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The Turmoil and the Financial Industry: Developments and Policy Responses

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The situation in financial markets deteriorated over the past year, but government actions have helped to avert an even bigger crisis. While some signs of recovery are on the horizon, the banking sectors in many countries are not yet on solid footing. Recent government programmes that deal with banks' 'toxic assets' are welcome in this regard. But further reaching financial sector reforms such as those recently endorsed by the G20 leaders and proposed in Europe and the United States are necessary in order to establish a sound financial system.

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I. Recent financial market developments and policy interventions

1. Recent developments

The situation in financial markets deteriorated over the past year…

Over most of the year 2008 and the first quarter of 2009 the situation in financial markets has deteriorated significantly, and the financial crisis has continued to spread globally to all sectors of the economy. Negative feedback loops from the economy back into the financial sector have come to add to the downturn. Forecasts that have come out earlier this year had been revised downwards from their previous releases. According to official estimates by the World Bank and the IMF prepared for the April G20 meeting,[1] the global economy is expected to shrink in 2009 for the first time since World War II, and world trade declined at the fastest rate in eighty years. The OECD March 2009 interim Outlook also pointed to an acceleration of the downturn in all OECD regions, even though prospects slightly improved according to more recent forecasts released in June.[2] Trade and labour market conditions have aggravated the effects of the crisis, as trade and FDI flows contracted sharply and industrial production collapsed.

…and the destruction of financial capital has been substantial, rapid and global

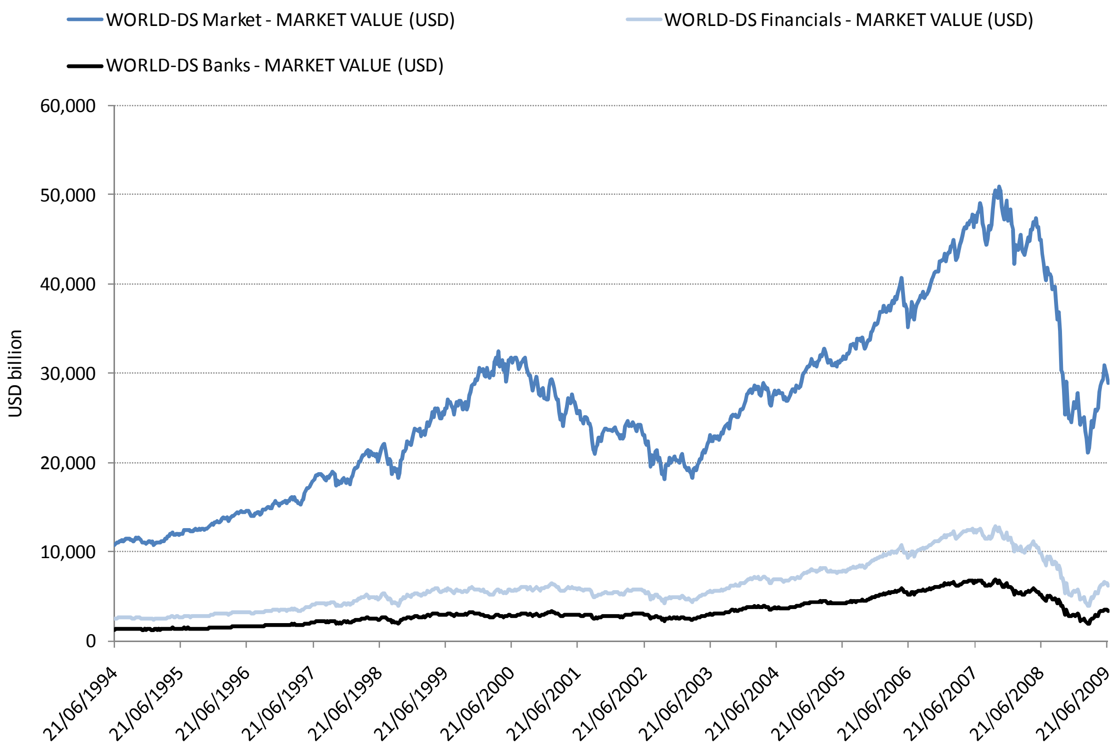
The destruction of financial capital has been rapid and took place at a global level, illustrated by the steep decline in world equity market valuations from mid-May 2008 until early March 2009 (Figure 1). According to some estimates, the loss in financial assets and real estate values has reached more than USD 50 trillion.[3] The crisis has also reached countries and regions which earlier were believed to have been out of the range of contagion. Newly developed OECD measures of financial conditions suggest that the situation is likely to worsen before it improves.[4] As history shows, downturns (defined in terms of negative output gaps) associated with a banking crisis last typically around seven to eight years, and at least twice as long as other downturns.[5]

While some signs of recovery are on the horizon…

While it is uncertain when the nadir of the current crisis will be reached, there are some signs that foster expectations of a recovery commencing early in 2010 and beyond. In fact, since March some signs of improvement have appeared, and markets seem to have been pricing in such signs. OECD composite leading indicators for April 2009 point to a reduced pace of deterioration in most of the OECD economies, and the June OECD Economic Outlook sees activity nearing the bottom. However, a recovery is likely to be both weak and fragile and negative economic and social consequences of the crisis will be long-lasting.

Figure 1. **The turmoil on equity markets: global valuations**

Datastream World indices, market valuations in USD billion



Note: Based on equity valuations of constituents contained in the respective Datastream World indices as shown. Weekly data until 23 June 2009.

Source: Thomson Financial Datastream.

'Green shoots' may have triggered only a bear market rally

Some observers see the recent upswing more as a bear market rally than a longer-term upward trend, and economic indicators have not yet unambiguously confirmed that the 'green shoots' will lead to a sustained improvement. For example, unemployment is still rising[6] and in the US the Fed's 'Beige Book' revealed that economic conditions "remained weak or deteriorated further" from mid-April through May. For fiscal and monetary stimulus to have lasting effects a functioning financial sector is crucial.

While governments' interventions have helped, regulatory uncertainty remains

Policy actions, in particular recent bank rescue plans, have certainly contributed to the recent rebound as investors now seem to perceive these actions as more credible, sustainable and comprehensive. However, uncertainty still remains as investors are unsure about how the financial rescue operations and workouts will affect debt and equity holders, and more generally there is some 'regulatory uncertainty' – whether and how (additional) policy measures will affect the valuation of particular assets (like home mortgages).

Table 1. **Banks' market value losses**

Change in market value of largest G10 banks, in USD billion[a)]

	2009[b)]	2008	2007	2006	2005	2004	*memo:* MV (latest)[e)]
United States	-46.0	-333.7	-295.6	175.6	-19.4	163.0	477.6
United Kingdom	76.1	-256.7	-72.8	109.0	-19.1	58.2	277.2
Italy	0.6	-178.0	73.2	61.4	47.2	21.4	131.7
France	36.8	-158.0	-31.7	108.8	13.2	27.2	141.7
Belgium	7.1	-125.9	5.6	33.5	15.6	28.5	28.6
Japan	-9.3	-107.5	-112.3	-49.5	204.6	96.2	287.9
Switzerland	16.7	-101.5	-44.4	55.8	22.1	23.2	113.2
Canada	46.3	-97.4	12.2	31.1	37.2	24.7	178.9
Germany	12.2	-80.0	-3.7	34.1	14.8	1.2	52.4
Sweden	14.3	-59.0	-4.3	26.7	0.7	16.2	51.4
Netherlands	-0.3	-0.7	0.5	0.5	0.1	0.4	1.0
G10 total	154.5	-1,498.3	-473.2	587.0	317.0	460.2	1,741.6
memo item: Euro area total[c)]	83.5	-844.2	82.7	394.2	110.7	153.8	605.3
memo item: Global[d)]	498.8	-2,835.3	-44.3	1,154.6	509.5	705.2	3,376.0

Sorted by 2008 losses.
a) Based on banks contained in respective countries' Datastream bank indices.
b) From 1 January 2009 to 23 June 2009.
c) Based on banks contained in respective countries' Datastream bank indices.
d) Based on banks in Datastream worldwide bank index.
e) Memo item: Market valuation as of 23 June 2009.

Source: Thomson Financial, OECD.

Banks are not yet on solid footing…

It has been argued that the recent pickup in bank shares, as reflected in the market valuation gains from year to date as shown in Table 1, is only temporary and has been driven by some recently reported positive profits and profit expectations by a few major banks.[7] Some observers doubt that this can be sustained, because positive results for the first quarter of 2009 are due to previous (4th quarter of 2008) massive writedowns of mark-to-market positions and the resulting heavier weight of level three assets in the balance sheets (which banks can evaluate according to their own models, in the absence of market-based valuations). Furthermore, many institutions are profiting from the Fed's low interest policy as very low interest rates have boosted lending: first, fee income from bond issuance has gone up again, and mortgage lending – the very activity that was at the origin of this crisis – has again turned profitable for some institutions. On 9 June, ten large US banks have been allowed to repay TARP funds, but these returning funds are available to be used to support other ailing financial institutions. According to the US Federal Deposit Insurance Corporation (FDIC), 40 banks were closed from the beginning of 2009 until 23 June, already more than the 25 banks closed over the whole year of 2008, and substantially more than the three banks closed in 2007.[8]

Table 2. **Major financial institutions' writedowns and credit losses**

Total since 2007, in USD billion[a)]

	Writedown & Loss	Capital Raised	Shortfall
Banks & brokers			
Wachovia Corporation	101.9	11.0	-90.9
Citigroup Inc.	101.8	109.3	7.5
Bank of America Corp.	56.6	78.5	21.9
Merrill Lynch & Co.	55.9	29.9	-26.0
UBS AG	53.1	33.5	-19.6
Washington Mutual Inc.	45.3	12.1	-33.2
HSBC Holdings Plc	42.2	24.5	-17.7
JPMorgan Chase & Co.	41.1	44.7	3.6
Royal Bank of Scotland Group Plc	29.4	51.1	21.7
Wells Fargo & Company	27.9	41.8	13.9
HBOS Plc	27.1	23.6	-3.5
National City Corp.	25.2	8.9	-16.3
Morgan Stanley	22.7	24.6	1.9
Barclays Plc	18.6	28.0	9.4
Deutsche Bank AG	18.5	6.0	-12.5
Credit Suisse Group AG	17.4	12.1	-5.3
Lehman Brothers Holdings Inc.	16.2	13.9	-2.3
Other	321.0	372.9	51.9
Total	1,021.9	926.4	-95.5
memo item: total US	563.6	444.3	-119.3
memo item: total European	386.5	380.2	-6.3
Insurance companies			
American International Group	89.8	91.9	2.1
Hartford Financial SVCS GRP	12.4	3.0	-9.4
Metlife Inc	12.2	2.3	-9.9
Ambac Financial Group Inc	12.1	1.4	-10.7
Prudential Financial Inc	9.9	4.7	-5.2
Allstate Corp	8.1	0.0	-8.1
Aegon NV	8.0	4.0	-4.0
Swiss Re	7.9	2.7	-5.2
Allianz SE	7.5	2.0	-5.5
MBIA Inc	5.6	1.0	-4.6
Principal Financial Group	5.1	0.0	-5.1
XL Capital	4.9	2.6	-2.3
Genworth Financial Inc-CL A	4.8	0.0	-4.8
Lincoln National Corp	4.8	0.0	-4.8
CNA Financial Corp	4.1	1.2	-2.9
Aflac Inc	3.7	0.0	-3.7
Zurich Financial	3.0	0.0	-3.0
Other	31.7	9.5	-22.2
Total	235.6	126.3	-109.3
memo item: total US	196.2	111.6	-84.6
memo item: total European	49.6	32.4	-17.2
Government sponsored entities (US)			
Freddie Mac	81.6	51.6	-30.0
Fannie Mae	71.3	30.8	-40.5
Total	152.9	82.4	-70.5
Grand total	**1,410.4**	**1,135.1**	**-275.3**

a) As of 8 May 2009. All the charges stem from the collapse of the US subprime-mortgage market and reflect credit losses or writedowns of mortgage assets that are not subprime, as well as charges taken on leveraged-loan commitments since the beginning of 2007. They are net of financial hedges the firms used to mitigate losses and pre-tax figures unless the firm only provided after-tax numbers. Credit losses include the increase in the provisions for bad loans, impacted by the rising defaults in mortgage payments. Capital raised includes common stock, preferred shares, subordinated debt and hybrid securities which count as Tier 1 or Tier 2 capital as well as equity stakes or subsidiaries sold for capital strengthening. Capital data begins with funds raised in July 2007. All numbers are in USD billion, converted at current exchange rate if reported in another currency.

Source: Bloomberg.

...and will need more capital

Financial institutions' writedowns have been substantial (Table 2), and according to recent estimates, US banks could face further writedowns of more than USD 1 trillion and their peers in Europe more than USD 350bn.[9] Even taking into account capital already raised (Table 2) or expected to be raised, the shortfall on banks' balance sheets, *i.e.* future capital needs, can be expected to be substantial, reaching over USD 480bn in the United States and over USD 350bn in Europe.[10]

2. Financial sector rescue plans

Governments have taken forceful actions

It is not surprising that views on a sustainable rebound have been strongly based on the bold actions taken by governments and central banks to counter the crisis. These actions were initially targeted at the financial sectors and are now encompassing the broader economy, with fiscal stimulus packages to support households and industries (see Table 3). But there is some sentiment that much more still needs to be done or at least that policies announced need to be fully implemented.

Table 3. **Policy responses to the crisis: economic stimulus packages**

	2008-2010 net effect on fiscal balance[a]			Distribution over the period 2008-2010		
	Spending	Tax revenue	Total	2008	2009	2010
	In per cent of 2008 GDP			In per cent of total net effect		
Canada	-1.7	-2.4	-4.1	12	41	47
France	-0.4	-0.2	-0.6	0	75	25
Germany	-1.4	-1.6	-3.0	0	46	54
Italy	-0.3	0.3	0.0	0	15	85
Japan	-1.5	-0.5	-2.0	4	73	24
United Kingdom	0.0	-1.5	-1.4	15	93	-8
United States[b]	-2.4	-3.2	-5.6	21	37	42
Major seven	-1.6	-2.0	-3.6	17	43	40
OECD[c]	-1.5	-1.9	-3.4	17	45	39

Note: cut-off date for information is 24 March 2009.

a) Includes only discretionary fiscal measures in response to the financial crisis. Estimates provided here do not include the potential impact on fiscal balances of recapitalization, guarantees or other financial operations. It also excludes the impact of a change in the timing of payment of tax liabilities and/or government procurement.

b) Figures for the United States refer to the federal government. Available information indicates that a few states, including California, have passed restrictive fiscal measures which are not included here.

c) Weighted average of all OECD member countries except Greece, Iceland, Mexico, Norway, Portugal and Turkey.

Source: OECD.

International policy co-ordination is essential

Since the beginning of the downturn, international policy co-ordination has gathered pace. International co-operation is pursued in various forums, most importantly in the context of the G8 and the G20, but also the European Union Presidency and in international institutions such as the IMF, the World Bank, the Financial Stability Forum (now extended and renamed to Financial Stability Board, see Box 3), in high-level regional conferences and others. The OECD has contributed to these efforts and has at the end of 2008 developed its *Strategic Response to the Financial and Economic Crisis*,[11] updated in March[12] with further work presented at the OECD Ministerial meeting in June. The *Response* aims both to address the crisis and to seize the opportunity to build a stronger world economy, taking a comprehensive view of the different policy areas and government actions involved in making markets work effectively. Co-operation with OECD and non-OECD partners from the official and private sector is essential in order to share experiences and derive policy lessons. Intensifying the degree of responsiveness and flexibility in meeting the policy challenges the crisis may bring will be crucial to maximising the collective impact of international organisations' contributions.

Preconceived views on the 'new' financial landscape are being put to the test

Along with the decline of financial institutions and the economy more generally, preconceived views on '21st century finance' are being put to the test. The depth of the crisis, the collapse of Lehman and the demise of the investment bank model,[13] government ownership of banks and the extension of eligible collateral and eligible institutions for central bank lending, and so on and so forth, have lowered the barriers of resistance for policy makers and business representatives to consider a complete overhaul of the current modus operandi in finance. 'Old' certainties about the 'new' financial landscape, shaped by lightly regulated entities and financial innovations that would allow them to 'efficiently' allocate risks are waning and many of them are being dethroned.[14] Many experts had bought into the idea that securitising debt had made the financial system more robust. While in many academic and policy studies the positive contribution of highly developed financial markets to economic growth is underpinned[15] and financial liberalisation is shown to enhance economic growth, the role of regulation is not straightforward due to a complicated interplay of many factors.[16] Many of the difficulties for financial regulation of finding the right balance between growth and stability have become apparent during the recent crisis, and the lessons to be learned from this episode should help to improve the architecture of a post-crisis financial landscape.

So far, financial sector rescue plans…

So far, policy responses by central banks and governments to help money markets and financial institutions have been manifold and massive (see Table 4).[17] Featured among them are monetary policy measures like liquidity injections, policy rate cuts, and changes to the structure of the financial safety net, such as increases in guarantees of private deposits[18] and guarantees for bank loans or debt.[19] Measures have also included the establishment of funds to purchase commercial paper or mortgage bonds, and regulatory changes like bans or restrictions on short-selling.

Table 4. **Policy responses to the crisis: financial sector rescue efforts**

Headline support for the financial sector and upfront financing need, in per cent of GDP

	Capital injection (A)	Purchase of assets and lending by treasury (B)	Central bank support provided with treasury backing (C)	Liquidity provision and other support by central bank[a)] (D)	Guarantees[b)] (E)	**Total (A+B+C +D+E)**	**Upfront government financing[c)]**
OECD members							
Australia	0.0	0.7	0.0	0.0	n.a.	**0.7**	**0.7**
Austria	5.3	0.0	0.0	0.0	30.0	**35.3**	**5.3**
Belgium	4.7	0.0	0.0	0.0	26.2	**30.9**	**4.7**
Canada	0.0	8.8	0.0	1.6	11.7	**22.0**	**8.8**
France	1.2	1.3	0.0	0.0	16.4	**19.0**	**1.5**[d)]
Germany	3.7	0.4	0.0	0.0	17.6	**21.7**	**3.7**
Greece	2.1	3.3	0.0	0.0	6.2	**11.6**	**5.4**
Hungary	1.1	0.0	0.0	4.0	1.1	**6.2**	**1.1**
Ireland	5.3	0.0	0.0	0.0	257	**263**	**5.3**
Italy	1.3	0.0	0.0	2.5	0.0	**3.8**	**1.3**[e)]
Japan	2.4	6.7	0.0	0.0	3.9	**12.9**	**0.2**[f)]
Netherlands	3.4	2.8	0.0	0.0	33.7	**39.8**	**6.2**
Norway	0.0	13.8	0.0	0.0	0.0	**13.8**	**13.8**
Poland	0.4	0.0	0.0	0.0	3.2	**3.6**	**0.4**
Portugal	2.4	0.0	0.0	0.0	12.0	**14.4**	**2.4**
South Korea	2.5	1.2	0.0	0.0	10.6	**14.3**	**0.2**[g)]
Spain	0.0	4.6	0.0	0.0	18.3	**22.8**	**4.6**
Sweden	2.1	5.3	0.0	15.3	47.3	**70.0**	**5.8**[h)]
Switzerland	1.1	0.0	0.0	10.9	0.0	**12.1**	**1.1**
Turkey	0.0	0.0	0.0	0.2	0.0	**0.2**	**0.0**
United Kingdom	3.5	13.8	12.9	0.0	17.4	**47.5**	**19.8**[i)]
United States	4.0	6.0	1.1	31.3	31.3	**73.7**	**6.3**[j)]
Non-OECD G20 members							
Argentina	0.0	0.9	0.0	0.0	0.0	**0.9**	**0.0**[k)]
Brazil	0.0	0.0	0.0	1.5	0.0	**1.5**	**0.0**
China	0.5	0.0	0.0	0.0	0.0	**0.5**	**0.0**[l)]
India	0.0	0.0	0.0	5.6	0.0	**5.6**	**0.0**
Indonesia[m)]	0.0	0.0	0.0	0.0	0.1	**0.1**	**0.1**
Russia	0.1	0.4	2.9	3.2	0.5	**7.1**	**0.6**[n)]
Saudi Arabia	0.6	0.6	0.0	8.2	n.a.	**9.4**	**1.2**
G20 average[o)]	1.9	3.3	1.0	9.3	12.4	**27.9**	**3.3**

Notes: Data as of as of February 2009.
a) This table includes operations of new special facilities designed to address the current crisis and does not include the operations of the regular liquidity facilities provided by central banks. Outstanding amounts under the latter have increased substantially, and their maturity has been lengthened in recent months in many cases, including the ECB.
b) Excludes deposit insurance provided by deposit insurance agencies.
c) This includes components of A, B and C that require upfront government outlays.
d) Support to the country's strategic companies is recorded under (B); of which EUR14bn will be financed by a state-owned bank, *Caisse des Dépôts et Consignations*, not requiring upfront Treasury financing.
e) The amount in Column D corresponds to the temporary swap of government securities held by the Bank of Italy for assets held by Italian banks. This operation is unrelated to the conduct of monetary policy which is the responsibility of the ECB.
f) Budget provides JPY 900bn to support capital injection by a special corporation and lending and purchase of commercial paper by policy-based financing institutions of the BoJ.

(Continued on next page.)

(Table 2, Notes – continued from previous page.)

g) KRW 35.25tn support for recapitalisation and purchase of assets needs upfront financing of KRW 2.3tn.
h) Some capital injection (SEK 50bn) will be undertaken by the Stabilisation Fund.
i) Costs to nationalise Northern Rock and Bradford & Bingley recorded under (B), entail no upfront financing.
j) Some purchase of assets and lending is undertaken by the Federal Reserve, and entails no immediate government financing. Upfront financing is USD 900bn (6.3% of GDP), consisting of TARP (700bn) and GSE support (200bn). Guarantees on housing GSEs are excluded.
k) Direct lending to the agricultural and manufacturing sectors and consumer loans are likely to be financed through Anses, and would not require upfront Treasury financing.
l) Capital injection is mostly financed by Central Huijin Fund, and would not require upfront Treasury financing.
m) Extensive intervention plans that are difficult to quantify have also been introduced recently.
n) Asset purchase will be financed from National Wealth Fund; and the government will inject RUB 200bn to deposit insurance fund financed from the budget.
o) PPP GDP weights.

Sources: IMF (2009), *The State of Public Finances: Outlook and Medium-Term Policies After the 2008 Crisis*, IMF Fiscal Affairs Department, 6 March; based on FAD-MCM database on public interventions as cited therein.

...including quantitative easing have been bold...

On 5 March, the Bank of England committed to buy GBP 75bn in government gilts and corporate bonds, with Treasury's limit to buy government debt set at GBP 150bn so far. This quantitative easing measure was larger than expected and prompted a sharp decline in gilt yields. In a similar move, which took most investors by surprise, on 18 March the US Fed committed adding another USD 750bn to its mortgage purchases, bringing its total purchase commitment to USD 1.25 trillion. It also announced it would purchase USD 300bn of longer-term Treasury securities over the six months to follow. Likewise, the Bank of Japan announced an increase in its monthly purchases of government bonds from JPY 1,400bn to JPY 1,800bn. The ECB followed suit on 7 May when it pledged to buy EUR 60bn in covered bonds issued by euro area companies and announced to lend banks unlimited funds for up to twelve months.

... but initially they were perhaps not comprehensive enough and not properly sequenced

Some of these policy initiatives like capital injections and options to purchase toxic assets target financial institutions more directly. However, in their earlier stages many of these substantial measures and large infusions of public funds into financial sectors seem to have failed to adequately and sustainably address the credit crunch. The measures were initially not able to restore confidence in financial markets – a precondition to restoring banks' capacity to lend, which itself is essential to put economies back on the path to growth. The main reasons why the financial rescue programmes had not achieved much in this respect may be that they were either not comprehensive enough or have ignored proper sequencing, or both.

Toxic assets need to be dealt with before injecting new capital

As past experience has shown (for example the Japanese banking crisis of the 1990s), there are three basic and separable steps required to deal with a banking system solvency crisis:[20] *(i)* guaranteeing banks' liabilities, *i.e.* deposits, in order to avoid bank runs; *(ii)* separating out banks' bad assets, *i.e.* getting bad assets off bank balance sheets; and then *(iii)* recapitalising the institutions affected. In October 2008, the US with its TARP (the 'Troubled Asset Relief Program', which was enhanced by lawmakers to become the more encompassing 'Emergency Economic Stabilization Act', EESA) and the EU with the European co-ordinated action plan involving agreed government support for the banking sector, embarked on the third step (that is, recapitalisation), but had not come out with a comprehensive and clearly defined strategy for the second. The more recent plans to separate out the 'toxic', subprime mortgage related assets seem to have been more convincing for markets, as banks' shares have recently rebounded from the their steep losses of 2007 and 2008 (Table 1). Credibly dealing with the important second step should help to restore confidence through credibly valuating (and fully writing down) 'toxic' assets and enabling banks to clean up their balance sheets and again engage in lending at 'normal' levels.

Recently announced plans seem to take steps in the right direction

Bypassing the step of dealing with bad assets makes recapitalisations chase a 'moving target': with loan problems worsening, more write-downs of asset values will be generated, and further injections will be required to battle against the credit crunch. However, the Financial Stability Plan in the US, presented in February as an update to TARP[21] and further specified on 23 March,[22] and the recent proposals by the United Kingdom,[23] Germany[24] and Ireland[25] to establish 'bad banks' via government protected guarantee schemes or via special vehicles to take over bad assets from affected banks' balance sheets (and potentially their off-balance sheet vehicles) seem to be steps in the right direction.

But such toxic asset approaches have to deal with multiple issues, including conduits; and explain why nationalisations or government guarantees are unlikely to be sufficient

While each approach to deal with toxic assets has its pros and cons, it is essential that the scheme is operable, makes the best use of taxpayers' money, and encourages private sector participation by initiating a credible price discovery mechanism and eventually a credible recognition of losses. Furthermore, it needs to deal with the conduit issue, *i.e.* the bad assets stuck in off-balance sheet vehicles and which (as contingent liabilities) are 'invisibly' weighing on banks' capacity to lend. This would also be an argument why a nationalisation approach may not work for very large banks. It is probably only suitable for smaller banks with simpler (and on-balance-sheet) businesses, and for countries with a relatively small financial sector. Furthermore, to initiate a 'bad bank' process only via private-based mechanisms, even with government guarantees, is at this stage unlikely to be a successful alternative to kick-start price discovery and private purchases of bad assets and further trading in these assets.

Asset management mechanism to buy 'bad' assets, as in the US Public-Private Investment Program

A government-sponsored bad asset bank is thus essential. As an initial step this approach would involve (as was done under the US Plan for the 19 largest banks[26]) an audit of assets and stress tests. A bad bank would then buy the problematic assets. In the US Financial Stability Plan, such a 'bad bank' is set up as 'Public-Private Investment Program' (PPIP) to purchase troubled loans or securities with initial government funding.[27] From its USD 700bn TARP funds, the US Treasury will contribute USD 75bn to USD 100bn as government equity in this programme, with private funds invited to join. This public-private equity would be leveraged by credit from the Federal Deposit Insurance Corporation (FDIC) in the case of loan purchases, and the Fed's Term Asset-Backed Securities Loan Facility (TALF[28]) programme in the case of securities. Thus the programme is two-pronged, divided into two separate schemes: the 'Legacy Loans Program' and the 'Legacy Securities Program'. The first targets portfolios of more traditional loans deteriorating due to the recession, and the other focuses on 'toxic' credit securities.

Genuine 'toxic' assets to be wound down separately

In general, it may be advisable in the set up of a bad bank scheme to deal with 'genuinely' toxic assets (as opposed to bad, but conforming assets) separately.[29] This could be accomplished via a trust type body (RTC)[30] to wind them down over the longer run, perhaps hold them to maturity, as parts of the underlying collateral may be recovered. Where necessary, these assets will have to be written off completely. This may imply equity injections into failed, affected institutions to bring a negative net worth to zero, and government takeover of the failed entities. As noted, in the PPIP, the 'Legacy Securities Program' (as opposed to the 'Legacy Loans Program') provides a separate mechanism, which could be viewed in this context, even though the legacy assets (RMBS and CMBS) targeted initially will have to be rated AAA at origination and, thus, may not at the outset fall into the 'genuinely' toxic category. More 'toxic' assets may however be dealt with over time when the (pricing and trading) mechanisms under this programme are better established. The Legacy Securities Programme is backed by TALF funds,[31] and the government will authorise up to five investment managers to raise equity capital, matched one-to-one by government funds. In addition, Treasury would lend the fund up to one half of its equity in the form of senior debt. The new funds (more may come in as needed) would then bid for assets, with the private partner of the joint venture deciding the price. This scheme is distinct from the 'Legacy Loans Program' backed by the FDIC and dealing with the more traditional 'problem' loans (mostly distressed mortgages). Banks will offer pools of loans for sale in an auction format, and authorised joint venture partners will bid for these pools. The government will provide the winning bidder with up to four times the equity a private investor puts in, and the FDIC will guarantee debt not exceeding a six-to-one debt-to-equity ratio.

The size of a bad bank scheme needs to be sufficiently high to be credible

With its 'Public-Private Investment Program' the US government expects to generate a purchasing power of USD 500bn, potentially expanding to USD 1 trillion. Purchases would help price discovery and provide incentives for holders and investors to further participate in the pricing process and to trade. Not only for the private investors, but also for taxpayers there would be a potential upside from revaluations to the extent that the government has bought the undervalued assets at a discount. However, some commentators have pointed out that due to the non-recursive character of the public loan element in the PPIP (thus creating a one-way bet for private-sector bidders for the toxic assets) there is a potential for overpaying for the toxic assets, with the taxpayers bearing the downside.[32] But then again, without this pledge of public money such a scheme may not be successful at all. In the end, the programme may not (and should not) need to buy all problematic assets, because trades may eventually take place outside the programme. It is interesting to note that the FDIC recently announced to postpone the pilot sale of assets under the 'Legacy Loans Program' (LLP) planned for June, because banks have been able to raise capital without having to sell bad assets through the LLP.[33] The crucial issue is that the initial programme should be large enough to make the mechanism credible.[34] The size that the banking sector and some large banks in particular have in their economies (Table 5) may have been an impediment for some governments to embark on more comprehensive bailout schemes.

Improved bankruptcy procedures add another efficient resolution mechanism for weak financial institutions…

Dealing with bad assets may also involve winding down insolvent institutions where it is deemed to be necessary. As this crisis has shown, resolution mechanisms for big financial institutions need to be improved. In order to let large institutions fail, credible mechanisms need to be in place that allow winding them down without impairing the financial intermediation process and causing systemic market ruptures. Currently, bankruptcy procedures for insolvent banks are time-consuming, but procedures could be improved in order to facilitate an efficient and quick renegotiation of claims. In this way, bankruptcy procedures could also be a comprehensive approach to deal with steps two (*ii* – draining toxic assets) and three (*iii* – recapitalising affected institutions) as discussed above.

…and could stop a crisis at an early stage, but global interconnectedness poses difficulties

Credible bankruptcy procedures also applicable to large ('too big to fail') institutions could perhaps help to contain banking crisis at an early stage without overly widespread contagion effects. Swift and credible loss recognition through bankruptcy could help to restore credibility and the financial intermediation mechanism. But the global interconnectedness and complex structures of large, globally active financial institutions may make such procedures difficult to implement. Any reform in national resolution regimes would have to take into account the operations of complex financial firms and the various regulatory structures to which they are subject. Global co-ordination is needed in the design of resolution mechanisms that work with insolvency regimes across various jurisdictions.

Resolution either through direct government intervention via conservatorship and bridge banks, as, e.g., in the United States…

Some models for resolution procedures for systemically important financial firms do exist. In the US,[35] this would include a process for dealing with failing insured depository institutions under the Federal Deposit Insurance Act (FDIA), and the framework established for Fannie Mae and Freddie Mac under the Housing and Economic Recovery Act of 2008.[36] Both models allow a government agency to take control of a failing institution's operations and management, act as conservator or receiver[37] for the institution, and establish a 'bridge' institution to facilitate an orderly sale or liquidation of the firm. This reduces the potential for market disruption while limiting moral hazard and mitigating any adverse impact of government intervention on market discipline.

Table 5. **Banks' weight in their home economies**

Weight in the national economy of selected systemically important globally active banks: selected balance sheet items, stock-market listed institutions only, end-2008

Name	Country	Total assets in USD bn	Total assets, % of GDP	Total liabilities, % of GDP	Demand, savings and other time deposits, % of GDP	Common shareholders' equity, % of GDP	Leverage ratio (total liabilities/common shareholders' equity)	Capital Adequacy Ratio – Tier 1	Capital Adequacy Ratio – Total Capital	Cash dividends paid - total, in % of common share-holders' equity	*Memo item:* Loss in market value from end of 2008 to 18-Jun-09, in %
UBS 'R'	Switzerland	1,772.1	424.1	415.4	21.3	6.9	59.9	11.0	15.1		-59.0
KAUPTHING BANK	Iceland	85.2	407.4	250.0	105.4	21.8	11.5	9.4	12.2	1.4	10.3
CREDIT SUISSE GROUP N	Switzerland	1,024.4	245.1	235.2	-	6.8	34.4	13.3	17.9	9.1	-24.1
ESPIRITO SANTO FINL.GP.	Luxembourg	113.7	231.3	217.4	71.2	2.2	99.3	5.3	8.9	37.0	-51.7
DANSKE BANK	Denmark	694.6	226.8	220.5	-	6.3	35.1	9.2	13.0	5.9	-56.2
DEXIA	Belgium	946.0	209.1	207.3	39.1	1.3	163.8	10.6	11.8	28.4	-54.1
NORDEA BANK	Sweden	795.4	178.0	171.3	67.9	6.7	25.7	7.4	9.5	6.5	-28.9
ROYAL BANK OF SCTL.GP.	United Kingdom	4,766.6	169.6	163.9	45.3	4.2	39.3	10.0	14.1	5.4	-60.4
BARCLAYS	United Kingdom	4,081.4	145.2	142.1	23.8	2.3	60.9	8.6	13.6	9.2	-44.4
HSBC HDG.	United Kingdom	3,436.8	122.3	117.5	-	4.4	26.9	8.3	11.4	6.4	-25.3
BNP PARIBAS	France	3,028.6	118.3	114.9	30.4	3.0	37.8	7.8	-	5.7	-28.6
KBC GROUP	Belgium	516.4	114.2	109.2	51.9	4.6	23.8	9.7	13.5	9.1	-87.4
BANK OF IRELAND	Ireland	288.4	112.0	108.3	48.1	3.7	29.5	7.8	10.8	9.6	-82.8
BANCO SANTANDER	Spain	1,513.1	106.6	100.5	34.6	5.9	16.9	9.1	13.3	7.4	-32.6
ALLIED IRISH BANKS	Ireland	265.9	103.3	97.3	52.6	4.8	20.3	7.4	10.5	9.0	-88.6
DEUTSCHE BANK	Germany	3,207.6	98.0	96.6	17.7	1.4	70.4	10.1	12.2	7.4	-43.4
CREDIT AGRICOLE	France	2,410.9	94.2	91.5	17.5	2.4	38.4	9.1	9.9	4.8	-43.7
DNB NOR	Norway	337.3	87.5	83.6	28.5	3.7	22.7	6.7	9.5	7.8	-49.0
SEB 'A'	Sweden	388.0	86.8	83.9	16.0	2.9	29.0	8.4	10.6	5.3	-47.2
ERSTE GROUP BANK	Austria	293.3	80.2	75.8	19.8	3.2	23.5	7.2	10.1	2.9	-63.3
SVENSKA HANDBKN.'A'	Sweden	334.0	74.7	72.1	18.8	2.6	27.8	6.2	9.5	11.2	-44.9
UNICREDIT	Italy	1,513.4	72.5	68.5	21.4	3.9	17.8	6.7	10.7	6.3	-61.4
SOCIETE GENERALE	France	1,647.7	64.4	62.0	21.4	2.1	30.1	8.8	-	1.6	-50.9
SWEDBANK 'A'	Sweden	280.3	62.7	59.7	13.3	3.0	20.0	8.1	11.2	5.4	-79.3
NATIONAL AUS.BANK	Australia	574.2	62.3	59.1	21.8	2.7	22.1	7.4	10.9	6.1	-37.5
BCP 'R'	Portugal	137.2	62.2	58.1	29.4	3.3	17.7	7.1	10.5		-67.7
BBV.ARGENTARIA	Spain	785.7	55.4	52.6	19.2	2.6	19.9	7.9	12.2	11.0	-51.8
ROYAL BANK CANADA	Canada	731.7	50.8	48.4	14.3	2.0	24.5	9.0	11.1	9.6	-14.1
STRAUMUR-BUROARAS	Iceland	10.4	49.9	18.2	-	9.4	1.9	15.3	19.8		-2.6
BANCO ESPIRITO SANTO	Portugal	109.7	49.8	47.1	18.2	2.6	18.2	6.5	10.5	7.0	-42.9
BANQUE NALE.DE BELGIQUE	Belgium	224.0	49.5	47.1	-	2.4	19.4	-	-	0.4	-27.2
NATIONAL BK.OF GREECE	Greece	147.8	47.9	44.4	-	2.8	15.7	10.0	10.3	4.5	-61.8
COMMONWEALTH BK.OF AUS.	Australia	428.0	46.4	43.9	18.0	2.3	18.7	8.2	11.6	9.5	-32.0
AUS.AND NZ.BANKING GP.	Australia	413.2	44.8	42.3	19.0	2.4	17.3	7.7	11.1	0.2	-34.0
INTESA SANPAOLO	Italy	923.1	44.2	40.7	14.2	3.4	11.9	7.1	10.2	10.0	-58.7
WESTPAC BANKING	Australia	385.4	41.8	39.9	12.2	1.7	23.5	7.8	10.8	10.5	0.9
MITSUBISHI UFJ FINL.GP.	Japan	1,720.6	41.2	39.1	-	1.6	24.2	7.6	11.2	1.9	-29.7
TORONTO-DOMINION BANK	Canada	569.4	39.5	37.2	26.4	2.1	17.7	9.8	12.0	5.5	-14.6
EFG EUROBANK ERGASIAS	Greece	119.8	38.9	37.0	20.2	1.7	21.8	7.5	9.7	7.6	-70.5
OTP BANK	Hungary	54.2	38.7	34.4	-	4.3	8.0	-	-	-	-65.3
BK.OF NOVA SCOTIA	Canada	511.5	35.5	33.9	24.4	1.3	25.7	9.3	11.1	10.7	-27.5
RAIFFEISEN INTL.BK.HLDG.	Austria	124.7	34.1	31.5	17.7	2.2	14.1	9.7	9.7	3.4	-76.2
MIZUHO FINL.GP.	Japan	1,376.8	33.0	31.7	-	0.6	50.7	7.4	11.7	3.5	-48.7
NATIXIS	France	809.3	31.6	30.7	3.0	0.9	34.5	8.2	10.2		-76.1
LLOYDS BANKING GROUP	United Kingdom	866.3	30.8	30.1	12.1	0.7	45.3	8.0	11.2	21.7	-42.0
ALPHA BANK	Greece	94.9	30.8	29.4	18.6	1.4	20.5	8.3	10.1	12.0	-69.9
FORTIS	Belgium	135.2	29.9	27.7	-	2.1	13.4	-	-	21.6	-86.3
WOORI FINANCE HOLDINGS	Korea	310.2	29.4	27.9	-	1.2	22.6	-	-	1.7	-59.8
BANK OF MONTREAL	Canada	421.6	29.3	27.9	18.1	1.1	24.6	9.8	12.2	9.2	-22.6
BANCO BPI	Portugal	62.5	28.4	27.1	14.7	1.0	27.2	8.8	11.3	10.6	-60.1
COMMERZBANK	Germany	905.2	27.7	26.8	6.2	0.9	31.1	6.9	10.8	3.4	-76.3
KB FINANCIAL GROUP	Korea	285.8	27.1	25.5	-	1.6	15.9	-	-		-55.3
SHINHAN FINL.GROUP	Korea	281.2	26.6	24.8	-	1.7	14.3	-	-	3.6	-51.0
BANK OF PIRAEUS	Greece	79.9	25.9	24.5	13.1	1.4	17.9	8.0	9.9	4.2	-74.5

Note: Ranked by total assets as a share of GDP. Included are listed banks with a share of total assets in per cent of GDP larger than 25.

Source: Thomson Financial, Worldscope, OECD.

..the United Kingdom and Germany…

A resolution mechanism operating via bridge banks has recently also been put in place in the United Kingdom. A new 'special resolution regime' (SRR)[38] provides 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'. In Germany, the parliament recently approved a bill that establishes a mechanism for governments to nationalise systemically important banks that are in serious difficulties.[39] Government ownership would be temporary and for the purpose of restructuring the institution concerned.

…or via a more private-based debt-equity swap approach

According to one specific proposal of an alternative standardised bankruptcy procedure,[40] banks' equity would be wiped out and debt would be transformed into equity. This debt-equity swap would immediately recapitalise the bank and allow it to resume lending. 'Expropriated' shareholders would be compensated with a stock purchase option, and bondholders and other debtors would get a (short-term and tradable) option of acquiring a stake in the reorganised company or get their debt redeemed according to their seniority rights and the value of the reorganised company (redemption would be equivalent to a standard bankruptcy procedure). This approach would not have to rely on taxpayers' money to recapitalise banks and would avoid any valuation problem of toxic assets by a government-sponsored asset management mechanism, a bad bank or an RTC.

3. Exit strategies

Many of the extraordinary policy actions will need to be phased out

The crisis has led to extraordinary policy measures. The emergency nature of actions regarding liquidity, solvency and fiscal policies will strain budgets of many governments for years to come, and have in many cases unlevelled the playing field for the financial and non-financial industry. As the crisis evolves and eventually passes, it will be important to phase out many of these policies. Strategies need to support long-run objectives which will prevent a similar crisis in the future, and should thus help to reinforce credibility and instil confidence.

Financial sector crisis measures should be consistent with long-term goals to avoid future problems

Therefore, policy makers will have to begin the process of thinking about exit strategies.[41] Such an exit should be towards a sustainable and stable, less crisis-prone institutional and regulatory framework. Such a framework will have to take into account competition environments and corporate structures which should not give rise to systemic concerns, with institutions 'too big to fail' posing problems with moral hazard.[42] It will also have to promote better risk control through the design of 'risk-compatible' corporate governance structures, including compensation and other incentives that were among the many elements in the build-up and propagation of this crisis.[43] It should also enhance transparency, thus facilitate more symmetric information flows to reduce the risk of liquidity crises. Furthermore, such a framework also needs to address the reform of capital regulations, underwriting standards, accounting principles, tax policies, as well as credit rating agencies and their regulation. Eventually, it will also be critical to strengthen financial education and consumer protection, so that individuals are better equipped to deal with financial risks and responsibilities.[44]

Competition issues are important, and so are sequencing and co-ordination

While emergency measures in a crisis may sometimes stray from the principles of sound competition, maintaining robust competition policy is essential to speedily resume a solid long-run growth path when economic conditions stabilise.[45] The phasing out of emergency measures, including the withdrawal of governments from their ownership or direct involvement in banks, needs to be aligned with other financial market reforms undertaken by governments. Such exit measures also need to be carefully sequenced and co-ordinated at an international level to ensure better and more effective corporate and incentive structures.

II. Some areas of further regulatory reform and policy measures

1. Banking in a new financial landscape

Separating high-risk business from traditional banking

More and more voices are calling for a separation of high- and low-risk banking business, or some division between the buy and the sell side in the financial services industry. A return to a Glass-Steagall type regulation in the original sense[46] is certainly not warranted, and reversing the 1986 'Big Bang' of the City of London, which ended the divisions between merchant banks, brokers and market makers (and allowed US investment banks do business in the City) is probably also not a feasible option. However, there seems to be some agreement that new banking regulation needs to separate investment banking and other higher risk taking activities from more traditional bank lending.[47] New rules also need to curb conflicts of interest and regulatory capture, and promote proper risk pricing. If investment banks no longer have access to cheap funding via their deposit taking arms, prices would better reflect true underlying risks. Furthermore, the high-risk parts of the business could be allowed to fail without or with limited contagion effects. M&A policies may need to be designed to fit that purpose.[48]

Positive diversification effects need to be achieved within the new, smaller institutions

It may be argued that there is a downside to this separation associated with the loss of potential diversification benefits for the new institutions. Financial groups seem to be quite resilient in the face of a ('normal') downturn, and have in past difficult periods shown relatively higher equity market valuations.[49] But, as observed during this crisis, such diversification effects often cannot be reaped when they are needed most, namely when the shocks are systemic. Thus, the task would be to diversify risk without relying on a conglomerate structure, but within the smaller entities that would populate a new financial landscape, for example, through diversifying funding and earnings sources as well as retrenching to core business.[50]

Capital buffers need to be increased, and 'dynamic provisioning' should help to mitigate pro-cyclicality

Another element in the new regulatory framework for the banking sector is revised capital rules. Capital buffers need to be sufficiently large in order strengthen financial institutions, while at the same time addressing the problem of procyclicality of such rules. Under the current 'incurred loss model' rules, taking account of expected or occurred losses, banks' reserve provisioning and their reported losses rise during an economic downturn. While acknowledging the importance of higher capital buffers, policymakers agreed that global minimum capital requirements should not be increased during this period of economic and financial stress. But looking forward, new rules should oblige banks to increase regulatory capital in times when profits allow them more easily to do so, in order to provide a buffer to absorb losses and support continued lending to the economy during more difficult times. Such a 'dynamic provisioning' approach would also mitigate pro-cyclicality in the financial system.[51]

But accounting rules should not blur useful financial information

A well-designed dynamic provisioning rule, together with appropriate valuation and accounting rules could thus attain both the stability (the regulators') as well as the transparency (the accountants') goal of financial accounting.[52] However, one needs to be careful not to blur useful financial information by pushing back mark-to market rule. For example, the recent initiatives by IASB and FASB allowing more assets to be recorded at non-market prices (as market prices would perhaps be depressed by 'fire sales') could turn out to be costly.[53] In shifting toxic assets from the trading to the banking book and valuing them by internal models may lead to overvaluation of toxic assets (and underpricing of their risks) and may impede efforts to deal with these assets by making them less liquid and curbing the upside for any (public or private) investor.

Liquidity requirements need to be made more stringent

Initiatives are also underway to overhaul liquidity requirements for banks. The Basel Committee on Banking Supervision is attempting to form an international framework to regulate liquidity. In a more ambitious initiative, the UK regulator FSA has proposed that banks in the United Kingdom should be forced to hold greater reserves of government bonds than formerly.[54] They would also force UK branches and subsidiaries of foreign banks to be self-sufficient in terms of funding, unless their parent companies meet certain criteria. Such initiatives are understandable as it was in particular in the United Kingdom where inadequate regulation of liquidity triggered the collapse of the mortgage lender Northern Rock. The country was also affected by the failure of Iceland's banks, which had substantial operations in the UK, as well as by Lehman Brothers Holdings Inc's filing for bankruptcy protection in the US which precipitated the immediate insolvency of Lehman Brothers International (Europe), a UK company. There are, however, concerns about the FSA's initiative in that it could undermine international rules by triggering regulatory retaliation, with jurisdictions seeking to ring-fence more and more liquidity within their own borders, and thus also negatively affecting competitiveness of the London market. However, the crisis may have made some tighter control by national regulators of their banking sectors necessary, including the unwinding of some of the cross-border expansion and opaque liquidity management in globally active financial institutions.

An overhaul of capital, accounting and liquidity rules are also proposed by the de Larosière Report…

Reforms concerning a fundamental review of Basel II capital requirements and accounting rules are also proposed in the de Larosière Report[55] (Box 1) which is the basis of a recent regulatory reform proposals at the EU level. Among these reforms are stricter rules for treatment of off-balance sheet items, and a common EU definition of regulatory capital. The report also proposes a wider reflection on mark-to-market accounting standards, which introduce pro-cyclicality and may have exacerbated the impact of the credit crunch. There is also a proposal to strengthen oversight and governance of the International Accounting Standards Board (IASB), the accounting standard-setter for the EU.

…and the Turner Review

In the recent Turner Review released by the UK FSA,[56] proposals to increase the quality and quantity of overall capital in the global banking system, to make accounting less cyclical, and to improve liquidity regulation and supervision are strongly supported (see Box 2).

2. Further regulatory reform

Reforms need to take a comprehensive and long-term view

In response to the crisis, policy makers will also need to look at more comprehensive longer-term issues of regulatory reform. From a multi-dimensional perspective, such reforms should be broadly consistent with longer-run economic goals and have to take into account the strong inter-relationships between banking structures, corporate governance frameworks, capital regulations, accounting and tax rules, the financial safety net (regulation and supervision, lender of last resort function, deposit insurance, and resolution mechanisms), and competition policy. Such a perspective is also being taken in the OECD's *Strategic Response.*[57] Reforms need to improve information flows (transparency) to reduce the risk of liquidity crises, establish corporate governance and tax regimes that promote incentive structures for better risk control, and corporate structures that address contamination risk from affiliates. At the same time, any new regulation and other measures should be non-distorting and maintain markets competitive within and between countries – limiting systemic risk and balancing growth and stability being the main challenges.

Box 1. The de Larosière Report

Joining the various efforts for a regulatory overhaul, de Larosière Report on cross-border financial supervision has made several proposals to improve European regulation and supervision. They cover the organisation of supervision of financial institutions and markets in the EU; the question how to strengthen European co-operation on financial stability oversight, early warning and crisis mechanisms; and how EU supervisors should co operate globally. The report also brings forward recommendations on regulation of financial markets. The report also suggests the creation of two new bodies for macro- and micro-prudential supervision, respectively:

(1) The first one, the so-called ***European Systemic Risk Council*** (ESRC) should be set up under the auspices of the ECB and chaired by its President, and be composed of ECB's General Council members, the EU Commission as well as the Chairs of CEBS, CEIOPS and CESR.[a] Insurance and securities supervisors would be brought in where necessary. The role of this body would be to gather information on all macro-prudential risks in the EU, issue risk warnings on which there would be mandatory follow-up and monitoring by EU supervisors and, in case the risks were very serious should be taken up by the EU Economic and Financial Committee, working with the EU Commission, to address the risks. The ESRC should also work closely with the IMF, FSF (now FSB), and the G20 at the global level.

(2) The second one, the ***European System of Financial Supervision*** (ESFS), would cover micro-prudential supervision and transform the three Level 3 Committees CEBS, CEIOPS, and CESR into three new European Authorities: the European Banking Authority; the European Securities Authority; and the European Insurance Authority; with a considerably expanded role, including some legal powers. Their main additional tasks would be: *(i)* legally binding mediation between national supervisors; *(ii)* adoption of binding supervisory standards; *(iii)* adoption of binding technical decisions applicable to individual institutions; *(iv)* oversight and co-ordination of colleges of supervisors (which should be set up for each major cross-border institution, of which 45 have been identified); *(v)* licensing and supervision of specific EU-wide institutions (*e.g.* Credit Rating Agencies and post-trading infrastructures); *(vi)* binding co-operation with the ESRC to ensure adequate prudential supervision; and *(vii)* a strong co-ordinating role in crisis situations.

Other reform proposals concern:

- ***Credit rating agencies***, mainly that national supervisors should collectively be responsible for registering and supervising credit rating agencies.
- ***Regulation should also be extended to the so-called parallel (shadow) banking system***, and there should be registration and information requirements on all major hedge funds.
- It is also proposed that there should be ***capital requirements*** on banks owning or operating alternative investment and private equity funds.
- There should be a **common EU definition of regulatory capital**.
- Proposal to strengthen oversight and governance of the International Accounting Standards Board (IASB), the accounting standard-setter for the EU.
- Furthermore, supervisors should oversee suitability of ***compensation*** at financial institutions.

a) The so-called Level 3 Committees, which are the Committee of European Banking Supervisors (CEBS), the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS), and the Committee of European Securities Regulators (CESR).

Sources: Report by the High-Level Group of Financial Supervision, chaired by Jacques de Larosière, Brussels, 25 February 2009, available at http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf. See also the introduction and summary at http://ec.europa.eu/ireland/press_office/news_of_the_day/cross-border-financial-supervision-report_en.htm.

Box 2. The Turner review

A. Capital requirements and accounting reforms

The Turner Review released by the UK FSA in March 2009 proposes to increase the quality and quantity of overall capital in the global banking system, to make accounting less cyclical, and to improve liquidity regulation and supervision. In particular, the report proposes that:

- The minimum **regulatory requirements** should be significantly **increased** above existing Basel rules (with careful phasing-in to maintaining bank lending in the current macroeconomic climate);
- **Capital required against trading book activities** should be **increased** significantly (several times);
- The **market risk capital regime** should be fundamentally **reviewed** (e.g. reliance on VAR measures for regulatory purposes);
- Regulators should take immediate action to ensure that the implementation of the current Basel II capital regime does **not create unnecessary pro-cyclicality** (this could be achieved by using 'through the cycle' rather than 'point in time' measures of probabilities of default);
- A **counter-cyclical capital adequacy regime should be introduced**, with capital buffers which increase in economic upswings and decrease in recessions;
- Published accounts should also include **buffers which anticipate potential future losses**, through, for instance, the creation of an 'Economic Cycle Reserve';
- A **maximum gross leverage ratio should be introduced** as a backstop discipline against excessive growth in absolute balance sheet size;
- **Liquidity regulation and supervision** should be recognised as of equal importance to capital regulation;
- More intense and dedicated **supervision of individual banks' liquidity positions** should be introduced, including the use of stress tests defined by regulators and covering system-wide risks;
- The introduction of a **'core funding ratio'** to ensure sustainable funding of balance sheet growth should be considered.

B. Further reforms

Besides the above proposals for improved capital, accounting and liquidity rules, as well as requirements for and regulation of large hedge funds and off-balance sheet vehicles, the Turner report proposes further-reaching reforms, some of them proposed elsewhere and/or already implemented, and covering areas such as:

Institutional and geographic coverage of regulation, which should follow the principle of economic substance not legal form, and with authorities having the power to gather information on all significant unregulated financial institutions (e.g. hedge funds) to allow assessment of overall system-wide risks, and the power to extend prudential regulation of capital and liquidity or impose other restrictions if any institution or group of institutions develops bank-like features that threaten financial stability and/or otherwise become systemically significant. Offshore financial centres should be covered by global agreements on regulatory standards.

Retail deposit insurance, which should be sufficiently generous to ensure that the vast majority of retail depositors are protected against the impact of bank failure, as already implemented in the UK, and with clear communication put in place to ensure that retail depositors understand the extent of deposit insurance cover.

Bank Resolution, with a resolution regime that facilitates the orderly wind down of failed banks should be in place, as already done via the UK Banking Act 2009 (see above).

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Box 2 (cont'd). Turner review

Credit rating agencies should be subject to registration and supervision to ensure good governance and management of conflicts of interest and to ensure that credit ratings are only applied to securities for which a consistent rating is possible. Rating agencies and regulators should ensure that communication to investors about the appropriate use of ratings makes clear that they are designed to carry inference for credit risk, not liquidity or market price. There should also be a fundamental review of the use of structured finance ratings in the Basel II framework.

***Remuneration* policies** should be designed to avoid incentives for undue risk taking; risk management considerations should be closely integrated into remuneration decisions. This should be achieved through the development and enforcement of UK and global codes.

Credit Default Swap (CDS) market infrastructure, with clearing and central counterparty systems to cover the standardised contracts which account for the majority of CDS trading.

Macro-prudential analysis, in which as well as in the identification of policy measures both the Bank of England and the FSA should be extensively and collaboratively involved. Measures such as countercyclical capital and liquidity requirements should be used to offset these risks. Institutions such as the IMF should have the resources and robust independence to do high quality macro-prudential analysis and if necessary to challenge conventional intellectual wisdoms and national policies.

FSA supervisory approach: The FSA should complete the implementation of its Supervisory Enhancement Program (SEP) which entails a major shift in its supervisory approach, increasing risk focus and levels of skills and analysis.

Firm risk management and governance, addressing the questions whether changes in governance structure are required to increase the independence of risk management functions, and the skill level and time commitment required for non-executive directors of large complex banks to perform effective oversight of risks and provide challenge to executive strategies.

Utility banking versus investment banking, with new capital and liquidity requirements to be designed to constrain commercial banks' role in risky proprietary trading activities (while a more formal and complete legal distinction of 'narrow banking' from market making activities is regarded as not feasible in the Review).

Global cross-border banks, with international co-ordination of bank supervision to be enhanced by (i) the establishment and effective operation of colleges of supervisors for the largest complex and cross-border financial institutions; and (ii) the pre-emptive development of crisis co-ordination mechanisms and contingency plans between supervisors, central banks and finance ministries. Furthermore, the FSA should be prepared to more actively use its powers to require strongly capitalised local subsidiaries, local liquidity and limits to firm activity, if needed to complement improved international co-ordination.

European cross-border banks, with a new European institution to be created which would be an independent authority with regulatory powers, a standard setter and overseer in the area of supervision, and would be significantly involved in macro-prudential analysis (*cf.* the de Larosière Report, Box 1). This body should replace the Lamfalussy ('Level 3') Committees (Box 1, footnote a). Supervision of individual firms should continue to be performed at national level. The present arrangements in relation to cross-border branch pass-porting rights should be changed through some combination of *(i)* increased national powers to require subsidiarisation or to limit retail deposit taking; *(ii)* reforms to European deposit insurance rules which ensure the existence of pre-funded resources to support deposits in the event of a bank failure.

Source: The Turner Review: A regulatory response to the global banking crisis, Financial Services Authority, March 2009, available at http://www.fsa.gov.uk/pages/Library/Corporate/turner/index.shtml; release date was 18 March 2009.

The likelihood of a financial crisis occurring is not independent of the economic and regulatory environment

It has also to be kept in mind that no financial system will be completely fail-safe, and financial crises will occur in the future. However, recent research provides a telling analysis of how the economic and regulatory environment tends to increase the likelihood of an occurrence of a financial crisis.[58] Periods of financial sector deregulation seem to be the ones where the frequency of financial crisis have increased, like the years preceding the Great Depression and the 1990s in the run-up to the bursting of the dot-com bubble. What can be done, thus, is to improve regulation and supervision as well as possible to prevent a crisis – and, once a crisis has occurred, have appropriate, credible mechanisms in place to respond to the crisis, including through improved and better co-ordinated policy frameworks, perhaps in some ways akin to those put in place to deal with catastrophic risk.[59]

Reform proposals by the G20 to strengthen the international financial system

Since its first crisis-related meeting in November 2008,[60] the G20 has been developing a framework for comprehensive reforms of the international financial and economic architecture. A statement by G20 finance ministers and central bank governors in March,[61] reinforced in a G20 statement in April,[62] supported the proposals to strengthen the financial system(see Box 3).

Box 3. G20 proposals for financial system reform

G20 finance ministers and central bank governors statement, 14 March 2009

A statement by G20 finance ministers and central bank governors released on 14 March 2009 supports the following proposals to strengthen the financial system:

- Expansion of **Financial Stability Forum**'s (FSF) membership to all G20 members;
- subject all **systemically important financial institutions**, markets and instruments to an appropriate degree of regulation and oversight, and require that **hedge funds** or their managers are registered and disclose appropriate information to assess the risks they pose;
- reinforce **stronger regulation** and strengthen **macro-prudential oversight** to prevent the build-up of systemic risk;
- devise financial **regulations that dampen rather than amplify economic cycles**, including by building buffers of resources during the good times and measures to constrain leverage; while acknowledging that it is vital that capital requirements remain unchanged until recovery is assured;
- **strengthen international co-operation** to prevent and resolve crises, including through supervisory colleges, institutional reinforcement of the FSF, and the launch of an IMF/FSF *Early Warning Exercise*;

In this statement the G20 also agreed to:

- Regulatory oversight, including registration, of all **Credit Rating Agencies** whose ratings are used for regulatory purposes, and compliance with the International Organisation of Securities Commissions (IOSCO) code;
- full transparency of exposures to **off-balance sheet vehicles**;
- the need for improvements in **accounting standards**, including for provisioning and valuation uncertainty;
- greater standardisation and resilience of **credit derivatives markets**;
- the FSF's sound practice principles for **compensation**;
- that the relevant international bodies identify **non-co-operative jurisdictions** and develop a tool box of effective counter measures;
- to strengthen the effectiveness and legitimacy of the **International Financial Institutions** (IFIs), enhance their governance and ensure they fully reflect changes in the world economy.

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Box 3 (cont'd). G20 proposals for financial system reform

G20 leaders statement, 2 April 2009

These March proposals were reinforced and specified at the G20 summit on 2 April 2009, aiming at building a "stronger, more globally consistent, supervisory and regulatory framework for the future financial sector, which will support sustainable global growth and serve the needs of business and citizens." Leaders agreed to *(i)* establish greater consistency and systematic **co-operation** between countries and a framework of internationally agreed high standards; *(ii)* promote **propriety, integrity and transparency** in financial regulation; *(iii)* **guard against risk** across the financial system; *(iv)* **dampen** rather than amplify **the financial and economic cycle**; *(v)* reduce reliance on inappropriately risky sources of **financing**; *(vi)* discourage excessive **risk-taking**; and they also stated that *(vii)* regulators and supervisors must **protect consumers and investors**, **support market discipline**, avoid **adverse impacts** on other countries, reduce the scope for **regulatory arbitrage**, support **competition** and **dynamism**, and keep pace with **innovation** in the marketplace. An *Action Plan* has been implemented to achieve these goals. In their Declaration *Strengthening the Financial System* leaders agreed in particular:

- to establish a new **Financial Stability Board** (FSB) with a strengthened mandate, as a successor to the Financial Stability Forum (FSF), including all G20 countries, FSF members, Spain, and the European Commission;
- that the FSB should collaborate with the IMF to provide **early warning of macroeconomic and financial risks** and the actions needed to address them;
- to reshape regulatory systems so that authorities are able to identify and **take account of macro-prudential risks**;
- to extend regulation and oversight to all **systemically important financial institutions, instruments and markets,** include systemically important hedge funds;
- to endorse and implement the FSF's new **principles on pay and compensation** and to support sustainable compensation schemes and the corporate social responsibility of all firms;
- to take action, once recovery is assured, to improve the quality, quantity, and **international consistency of capital in the banking system**, noting that in the future regulation must prevent excessive leverage and require buffers of resources to be built up in good times;
- to take action against **non-co-operative jurisdictions**, including tax havens, noting the that the OECD has published a list of countries assessed by the Global Forum against the international standard for exchange of tax information;
- to call on the accounting standard setters to work urgently with supervisors and regulators to **improve standards on valuation and provisioning** and achieve a single set of high-quality global accounting standards; and
- to extend regulatory oversight and registration to **Credit Rating Agencies** to ensure they meet the international code of good practice, particularly to prevent unacceptable conflicts of interest.

G20 Leaders also put forward proposals to **strengthen global financial institutions**, making available an additional USD 850bn of resources through the global financial institutions to support growth in emerging market and developing countries. As an immediate measure, IMF resources should be increased by USD 250bn through bilateral financing from members.

Sources: G20 Finance Ministers' and Central Bank Governors' Communiqué, 14 March 2009, available at http://www.g20.org/Documents/2009_communique_horsham_uk.pdf; as well as the *Annex to Communiqué - Restoring lending: a framework for financial repair and recovery*, 14 March 2009; and the *Progress Report on the Immediate Actions of the Washington Action Plan* prepared by the UK Chair of the G20, 14 March 2009; and all available on the www.g20.org website; *Leaders Statement: The Global Plan for Recovery and Reform*, London, 2 April 2009, at http://www.g20.org/Documents/final-communique.pdf; *Declaration on Strengthening the Financial System*, London, 2 April 2009, at http://www.g20.org/Documents/Fin_Deps_Fin_Reg_Annex_020409_-_1615_final.pdf; *Declaration on Delivering Resources through the International Financial Institutions*, London, 2 April 2009, at http://www.g20.org/Documents/Fin_Deps_IFI_Annex_Draft_02_04_09_-_1615_Clean.pdf; and the *Progress Report on the Actions of the Washington Action Plan*, 2 April 2009, at http://www.g20.org/Documents/FINAL_Annex_on_Action_Plan.pdf.

Reforms proposed by the European Union in the 'de Larosière Report', with new bodies for macro- and micro-prudential supervision

Separately, but also in preparation to the G20 summit in April and as further input to the G20 initiatives and discussions, the above mentioned de Larosière Report on cross-border financial supervision[63] (Box 1) has made several proposals to improve European regulation and supervision. They cover the organisation of supervision of financial institutions and markets in the EU; the question how to strengthen European co-operation on financial stability oversight, early warning and crisis mechanisms; and how EU supervisors should co-operate globally. The report also brings forward recommendations on regulation of financial markets. Short of proposing (a perhaps politically unfeasible) EU-wide single regulator, the report suggests the creation of two new bodies for macro- and micro-prudential supervision, and covers various other far-reaching reform proposals. As mentioned, the de Larosière Report proposals are the basis of a recent reform bill tabled by the European Commission, however, despite broad support for the proposals EU ministers so far failed to agree on the proposal to give binding powers to supervisory colleges as this could impinge on national fiscal sovereignty. [64]

UK Turner Review proposes far-reaching regulatory reforms

In the United Kingdom, the FSA's above mentioned Turner Review[65] (see Box 2) proposes tighter regulation. Besides improved capital, accounting and liquidity rules, the report proposes further-reaching reforms, some of them proposed elsewhere and/or already implemented.

Regulatory reforms and regulatory consolidation in the United States

Further regulatory reforms and consolidation is also an issue in the United States. It has often been suggested that the United States need a number of reforms of the regulation of US financial services, in particular a consolidation of the US regulatory system. [66] Such consolidation would also make international collaboration of the regulators easier, especially if the EU adopts the proposals to co-ordinate the EU's international co-operation in the newly to be established macro- and micro prudential bodies. Following up on previous proposals for financial market reforms (*e.g.* the US President's Working Group on Financial Markets *Policy Statement Recommendations* of March 2008[67] and the proposals to regulate OTC derivatives in May [68]), the new US administration presented a comprehensive plan for a major overhaul of the financial system on 17 June 2009 (Box 4). [69] The plan will impose strong consolidated supervision and regulation for systemically important financial firms, increase market discipline and transparency, promote consumer protection, provide new crisis management tools to the government, raise international regulatory standards and improve international co-ordination.

Box 4. US regulatory reform proposals

On 17 June, the new US administration presented a comprehensive plan for a major overhaul of the financial system. The proposed reforms should meet five key objectives:

I. Promote robust supervision and regulation of financial firms

Systemically important financial institutions should be subject to strong oversight, with clear accountability in financial oversight and supervision. The plan therefore proposes:

- a new *Financial Services Oversight Council* of financial regulators to identify emerging systemic risks and improve interagency co-operation;
- new authority for the Federal Reserve to supervise all firms that could pose a threat to financial stability, even those that do not own banks, by implementation of heightened consolidated supervision and regulation of all large, interconnected financial firms;
- stronger capital and other prudential standards for all financial firms, and even higher standards for large, interconnected firms;
- a new *National Bank Supervisor* (NBS) to supervise all federally chartered banks;
- elimination of the federal thrift charter and other loopholes that allowed some depository institutions to avoid bank holding company regulation by the Federal Reserve, and elimination of the SEC's programmes for consolidated supervision;
- the registration of advisers of hedge funds and other private pools of capital with the SEC;
- to devise measures to reduce the susceptibility of money market mutual funds (MMFs) to runs;
- to enhance oversight of the insurance sector by the establishment of the *Office of National Insurance* within Treasury to gather information, develop expertise, negotiate international agreements, and co-ordinate policy in the insurance sector;
- to determine the future role of the Government Sponsored Enterprises (GSEs).

II. Establish comprehensive regulation of financial markets

In order to increase financial markets' resilience, so they can withstand both system-wide stress and the failure of one or more large institutions, the plan proposes:

- enhanced regulation of securitisation markets, including new requirements for market transparency, stronger regulation of credit rating agencies, and a requirement that issuers and originators retain a financial interest in securitised loans;
- comprehensive regulation of all over-the-counter (OTC) derivatives, including Credit Default Swaps (CDS);
- to harmonise futures and securities regulation;
- to strengthen oversight of systemically important payment, clearing, and settlement systems and related activities, and strengthen settlement capabilities and liquidity resources of systemically important payment, clearing, and settlement systems, with new authority for the Federal Reserve to oversee payment, clearing, and settlement systems.

III. Protect consumers and investors from financial abuse

To rebuild trust in markets, strong and consistent regulation and supervision of consumer financial services and investment markets is needed. This oversight should be based on actual data about how people make financial decisions. Transparency, simplicity, fairness, accountability, and access should be promoted. The plan therefore proposes:

- a new *Consumer Financial Protection Agency* to protect consumers across the financial sector from unfair, deceptive, and abusive practices;
- stronger regulations to improve the transparency, fairness, and appropriateness of consumer and investor products and services;
- a level playing field and higher standards for providers of consumer financial products and services, whether or not they are part of a bank.

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Box 4 (cont'd). US regulatory reform proposals

IV. Provide the government with the tools it needs to manage financial crises

The government should have crisis management tools that do not leave it with choices between bailouts and financial collapse, thus the plan proposes:

- a new regime to resolve nonbank financial institutions whose failure could have serious systemic effects;
- revisions to the Federal Reserve's emergency lending authority to improve accountability.

V. Raise international regulatory standards and improve international co-operation

- ***Strengthen the international capital framework***, recommending that the Basel Committee on Banking Supervision (BCBS) continue to modify and improve Basel II (risk weights, leverage ratio, definition of capital, pro-cyclicality).
- **Improve the oversight of global financial markets**, urging national authorities to promote the standardisation and improved oversight of credit derivative and other OTC derivative markets, in particular through the use of central counterparties, along the lines of the G20 commitment, and to advance these goals through international co-ordination and co-operation.
- ***Enhance supervision of internationally active financial firms***, recommending that the Financial Stability Board (FSB) and national authorities implement G20 commitments to strengthen arrangements for international co-operation on supervision of global financial firms through establishment and continued operational development of supervisory colleges.
- ***Reform crisis prevention and management authorities and procedures***, recommending that the BCBS expedite its work to improve cross-border resolution of global financial firms and develop recommendations by the end of 2009, and urging national authorities to improve information-sharing arrangements and implement the FSB principles for cross-border crisis management.
- ***Strengthen the Financial Stability Board*** (FSB), recommending that the FSB complete its restructuring and institutionalise its new mandate to promote global financial stability by September 2009.
- **Strengthen prudential regulations**, recommending that the BCBS take steps to improve liquidity risk management standards for financial firms and that the FSB work with the Bank for International Settlements (BIS) and standard setters to develop macroprudential tools.
- ***Expand the scope of regulation***, by *(i)* determining the appropriate Tier 1 FHC definition and application of requirements for foreign financial firms, and *(ii)* urging national authorities to implement by the end of 2009 the G20 commitment to require hedge funds or their managers to register and disclose appropriate information necessary to assess the systemic risk they pose individually or collectively.
- **Introduce better compensation practices**, urging each national authority, in line with G20 commitments, to put guidelines in place to align compensation with long-term shareholder value and to promote compensation structures do not provide incentives for excessive risk taking, and also recommending that the BCBS expediently integrate the FSB principles on compensation into its risk management guidance by the end of 2009.
- ***Promote stronger standards in the prudential regulation, money laundering/terrorist financing, and tax information exchange areas***, *(i)* urging the FSB to expeditiously establish and co-ordinate peer reviews to assess compliance and implementation of international regulatory standards, with priority attention on the international co-operation elements of prudential regulatory standards, and *(ii)* announcing that the United States will work to implement the updated *International Cooperation Review Group* (ICRG) peer review process and work with partners in the *Financial Action Task Force* (FATF) to address jurisdictions not complying with international anti-money laundering/terrorist financing (AML/CFT) standards.

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Box 4 (cont'd). US regulatory reform proposals

- ***Improve accounting standards***, *(i)* recommending that the accounting standard setters clarify and make consistent the application of fair value accounting standards, including the impairment of financial instruments, by the end of 2009; *(ii)* recommending that the accounting standard setters improve accounting standards for loan-loss provisioning by the end of 2009 that would make it more forward looking, as long as the transparency of financial statements is not compromised; *(iii)* recommend that the accounting standard setters make substantial progress by the end of 2009 toward development of a single set of high quality global accounting standards.
- ***Tighten Oversight of Credit Rating Agencies*** (CRAs), urging national authorities to enhance their regulatory regimes to effectively oversee credit rating agencies, consistent with international standards and the G20 Leaders' recommendations.

In addition to substantive reforms of the authorities and practices of regulation and supervision, the proposals entail a significant **restructuring of the regulatory system**. In particular, the plan proposes the creation of a *Financial Services Oversight Council*, chaired by Treasury and including the heads of the principal federal financial regulators as members, and the creation of two new agencies: the *Consumer Financial Protection Agency* that will be an independent entity dedicated to consumer protection in credit, savings, and payments markets; and the *National Bank Supervisor*, which will be a single agency with separate status in Treasury with responsibility for federally chartered depository institutions. The creation of an *Office of National Insurance* within Treasury is proposed to promote national co-ordination in the insurance sector.

Under the proposal, the Federal Reserve and the Federal Deposit Insurance Corporation (FDIC) would maintain their respective roles in the supervision and regulation of state-chartered banks, and the National Credit Union Administration (NCUA) would maintain its authorities with regard to credit unions. The Securities and Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC) would maintain their current responsibilities and authorities as market regulators, but the statutory and regulatory frameworks for futures and securities should be harmonised. The Office of the Comptroller of the Currency, which currently charters and supervises nationally chartered banks and federal branches and agencies of foreign banks, and the Office of Thrift Supervision, which supervises federally chartered thrifts and thrift holding companies, would be eliminated (as would be the thrift charter) and their responsibilities be taken over by the proposed National Bank Supervisor.

Source: Department of the Treasury (2009), *Financial Regulatory Reform: A New Foundation*, White Paper, available at http://www.financialstability.gov/docs/regs/FinalReport_web.pdf; and other sources (Fact Sheets) referenced in "President Obama to Announce Comprehensive Plan for Regulatory Reform", U.S. Treasury press release, 17 June 2009, available at http://www.treas.gov/press/releases/tg175.htm.

Many of the official reform proposals are compatible with those suggested by the financial industry

To a large extent the proposals by the official sector are in line with proposals put forward by the financial industry, which has in the course of the crisis been active in analysing shortcomings in management, corporate structure, and the regulatory environment as underlying causes of the crisis and deriving reform proposals from such analysis.[70] Various bodies of the financial industry also take actively part in consultations with the official sector, and broadly agree on the major areas of reform that are necessary to safeguard financial soundness and stability in the future. However, differences remain and continue to be discussed.

It will also be critical to strengthen consumer protection…

Stakeholders at the national and international levels have developed a profusion of analyses on the root causes of the financial crisis, with a strong emphasis on various "macro prudential" deficiencies and potential remedies. The proposals aimed at reforming financial sector regulation and oversight have hence largely focused on aspects of a prudential nature. Discussions on the appropriateness of the various financial consumer protection schemes, and in light of the financial crisis, regulatory adjustment proposals of a "market conduct" nature, have however been much scarcer. The abovementioned recent US regulatory reform plan that includes a proposal to establish a Consumer Financial Protection Agency is an exception in this respect.

The financial crisis has shed light on the vulnerability of households regarding their exposure to financial risks. Innovations in the credit markets, paired with individuals' low levels of financial literacy led to the development and distribution of inappropriate financial products to vulnerable retail consumers. More generally, the transfer of financial risks to households has opened gaps in consumer protection that need to be addressed by market conduct regulations, and enhanced consumer protection regulatory supervision. Key consumer protection issues that might deserve reinforced regulatory scrutiny include advertising and selling strategies of financial service providers and intermediaries; review of disclosure provisions' effectiveness; financial institutions' liabilities in ensuring consumers' understanding and awareness; role of regulators in ensuring financial products' suitability; and strengthening consumer recourse, including redress mechanisms in case of abuse or dispute, and the expansion of neutral and efficient credit counselling services for households in difficulty.

… and financial education

In order for consumer protection measures to be efficient, they must be accompanied by an appropriate level of consumer financial literacy and awareness.[71] In a larger context, financial education should be regarded as a key element of national and global financial stability. Many governments have developed financial education and awareness policies in order to restore households' confidence and ease economic recovery, and private financial institutions have often complemented these efforts. This includes wide and targeted public awareness campaigns using a wide range of available media and channels, as well as information targeted specifically at buyers of certain financial products. Looking ahead, there is a need to develop a coherent and co-ordinated financial education strategy as a pillar of a sound financial regulatory and supervisory framework. Strengthening financial education and consumer protection will help to better equip individuals to deal with financial risks and responsibilities, and make them more resilient against adverse financial and economic shocks.

Notes

[1] See, e.g., *Global Economic Policies and Prospects*, Note by the Staff of the International Monetary Fund for the Group of Twenty Meeting of the Ministers and Central Bank Governors, March 13–14, 2009, London, U.K., available at http://www.imf.org/external/np/g20/pdf/031909a.pdf. More recently, however, the IMF has indicated that its growth projections may be modestly revised upward, mainly with regard to 2010; see *Moving Beyond the Crisis: Global Outlook and Policy Challenges,* Keynote address by John Lipsky, First Deputy Managing Director, IMF, To Turkish Industrialists' and Businessmen's Association (TÜSIAD), Bodrum, June 19, 2009, available at http://www.imf.org/external/np/speeches/2009/061909.htm.

[2] See OECD Economic Outlook no. 85, June 2009, and its press release "*Weak recovery in sight but damage from crisis likely to be long-lasting*", including links to the Editorial and summary of projections, at www.oecd.org/eco.

[3] See Claudio M. Loser (2009), *Global financial turmoil and Emerging Market Economies: Major contagion and a shocking loss of wealth?* Paper prepared by the Centennial Group as discussion materials for the "South Asia Forum on the Impact of Global Economic and Financial Crisis"; Asian Development Bank.

[4] See Guichard, Stéphanie, David Haugh and David Turner (2009), *Quantifying the Effect Of Financial Conditions in the Euro Area, Japan, United Kingdom and United States*, Economics Department Working Papers No. 677.

[5] See Haugh, David, Patrice Ollivaud and David Turner (2009), "The macroeconomic consequences of banking crises in OECD countries", OECD *Economics Department Working Paper* no.683; corroborating similar results by Reinhart, Carmen M. and Kenneth S. Rogoff (2008), "Is the 2007 US Sub-Prime Financial Crisis So Different? An International Historical Comparison", *American Economic Review*, No. 98; and Reinhart & Rogoff (2009), "The Aftermath of Financial Crises", NBER *Working Paper* 14656; and IMF (2008) "Financial Stress and Downturns", *World Economic Outlook*, October, Washington D.C.

[6] OECD unemployment rose to 7.8% in April 2009, 0.1 percentage point higher than the previous month and 2.2 percentage points higher than a year earlier.

[7] For example, in the second week of March Bank of America, JPMorgan Chase and Citigroup reported profits so far this year and announced a generally positive profit outlook for the year as a whole; these news helped to lift the respective share prices, and the prices of other financial stocks.

[8] See http://www.fdic.gov/bank/individual/failed/banklist.html.

[9] In its April 2009 *Global Financial Stability Report* the IMF estimates potential writedowns of US banks at USD 1604bn, and deducting a recent Bloomberg estimate (see Table 2) of US banks' writedowns since 2007 of USD 563.6bn results in potential (near) future writedowns of USD 1040.4bn. For European banks, the IMF estimates potential writedowns from 2007-2010 at USD 737bn, and deducting the EU banks' writedowns since 2007 of USD 386.5bn (Table 2) yields expected future writedowns of USD 350.5bn. For comparison, note that the ECB in its recent Financial Stability Review (European Central Bank, *Financial Stability Review*, June 2009, p.102) estimates potential future writedowns of euro area banks at USD 283bn, but this excludes countries like the UK which have made up about a third of writedowns so far. This ECB figure is based on an estimate of EUR 649bn for total losses (about 7% of GDP) from 2007-2010, EUR 218bn of which on securities and EUR 431bn on loans (about half of which are corporate loans and the other half mortgages), and assumes that a bit more than half of this (EUR 365bn) has been written down already.

[10] See Tables 1 and 2 in Adrian Blundell-Wignall, Paul Atkinson and Lee Se-Hoon (2009), "Dealing with the Financial Crisis and Thinking about the Exit Strategy", in this issue: *OECD Journal: Financial Market Trends*, vol. 2009/1, no. 96.

[11] OECD (2009a), *OECD's Strategic Response to the Financial and Economic Crisis: Contributions to the global effort*, available at http://www.oecd.org/dataoecd/33/57/42061463.pdf.

[12] OECD (2009a), *The Road to Recovery: Update on the OECD's Strategic Response to the Financial and Economic Crisis*, 27 March; document submitted to the Group of Twenty.

[13] Lehman filed for Chapter 11 bankruptcy protection on 15 September 2008, the filing marking the largest bankruptcy in US history. Then, Merrill Lynch was sold to Bank of America and on September 21 the remaining major investment banks, Morgan Stanley and Goldman Sachs, converted to bank holding companies with the Fed's approval.

[14] See, *e.g.*, Paul A. Volcker's remarks at the Economic Club of New York on 8 April 2008, transcript available at http://econclubny.org/files/Transcript_Volcker_April_2008.pdf, where he noted that "Simply stated, the bright new financial system – for all its talented participants, for all its rich rewards – has failed the test of the marketplace". For this quote and an overview of these issues see also Martin Wolf (2009), "Seeds of its own destruction", *Financial Times*, 8 March 2009.

[15] See, *e.g.*, Leahy, Michael, Sebastian Schich, Gert Wehinger, Florian Pelgrin and Thorsteinn Thorgeirsson (2001), "Contributions of financial systems to growth in OECD countries", OECD *Economics Department Working Papers* No. 280.

[16] See, *e.g.*, de Serres, Alain, Shuji Kobayakawa, Torsten Sløk and Laura Vartia (2006), "Regulation of financial systems and economic growth", OECD *Economics Department Working Papers* No. 506.

[17] For an overview, see also Tables 6 and 8 in Furceri, Davide and Annabelle Mourougane (2009), "Financial crises: past lessons and policy implications", OECD *Economics Department Working Papers* No. 668; and *OECD Journal: Financial Market Trends* no. 95, vol. 2008/2, Part I: Current Issues in Financial Markets: Financial Turmoil, passim, available at www.oecd.org/daf/fmt.

[18] See also Schich, Sebastian (2008), "Financial Crisis: Deposit Insurance and Related Financial Safety Net Aspects", *OECD Journal: Financial Market Trends* no. 95, vol. 2008/2.

[19] See also Schich, Sebastian (2009), "Expanded Government Guarantees for Bank Liabilities: Selected Issues", in this issue: *OECD Journal: Financial Market Trends* no. 96, vol. 2009/1.

[20] See Blundell-Wignall, Adrian, Paul Atkinson and Se Hoon Lee (2008), "The Current Financial Crisis: Causes and Policy Issues", *OECD Journal: Financial Market Trends* no. 95, vol. 2008/2; pp.23f.

[21] See "Secretary Geithner Introduces Financial Stability Plan", U.S. Treasury press release, 10 February 2009, available at http://www.treas.gov/press/releases/tg18.htm. However, some of the remarks in this February statement, e.g. "[w]e are exploring a range of different structures for this program, and will seek input from market participants and the public as we design it. We believe this program should ultimately provide up to one trillion in financing capacity, but we plan to start it on a scale of $500 billion, and expand it based on what works[,]" left market participants guessing about the precise design of the programme, and perhaps this uncertainty caused US stock prices to drop during and after the plan was presented.

[22] To be discussed in the following. See "Treasury Department Releases Details on Public Private Partnership Investment Program", U.S. Treasury press release, 23 March 2009, available at http://www.treas.gov/press/releases/tg65.htm. See also "US Treasury unveils toxic asset plan", Financial Times, 23 March 2009. Share prices rose after the announcement of this plan.

[23] On 26 February 2009 the UK Treasury launched a scheme to insure banks' toxic assets, expected to amount to more than GBP 500bn. On the same day, Royal Bank of Scotland (already 70 per cent government owned and announcing a loss of GBP 24.1 bn, the biggest loss in UK corporate history) was the first big bank to put GBP 325 bn of its toxic assets into the Asset Protection Scheme. UK retail banks, with more than 25 billion pounds in eligible assets, had to decide by 31 March whether they join the scheme covering them against losses on their riskiest assets for a minimum of five years.

[24] After a first plan presented by German Chancellor Merkel on 14 March (based on recommendations made by a government's panel and drawing on lessons learnt from an aid programme for the East German banking system inherited in the 1990 German re-unification) the German government started to discuss plans for a bad bank more contretely early in April. The Ministry of Finance estimated German banks have around EUR 850bn of toxic assets on their balance sheets (much larger than a previous BaFin estimate). With the aim to keep the immediate costs for the government of dealing with the toxic assets low, plans foresees that banks set up individual SPVs into which toxic assets are transferred with a 10% discount from

their book value (to be estimated by experts). This discount applies only to the extent that the respective write-off would not diminish a bank's core capital below 7%. The bank would in return receive a bond from the SPV, against a fee and guaranteed by the government via its Financial Market Stabilization Fund. To make sure that banks share the losses, plans foresee that banks will have to build up reserves over the lifetime of the toxic assets (but up to 20 years at maximum) which cover the difference between the book value of the toxic assets and their market (or assumed fair) value. These reserves will be transferred to the government and any losses that exceed those reserves will have to be borne by the banks (an initial proposal foresaw that these losses would be borne by the government). Thus one of the crucial points of this scheme is the size of the reserves, and some observers criticised the plan for not being ambitious enough in resolving the toxic asset problem with public money; the build-up of reserves may weigh too heavy on some banks for them to recover (and turn them into "zombie banks").

[25] After the Irish government had already in October 2008 announced a plan to guarantee for two years EUR 440bn in deposits held by six financial institutions, on 7 April 2009 it announced in its emergency Budget the creation of a National Asset Management Agency (NAMA) which would purchase EUR 80-90bn commercial-property assets at an about 40% discount price from six of its biggest lenders (Allied Irish Banks PLC , Bank of Ireland PLC, Irish Life & Permanent PLC, Irish Nationwide Building Society, EBS Building Society and the recently nationalised Anglo Irish Bank Corp.). See also http://budget.gov.ie/2009SupApril09/downloads/Annex%20H%20-%20NAMA%20-%20Indicative%20Term%20Sheet%20-%20Proposed%20Asset%20Management%20Company.pdf and, on details of the new agency, http://budget.gov.ie/2009SupApril09/downloads/Annex%20I%20-%20NAMA%20Frequently%20Asked%20Questions.pdf. Thus the NAMA fund will cost around EUR 54bn, increasing Ireland's debt around 50% of GDP. The loans are about one fifth of Irish-owned banks' assets. The assets would include both healthy and impaired loans, ranging from undeveloped land to residential and commercial developments. The toxic asset purchases will lead to large writedowns for the selling banks and the government has made it clear that it was willing to provide additional capital in the form of ordinary shares (the government had already taken a 25% stake in Bank of Ireland after injecting EUR 3.5bn into it and is recapitalising Allied Irish Banks by the same amount). The establishment of this bad asset purchase scheme has made Ireland the first nation in the euro area to use a sectorwide, fully government-sponsored "bad bank" to remove toxic assets from the banking system. This decisive move may also have been taken because of the recent downgrades of Irish banks (Moody's downgraded 12 Irish banks, citing the continued deterioration in the outlook for commercial real-estate prices, the likelihood of more corporate defaults and erosion in residential loan performance).

[26] See Board of Governors of the Federal Reserve System (2009), *The Supervisory Capital Assessment Program: Design and Implementation*, white paper (Washington DC), available at www.federalreserve.gov/newsevents/bcreg20090507a1.pdf

[27] For an assessment see Adrian Blundell-Wignall, Paul Atkinson and Lee Se-Hoon (2009), "Dealing with the Financial Crisis and Thinking about the Exit Strategy", in this issue: *OECD Journal: Financial Market Trends*, vol. 2009/1, no. 96.

[28] See Fed Press Release, 25 November 2008, available at http://www.federalreserve.gov/newsevents/press/monetary/20081125a.htm. One reason why these Fed's funds are now going to be used for PPIP may be the Fed's potentially unlimited financing capacity, as opposed to Treasury's.

[29] In other proposals, *e.g.* by Buiter (see http://blogs.ft.com/maverecon/2009/03/dont-touch-the-unsecured-creditors-clobber-the-tax-payer-instead), the 'good bank' would be left with 'good and bad assets' ('clean assets', good and bad, but with known fair values), and only (genuine, hard to value) 'toxic assets' go into the 'bad bank' to be wound down.

[30] Such a mechanism was implemented to solve the US Savings & Loan crisis of the 1980s and some Scandinavian banking crisis in the 1990s. For these and other approaches see also Lumpkin, Stephen (2008), "Resolutions of Weak Institutions: Lessons Learned from Previous Crises", *OECD Journal: Financial Market Trends* no. 95, vol. 2008/2, especially pp.137ff and Table 4.

[31] Note that initially TALF was designed to cover only certain AAA-rated newly issued ABS, not old (legacy) assets (prior to 2009) of this type.

[32] See, *e.g.*, Jeffrey Sachs (2009), "Obama's bank plan could rob the taxpayer", Financial Times, 25 March 2009.

[33] The announcement was made on 3 June 2009. Banks and supervisors would take additional time to assess the magnitude and timing of troubled assets sales. The FDIC will test the funding mechanism envisaged by the LLP in a sale of receivership assets in the coming months, and expects to solicit bids for this sale in July.

[34] As a starting point, for the US consider that, according to the Fed's Flow of Funds statistics, ABS outstanding (MBS and other ABS) end of 2008 are about USD 4 trillion, of which private-label MBS (commercial and residential) are almost USD 2.6 trillion. Applying write-downs and further expected defaults to such figures, and adding non-securitised bad loans (a share of, for example, US home mortgage debt held by commercial banks, thrifts, and credit unions which was USD 3.27 trillion end of 2008), bad assets overall could attain very substantial amounts.

[35] See Bernanke, Ben S. (2009), *Financial Reform to Address Systemic Risk*, Speech delivered at the Council on Foreign Relations, Washington, D.C., 10 March, available at http://www.federalreserve.gov/newsevents/speech/bernanke20090310a.htm.

[36] In September 2008 the two GSEs, Fannie Mae (Federal National Mortgage Association) and Freddie Mac (Federal Home Loan Mortgage Corporation) were put into conservatorship run by the Federal Housing Finance Agency (FHFA).

[37] However, some observers point out that the problem with a government mandated receivership is that the outcomes are not clear (see John Douglas, a former FDIC counsel and now banking regulation lawyer at Paul, Hastings, Janofsky & Walker, cited in Financial Times, 26 March 2009). A bankruptcy provides a well-structured mechanism to determine who gets paid and who does not, but for bondholders and other creditors of institutions going through receivership such a mechanism does not exist, and will have an impact upon investors' willingness to lend to these institutions on an ongoing basis.

[38] See the bill at http://www.publications.parliament.uk/pa/cm200708/cmbills/147/08147.1-5.html.

[39] The Emergency Takeover Law (which had been proposed as addendum to the German Financial-Market Stabilisation Act) was approved by German parliament on 20 March 2009 and will allow for expropriation of shareholders as a last resort to save insolvent financial institutions. The expropriation powers granted by the law will expire at the end of June 2009. The law also requires that any institutions taken in government control must be re-privatised once they have been "sustainably stabilised". The law is seen to be specifically targeted at an envisaged government takeover of *Hypo Real Estate*. See www.bundeskanzlerin.de; and "Berlin paves way for HRE takeover", *Financial Times*, 20 March 2009.

[40] See Bebchuk, Lucian A. (1988), "A New Approach to Corporate Reorganisations", *Harvard Law Review* vol. 101, pp. 775–804; as cited in Zingales, Luigi (2008), "Plan B", *The Economists' Voice,* October, available at www.bepress.com/ev. See also Bebchuk, Lucian A. (2008), "A Plan for Addressing the Financial Crisis". *The Economists' Voice*, Vol. 5, No. 5; and *Harvard Law and Economics Discussion Paper* No. 620, September.

[41] For a more detailed discussion see OECD (2009), *Finance, competition and governance: strategies to phase out emergency measures,* Paper prepared for the G20 meeting in London on 2 April 2009, available at http://www.oecd.org/dataoecd/52/23/42538385.pdf; see also Adrian Blundell-Wignall, Paul Atkinson and Lee Se-Hoon (2009), "Dealing with the Financial Crisis and Thinking about the Exit Strategy", in this issue: *OECD Journal: Financial Market Trends*, vol. 2009/1, no. 96.

[42] If firms are perceived by market participants to be too big to fail, market discipline would be reduced and excessive risk-taking by the firm by encouraged. These circumstances also provide an incentive for firms to expand to a size which may be considered too big to fail, and create a competitive disadvantage for smaller firms as they may not be regarded as having implicit government support.

[43] These issues are being dealt with in the OECD Steering Group on Corporate Governance; see Kirkpatrick, Grant (2009), "The Corporate Governance Lessons from the Financial Crisis", in this issue: *OECD Journal: Financial Market Trends*, vol. 2009/1, no. 96.

[44] See also the International Gateway for Financial Education (IGFE), established by the OECD, at www.financial-education.org.

[45] See also the contributions to the OECD Global Forum on Competition (GFC) held in Paris on 19-20 February 2009.

[46] 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).

[47] See, for example, the non-operating holding company structure proposed in Adrian Blundell-Wignall, Paul Atkinson and Lee Se-Hoon (2009), "Dealing with the Financial Crisis and Thinking about the Exit Strategy", in this issue: *OECD Journal: Financial Market Trends*, vol. 2009/1, no. 96.

[48] For a specific proposal see Jaffee, Dwight M. (2009), "Monoline Regulations to Control the Systemic Risk Created by Investment Banks and GSEs," *The B.E. Journal of Economic Analysis & Policy*, vol. 9/3 (Symposium), available at http://www.bepress.com/bejeap/vol9/iss3/art17.

[49] See, *e.g.*, Schich Sebastian Schich and Ayumi Kikuchi, (2004), "The Performance of Financial Groups in the Recent Difficult Environment", *Financial Market Trends* no. 86, vol. 2004/1.

[50] See Oliver Wyman, *The State of the Financial Services Industry 2009*, p. 11. The report, however, otherwise argues in favour of the large universal bank model, perhaps ignoring that one 'success factor' for these bank was the government support these 'too-big-to-fail' institutions received.

[51] For example, such provisioning has been successfully implemented already some years ago by the Spanish supervisor for the banks in its purview. The Spanish central bank had not only put restrictions on Spain's commercial banks to create risky off-balance sheet investment vehicles, but it had also required substantial counter-cyclical bad debt provisioning, measures that have kept the country's banking system in relatively good health despite the strong headwinds from a declining property market.

[52] Work on these issues has been underway in the Financial Stability Board (FSB; formerly Financial Stability Forum – FSF) and its member bodies, which are discussing a global framework for evaluating policy options as well as recommendations in these areas; see FSF (2009), *Report of the Financial Stability Forum on Addressing Procyclicality in the Financial System*, 2 April 2009, available at http://www.financialstabilityboard.org/publications/r_0904a.pdf.

[53] See Jennifer Hughes, "Putting a price on toxic assets could cost public finances", *Financial Times* 26 March 2009.

[54] See Financial Services Authority (2009), *'Strengthening liquidity standards 3: Liquidity transitional measures'*, Consultation Paper 09/14, December, available at http://www.fsa.gov.uk/pubs/cp/cp09_14.pdf. This is the currently latest version of a paper released as Consultation Paper 08/22 in December 2008.

[55] See the Report by the High-Level Group of Financial Supervision, chaired by Jacques de Larosière, Brussels, 25 February 2009, available at http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf. See also the introduction and summary at http://ec.europa.eu/ireland/press_office/news_of_the_day/cross-border-financial-supervision-report_en.htm.

[56] See *The Turner Review: A regulatory response to the global banking crisis*, Financial Services Authority, March 2009, available at http://www.fsa.gov.uk/pages/Library/Corporate/turner/index.shtml; release date was 18 March 2009.

[57] See the abovementioned reference, OECD (2009), *OECD's Strategic Response to the Financial and Economic Crisis: Contributions to the global effort*, available at http://www.oecd.org/dataoecd/33/57/42061463.pdf.

[58] See Reinhart, Carmen M. and Kenneth S. Rogoff (2008), "Banking crises: an equal opportunity menace", NBER *Working Paper* 14587 (December); and Wolf, Martin (2009), "Seeds of its own destruction", *Financial Times*, 8 March.

[59] See, *e.g.*, OECD (2008), Financial Management of Large-Scale Catastrophes, *Policy Issues in Insurance* No. 12.

[60] See the *Declaration and action plan from the Washington Summit*, 15 November 2008, available at http://www.g20.org/Documents/g20_summit_declaration.pdf.

[61] See *G20 Finance Ministers' and Central Bank Governors' Communiqué*, 14 March 2009, available at http://www.g20.org/Documents/2009_communique_horsham_uk.pdf; as well as the *Annex to Communiqué - Restoring lending: a framework for financial repair and recovery*, 14 March 2009; and the *Progress Report on the Immediate Actions of the Washington Action Plan prepared by the UK Chair of the G20*, 14 March 2009; all available on the www.g20.org website.

[62] See G20 *Declaration on Strengthening the Financial System* , London, 2 April 2009, available at http://www.g20.org/Documents/Fin_Deps_Fin_Reg_Annex_020409_-_1615_final.pdf, and the general communiqué *Leaders Statement: The Global Plan for Recovery and Reform,* London, 2 April 2009, available at http://www.g20.org/Documents/final-communique.pdf.

[63] See the Report by the High-Level Group of Financial Supervision, chaired by Jacques de Larosière, Brussels, 25 February 2009, available at http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf. See also the introduction and summary at http://ec.europa.eu/ireland/press_office/news_of_the_day/cross-border-financial-supervision-report_en.htm.

[64] See Financial Times, 10 June 2009.

[65] See *The Turner Review: A regulatory response to the global banking crisis*, Financial Services Authority, March 2009, available at http://www.fsa.gov.uk/pages/Library/Corporate/turner/index.shtml; release date was 18 March 2009.

[66] See, *e.g.*, Ben S. Bernanke (2009), *Financial Reform to Address Systemic Risk*, Speech delivered at the Council on Foreign Relations, Washington, D.C., 10 March, available at http://www.federalreserve.gov/newsevents/speech/bernanke20090310a.htm.

[67] See President's Working Group on Financial Markets (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/pwgpolicystatemktturmoil_03122008.pdf. 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.

[68] The proposal for a comprehensive regulatory framework for all OTC (Over-The-Counter) derivatives was presented by the Treasury secretary and other financial regulators on 13 May 2009; see U.S. Treasury press release, 13 Mai 2009, available at http://www.treas.gov/press/releases/tg129.htm.

[69] See "President Obama to Announce Comprehensive Plan for Regulatory Reform", U.S. Treasury press release, 17 June 2009, available at http://www.treas.gov/press/releases/tg175.htm. The plan was announced by the US President, joined by the Treasury Secretary and representatives from the regulatory community, consumer groups, and the financial industry and members of Congress, indicating its intention to find broad support. There was also an earlier announcement on regulatory reform, see "Treasury Outlines Framework For Regulatory Reform", U.S. Treasury press release, 26 March 2009, available at http://www.treas.gov/press/releases/tg72.htm.

[70] For an overview of selected private sector reform proposals see Wehinger, Gert (2008), "Lessons from the Financial Market Turmoil - Challenges ahead for the Financial Industry and Policy Makers", *OECD Journal: Financial Market Trends* no. 95, vol. 2008/2.

[71] This has also been highlighted by surveys conducted in OECD and non-OECD economies. See also the International Gateway for Financial Education (IGFE), established by the OECD, at www.financial-education.org.