Guiding Principles for Regulatory Reform in Global Capital Markets

A survey of policy statements by
global supervisors and sovereign regulators

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GUIDING PRINCIPLES FOR REGULATORY REFORM IN GLOBAL CAPITAL MARKETS

CURRENT THINKING IN REGULATORY REFORM

Contributors

Supranational Regulators	Bank for International Settlements European Central Bank International Monetary Fund International Organization of Securities Commissions
Sovereign Regulators	Bank of England Bank of Luxembourg Deutsche Bundesbank Norges Bank Swiss National Bank U.S. Federal Reserve U.S. Securities and Exchange Commission

Thinking Ahead of Regulatory Reform

REINING IN THE SHADOW BANKING SYSTEM

FROM ASSET- TO LIABILITY-ANALYTICS

"Traditionally," according to the New York Fed, "money markets helped borrowers bridge short-term cash flow mismatches" from credit card and short-term commercial receivables. However, the assets in money market funds changed during the 1980s to 30-year mortgages, including those of subprime borrowers. As a result, the degree of risk rose and the level of maturity transformation was extended significantly.

> **NY Federal Reserve Bank Staff:** "The genesis of the change in the term of assets funded in money markets can be largely traced back to (1) the introduction of bank capital rules in the 1980s, which made bank balance sheets more expensive, and (2) the threat posed to banks as credit intermediaries by diversified broker-dealers through the latter's innovative use of term securitization techniques. To counter the threat from broker-dealers, banks turned to the development and use of short-term securitization techniques such as off-balance sheet ABCP conduits to maintain their share of business, which at the same time also helped them avoid capital requirements.
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> "Through this competition, the average term of loans funded in money markets lengthened over time, and the volume of credit intermediated through short-term securitizations grew to rival the volume credit intermediated through term securitizations. Ultimately, it was the embedded rollover risks inherent in funding long-term assets through short-term securitization sold into money markets that *triggered the run on the shadow banking system*." [emphasis added]

In addition to extending the maturities of securitized assets, money market funds also transformed the perceived credit quality of those assets. The federal government has insured the deposit liabilities of traditional banks. Therefore, as the New York Fed staff report goes on to point out, the U.S. taxpayer is the counterparty so that "insured depositors invest less effort into examining a bank's creditworthiness before depositing money than if they were uninsured."

> **NY Federal Reserve Bank Staff:** "In the case of shadow banks' liabilities (repo or ABCP, for example), perceived credit quality is driven by the 'credit-risk free' nature of collateral that backs shadow bank liabilities, as it was often enhanced by private credit risk repositories. The AAA rating became the equivalent of 'FDIC Insured' as a 'brand' to express the credit-risk free nature of (insured) deposits in the traditional banking system. The credit puts provided by private credit risk repositories were alternatives to the credit transformation performed by (1) the credit risk-based calibration of advance rates and attachment points on loan pools backing top-rated ABCP and ABS tranches, respectively; (2) the credit risk-based calibration of haircuts on collateral backing repo transactions; (3) the capital notes

> supporting LPFCs' and SIVs portfolios of assets, and (4) the pooling and re-packaging of non-AAA rated term ABS into ABS CDOs.
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> **"**The credit puts of private credit risk repositories were also similar in function to the wraps provided by Fannie Mae and Freddie Mac on conforming mortgage pools. Just as these government-sponsored, public credit risk repositories 'borrowed' the AAA-rating of the federal government to pools of mortgage loans (turning them into credit risk-free rate products), the private credit risk repositories were effectively 'borrowing' the AAA-rating of their parent."[1]

As both regulators and market participants discovered to their chagrin, the stellar credit ratings of the parents were sometimes undermined by the cross-jurisdictional nature of their off-balance-sheet liabilities. In addition, the institutional nature of the credit intermediation changed from banks to brokerage firms. This change contributed an increase in the leverage used to increase profits even as interest rates declined. And that change created assymetrical stresses, as a result of different regulatory regimes in the major financial markets. To illustrate, the IMF has pointed out that, unlike the United States, there were no regulatory limits on the degree to which prime brokers in the United Kingdom could rehypothecate the assets of their hedge fund customers. In the case of Lehman Brothers, the difficulties of the firm's cross-border bankruptcy resolution has served as a call to arms for global regulators, focusing their efforts to create liquidation procedures that do not pit one jurisdiction against others in the search for viable assets.

CROSS-BORDER RESOLUTION REGIME

A "clear lesson from the events of the past few years," according to FRB Chairman Bernanke, is that governments must "have the tools to resolve a failing firm in a manner that preserves market discipline," so as to avoid choosing between the "unattractive alternatives of bailing out a systemically important firm or having it fail in a disorderly and disruptive manner." In the Dodd-Frank Act, the Federal Deposit Insurance Corporation was given power to liquidate systemically important nonbank financial institutions in a similar fashion to its existing authority for banks.

> **FRB Chairman Bernanke:** "Having a method to resolve failing firms safely is necessary if commitments to allow failure are to be credible, which in turn is essential to reverse the perception that some firms are too big to fail. The [Dodd-Frank Act] would provide for such a resolution regime. As noted in the report, a key challenge would be fostering the international cooperation needed to manage the cross-border aspects of such a resolution regime."[2]

To help prepare regulators for an emergency liquidation, systemically-important financial firms are required to create a "living will" that maps out a plan for unraveling complex

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[1] Zoltan Pozsar, et al, **Federal Reserve Bank of New York**, "Staff Report Number 458: Shadow Banking," New York, July 2010

[2] Mr Ben S. Bernanke, Chairman of the **FRB**, "Remarks on the Squam Lake Report – Fixing the Financial System" 16 June 2010

legal structures and winding down its business to minimize disruption to the financial system. [isn't this exactly opposite to what the lawyers were trying to achieve when they firewalled their liabilities through the use of subsidiaries and off-shore operations?]

The recent financial crisis has demonstrated that the existing framework for addressing these cases is inadequate.

> **IMF First Deputy Lipsky:** "Even when faced with a purely domestic insolvency, many countries lacked effective legal frameworks through which to resolve failing institutions in a manner that preserves financial stability and minimizes the cost to the public. These problems increase dramatically when the authorities are faced with the insolvency of a large international financial institution or group. As has been noted widely, major financial firms today live globally but die locally. Notwithstanding their global reach, the failure of large international financial institutions remains subject to multiple national legal frameworks, with no effective template for international cooperation. [3]

According to Lipsky, it was "the highly leveraged purchase of ABN Amro by a set of international purchasers that caused the problems at the RBS and Fortis groups and ultimately led to their nationalizations. … While in the United Kingdom this resulted in a relatively simple if potentially costly exercise, in the case of Fortis it was complicated by national interests coming to the fore even between jurisdictions whose financial regulators have a long tradition of co-operation and whose legal frameworks are considerably harmonized. As a result, the Fortis group was resolved along national lines in a protracted process."

The IMF framework would be built upon four principal elements:

• First, countries would amend their domestic legislation to permit their own authorities to cooperate in an international resolution whenever they view such cooperation as being consistent with the interests of creditors and financial stability. In liquidating the local branch of a foreign bank, some countries require their authorities to ring-fence the local assets of the branch for the benefit of local creditors and, in this manner, effectively prevent participation in a broader international process.

> **IMF First Deputy Lipsky:** "Under our approach, national legislation would be amended to remove these obstacles. Moreover, it would call for national authorities to cooperate with other countries in the framework, but only when they believed such cooperation to be consistent with the interests of creditors and

[3] Remarks by John Lipsky, First Deputy Managing Director, **International Monetary Fund,** Frankfurt, Germany, July 9, 2010

supportive of financial stability. A jurisdiction will be willing to defer to another only if it is clear that local creditors will be treated equitably and will receive at least what they would have received had the entity been liquidated on a strictly national basis."

• Second, participating countries would adhere to "core coordination standards" that ensure that their national supervisory and insolvency frameworks are sufficiently robust. The rules would enable the participating authorities to:

• unilaterally restructure the various claims of an institution;
• conclude mergers and acquisitions without shareholder consent;
• transfer assets and liabilities to other institutions, including a bridge bank, without third party consent;
• provide bridging financing; and
• assume public ownership on a temporary basis.

• Third, they would agree on the criteria and parameters that would guide the burden sharing process among the members of the coordination framework.

IMF First Deputy Lipsky: "In a systemic crisis, however, up-front and temporary funding by public authorities may be necessary. Prefunded resolution schemes represent one potentially attractive option for dealing with cases of cross-border failure. … [IMF] suggested a "Financial Stability Contribution" to be levied against a risk-adjusted base and linked to funding a credible and effective resolution mechanism. In its recent Communication, the European Commission advocated the creation of resolution funds that are segregated from general revenue and that would be funded ex ante by bank levies."

• Finally, they would agree on procedures for coordinating resolution measures across borders, including the cross-border recognition of measures taken in other countries.

IMF First Deputy Lipsky: "While it is true that the implementation of this framework may require changes to national legislation in some countries, it would not give rise to a binding legal obligation between countries to cooperate. As such, it would not imply the surrender of national sovereignty that would be implicit in a formal treaty."

Moreover, as the IMF's Managing Director outlined in a March 19 speech in Brussels, we think that the EU needs an integrated framework, including the creation of a European Resolution Authority (ERA). This ERA would be armed with the mandate and tools to deal cost-effectively with cross-border bank failures.

CONSENSUS VIEWS ON REGULATORY REFORM

Regulators have reported the conclusions of study groups looking into the causes of, and remedies for the Credit Crisis. A consensus of opinion exists as to causes, with a growing emphasis among larger central banks on the failings of liquidity risk management. All regulators believe new forms of infrastructure will be needed to prevent a recurrence of the conditions leading up to the Crisis. Larger central banks and securities regulators believe better monitoring within the existing infrastructure must be adopted as a global stopgap until the new infrastructures are created.

ARCHITECTURE OF REFORM

In a clear sign of the public mood, the most respected supervisors are now calling for markets and participants to be restrained. Notably, ECB President Jean-Claude Trichet now believes that the financial sector, which he says "has gradually and quietly decoupled" from the real economy, "can do more harm than good."

> **ECB President Trichet:** "I am convinced that if banks neglect their primary activity of due diligence, and if they come to abuse risk control techniques, liquidity creation and arbitrage opportunities, finance will do more harm than good to the economy. And crises of the magnitude that we have witnessed become unavoidable."[4]

Not only has the financial sector decoupled, agrees ECB director Lorenzo Smaghi, it has become far too large when compared to the real economy. It will be necessary to "reduce the incentives for risk taking, the ability of the system to accumulate leverage, and excessive returns in the financial sector." This will be accomplished through the "interplay of margin requirements, capital requirements and central clearing houses."

> **ECB Executive Board Member Smaghi:** "When reasonably large, financial markets promote economic efficiency by identifying productive opportunities and transforming savings into the investment necessary to finance those opportunities. However, when they become 'too large', relative to what is implied by economic fundamentals, problems like financial complexity, poorly understood financial innovation, herding behaviour, and endogenous risk-taking – to name just a few – suddenly outweigh the benefits. The recent financial and economic crisis is a stark example of that."[5]

The goal is to limit the motivation of bank employees to take excessive risks by curtailing their compensation. "Compensation should put emphasis on rewarding longer-term business performance." To restrain risk-taking activities at the bank level, surcharges on capital requirements are being calibrated. These surcharges will force banks to reserve funds for economic downturns and crises, while alerting counterparties to the possibility of excessively risky practices. Market regulators have adopted the term, Macroprudential

[4] Mr Jean-Claude Trichet, President of the **ECB**, "What Role for Finance?" 6 May 2010
[5] Mr Lorenzo Bini Smaghi, Executive Board Member of the **ECB**, Kyoto, 15 April 2010

Policy, to encompass a toolkit of (mainly) capital restraints on those participants whose activities can expose the market infrastructure to systemic breakdowns.

> **BIS General Manager Caruana:** "The new framework aims to strengthen the resilience of the broader financial system through the identification and mitigation of linkages and common exposures among all financial institutions and across sectors. An example of this approach is the capital surcharge under consideration by the Basel Committee that would be imposed in line with banks' contributions to systemic risk. ... Perhaps, with sufficiently advanced modeling capabilities, policymakers might link instrument settings to risk indicators that they would aim to keep within an acceptable range, rather as inflation forecasts are used in inflation targeting regimes"[6]

One of the challenges for the macroprudential approach is the absence of econometric research to calibrate the regulators' proposed models. Toward meeting that goal, GM Caruana has called on researchers "to develop a menu of financial stability-related policy measures that are reliable enough to be commonly accepted." In addition to enhanced capital and liquidity regulation, Chairman Ben Bernanke of the U.S. Federal Reserve Board called for "an improved information infrastructure." He cited the Fed's current efforts "to construct better measures" of counterparty credit risk and links among "systemically critical firms," to include data on "banks' trading and securitization exposures, as well as their liquidity risks." Beyond its modeling efforts, the Fed has also "encouraged the development of industry warehouse utilities for the collection of trade information on derivatives," which may lead to the disclosure of systemic risk metrics.

> **FRB Chairman Bernanke:** "Both regulation and market discipline have important roles to play in constraining risk-taking in financial markets; the best outcomes are achieved when these two forms of oversight work effectively together. The report recommends a better system of data collection and aggregation to enhance this partnership. Better data collection would enable regulators to more accurately assess and compare risks across firms, markets, and products. A regulatory requirement to track and report timely, consistent, and fully aggregated data on risk exposures could also promote better risk management by the firms themselves. And increased public disclosure of such data would provide investors and analysts with a more complete picture of individual firms' strengths and vulnerabilities, as well as of potential risks to the system as a whole, thereby facilitating more effective market discipline."[7]

Trade information can be gathered through central counterparties to "assess the extent to which derivatives trades might concentrate risk or transmit localized or regional shocks throughout the financial system." Improved infrastructure arrangements are being considered for triparty repo, so as "to improve the stability of this key funding market."

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[6] Mr Jaime Caruana, General Manager **BIS**, "Macroprudential policy: What we have learned and where we are going," Madrid, 17 June 2010.
[7] Mr Ben S Bernanke, Chairman, **FRB**, "Remarks on the Squam Lake Report – fixing the financial system," New York, 16 June, 2010.

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The Dodd-Frank Act resulted in a cumulative expansion of the SEC's oversight and jurisdiction, and includes a number of provisions that strengthen the agency and mandate its assertiveness.

Overall, Dodd-Frank, a 2,300-plus-page piece of legislation, contains approximately 240 rulemaking provisions, requires 67 one-time reports or studies and directs the preparation of an additional 22 reports.

The impact of the legislation will not be known for some time, and this impact will depend significantly on decisions made by regulators. The agency shouldering a great deal of this responsibility is the SEC. The legislation contains nearly 100 provisions concerning SEC rulemaking and requires the SEC to prepare 17 reports. As a point of comparison, the then-landmark Sarbanes-Oxley legislation of 2002 resulted in the SEC's adopting 14 rules and preparing one study.[8]

To give you a sense for the breadth and depth of the issues confronting the SEC, I'll mention a few of our required actions. Within the next year, for example, the SEC must write rules regarding over-the-counter derivatives, private fund advisers, credit-rating agencies, the asset-backed-securitization market, corporate governance, executive compensation and whistle-blowers' provisions. Many of the rules and new regulatory regimes call for the SEC to work in conjunction with other financial regulators, and will have to be created and implemented on a very fast timetable. Already we've adopted and proposed rules directly related to the requirement of the Dodd-Frank Act. For example, because the Dodd-Frank Act required municipal advisers to be registered by Oct.1, we have already adopted a bare-bones registration system that will be fleshed out in the coming months.

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CAUSES OF THE CREDIT CRISIS

The Bank of England called the Credit Crisis an "extraordinary period" which will have "deep and long-lasting consequences" for the global capital markets. The United States Federal Reserve said the "the sources of the crisis were extraordinarily complex and numerous," but the Fed believed that banks' "risk management systems were inadequate and their capital and equity buffers insufficient."

Financial innovation, according to the Bank of France, “fuelled a search for yield through increased risk taking.” In agreement, the Deutsche Bundesbank, said, "The most prominent shortcomings revealed by the financial crisis fall within the scope of credit risk transfer and the expansion of the 'originate to distribute' business model [which led to]

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[8] Mr Luis Aguilar, Commissioner, **U.S. Securities and Exchange Commission**, Los Angeles, September 21, 2010

insufficient capital backing for securitizations, as well as inadequate risk management within financial institutions and lack of transparency in the whole transfer process."

"Two weaknesses of the supervisory and regulatory approach" prior to the Crisis, according to the European Central Bank, were "too much [focus] on individual risks and too little on interconnections across intermediaries and markets." The tendency of financial institutions to react in similar ways to the Crisis magnified the market system's instability by transmitting volatility through the balance sheet connections among those institutions, according to the ECB. Once the Crisis hit with force, the contagion spread quickly because "large parts of the system relied on the same sources of funding or because they had similar exposures."

FORMAL REMEDIES FROM *REDESIGNED* INFRASTRUCTURES

Liquidity, said the Central Bank of Luxembourg, must be monitored more closely and procyclical behavior must be mitigated more effectively. The Central Bank of Norway has suggested that requirements should be established stipulating the proportion of liquid assets that a bank must hold, as well as minimum requirements for funding stability.

The Bank for International Settlements has proposed that central counterparties be established in market sectors characterized by a "web of bilateral exposures," while derivatives should be traded on organized exchanges in order to create "more resilient market structures."

"Preventive measures" by supervisors, according to the International Monetary Fund, should consider an expansion of regulatory control, as well as an increase in bank capital requirements and liquidity buffers. Notably, "Addressing cross-border resolution issues remains one of the greatest challenges."

The Swiss National Bank is in agreement that new liquidity regulations should be established. Even more importantly, the Bank believes that finding a solution to the "too big to fail" and "too big to rescue" issues, though critically important, will probably depend in the short run on bilateral agreements which result in "reciprocal recognition recognition of national regulations that are mutually compatible and the associated adjustment of structures and processes."

Identification of "emerging risks that are systemically important" is of paramount importance to the 110 regulatory members of IOSCO, to the extent that members may have to manage potential threats "even beyond the current perimeter of regulation."

There is, as yet, no agreement on the form of multinational structure needed to prevent a recurrence of the events which led to the Crisis. The Norwegian Central Bank has argued that the IMF be appointed as the global systemic regulator, a nomination which the IMF appears unwilling to accept and the Deutsche Bundesbank has specifically rejected. The German central bank and others prefer to operate within the economically weighted bounds of the G-20, as result of concerns by large bank supervisors regarding "the allocation of quotas and voting rights in the IMF, as well as the representation in its decision-making bodies."

Differences of opinion with respect to international frameworks are likely to be shadowed by active disputes within the sovereign political structures of central banks, since new legislation will generally be required to precede regulatory reform at both the national and international levels. The US Federal Reserve has called upon Congress to "act to fix gaps and weaknesses in the structure of the regulatory system and, in so doing, address the very serious problem posed by firms perceived as 'too big to fail.'" The Fed has called for three principles to guide new legislation: systemic risk-contributors must be regulated; taxpayers must be protected from systemic risks; and, emerging risks must be monitored.

PROCEDURAL REMEDIES: FROM *EXISTING* INFRASTRUCTURES

IOSCO members wish to collect data and create risk profiles of hedge fund managers, in order to help assess systemic risk and "inform the relevant legislative debates."

"Systemic risk has to be identified and guarded against," agrees the Bundesbank, by finding "adequate measures for indicating economic stress." Preferably, these metrics would rely upon dynamic financial market data, not static balance sheet statistics, although reliance on market data will create new challenges for file maintenance and model development by central bankers

The BIS has identified two dimensions of systemic risk to be monitored: the "common exposures and inter-linkages" in the cross-sectional dimension, and the procyclical risk factors that result from the "progressive buildup of financial fragility" in the time dimension. However, the BIS believes that "it is not entirely clear how central banks need to be equipped" to manage "the flow of information in systemic risk regulation." However, "Financial supervisors can also benefit from the information collected by central banks in the context of their liquidity operations."

The ECB has no illusions about the difficulty of the monitoring challenge: "The analysis for systemic risk surveillance and assessment is indeed very demanding." The ECB's need to analyze the "implications of interlinked pages in complex systems" and the risk transmission mechanisms in the market will be particularly difficult, yet it will also be quite necessary in order to develop a set of early warning metrics which rely on "a comprehensive set of macro-financial variables and forward-looking indicators." Says the ECB, "This task will require a detailed understanding of the channels through which emerging risks are transmitted." A supplemental benefit of the new systemic and macro-financial metrics will be "further enhancement of financial institutions' internal models, including stress testing [and] will lead to more accurate indicators of aggregate average, correlation and concentration of exposures to specific asset classes and of a firm's interconnectedness." Through frequent contact with market participants, the ECB expects to be able to identify and calibrate systemic risk trends "such as growing financial imbalances, convergence of business models, similarities in investment strategies and innovations in financial instruments -- to name just a few."

The U.S. Securities and Exchange Commission is moving forward with a leveraged supervisory framework, by empowering the chief compliance officers (CCO's) within investment companies and asset managers. "We have been seeking ways to leverage third parties to assist us in our core mission of protecting investors," said the SEC. In a sweeping expansion of the authority of CCO's, the SEC has sent that "you need to know [your firms] clients and its investment strategies. You need to know your firms business partners, including custodians administrators and prime brokers as well as how they are selected. Ask yourself whether you know who your firm trades with and what your counterparty risk is. And give careful thought to how the money moves at your firm, including potential conflicts of interest and the effect of compensation on decision-making. And, finally, are you regularly reviewing communications involving police officers to ensure everyone is following the rules?"

The urgency with which regulators view their work has been characterized very effectively by the ECB: "we have to succeed." The nearly 500 million EU citizens have been asked to pay a heavy price in this Crisis, says the ECB, and "they would not forgive us if we had to do so a second time."

Causes of the Crisis

The Credit Crisis was an Epochal Event

From July 2007 to March 2009, share prices for global banks fell by 75%. That erased US$5 trillion in shareholder equity. Considering all markets, McKinsey has estimated that the fall in global wealth was US$25 trillion. To put that in context, the lost wealth was nearly 45% of global GDP, or a half year's wages for the entire working world. On that basis, says Bank of England's Andrew Haldane, "asset price falls in the UK and US were as large as during the Great Depression."

> **Bank of England:** We are living through an extraordinary period for the economic and financial system. Events of recent years will be seen by financial historians as among the most significant in the past millennium. At the worst point of the crisis, savers and borrowers around the world came close to losing confidence in financial institutions. The resulting panic has had deep and long-lasting consequences for global activity. [9]

What are the lessons about the securities finance markets that financial regulators are deriving from the crisis experience? The best way to learn is to listen to what they are saying.

Risk Management Failed at Many Levels

Regulators during the crisis were most concerned about the nearly unmanageable spike in systemic risk which, according to the IMF, FSB and BIS, is defined as "a risk of disruption to financial services that is caused by an impairment of all or parts of the financial system and has the potential to have serious negative consequences for the real economy."

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[9] Mr Andrew G Haldane, Executive Director, Financial Stability, **Bank of England**, Liverpool, 27 January 2010.

U.S. Federal Reserve: Although the sources of the crisis were extraordinarily complex and numerous, a fundamental cause was that many financial firms simply did not appreciate the risks they were taking. Their risk-management systems were inadequate and their capital and liquidity buffers insufficient. Unfortunately, neither the firms nor the regulators identified and remedied many of the weaknesses soon enough. Thus, all financial regulators, including the Federal Reserve, must undertake unsparing self-assessments. At the Federal Reserve, we have extensively reviewed our performance and moved to strengthen our oversight of banks. Working cooperatively with other agencies, we are toughening our banking regulations to help constrain excessive risk-taking and enhance the ability of banks to withstand financial stress.[10]

Bank for International Settlements: Systemic risk was underestimated across the board before this crisis. We were faced with the unthinkable when a number of very large institutions failed, despite their previous reputation for balance sheet strength and leadership in risk management. Coming to grips with systemic risk is vital because the aggregate risk facing the system is much higher than the simple sum of the individual risks attending financial institutions, products and markets.[11]

European Central Bank: Two weaknesses of the supervisory and regulatory approach that we had before the crisis stand out. For one thing, the old approach focused too much on individual risks and too little on interconnections across intermediaries and markets. For another thing, it generated a lot of information about some types of intermediaries but much less on others (including the shadow banking system). This made it difficult to understand fully the pro-cyclical behaviour of the system in the aggregate.[12]

Deutsche Bundesbank: The most prominent shortcomings revealed by the financial crisis fall within the scope of credit risk transfer and the expansion of the "originate to distribute" business model that accompanied it. These deficiencies concern insufficient capital backing for securitisations as well as inadequate risk management within financial institutions and a lack of transparency in the whole transfer process. Consequently, the necessary modifications affect all three pillars of Basel II. … Undisputably, Basel II acts in a risk-sensitive manner and therefore responds cyclically to economic developments. … The question is, however, whether or not Basel II acts pro-cyclically in the sense that the increase in capital requirements in times of financial stress or economic downturn is such that the

[10] Mr Ben S Bernanke, Chairman of the Board of Governors of the **Federal Reserve System**, at the Economic Club of Washington DC, Washington DC, 7 December 2009.
[11] Mr Jaime Caruana, General Manager of the **BIS**, "Systemic risk: how to deal with it?", 12 February 2010
[12] Mr Jean-Claude Trichet, President of the **European Central Bank**, at Clare College, University of Cambridge, England, 10 December 2009.

> resulting decrease in bank lending threatens to cause a downward spiral or a credit crunch. [13]

Integrated Markets led to 'Shocking' Instabilities

Prior to the Crisis, it was thought that diversification of counterparty networks would work to reduce systemic risk in the financial system.

> **European Central Bank:** The element that had been more unexpected in the current crisis is the rigour with which systemic risk has been triggered by the collective behaviour of financial institutions and the ways in which they interact in financial markets. The crisis has highlighted the importance of improving our understanding of interconnectedness in the financial system, both via the direct links between financial institutions and the indirect ones created in financial markets.
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> The crisis has taught us that major risks can emerge from within the financial system itself. It was not the real economy that threw the financial system into disarray, but the reverse. Endogenous risks – risks that emerge from within the financial sector – can have many causes. They may arise, for example, because large parts of the system rely on the same sources of funding, or because they have similar exposures – to rising financial imbalances, to currency mismatches and to widespread mis-pricing of risk. We have also seen that turbulence can arise from relatively modest initial shocks. The system is so interconnected that what looks stable can turn out to be "meta-stable", which means potentially highly instable. …
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> The meta-stability of a system is a complex concept, which calls for analysis of the interplay between diverse phenomena. In financial systems, these phenomena include herd behaviour, complex networks of relationships between counterparties, and contagion from common or correlated exposures to particular asset classes. They also include the undesirable pro-cyclical effects of prudential rules, of accounting rules, of credit rating agencies, and of compensation systems that put undue emphasis on short-term earnings.[14]

Formal Remedies, from *redesigned* infrastructures

Funding Markets must be made more stable

As recently as 4Q09, the European Central Bank was dealing with challenges in the funding markets, noting that, "Funding liquidity problems continue to bring pressure on the major banks' operations. While the conditions have improved substantially in most funding segments throughout 2009, including the money markets, some of these

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[13] Dr Axel A Weber, President of the **Deutsche Bundesbank**, London, 24 September 2009

[14] Mr Jean-Claude Trichet, President of the **European Central Bank**, London, 11 December 2009

institutions and parts of the broader euro area banking system, remain reliant on temporary support measures extended by the Eurosystem and governments."[15]

All regulators have come to a greater appreciation of the importance of the funding markets, not only those at the largest and most powerful central banks. In late January, 2010, Governor Yves Mersch of Luxembourg's central bank described how the crisis in the real economy was triggered by a sudden collapse of the interbank funding markets.

> **Central Bank of Luxembourg:** What was most surprising in the recent crisis was the role played by liquidity. In retrospect, it is easy to conclude that it should have been monitored more closely and that pro-cyclical behaviour needed to be mitigated more effectively. … The financial crisis initially appeared in August 2007 as a sudden shortage of liquidity in the money market.. … As the inter-bank market dried up, banks found themselves hoarding cash to rebuild their liquidity buffers. This induced them to tighten credit standards, posing the risk that they might cut back loans to firms and households, transmitting the financial crisis to the real economy. [16]

In a speech by Norwegian central banker Jan F. Qvigstad, the importance of "funding stability" was again emphasized in unequivocal terms:

> **Norges Bank:** The global financial crisis has revealed weaknesses in the financial system. In retrospect, it is clear that financial sector regulation was not adequate. Regulation was primarily designed to ensure that individual banks had sufficient equity capital to protect lenders and depositors against losses, rather than ensuring stability in the system as a whole. For example, there were no requirements stipulating the size of liquid assets a bank must hold to weather periods of failure in market funding. Nor were there any minimum requirements as to funding stability. [17]

Using the case of Northern Rock as an example, Mr. Qvigstad points out that the bank's portfolio of mortgages was "not particularly exposed to risk." However, big risks existed on the liability side of the bank's ledger. Northern Rock had funded its long-term asset growth with too much reliance on short-term liabilities, in a misguided strategy reminiscent of the 1990's American thrift crisis. A run on the bank, the first in nearly 150 years for a British institution, resulted when depositors lost confidence upon learning that the bank's inability to roll over its short-term debt had forced it to seek government assistance.

[15] Mr Lucas Papademos, Vice President of the **European Central Bank**, at the press briefing on the occasion of the publication of the December 2009 ECB Financial Stability Review, Frankfurt am Main, 18 December 2009.

[16] Mr Yves Mersch, Governor of the **Central Bank of Luxembourg**, at the Luxembourg School of Finance, Luxembourg, 28 January 2010.

[17] **Norges Bank** Deputy Governor Jan F. Qvigstad, Oslo, 8 December 2009

"Other important questions," explained Mr. Qvigstad, "are whether systemically important banks should be subject to tighter regulation and how to reduce the procyclicality of bank behaviour. In a world with a global financial marketthere are limits to how far a single country can go it alone. International coordination is important for new regulations to have the intended effect."

Infrastructures must become more resilient

Organized exchanges and central counterparty structures are expected to lower the threat from opaque, concentrated trading networks.

> **Bank for International Settlements:** A key way to lessen the systemic risks created by large, interconnected firms is to put in place more resilient market structures. Trading of financial derivatives on organised exchanges is one way. Another is to replace the web of bilateral exposures with robust central counterparties (CCPs). This can reduce the risk of common exposures in several ways. A CCP is an entity that interposes itself between the two sides of a transaction, becoming the buyer to every seller and the seller to every buyer; this contributes to greater liquidity in the market and reduces contagion effects. A CCP also addresses default risk by requiring each participant to hold a margin account in which the balance is determined by the value of the participant's outstanding contracts: the more volatile the market, the larger the required margin balance and the more expensive it becomes to hold large positions. Furthermore, channelling transactions through a single platform enhances the collection and dissemination of information. This in turn allows market participants and the authorities to monitor the concentration of individual exposures and the linkages that they create.[18]

Capital Minimums, Liquidity Buffers and Regulatory Scope must Increase

Higher capital levels are expected to form the best long-term protection, just as more liquidity will be the best buffer for short-term stresses. To insure that financial defenses are uniformly adopted, global supervisors recommend the inclusion of all business models and market domains.

> **International Monetary Fund:** Preventive measures are needed to reduce the likelihood of crises. These include widening the regulatory perimeter and making it more flexible; increasing the amount and quality of bank capital and the liquidity buffers they carry; allowing prudential frameworks to play a greater stabilizing role over the business cycle; and intensifying the regulation and supervision of systemically important institutions.
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> Measures to improve crisis management are also critical. … Some progress has already been made on strengthening microprudential regulation. ... In particular, a key lesson of the financial crisis is that capital requirements cannot be lenient.

[18] Mr Jaime Caruana, General Manager of the **BIS**, "Systemic risk: how to deal with it?", 12 February 2010

> They must therefore not only be increased, but also made more variable in order to prevent excessive risk taking. Development of an operational framework for macroprudential supervision remains a work in progress. There is broad agreement on the needed components for such a system: procyclicality of regulation must be dampened, and systemically important financial institutions must be supervised better. However, methodological issues have posed challenges to international agreement on new regulations. Addressing cross-border resolution issues remains one of the greatest challenges.[19]

> **Swiss National Bank:** A new liquidity regulation is currently in the test and calibration phase. This regulation takes into account all balance-sheet and off-balance-sheet items that are of relevance in liquidity considerations, and is based – as far as possible – on internal bank liquidity management principles. It makes the big banks more resilient to disturbances in the interbank market or larger-scale withdrawals of deposits. It promotes longer-term financing as well as higher-rated securities that are capable of generating liquidity even in a stressed market environment. The new regulation is due to come into force in the second quarter of 2010. [20]

MegaBank Failure must become a Viable Option

The Swiss National Bank believes that resolution measures are needed to liquidate international banks without terminal damage to the real economy. "Too big to fail" and "too big to rescue" are the biggest challenges facing regulators today:

> **Swiss National Bank:** From the point of view of the FSB, the possibility of conducting an orderly resolution of a failing cross-border financial institution is an important element in finding a solution to the "too big to fail" and "too big to rescue" issues. Effective communication between the relevant supervisory authorities as well as forward-looking elaboration of emergency procedures are indispensible in this process. Internationally recognised regulations for the dissolution of systemically important institutions that can be enforced under any jurisdiction are no doubt a splendid objective. In the real world, however, different national regulations will continue to exist in this field. From our point of view, reciprocal recognition of national regulations that are mutually compatible, and the associated adjustment of structures and processes, are a more realistic objective. …

> Consequently, we need tools that will substantially reduce the costs of a crisis. The legacy of the current crisis is a banking system with large international institutions that now enjoy a virtual state guarantee. The fact that systemically important banks enjoy such a guarantee is now openly recognised to be a problem by the banking sector, too. A guarantee of this kind contradicts the basic principle

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[19] Dominique Strauss-Kahn, Managing Director of the **International Monetary Fund**, Berlin, September 4, 2009

[20] Mr Philipp Hildebrand, Vice-Chairman of the Governing Board of the **Swiss National Bank**, Zurich, 10 December 2009.

> of the market economy and presents us with a situation that cannot be tolerated. It must be possible for any financial institution, even a large one, to fail, without threatening the future of either the financial system or the real economy. [21]

Policy Intervention may be needed to Protect Investors

According to the Bank of England, "The lasting legacy of this crisis is too much debt held by too many sectors against too little capital." A McKinsey study found that, since 2000, gross debt for the ten largest economies grew by US$40 trillion, or a rise of 60%. Bank leverage soared to as much as 50 times equity, as compared with a ratio of less than 10 at the start of the 20th Century. This is not sustainable, say financial regulators.

> **Bank of England:** It is said that the longest journey begins with a single step. Events of the past twelve months have been a first step – and a big one. But they are just the start of the journey for the financial system and economy as balance sheets are repaired. This adjustment needs to be fast enough to repair balance sheets, but not so fast as to risk a setback for the financial system or real economy. [22]

> **Bank for International Settlements:** If a bank loses money from a risky investment, that is not systemic. But institutional failure, market seizure, infrastructure breakdown or even a sharp rise in the cost of financial services can have serious adverse implications for many other market participants. In these cases, there is a systemic dimension. It is such negative externalities and the significant spillovers to the real economy that are the essence of systemic risk and which make a case for policy intervention.[23]

> **IOSCO:** The identification of emerging risks that are systemically important is essential if we are to have any chance of avoiding the mistakes of the past. … The financial crisis has focused us all on the importance of addressing systemic risk and the important role markets and market regulators can play in addressing this issue. The new IOSCO principle will focus on the need for market regulators to identify, assess and mitigate risks and threats within and potentially even beyond the current perimeter of regulation. It will also address the consideration of entities, regulated by market regulators whose failure may have systemic implications for the wider economy.[24]

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[21] Philipp Hildebrand, Vice-Chairman of the Governing Board of the **Swiss National Bank**, Zurich, 10 December 2009.
[22] Mr Andrew G Haldane, Executive Director, Financial Stability, **Bank of England**, Liverpool, 27 January 2010.
[23] Mr Jaime Caruana, General Manager of the **BIS**, "Systemic risk: how to deal with it?", 12 February 2010
[24] Jane Diplock, Chairman of the Executive Committee, **International Organization of Securities Commissions**, Basel, Switzerland, 8 October 2009

International Regulatory Cooperation will *never* be Easy

In a recent speech by Norwegian central banker Svein Gjedrem, the case for broader involvement by smaller banks is laid out. Instead of the G20, Mr. Gjedrem argues that the 180-member International Monetary Fund should serve as the main decision-making body for the funding of systemic risk mitigators.

> **Norges Bank:** The international community turns to the IMF in times of crisis, in part because it is an effective institution that performs the vital functions that are called for, but also for the very simple reason that the world has no one else to turn to. [However] International policy cooperation has thus moved out of statutory bodies and into groups of a select few, bypassing established channels and fora. Other countries do not participate, directly or indirectly, but are called upon to contribute to efforts that others have agreed. The G20 discusses and aims to agree on changes in IMF governance. The vast majority of the membership of the IMF has no voice or representation in these discussions, including all low-income countries and most emerging economies. [25]

However, this direction is not fully accepted. Even the IMF is not entirely enamored of an expanded role for itself. According to managing director Strauss-Kahn,

> **International Monetary Fund:** We are not a global financial regulator—nor do we aspire to be! That is the responsibility of national regulatory and supervisory agencies. Having said this, we do take very seriously our responsibility to support national and multilateral efforts to strengthen financial regulation. Besides contributing to the formulation of new regulations and providing technical assistance in this area, our key mandate is surveillance of the financial sector. We are therefore stepping up our monitoring of the adoption and implementation of new standards and regulatory changes. This is in line with the G-20's request that our monitoring include the evolving framework of macroprudential supervision." [26]

This apprehension is shared by the Deutsche Bank and other central banks in G-20 , who also oppose extending the reach of the IMF. For example, Dr Weber wrote in September 30th that the IMF's standing is under review:

> **Deutsche Bundesbank:** The necessary strengthening of the IMF as a quota-based institution is also important for the Fund's legitimacy. The IMF is being accepted as an advisor and lender as long as its members feel to be fairly represented. Fair representation relates to the allocation of quotas and voting rights in the IMF, as well as to the representation in its decision-making bodies. Adapting the quotas and voting rights to reflect the changes in economic weight in the global economy was the key element of the April 2008 reform.

[25] Svein Gjedrem, Governor of **Norges Bank** (Central Bank of Norway), at the Peterson Institute for International Economics, Washington DC, 25 February 2010.

[26] Dominique Strauss-Kahn, Managing Director of the **International Monetary Fund**, Berlin, September 4, 2009

> Dynamic emerging market economies, such as China, Korea, Mexico and Turkey, have been the main beneficiaries. However, the quota reform has regrettably not yet entered into force because many countries – including important G20 countries – have not yet ratified it. … The Executive Board of the IMF as well as some G20 members are seizing the current economic and financial crisis as an opportunity to seek to extend the IMF's mandate.
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> It is planned, for instance, to directly finance budget deficits with central bank money which the IMF has at its disposal; this amounts to monetary financing, which is prohibited in Europe for good reasons. Moreover, the IMF shall also obtain a role as a global insurer or guarantor covering financial and economic risks of its member countries. Extending the IMF's mandate in such a way would result in a fundamentally different business model for the IMF and would risk overstretching it. [27]

Systemic Risk Controls Will Require Statutory Integration

Many free-market economists and politicians are concerned about the potential for loss of sovereignty when agreeing to international cooperation at a level never before considered. It may well be that the first test for many countries will be during the legislative process, when decisions must be made about enacting the recommendations of the international regulatory bodies. The United States will not move precipitously, if past experience with the Basel capital reforms can serve as a precedent.

Legislation must Precede Regulatory Reform

> **U.S. Federal Reserve:** Although regulators can do a great deal on their own to improve financial oversight, the Congress also must act to fix gaps and weaknesses in the structure of the regulatory system and, in so doing, address the very serious problem posed by firms perceived as "too big to fail". No firm, by virtue of its size and complexity, should be permitted to hold the financial system, the economy, or the American taxpayer hostage. To eliminate that possibility, a number of steps are required.

Systemic Risk-Contributors must be Regulated

> First, all systemically important financial institutions, not only banks, should be subject to strong and comprehensive supervision on a consolidated, or firmwide, basis. Such institutions should be subject to tougher capital, liquidity, and risk-management requirements than other firms – both to reduce their chance of failing and to remove their incentive to grow simply in order to be perceived as too big to fail. Neither AIG, an insurance company, nor Bear Stearns, an investment firm, was subject to strong consolidated supervision. The Federal Reserve, as the regulator of bank holding companies, already supervises many of the largest and most complex institutions in the world. That experience, together with our broad knowledge of the financial markets, makes us well suited to serve as the

[27] "Legitimacy of IMF endangered," Dr Axel A Weber, Frankfurter Allgemeine Zeitung, **Deutsche Bundesbank**, September 30, 2009

consolidated supervisor for systemically important nonbank institutions as well. In addition, our involvement in supervision is critical for ensuring that we have the necessary expertise, information, and authorities to carry out our essential functions of promoting financial stability and making monetary policy.

Taxpayers must be Protected from Systemic Risks

Second, when a systemically important institution does approach failure, government policymakers must have an option other than a bailout or a disorderly, confidence-shattering bankruptcy. The Congress should create a new resolution regime, analogous to the regime currently used by the FDIC for failing banks, that would permit the government to wind down a troubled systemically important firm in a way that protects financial stability but that also imposes losses on shareholders and creditors of the failed firm, without costs to the taxpayer. Imposing losses on creditors of troubled, systemically critical firms would help address the too-big-to-fail problem by restoring market discipline and leveling the playing field for smaller firms, while minimizing the disruptive effects of a failure on the financial system and the economy.

Emerging Risks must be monitored

Third, our regulatory structure requires a better mechanism for monitoring and addressing emerging risks to the financial system as a whole. Because of the size, diversity, and complexity of our financial system, that task may exceed the capacity of any individual agency. The Federal Reserve therefore supports the creation of a systemic oversight council, made up of the principal financial regulators, to identify developments that may pose systemic risks, recommend approaches for dealing with them, and coordinate the responses of its member agencies.[28]

Procedural Remedies, from *existing* infrastructures

Better Hedge Fund Data can Help To Inform Legislative Actions

Legislators will be better equipped to enact appropriate reforms if their deliberations are based on meaningful data regarding hedge funds.

IOSCO: IOSCO believes that regulators should seek to develop a comparable and consistent set of data to be collected from local hedge fund managers and advisers to monitor systemic risks and prevent gaps in regulatory reporting requirements. We recognise that the legislative process is ongoing in many jurisdictions and their outcomes could further influence the information needed to monitor systemic risk in the hedge fund sector, as well as who collects the data.

[28] Mr Ben S Bernanke, Chairman of the Board of Governors of the **Federal Reserve System**, at the Economic Club of Washington DC, Washington DC, 7 December 2009.

> Nonetheless, setting out these categories of information may help regulators in the assessment of systemic risk and help to inform the relevant legislative debates.[29]

Improved Analytics Can Help to Monitor Systemic Linkages

Dr. Franz-Christoph Zeitler, vice president of the Deutsche Bundsbank, speaking in Frankfurt on September 24, 2009, noted the failures of backward-looking quantitative risk measurement methods, such as value-at-risk or expected-shortfall models, which "have proved necessary but inadequate and should be supplemented by forward-looking instruments such as stress tests and scenario analyses, which also take into account changes in third party behaviour." On the same day, Dr. Weber was speaking on the same topic, as were other central bankers around the world.

> **Deutsche Bundsbank:** If we want to address the causes of the financial crisis in full, supervision has to be taken one step further. In particular, systemic risk has to be identified and guarded against. This raises new questions, such as how systemic risk can be identified and whether the systemic relevance of an institution should be considered by introducing capital surcharges for systemically important banks. … When trying to identify systemic risk, a crucial point is to find adequate measures for indicating economic stress. … Compared with indicators derived from banks' balance sheets, financial market data have the advantage that they are available on a timely basis and are forward-looking. However, market-based risk measures are much more influenced by market movements than balance sheet related data. Consequently its suitability has to be reviewed more often. … As justified as the intention to regulate banks and financial institutions according to their contribution to systemic risk may be, it is even more difficult to design and implement a rule that puts this into practice. Here, too, it is crucial to identify appropriate indicators of the contribution to systemic risk. The attendant risk – which can never be eliminated entirely – is that regulation focuses in too mechanical a manner on prominent risk indicators while overlooking other, less obvious ones. [30]

> **Central Bank of Luxembourg:** The analysis and control of systemic risk was a key missing ingredient in the run-up to the crisis. The problem is that although banks may seem resilient when considered individually, the banking system as a whole may still be vulnerable. This paradox can be explained through the two key dimensions of the macro-prudential framework. First, the cross-sectional dimension focuses on the risk of joint failures that reflects similar exposures or interconnectedness. Second, the time dimension focuses on interactions within the financial system, as well as feedback between the financial system and the real economy. These links account for the pro-cyclical behaviour of the financial

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[29] Ms Kathleen Casey, Chairman of the **IOSCO Technical Committee**, Madrid, Spain, 25 February 2010

[30] Dr Axel A Weber, President of the **Deutsche Bundesbank**, London, 24 September 2009

system, which can aggravate systemic risk by amplifying the effects of the business cycle. [31]

European Central Bank: The analysis for systemic risk surveillance and assessment is indeed very demanding, and as much of the credibility of the entire framework depends on it. In my view, the most difficult pieces will be the analysis of the implications of interlinkages in complex systems and understanding how a potential risk might spread throughout the system. Risk surveillance and risk detection call for early warning indicators and approaches capable of indicating when the financial system as a whole or parts of the system are approaching a "danger zone". Risk identification calls for the monitoring of a comprehensive set of macro-financial variables and forward-looking indicators. This task will require a detailed understanding of the channels through which emerging risks are transmitted.[32]

Bank for International Settlements: The first dimension of systemic risk - the common exposures/interlinkages in the cross section - relates to how a specific shock to the financial system can propagate itself and become systemic. The focus is on how risk is distributed within the financial system at a given point in time. A shock may take two main forms: The financial system is a network of interconnected balance sheets. As a result, an increasingly complex web of daily transactions means that a shock hitting one institution can spread to the other institutions that are connected to it and become systemic. The Herstatt and Continental Illinois crises both started with problems in one specific financial institution. Because of settlement and interbank linkages, thefailure of each of these specific firms threatened wider problems for connected institutions that were otherwise sound. Alternatively, a shock can have wide ramifications and become systemic because of direct common exposures. By its nature, a nationwide downturn in commercial real estate or housing markets tends to have this character. As the recent crisis has shown, such common exposure can have a profound international sweep. A negative exogenous shock, or, metaphorically speaking, a meteor strike or perfect storm, is indeed how many practitioners viewed this crisis, at least initially. The procyclicality dimension of systemic risk relates to the progressive build-up of financial fragility and how aggregate risk evolves over time. [33]

More Intelligence is Needed from (and for) Market Participants

Regulators intend to increase the flows of bilateral information so as to isolate sources of risk as well as the ability of market participants to improve their risk management and business models.

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[31] Mr Yves Mersch, Governor of the **Central Bank of Luxembourg**, at the Luxembourg School of Finance, Luxembourg, 28 January 2010.
[32] Mr Jean-Claude Trichet, President of the **European Central Bank**, London, 11 December 2009
[33] Mr Jaime Caruana, General Manager of the **BIS**, "Systemic risk: how to deal with it?", 12 February 2010

> **European Central Bank:** Any well-functioning macro-supervisory framework needs the support of market participants, because a rigorous monitoring of systemic risks will require continuous market intelligence. Contact with market participants will be essential for detecting important trends, such as growing financial imbalances, convergence of business models, similarities in investment strategies and innovations in financial instruments – to name just a few. It will be of immense value to establish a structured dialogue with the financial industry to this end. Anecdotal evidence will be of little relevance if there is no possibility to drill down to the sources of risk on the basis of well-founded information and a regular dialogue with market participants. I understand that there may be concerns that this will impose an additional reporting burden on the industry. In my view, this should not happen. To the extent that macro-prudential oversight requires micro-prudential data, the latter should be available from supervisors, and full confidentiality will be ensured. Any additional reporting would be exceptional. …
>
> There are likely to be benefits for the further enhancement of financial institutions' internal models, including stress testing, notably by taking account of system-wide factors and macro-financial variables. A better understanding of the concept and measurement of systemic risk will lead to more accurate indicators of aggregate leverage, correlation and concentration of exposures to specific asset classes and of a firm's interconnectedness. With a view to enabling better measurement of key elements in systemic risk analysis, it is the responsibility of financial institutions to continue to enhance the transparency and granularity of their individual reporting. This could improve, for example, individual firms' assessment of counterparty risks. Better measurement will also allow for better management. Risk management decisions will be better informed. And financial institutions' preparedness for specific risks will be enhanced. [34]

Central Banks should Monitor Counterparty Liquidity

Through their open market operations, the trading desks at central banks gain first-hand knowledge of evolving stresses in the inter-dealer funding markets – information which can help to monitor systemic risks.

> **Bank for International Settlements:** A first open question pertains to the governance structure and flow of information in systemic risk regulation. The crisis has shown that central banks play a decisive role in systemic regulation. But it is not entirely clear how central banks need to be equipped to play this role. Especially where the central bank is not the bank supervisor, it is important that the goal be well defined, the instruments understood and the exchange of information with other authorities appropriate - including detailed supervisory information on individual firms. Financial supervisors can also benefit from

[34] Mr Jean-Claude Trichet, President of the **European Central Bank**, London, 11 December 2009

> information collected by central banks in the context of their liquidity operations.[35]

Regulators Will Engage Third-Parties When Appropriate

Although much will be expected of regulators over the next several years, it is unlikely that their budgets will be enhanced commensurately. As a result, creative affiliations will be established with the private sector, to include in-house compliance professionals and external advisors.

> **U.S. Securities and Exchange Commission:** We have fewer resources than had just five years ago – and a market that has grown exponentially over time. That is just one reason why we have been seeking ways to leverage third parties to assist us in our core mission of protecting investors. For instance, we recently adopted a rule that leverages independent accountants to perform asset verification and custody control reviewsto better protect advisory clients. We recently established a new process to encourage corporate insiders to cooperate in our enforcement matters. And, we have been pushing for legislation that will enable us to compensate whistleblowers who provide us with actionable information.
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> But the work of Chief Compliance Officers should have the most meaningful impact. For it is you who are on the front lines making sure your firms are complying with the law, the rules and guidance that we offer. It is you who are on the ground alerting colleagues to avoid conflicts of interest, and ensuring that your firms are providing clear, simple and meaningful disclosure. And, it is you who can prevent problems before they ever emerge. …
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> In particular, it is critical that you, as compliance professionals, understand your firm and who it serves. You need to know its clients and its investment strategies. You need to know your firm's business partners, including custodians, administrators and prime brokers, as well as how they are selected. Ask yourself whether you know who your firm trades with and what your counterparty risk is. And, give careful thought to how the money moves at your firm, including potential conflicts of interest and the effect of compensation on decision-making. And, finally, are you regularly reviewing communications involving employees and officers to ensure everyone is following the rules?
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> Together, if we continue our work to implement effective regulations and compliance programs, we can prevent fraudulent schemes from occurring detect instances of non-compliance sooner before investors are harmed, and promptly correct problems that do occur. [36]

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[35] Mr Jaime Caruana, General Manager of the **BIS**, "Systemic risk: how to deal with it?", 12 February 2010

[36] Ms Mary L. Schapiro, Chairman of the **U.S. Securities and Exchange Commission**, Remarks at the CCO Outreach National Seminar, January 26, 2010

Regulatory Failure is not an Option

> **European Central Bank:** We have to succeed. At stake is not only the stability of one of the world's largest financial systems, but also the support from the over 490 million citizens in the European Union who are watching our efforts very closely. We have counted very heavily on their support for the financial system, and they would not forgive us if we had to do so a second time. [37]

[37] Mr Jean-Claude Trichet, President of the **European Central Bank**, London, 11 December 2009