sup>53</sup> See ECB, *EU Banking Structures*, October 2008.

<sup>54</sup> See <http://www.publications.parliament.uk/pa/cm200708/cmbills/147/08147.1-5.html>.

<sup>55</sup> See for example the response to the consultative document by the British Bankers' Association (BBA), at [http://www.bba.org.uk/content/1/c6/01/45/17/SRR\\_response - 15th September.pdf](http://www.bba.org.uk/content/1/c6/01/45/17/SRR_response - 15th September.pdf).

<sup>56</sup> See Luigi Zingales (2008) "Why Paulson is Wrong," *The Economists' Voice*, Vol. 5, Iss. 5, Article 2; available at: <http://www.bepress.com/ev/vol5/iss5/art2>.

<sup>57</sup> On 22 September 2008 the US Federal Reserve announced that investors can take a 33 per cent stake in a company without incurring regulatory restrictions, up from the previous limit of 25 per cent. Groups that are not registered as bank holding companies can take voting interests in a bank of up to 15 per cent, compared with 9.99 per cent, and will be allowed to take one seat, and in some cases two, on the boards of banks in which they invest.

<sup>58</sup> See OECD (2008), *Financial Management of Large-Scale Catastrophes*, Policy Issues in Insurance No. 12.

<sup>59</sup> See Jean-Claude Trichet, *Enhancing the EU arrangements for financial stability*, Keynote address by the President of the ECB at the session "European Financial Supervision, Crisis Management on Financial Markets", European Parliament, Brussels, 23 January 2008, available at <http://www.ecb.int/press/key/date/2008/html/sp080123.en.html>.