



**G20 Working Group 1
Enhancing Sound Regulation and
Strengthening Transparency**

Final Report

March 25, 2009

Table of Contents

1. Executive Summary and Recommendations	1
2. Introduction	1
3. System-wide Approach to Financial Sector Regulation	2
4. Washington Action Plan.....	6
4.1 Regulatory Regimes.....	6
4.1.1 The Scope of Regulation	6
4.1.2 Oversight of Credit Rating Agencies	12
4.1.3 Private Pools of Capital.....	15
4.1.4 Transparent Assessment of Regulatory Regimes.....	17
4.2 Procyclicality	19
4.3 Prudential Oversight.....	23
4.3.1 Capital.....	23
4.3.2 Liquidity.....	27
4.3.3 Infrastructure for OTC Derivatives	29
4.4 Compensation Schemes and Risk Management	32
4.4.1 Compensation Schemes.....	32
4.4.2 Risk Management Practices	35
4.5 Transparency	38
5. Going beyond the Action Plan	44
5.1 Enforcement.....	44
5.2 Technical Assistance and Capacity Building in Emerging Market Economies	45
Annex 1 - Abbreviations.....	46
Annex 2 – List of Members of the Working Group	47

1. Executive Summary and Recommendations

G20 Leaders tasked the Working Group on Enhancing Sound Regulation and Strengthening Transparency (Working Group 1) with reviewing work underway and making recommendations that will strengthen international regulatory standards, enhance transparency in global financial markets and ensure all financial markets, products and participants are appropriately regulated or subject to oversight, depending on their circumstances.

The recommendations contained in this Report are a response to the causes of the current crisis, and are intended to prevent future ones from occurring. They are consistent with the recognition that robust regulation in each country, based on effective global standards, is vital to future financial stability.

The first line of defence in preventing instability in the financial system is sound regulation and recent events have clearly demonstrated that regulatory failures in some jurisdictions fuelled the current crisis. The regulatory framework needs strengthening, and it is essential to get micro-prudential regulation right in order to promote financial institutions that are sound and that manage risks appropriately.

But what has also become clear most recently is that this is a systemic crisis which has at its root the build-up of systemic vulnerabilities arising from excess liquidity, leverage, risk-taking and systemic concentrations across the financial system. History shows that, while each financial crisis is different, a shared feature is that they are preceded by a period of excess risk-taking, strong credit growth and asset price increases in various markets. The current crisis highlights the extraordinary financial and social costs of failures in the financial system.

As directed by the Leaders Declaration and the G20 Troika, an important focus of Working Group 1 has been to strengthen microprudential policy while supplementing it with a greater emphasis on a system-wide approach to regulation in order to better mitigate the build-up of systemic risks.

To achieve these objectives, this report contains recommendations in the following areas:

- A System-wide Approach to Financial Regulation
- Scope of Regulation
- Oversight of Credit Rating Agencies
- Private Pools of Capital
- Transparent Assessment of Regulatory Regimes
- Procyclicality
- Capital
- Liquidity
- Infrastructure for OTC Derivatives

G20 Working Group 1 – Final Report

- Compensation Schemes and Risk Management
- Accounting Standards
- Transparency
- Enforcement
- Technical Assistance and Capacity Building in Emerging Market Economies

The Report sets out 25 recommendations for Leaders that the Working Group strongly believes will support the vital role of the financial system in promoting economic growth while, at the same time, reducing the likelihood of a similar crisis in the future and mitigating the consequences of future periods of financial stress.

The key overarching recommendations of Working Group 1 can be summarized in five broad points.

1. As a supplement to sound micro-prudential and market integrity regulation, national financial regulatory frameworks should be reinforced with a macro-prudential overlay that promotes a system-wide approach to financial regulation and oversight and mitigates the build-up of excess risks across the system. In most jurisdictions, this will require improved coordination mechanisms between various financial authorities, mandates for all financial authorities to take account of financial system stability, and effective tools to address systemic risks. It will also require an effective global table to bring together national financial authorities to jointly assess systemic risks across the global financial system and coordinate policy responses.
2. The scope of regulation and oversight should be expanded to include all systemically important institutions, markets and instruments. This will require enhanced information for financial authorities on all material financial institutions and markets, including private pools of capital. Large complex financial institutions require particularly robust oversight given their size and global reach. The regulatory and oversight framework should strive to treat similar institutions and activities consistently, with greater emphasis on functions and activities and less emphasis on legal status.
3. Once conditions in the financial system have recovered, international standards for capital and liquidity buffers should be enhanced, and the build-up of capital buffers and provisions in good times should be encouraged so that capital can absorb losses and be drawn down in difficult times.
4. Through the expanded Financial Stability Forum, the International Monetary Fund and the international standard setters, international standards, including those for macro-prudential regulation, the scope of

regulation, capital adequacy and liquidity buffers, should be coordinated to ensure a common and coherent international framework, which national financial authorities should apply in their countries consistent with national circumstances. The financial regulatory and oversight frameworks and their implementation in all G-20 countries should be reviewed periodically, validated internationally and made public.

5. Sound micro-prudential and market-conduct regulation supplemented with an effective macro-prudential framework requires enhancements to a range of supporting policies and infrastructure, including: compensation practices that promote prudent risk taking in line with principles developed by the FSF; the greater standardization of derivatives contracts and the use of risk-proofed central counterparties; improved accounting standards that better recognize loan-loss provisions and dampen adverse dynamics associated with fair-value accounting; effective enforcement of regulation that is coordinated internationally including the enforcement of the adherence of credit rating agencies to the substance of the IOSCO code of conduct; and national authorities and international standard setters working together and assisting each other in strengthening financial regulatory and oversight frameworks and their implementation across the G-20 and beyond.

Underlying Causes of the Market Turmoil:

The turmoil which began to unfold during the Summer of 2007 was, in part, a consequence of an extended period of low real interest rates around the world, supported by an expansionary monetary policy, large current account imbalances, robust global growth and limited volatility in economic conditions. This benign environment caused investors to extend their search for yield further out the credit quality curve, leading to overly optimistic assessments and lack of due diligence in assessing credit risk.

In response to the increased demand for credit instruments offering higher yield, the financial system developed new structures and created new instruments, some with embedded leverage. Many of these instruments were opaque and masked the extent of leverage and interconnectedness of risk, which appeared to be globally dispersed across a wide range of institutions and markets. Much of the due diligence in examining these innovations was outsourced to credit rating agencies.

The trading of innovative over-the-counter financial products, particularly those aimed at transferring credit risk, notably credit default swaps and collateralized debt obligations, expanded very rapidly. Financial institutions failed to properly manage and monitor risks to liquidity in the event that these markets froze.

At the same time, regulated banks and financial institutions supported the acceleration of financial innovation and the push towards more unregulated pools of capital by establishing off-balance sheet and structured investment vehicles. These unregulated investment vehicles, created in response to features of the regulatory and accounting framework, often financed their operations without

minimum capital buffers or adequate liquidity plans. In addition, the risks they were exposed to, including maturity mismatches, were often misunderstood.

Risk management within institutions and the expertise of regulators did not keep pace with these innovations. Financial sector compensation schemes based on short-term returns, without consideration of the attendant risks, reinforced the momentum for risk taking.

Eventually the increase in asset prices could not be sustained. Delinquencies translated into price decreases on U.S. sub-prime mortgage-backed securities, which in turn produced losses for investors and led to margin calls for leveraged sub-prime asset holders. As the market turmoil spread across a wide range of markets for structured and securitized products, increased risk aversion, reduced liquidity, and concerns about the soundness of major financial institutions fed on each other. Many institutions experienced significant balance sheet pressures, which led to a tightening of lending standards with adverse effects on real economic growth.

In hindsight, policymakers, regulators and supervisors in some advanced countries did not act to stem excessive risk-taking or to take into account the interconnectedness of the activities of regulated and non-regulated institutions and markets. This was due in part to fragmented regulatory structures and legal constraints on information sharing. Further, uncertainties concerning exposures to, and the valuation of, structured products and the difficulty of valuing financial instruments when markets are under stress may have exacerbated the turmoil.

Identified Weaknesses:

Some of the more salient weaknesses identified as drivers of the current turmoil include:

Weaknesses in Underwriting Standards: The credit quality of loans granted with the intention of transferring them to other entities through the securitization process was not adequately assessed.

Lack of Oversight of Systemic Risks: While the build-up of leverage and the underpricing of credit risk were recognized in advance of the turmoil, their extent was under-appreciated and there was no coordinated approach to assess the implications of these systemic risks and policy options to address them. There was also insufficient recognition of the interconnectedness of risks within both regulated and unregulated markets.

Lack of Oversight of Unregulated Pools of Capital: Unregulated and lightly regulated pools of capital, such as hedge funds, private equity funds, and a number of the banks' off-balance sheet securitization vehicles, grew rapidly in importance during the period preceding the crisis. Regulatory arbitrage pushed risks outside the regulatory framework and, in many jurisdictions, oversight of these markets and entities consisted to a large extent of indirect oversight through the supervision of counterparties and market discipline.

Weak performance by Credit Rating Agencies: There was an over-reliance on credit rating agencies and shortcomings in rating models and methodologies, as well as insufficient attention to conflicts of interest in the rating process.

Procyclical Tendencies Fed by Regulatory and Accounting Frameworks: Certain aspects of accounting frameworks and capital regulation tend to enhance the natural tendency of the financial system to amplify business cycles, affecting both the degree of credit expansion in benign conditions and the degree of credit contraction in the downturn.

Shortcomings in Risk Management Practices: A number of the standard risk management tools used by financial firms relied on samples of historical data from short periods and were not suited to estimating the likelihood and the scale of potential losses in the adverse tail of risk distributions for structured credit products. In addition, compensation arrangements often created incentives for excessive risk-taking through insufficient regard to longer-term risks.

Financial Innovation Outpacing Risk Management: There was a significant acceleration of financial innovation in years leading up to the crisis that far outpaced the ability of firms to manage risks and of regulators to effectively monitor them.

Weaknesses in Disclosure: Weaknesses in public disclosures by financial institutions damaged market confidence during the turmoil. Public disclosures by financial institutions did not always make clear the type and magnitude of risks associated with their on- and off-balance sheet exposures.

Weaknesses in Resolution Procedures: Existing procedures for resolving troubled institutions have been shown to be inadequate when an institution imposes substantial systemic risks. In addition, national resolution mechanisms have not been effective in some cross-border resolutions.

Lack of Transparency in Various OTC Markets: In many cases, investors and other market observers could obtain only minimal information about pricing, trading volume, and aggregate open interest in various products that trade in the OTC markets.

A vision for the future financial system

The financial system will continue to play a vital role to intermediate savings and provide funding to the real sector, thereby supporting economic growth. The Working Group recognises that financial markets will remain global and interconnected, while financial innovation will continue to play an important role to foster economic efficiency. Protectionist moves must be strongly resisted. In order to address the underlying causes and weaknesses identified above, the Working Group envisages the need for a reform of the regulatory framework to avoid the emergence of similar crises and to mitigate the consequence of any future episode of financial stress.

The regulatory framework will need to keep pace with the associated risks in a more rapid and effective manner. Large complex financial institutions will continue to operate in multiple jurisdictions in order to meet the needs of their

large global clients, and supervision will need to be better coordinated internationally with a robust global resolution framework. In order to avoid regulatory arbitrage, there is a need for greater consistency in the regulation of similar instruments and of institutions performing similar activities, both within and across borders.

In addition, capital markets will require greater emphasis on reducing counterparty risk and on ensuring that their infrastructure allows them to remain a source of funding during periods of stress.

The post-crisis period will likely be characterized by a financial system with lower levels of leverage, reduced funding mismatches (both in terms of maturity and currency), less exposure to counterparty risk, and greater transparency regarding financial instruments. After credit markets recover from the crisis, it will be important to mitigate the inevitable pressure to expand profits through increased risk-taking. A more developed macro-prudential approach will be an important element in this context.

The type, size, and cross-border exposures of institutions and markets that will emerge from this crisis will likely be considerably different than before. As banks and financial institutions consolidate, policy makers will have to adapt prudential regulation to varying degrees of size and concentration. Similarly, competition policy will play an important role in ensuring healthy competition.

Financial institutions, markets and instruments will therefore continue to evolve in ways which pose challenges for regulation, notwithstanding the retrenchment that is currently underway. Financial institutions, policymakers, supervisors and regulators will all need to become better equipped to manage the interconnectedness of markets, both domestically and globally, the effects of innovation, and the potential for incentives to become misaligned.

Transition to a new regulatory regime:

It will be necessary to consider the appropriate timing for changes in the regulatory framework going forward. Recommendations should promote proportionate regulatory reaction when needed, acknowledging the possible limits of the self-regulation approach in some contexts. For example, while ultimately capital buffers for the system should be enhanced during the economic expansion in order to be drawn down as needed in downturns, changes in the current environment may have negative consequences on the real economy. A considered and comprehensive review of the consequences of reforms and harmonization, coordinated across jurisdictions, is necessary to increase the effective transition to a more stable financial system.

Review of Progress of G20 Action Plan

This Report presents a high level overview of measures taken in response to each item of the Washington Action Plan. A very substantial amount of work has already been achieved and many additional initiatives are underway to enhance the regulatory framework in response to this Action Plan. Overall, this work is proceeding well and in a coordinated fashion.

Milestones of particular importance that are evidence of the exceptional amount of work by national authorities and international bodies include:

A. Measures to address the current crisis

On Transparency:

- Several accounting standard setting bodies published guidance to clarify expectations for the valuation of financial instruments, including complex securities.
- Prudential supervisors in many jurisdictions strongly encouraged their internationally active financial institutions to enhance disclosure by adopting leading risk disclosure practices addressed in a report by the Senior Supervisors Group to the Financial Stability Forum (FSF), and larger financial institutions have responded by disclosing more meaningful qualitative and quantitative information about risk exposures involving complex instruments.
- The Basel Committee for Banking Supervision (BCBS) has published proposals for enhanced disclosures related to securitizations.

B. Measures for the medium/longer term

On Regulatory Regimes:

- The International Organization of Securities Commissions (IOSCO), the International Association of Insurance Supervisors (IAIS) and the BCBS have undertaken initiatives to assess differences in regulation across sectors, identify regulatory gaps, and examine issues related to expanding the scope of regulation.
- IOSCO assessed the implementation by credit rating agencies of its code of conduct, and is currently developing a framework for coordination amongst regulators in monitoring and enforcing compliance. In addition, some jurisdictions are in the process of adopting legally binding rules to regulate and supervise credit rating agencies.

On Procyclicality:

- Working groups formed by the FSF have prepared recommendations to mitigate procyclicality with respect to bank capital, provisioning practices, and valuation and leverage.

On Prudential Oversight:

- The BCBS issued, for consultation, proposals to strengthen the risk capture of the Basel II framework, including enhancements to the capital treatment of securitizations, off-balance sheet exposures, and trading book activities. These measures form part of a comprehensive strategy to strengthen the regulation, supervision and risk management of internationally active banks in order to address weaknesses revealed by the crisis. This strategy also includes work in progress to enhance the consistency and quality of capital and to mitigate procyclicality.
- An international group of prudential supervisors and national authorities is working with the industry to strengthen the infrastructure for over-the-counter (OTC) credit derivatives, with the top priorities being the implementation of central counterparty clearing for credit default swaps (CDS). One central counterparty was launched in late 2008 in the European Union, and more are expected to begin operating in 2009 in the United States and in the European Union.

On Compensation Schemes and Risk Management:

- A Working Group of the FSF has developed sound practice principles for compensation schemes.
- The BCBS and national prudential supervisors issued guidance to enhance practices in a number of risk management areas, including stress testing, risk concentrations, off-balance sheet exposures, valuation and liquidity risk.

On Transparency:

- The International Accounting Standards Board (IASB) and the U.S. Financial Accounting Standards Board (FASB) have established an advisory group comprised of senior leaders with broad international experience in financial markets to advise the Boards in considering accounting issues emerging from the global crisis. Furthermore, the Trustees of the International Accounting Standards Committee Foundation (IASCF) approved in mid-January the establishment of a formal link to a newly created external Monitoring Board composed of public authorities. They also approved the expansion of the IASB membership to 16 members and provided additional guidelines regarding their geographic diversity.

Recommendations to Leaders by the Working Group

The objective of the recommendations for further reform made by the Working Group is to build a financial system that will support growth and rising living standards across the globe, while reducing the risk of financial instability. Financial crises have very large social costs. At the same time, there are large social benefits to all from a dynamic and efficient financial system that transforms savings into productive investments, and helps households and businesses manage risk. The regulatory framework needs to maximize stability and efficiency while ensuring an appropriate balance where there are trade-offs.

The following is a summary of the recommendations for further action put forward by the Working Group. By charting a clear direction and a timeline, this package of recommendations has the potential to provide the sense of clarity and the increased confidence the financial system requires in the short run, and increased efficiency and stability going forward.

The Report identifies bodies that could be tasked with implementing and monitoring progress against these recommendations as well as implementation timelines. In many cases, the responsibility for monitoring implementation has been placed on the International Monetary Fund (IMF) and the World Bank (WB), through the Financial Sector Assessment Program (FSAP) and Article IV. To support these new responsibilities, these institutions may need to modify their instruments and tools, including by adapting the scope of assessments to make them more targeted. They should also accord due priority to this monitoring in their assessment schedule, and the IMF and the World Bank could explore using other bilateral or multilateral instruments to support these objectives.

Summary of Recommendations:

System-wide Approach to Financial Regulation

Recommendation 1: As a supplement to their core mandate, the mandates of all national financial regulators, central banks, and oversight authorities, and of all international financial bodies and standard setters (IASB, BCBS, IAIS and IOSCO) should take account of financial system stability.

- **Responsibility:** Finance Ministries, national financial regulators and oversight authorities, central banks, IOSCO, IAIS, BCBS, IASB and other accounting standards setters, expanded FSF, IMF
- **Timeline:** To be completed within 2 years
- **Monitoring:** Compliance by national authorities to be monitored by IMF-WB (through FSAP and Article IV), compliance by international bodies to be monitored by expanded FSF

Recommendation 2: Within each country, there should be an effective mechanism for appropriate domestic financial sector authorities to jointly assess the systemic risks across the financial system and to co-ordinate the domestic policy response to limit the build-up in systemic risk. The structure of this coordinating mechanism should be transparent, with clear assignments of roles, responsibilities and accountability for each authority.

- **Responsibility:** Finance Ministries, financial regulators and supervisors, central banks, in cooperation with other relevant bodies, including policy authorities for housing finance and accounting standard setters, as appropriate
- **Timeline:** To be completed within 2 years
- **Monitoring:** IMF-WB (through FSAP and Article IV)

Recommendation 3: Financial sector authorities should have suitable macroprudential tools to address systemic vulnerabilities. Measures that are simple to understand and to implement would be preferable to more complex ones, and tools that rely on pre-specified limits or rules are attractive. However, rules need to be complemented with the informed judgement of financial sector authorities based on their joint assessment of the risks across the financial system.

In order to achieve consistency globally, international bodies and standard setters – such as the expanded FSF, IOSCO, the IAIS, the BCBS, the BIS and others (e.g., IASB, CGFS) – will develop such tools and provide national authorities, which are responsible for their implementation, with options. Potential macroprudential tools that should be explored further could include:

- a. Complementing risk-based capital measures with simpler indicators aimed to measure the build-up of leverage, with enhanced sensitivity to off-balance sheet exposures;

- b. **Capital requirements that adjust over the financial cycle;**
 - c. **Loan-loss provisioning standards that incorporate all available credit information;**
 - d. **The use of longer historical samples to assess risk and margin requirements; and**
 - e. **Greater focus on loan-to-value ratios for mortgages.**
- **Responsibility:** National authorities, expanded FSF, IOSCO, IAIS, BCBS, BIS, IASB, CGFS
 - **Timeline for tool development:** Expanded FSF to provide an annual report on the suite of tools under development by its members, with an Interim Report in Fall 2009.
 - **Timeline for tool implementation:** On an ongoing basis
 - **Monitoring:** Development of tools to be monitored by G20, as well as expanded FSF, and their implementation by the IMF-WB (through FSAP and Article IV)

Recommendation 4: The expanded FSF, together with the IMF, should create an effective mechanism for key financial authorities in each country to regularly come together around an international table to jointly assess the systemic risks across the global financial system and to coordinate policy responses.

- **Responsibility:** Expanded FSF, IMF, Finance Ministries, national financial regulators and oversight authorities, central banks
- **Timeline:** Fully implemented within 2 years, with initial system in place by the Fall 2009 FSF meetings
- **Monitoring:** G20

Scope of Regulation

Recommendation 5: All systemically important financial institutions, markets and instruments should be subject to an appropriate degree of regulation and oversight, consistently applied and proportionate to their local and global systemic importance. Consideration has to be given to the potential systemic risk of a cluster of financial institutions which are not systemically important on their own. Non-systemically important financial institutions, markets and instruments could also be subject to some form of registration requirement or oversight, depending on the type and degree of risk posed, for example for the integrity or efficiency of markets.

In order to determine the appropriate degree of regulation or oversight, national authorities should determine appropriate mechanisms for gathering relevant information on all material financial institutions, markets and instruments. This information will allow national authorities to assess the potential for their failure or severe stress to contribute to systemic risk,

either on their own, as part of a cluster, or through linkages with other segments of the financial system. Information on systemic risk should be monitored through a globally coordinated mechanism.

National authorities should have the authority to expand the perimeter of regulation in a timely way, recognizing that it may vary across countries and through time. They should do so in close coordination with appropriate global fora and standard-setters in order to achieve as much consistency as possible across jurisdictions.

- **Responsibility:** National authorities, central banks, IOSCO, IAIS and BCBS, with recommendations from the expanded FSF and the IMF
- **Timeline:** Two stages: process to obtain information underway in Fall 2009, with system in place within 2 years
- **Monitoring:** Expanded FSF to ensure a consistent approach to the perimeter of regulation, and the information collection framework to be monitored by IMF-WB (through FSAP and Article IV)

Recommendation 6: The systemic importance of financial institutions, markets and instruments depends on a wide range of factors, including their size, leverage, interconnectedness, as well as funding mismatches. The IMF, in consultation with the BIS and the expanded FSF and other bodies, should jointly develop a common international framework and guidelines to help national authorities assess whether a financial institution, market or an instrument is systemically important as consistently as possible across jurisdictions.

This framework should strive to treat similar activities more similarly for regulatory or oversight purposes regardless of the legal form of the institution, so as to avoid regulatory arbitrage.

- **Responsibility:** IMF, BIS, expanded FSF
- **Timeline:** Fall 2009
- **Monitoring:** G20

Recommendation 7: Large complex financial institutions require particularly robust oversight given their systemic importance, which arises in part from their size and interconnectedness (or correlation) with other institutions, and from their influence on markets.

- **Responsibility:** Prudential supervisors, with recommendations from the expanded FSF
- **Timeline:** Ongoing
- **Monitoring:** Expanded FSF

Recommendation 8: The boundaries of the regulatory framework should be reviewed periodically within national jurisdictions, in light of financial innovation and broader trends in the financial system. International bodies will promote good practice and consistent approaches in this area.

- **Responsibility:** Prudential supervisors, central banks, and securities regulators, with guidance from the expanded FSF and the IMF
- **Timeline:** Ongoing
- **Monitoring:** Expanded FSF

Oversight of Credit Rating Agencies

Recommendation 9: All credit rating agencies whose ratings are used for regulatory purposes should be subject to a regulatory oversight regime that includes registration and that requires compliance with the substance of the IOSCO Code of Conduct Fundamentals. National authorities should obtain the authority to enforce compliance and require changes to a rating agency's practices and procedures for managing conflicts of interest and for assuring the transparency and quality of the rating process. Given the global scope of some credit rating agencies, the oversight framework should be consistent across jurisdictions with appropriate sharing of information between national authorities responsible for the oversight of credit rating agencies.

- **Responsibility:** National authorities
- **Timeline:** To be completed within 2 years
- **Monitoring:** by IOSCO and IMF-WB (through FSAP and Article IV)

Private Pools of Capital

Recommendation 10: Private pools of capital, including hedge funds, can be a source of risk owing to their combined size in the market, their use of leverage and maturity mismatches, and their connectedness with other parts of the financial system. They or their managers should therefore be required to register with financial authorities and disclose appropriate information to assess the risks they pose.

- **Responsibility:** National authorities
- **Timeline:** To be implemented within 2 years
- **Monitoring:** Expanded FSF

Transparent Assessment of Regulatory Regimes

Recommendation 11: All G20 members should commit to undertake a Financial Sector Assessment Program (FSAP) report and to publish its conclusions. National authorities may also periodically undertake a self-assessment of their regulatory frameworks based on internationally agreed methodologies and tools.

To improve the FSAP process, the basis upon which countries are assessed should be expanded to encompass macroprudential oversight,

the scope of regulation, and supervisory oversight of the influence of the structure of compensation schemes at financial institutions on risk taking.

- **Responsibility:** Finance Ministries, IMF/WB
- **Timeline:** G20 countries that have not undertaken an FSAP should immediately commit to do so, in consultation with the IMF/WB; Countries with systemically important financial systems should be subject to a self-assessment every 5 years, and FSAP Updates in consultation with IMF/WB
- **Monitoring:** IMF/WB

Procyclicality

Recommendation 12: The FSF and other bodies, particularly the BCBS, should develop and implement supervisory and regulatory approaches to mitigate procyclicality in the financial system by promoting the build-up of capital buffers during the economic expansion and by dampening the adverse interaction between fair valuation, leverage and maturity mismatches in times of stress.

- **Responsibility:** FSF and member bodies, BCBS, CGFS
- **Timeline for development:** Strategic plan Fall 2009, with further progress reported by year end
- **Timeline for implementation:** As appropriate, with discussion with sector and coordination by the expanded FSF
- **Monitoring:** Expanded FSF

Recommendation 13: Accounting standard setters should strengthen accounting recognition of loan loss provisions by considering alternative approaches for recognizing and measuring loan losses that incorporate a broader range of available credit information. They should also examine changes to relevant standards to dampen adverse dynamics associated with fair value accounting, including improvements to valuations when data or modelling is weak. Accounting standards setters and prudential supervisors should work together to identify solutions that are consistent with the complementary objectives of promoting the stability of the financial sector and of providing transparency of economic results in financial reports.

- **Responsibility:** Accounting standards setters, BCBS
- **Timeline for development:** Strategic plan Fall 2009
- **Timeline for implementation:** As appropriate, with discussion with sector and coordination by the expanded FSF
- **Monitoring:** Expanded FSF

Capital

Recommendation 14: Capital should serve as an effective buffer to absorb losses over the cycle, so as to protect both the solvency of financial institutions in the event of losses, and their ability to lend.

In the near term, capital buffers above required minimums should be allowed to decline in response to deteriorating economic conditions and credit quality, and urgent consideration should be given to measures that would facilitate access to additional private sector capital in the downturn.

Once conditions in the financial system have recovered, the adequacy of the international standard for the minimum level of capital for banks should be reviewed and the quality and global consistency of capital should be enhanced. In addition, capital buffers above minimum requirements and loan-loss provisions should be built up in good times in order to enhance the ability of regulated financial institutions to withstand large shocks.

In this context, the BCBS should develop standards to promote the build-up of capital buffers in good times that can be drawn down in periods of stress. The BCBS should also complement risk-based capital measures with simpler indicators to monitor the build-up of leverage.

The international standard for the minimum level of capital should remain unchanged until the financial system has recovered.

- **Responsibility:** BCBS
- **Timeline:** The review of international standards related to capital buffers and the quality and consistency of capital will be discussed at periodic BCBS meetings and the transition will be completed as appropriate, in consultation with the industry and with coordination by the expanded FSF.
- **Monitoring:** Expanded FSF

Recommendation 15: G20 Leaders should support the progressive adoption of the Basel II capital framework, which will continue to be improved on an ongoing basis, across the G20.

- **Responsibility:** Prudential supervisors, BCBS
- **Timeline:** The transition to Basel II is to be completed as appropriate, in consultation with the industry and with coordination by the expanded FSF
- **Monitoring:** IMF-WB (through FSAP and Article IV), BCBS

Liquidity

Recommendation 16: Prudential supervisors and central banks should deliver a global framework for promoting stronger liquidity buffers at banks, including cross-border institutions, to ensure that they can withstand prolonged periods of market and funding liquidity stress.

In addition, the BCBS should enhance tools, metrics and benchmarks that supervisors can use to assess the resilience of banks' liquidity cushions and constrain any weakening in liquidity maturity profiles, diversity of funding sources, and stress testing practices.

- **Responsibility:** Prudential supervisors, central banks, BCBS
- **Timeline:** To be completed within 2 years
- **Monitoring:** Expanded FSF

Infrastructure for OTC Derivatives

Recommendation 17: Financial institutions should continue to strengthen the infrastructure supporting OTC derivatives markets. In the case of credit derivatives, this includes standardizing contracts to facilitate their clearing through a central counterparty. National authorities should enhance incentives as needed for the use of central counterparties to clear OTC credit derivatives.

- **Responsibility:** Financial institutions, prudential supervisors and other authorities, central banks
- **Timeline:** To be completed within two years; Industry to prepare an action plan on standardization in the Fall 2009
- **Monitoring:** Prudential supervisors and expanded FSF

Recommendation 18: Central counterparties should be subject to transparent and effective oversight by prudential supervisors and other relevant authorities, including central banks, and meet high standards in terms of risk management, operational arrangements, default procedures, fair access and transparency. The CPSS and IOSCO should review their experiences in applying their recommendations for central counterparties to derivatives.

- **Responsibility:** Prudential supervisors, central banks, CPSS, IOSCO
- **Timeline:** To be completed within 2 years
- **Monitoring:** Expanded FSF

Compensation Schemes and Risk Management

Recommendation 19: Large financial institutions should ensure that their compensation frameworks are consistent with their long-term goals and with prudent risk-taking. As such, the Boards of Directors of financial institutions should set clear lines of responsibility and accountability throughout their organizations to ensure that the design and operation of its remuneration system supports the firm's goals, including its overall risk tolerance. Shareholders may have a role in this process. Boards should also ensure there are appropriate mechanisms for monitoring remuneration schemes.

- **Responsibility:** Boards of Directors of financial institutions
- **Timeline:** Fall 2009
- **Monitoring:** Prudential supervisors or other relevant national authorities

Recommendation 20: In order to promote incentives for prudent risk taking, each financial institution must review its compensation framework to ensure it follows sound practice principles developed by the FSF. These include the need for remuneration systems to provide incentives consistent with the firm's long-term goals, to be adjusted for the risk taken by employees, and for the variable components of compensation to vary symmetrically according to performance.

- **Responsibility:** Financial institutions
- **Timeline:** Fall 2009
- **Monitoring:** Prudential supervisors or other relevant national authorities

Recommendation 21: Prudential supervisors should enhance their oversight of compensation schemes by taking the design of remuneration systems into account when assessing risk management practices. The BCBS should more explicitly integrate this dimension in its guidance for the assessment of risk management practices by national prudential supervisors.

- **Responsibility:** Prudential supervisors, BCBS
- **Timeline:** Fall 2009
- **Monitoring:** Expanded FSF

Transparency

Recommendation 22: Accounting standard setters should accelerate efforts to reduce the complexity of accounting standards for financial instruments and enhance presentation standards to allow the users of financial statements to better assess the uncertainty surrounding the valuation of financial instruments.

- **Responsibility:** Accounting standard setters
- **Timeline:** Fall 2009
- **Monitoring:** Expanded FSF

Recommendation 23: The IASB should enhance its efforts to facilitate the global convergence towards a single set of high-quality accounting standards by sharing the experience of countries that have completed this process and by providing technical assistance.

- **Responsibility:** IASB
- **Timeline:** Fall 2009
- **Monitoring:** Expanded FSF

Enforcement

Recommendation 24: The effective enforcement of regulation should be a priority of all financial regulators. As such, national financial regulators and oversight authorities should ensure the effectiveness of their enforcement activities and that appropriate resources are available for monitoring the application of regulation and for prosecuting offenders. The enforcement function should be independent from other activities or from external influences.

- **Responsibility:** Prudential supervisors and other authorities
- **Timeline:** To be completed within 2 years
- **Monitoring:** IMF-WB (through FSAP and Article IV)

Technical Assistance and Capacity Building in Emerging Market Economies

Recommendation 25: Recognizing that the degree of development of financial systems varies considerably across the G20, national authorities should commit to assist each other in enhancing their capacity to strengthen regulatory frameworks. In addition, IOSCO, the IAIS and the BCBS should have the appropriate capacity to provide technical assistance. The needs of emerging market economies deserve particular consideration.

- **Responsibility:** Finance Ministries, prudential supervisors and other authorities, IOSCO, IAIS, BCBS
- **Timeline:** Ongoing
- **Monitoring:** IMF-WB (through FSAP and Article IV)

2. Introduction

The Working Group was tasked with reviewing work underway in member countries and in international bodies, and with making recommendations that will enhance transparency in global financial markets, strengthen international regulatory standards, and ensure that all financial markets, products and participants are regulated or subject to oversight, as appropriate to their circumstances.

The mandate of the Working Group was not to make detailed technical recommendations, but to provide direction for policy measures to be pursued further by appropriate authorities and to provide a set of recommendations for timely, coordinated policy action.

Given the breadth of its mandate, the Working Group has identified some priorities to focus on, which are reflected in the recommendations for further reform presented throughout this report. Members were surveyed to obtain their views on these priority areas and to gather information on measures taken to implement the Washington Action Plan. The Working Group worked through regular conference calls, combined with one face-to-face meeting.

As mandated in the Leaders' Declaration, the Working Group relies to a large extent on existing work streams underway. International bodies conducting this work – the Financial Stability Forum, the International Organization of Securities Commissions, the Basel Committee for Banking Supervision, the International Association of Insurance Supervisors, the International Accounting Standards Board, the International Monetary Fund and the World Bank – all were represented on the Working Group, and their participation has been of tremendous value.

This Report is structured around the areas for reform identified in the Washington G20 Leaders' Action Plan. It provides some context on the need for reform in these areas, summarizes progress to date against items from the Washington Action Plan to address these shortcomings, and makes recommendations for further action and reform. The Working Group also makes some recommendations that go beyond the Washington Action Plan.

The report begins by developing an overarching theme that combines many of the specific action items included in the Washington Action Plan. This overarching theme is the need to supplement microprudential regulation with a more system-wide macroprudential approach which is designed to identify and mitigate the build-up of systemic vulnerabilities arising from excess liquidity, leverage, risk-taking and systemic concentrations across the financial system.

3. System-wide Approach to Financial Sector Regulation

It is fundamental that regulators and standard setters strive to achieve a prudential regulatory framework that protects the stability of financial institutions. Regulatory and supervisory weaknesses, such as those with respect to underwriting standards in the U.S. mortgage market, helped exacerbate the current crisis. It is essential that prudential regulation at the firm level be strengthened and that competent national regulators provide a first line of defense in preventing instability in the financial system.

However, a fundamental lesson from the current crisis is that effective supervision at the individual firm level, while necessary, is not sufficient to safeguard the soundness of the financial system as a whole. This is also the lesson of a long history of systemic financial failures. While each financial crisis is different, the crises over history generally share some key common elements including excessive risk taking, rapid credit growth and rising leverage. This points to the need for regulators, supervisors, and central bankers to supplement strong microprudential regulation with a macroprudential overlay to more effectively monitor and address the build-up of risks arising from excess liquidity, leverage, risk-taking and systemic concentrations that have the potential to cause financial instability.

Since the risk of distress to the financial system as a whole is not simply the sum of the risk to its individual components, the impact of the collective behaviour of economic agents on aggregate risk needs to be taken into account explicitly. To illustrate, take the example of a bank's leverage during an economic expansion. It may be individually appropriate for banks to take more risk during benign economic times, for example by increasing lending. However, when this behaviour is widespread, the overall leverage of the banking sector may create the potential for financial instability. Microprudential and macroprudential authorities may view this situation differently. The increased leverage may not be viewed as a concern from a microprudential perspective if it is supported by appropriate safeguards at the institution level, for example by sufficient capital buffers. However, even if these safeguards are considered appropriate for an individual institution, a macroprudential regulator may nonetheless be concerned by the potential for a systemic imbalance arising from a widespread increase in the overall leverage of the banking sector. As another example, the behaviour of individual institutions in markets as conditioned by capital requirements for their trading book, internal risk management practices, and rules and practices regarding margin requirements can lead to procyclicality in financial market prices.

A challenge for policymakers is to achieve the appropriate balance between the complementary microprudential and macroprudential approaches to financial sector oversight. Traditional microprudential objectives still need to be vigorously pursued in order to preserve financial stability, since incidents of financial stress are likely to be less frequent - and the associated costs reduced - if individual institutions are well managed, if markets function efficiently, and if the infrastructure supporting the financial system is strong.

The ability of authorities to address systemic risk needs to be considerably enhanced. A number of policy institutions, for example central banks, have enhanced their analysis of systemic risks in recent years - many of the systemic vulnerabilities that caused or enhanced the current turmoil had in fact been identified – but policy mechanisms to effectively translate these analyses into policy action are lacking.

The objective of enhancing the macroprudential orientation of the regulatory framework guides a broad range of issues addressed in this Report. This objective responds to the G20 Leaders' principle of making regulatory regimes more effective over the cycle and is related to many of the issues raised by Leaders in the Washington Action Plan, including certain aspects of compensation schemes at financial institutions, of margin requirements and risk management practices focused on Value-at-Risk calculations based on short historical samples, of the capital adequacy framework, and of valuation and loan-loss provisioning practices. In addition, there is a need to redefine the scope of the regulatory framework in order to establish appropriate oversight for the institutions and markets that may be the source of systemic risk. Risk management also needs to be enhanced to better evaluate vulnerabilities arising from low-frequency, system-wide risks, and to better mitigate these risks.

The Working Group views a commitment towards improving financial sector policy so that it can effectively mitigate the build-up of systemic risk to be of the highest priority. Resources must be committed to develop an overarching framework for addressing these issues. Building such a framework will involve reviewing the mandates of authorities, establishing national and international coordination mechanisms, and enhancing the tools of authorities to effectively address systemic concerns. There remains considerable uncertainty about how best to mitigate systemic risks, how to assess these risks as they arise, and how to respond. But it is essential that we move forward even if we do not yet have all the answers. Thirty years ago, when monetary policy began to focus on price stability, there was considerable uncertainty about how to implement this objective, and how to assess the determinants of inflation. Yet, the focus of monetary policy on price stability accelerated the development of effective inflation control frameworks, and has resulted in considerable success in keeping inflation low with important economic and social benefits.

The Working Group recommends that the mandate of all national financial regulators and oversight authorities and of all international financial bodies take account of financial system stability, as a complement to their core mandates. Financial sector authorities need to address systemic risks, and they need to consider the implications of their policies and standards for the stability of the financial system. In the case of accounting standard setting bodies, this implies that they will work towards ensuring that accounting standards will not affect the economic cycle, while balancing this goal with the primary objective of financial statements to provide objective, timely and accurate information on the economic situation of an entity.

Policymakers will need to address issues of coordination and cooperation, both at the domestic and international level. In addition, the relevant authorities must ensure they have instruments at their disposal to limit the buildup of imbalances with the potential to contribute to financial instability. Such policy tools will be developed with assistance of the financial standard setters, such as IOSCO, the IAIS and the BCBS. Global standards should be minimum best practices and national authorities would have the right to impose higher standards appropriate to their own circumstances.

The analysis of these instruments prior to their implementation should be conducted in a comprehensive fashion, taking into account the interaction between the various instruments considered. There may also be need for a review of governance of each authority, given the potential pressure for discretion in application of these tools at various points over the business cycle. The recommendations of the G20 Working Group on Reinforcing International Cooperation and Promoting Integrity in Financial Markets (Working Group 2), for example with respect to early warning exercises, and of the G20 Working Group on Reforming the IMF (Working Group 3), should support these expanded roles for the international bodies.

As an overarching framework to approach the Washington Action Plan, the Working Group recommends the following:

Recommendation 1: As a supplement to their core mandate, the mandates of all national financial regulators, central banks, and oversight authorities, and of all international financial bodies and standard setters (IASB, BCBS, IAIS and IOSCO) should take account of financial system stability.

- **Responsibility:** Finance Ministries, national financial regulators and oversight authorities, central banks, IOSCO, IAIS, BCBS, IASB and other accounting standards setters, expanded FSF, IMF
- **Timeline:** To be completed within 2 years
- **Monitoring:** Compliance by national authorities to be monitored by IMF-WB (through FSAP and Article IV), compliance by international bodies to be monitored by expanded FSF

Recommendation 2: Within each country, there should be an effective mechanism for appropriate domestic financial sector authorities to jointly assess the systemic risks across the financial system and to co-ordinate the domestic policy response to limit the build-up in systemic risk. The structure of this coordinating mechanism should be transparent, with clear assignments of roles, responsibilities and accountability for each authority.

- **Responsibility:** Finance Ministries, financial regulators and supervisors, central banks, in cooperation with other relevant bodies, including policy authorities for housing finance and accounting standard setters, as appropriate

- **Timeline:** To be completed within 2 years
- **Monitoring:** IMF-WB (through FSAP and Article IV)

Recommendation 3: Financial sector authorities should have suitable macroprudential tools to address systemic vulnerabilities. Measures that are simple to understand and to implement would be preferable to more complex ones, and tools that rely on pre-specified limits or rules are attractive. However, rules need to be complemented with the informed judgement of financial sector authorities based on their joint assessment of the risks across the financial system.

In order to achieve consistency globally, international bodies and standard setters – such as the expanded FSF, IOSCO, the IAIS, the BCBS, the BIS and others (e.g., IASB, CGFS) – will develop such tools and provide national authorities, which are responsible for their implementation, with options. Potential macroprudential tools that should be explored further could include:

- a. Complementing risk-based capital measures with simpler indicators aimed to measure the build-up of leverage, with enhanced sensitivity to off-balance sheet exposures;
 - b. Capital requirements that adjust over the financial cycle;
 - c. Loan-loss provisioning standards that incorporate all available credit information;
 - d. The use of longer historical samples to assess risk and margin requirements; and
 - e. Greater focus on loan-to-value ratios for mortgages.
- **Responsibility:** National authorities, expanded FSF, IOSCO, IAIS, BCBS, BIS, IASB, CGFS
 - **Timeline for tool development:** Expanded FSF to provide an annual report on the suite of tools under development by its members, with an Interim Report in Fall 2009.
 - **Timeline for tool implementation:** On an ongoing basis
 - **Monitoring:** Development of tools to be monitored by G20, as well as expanded FSF, and their implementation by the IMF-WB (through FSAP and Article IV)

Recommendation 4: The expanded FSF, together with the IMF, should create an effective mechanism for key financial authorities in each country to regularly come together around an international table to jointly assess the systemic risks across the global financial system and to coordinate policy responses.

- **Responsibility:** Expanded FSF, IMF, Finance Ministries, national financial regulators and oversight authorities, central banks
- **Timeline:** Fully implemented within 2 years, with initial system in place by

the Fall 2009 FSF meetings
- **Monitoring:** G20

4. Washington Action Plan

The structure of the financial system has changed over time, with new types of institutions emerging and with distinctions between different types of players becoming more blurred as their activities converged. New types of complex financial instruments - sometimes with embedded leverage and a lack of transparency about their structure and the drivers of their performance - have also emerged. Although these developments may have come about as a result of innovations aimed at improving the efficiency of the financial system, they have also created opportunities for increasing leverage and for shifting risks among players in highly opaque ways.

In order to support innovation, and because the link to depositor protection was limited, policymakers have traditionally relied on market discipline to promote integrity in this segment of the financial system. Innovative institutions and markets were thus often lightly regulated or unregulated. One of the lessons of the current crisis is that market discipline did not adequately fulfill its intended role during the last economic cycle as risk exposures of regulated financial institutions and of the shadow banking system, as well as the complexity of the financial system and its opaqueness to both regulators and market participants ultimately proved destabilizing.

4.1 Regulatory Regimes

4.1.1 The Scope of Regulation

The contribution to the current crisis of certain financial institutions, markets and innovative instruments that were either unregulated or lightly regulated has highlighted the need for financial sector policymakers to redefine the perimeter of the regulatory framework. Examples of such institutions and instruments include mortgage brokers/originators, investment banks, securitization vehicles, credit rating agencies, as well as hedge funds and other private asset pools.

The need for enhancing prudential oversight stems in part from the realization that products and vehicles removed from a bank's balance sheet may still pose risks for this financial institution. Further, systemic failures, once largely confined to large institutions, can result from the interconnectedness between institutions whose individual condition may not pose a systemic risk in itself.

The Working Group views the protection of market integrity and the promotion of efficient capital markets as objectives of great importance for financial sector policy. We note that market integrity is within the purview of Working Group 2 and welcome their efforts to enhance the effectiveness of the regulatory framework in this area. Given our mandate and our objective to achieve a

regulatory framework that better addresses system-wide concerns, we will focus our attention on the need to better assess systemic risks and to enhance regulation and oversight for financial institutions, markets and instruments – or types of financial institutions, markets and instruments - with the potential to be systemically important, either on their own or as a group.

Action Item: The appropriate bodies should review the differentiated nature of regulation in the banking, securities, and insurance sectors and provide a report outlining the issue and making recommendations on needed improvements. A review of the scope of financial regulation, with a special emphasis on institutions, instruments, and markets that are currently unregulated, along with ensuring that all systemically-important institutions are appropriately regulated, should also be undertaken. (For action in the medium term)

Process for Taking Forward the Leaders' Action Item

Since the Washington Summit, international bodies have undertaken a number of initiatives to assess differences in regulation across sectors, identify regulatory gaps and examine issues related to expanding the scope of regulation in response to this action item.

1. The Joint Forum, a Working Group of the BCBS, IOSCO and the IAIS, is undertaking a project that addresses the differentiated nature and scope of financial regulation. The main objective of this project is to identify areas where systemic risks may not be fully captured in the current regulatory framework. Special emphasis will be placed on institutions, instruments, and markets that are currently unregulated or lightly regulated. As appropriate, the Joint Forum will leverage off current work from other international bodies in its assessment.
2. An IOSCO Task Force is exploring whether and how to extend key regulatory principles applying to regulated products and markets, in the areas of transparency, market conduct, and market infrastructure, to securitized products and CDS. An interim report will be published in mid-March.
3. An IOSCO Task Force is examining issues surrounding unregulated entities such as hedge funds, including the development of recommendations for mitigating risks associated with their trading and opacity through oversight. An interim report setting forth a range of options will be published in March.
4. The IAIS is elaborating its medium-to long-term strategic focus through examining issues related to the supervision of internationally active insurance groups, macro elements of prudential supervision including contagion effects and the issue of non-regulated entities and regulatory consistency across financial sectors. A report is expected in June 2009.

The FSF will draw from the above work to review regulatory objectives, the instruments of regulation, and to what entities and activities these instruments should apply. This will be discussed at the March FSF Meeting.

Working Group Assessment

Work underway in response to this action item is only a first step towards achieving the Leaders' vision of a financial system in which all systemically important institutions are appropriately overseen.

As a starting point for determining how to assign appropriate oversight, more work is urgently needed to define systemic importance. The IMF and the FSF would be well placed to conduct this work jointly. The recent "Geneva Report" and the G30 report "Financial Reform: A Framework for Financial Stability" are useful starting points. They note that assessments of systemic significance should take into account a wide range of factors, including size, leverage, interconnectedness, and funding mismatches.

The increased integration of markets globally should be taken into account when assessing the systemic importance of any given financial institution, market or instrument given the potential for contagion across borders. Achieving a robust framework for regulating cross-border institutions, including by addressing the roles and responsibilities of authorities in home and host countries, is therefore important. This issue is treated by Working Group 2.

In order to assess appropriate regulatory perimeter, a framework to gather information and assess risk that is pervasive in both its geographical and institutional coverage is necessary. Authorities need the ability to acquire sufficient relevant information on the activities and exposures of all financial institutions, participants and issuers, in order to periodically assess their contribution to systemic risk, either on their own or through linkages with other segments of the financial system. These include, for example, the shadow banking system and hedge funds.

Three key areas for additional data collection by regulators should be considered in order to analyze the potential risks posed and decide whether regulatory action is needed. First, data on the nature of a financial institution's or vehicles activities should be collected - including, in the example of an hedge fund manager, data on the size, investment style, and linkages to systemically important markets of the funds it manages. Second, regulators should develop and monitor common metrics to assess the significant exposures of counterparties on a group-wide basis, including prime brokers for hedge funds, to identify systemic effects. Third, data on the condition of markets such as measures on the volatility, liquidity and size of markets which are deemed to be systemically important and/or vulnerable, should also be collected. It is envisaged that regulators would use a combination of existing information sources, including data collected from key institutions and vehicles. Consideration of what regulatory, registration or oversight framework would best enable this information collection and subsequent action would be determined by

financial regulators at the home and host country level.

After identifying financial institutions, markets or instruments presenting risks that regulators wish to address, this could then be achieved over time as appropriate, whether by direct or indirect regulation, depending on the nature of the risk and/or the intensity of oversight that is desired. While we focus on the need for appropriate regulation and oversight for systemically important institutions, markets and instruments, the Working Group also supports an appropriate oversight and regulation framework for those that are not systemically important, for example for addressing concerns related to the integrity or the efficiency of markets.

Attention should be given to limiting negative spillovers to other parts of the financial system in the event of severe stress or failure, for example by enhancing counterparty risk management and by developing effective resolution regimes. In order to cope with the changes in the structure of the financial system over time, and recognizing that the determinants of systemic risk may vary over time and across countries, regulators need to have the ability to assign regulatory requirements within their jurisdictions, and they need to periodically review the perimeter of regulation to ensure that all parts of the system that could pose systemic risk have appropriate prudential requirements and resolution regimes.

Particular consideration should be given to the potential for the shadow banking system and for leveraged institutions such as hedge funds to contribute to systemic risk. We note that leverage may arise both directly through formal debt (e.g., bonds, credit lines, IOUs) and indirectly through implicit borrowing due to certain derivatives transactions. Anecdotal evidence suggests that this indirect leverage is particularly important for hedge funds, and it should be taken into account when assessing their systemic importance. A clear implication of broadening information requirements is that hedge funds or their managers will need to register and provide authorities with the relevant information they require to assess the need for regulating them. Oversight and regulation will then be enhanced as appropriate, depending on risks revealed by the analysis of the information obtained. Oversight for hedge funds is discussed further in section 4.1.3.

In addition to traditional prudential tools such as capital buffers or risk management guidelines, prudential oversight for systemically important financial institutions could be enhanced either by restricting some of their activities that may present particularly high risks or conflicts of interest, or by assigning appropriate capital charges to reflect non-core activities. Examples of measures restricting activities for banking institutions are given in the G30 Report. They include disallowing the sponsorship or the management of private pools of capital in which the bank's own funds are commingled with that of clients, imposing strict capital and liquidity requirements for large proprietary trading, and retaining a meaningful part of credit risk when packaging and selling structured products. Another option includes increasing the costs of dealing in certain non-standard activities, perhaps through appropriate capital charges, so that financial

institutions will be able to determine whether the cost of accommodating innovation merits the change.

Because of practical implementation issues, legal structures and jurisdictional limits will necessarily play an important role in the development of any supervisory model. However, given the convergence in the activities conducted by different types of financial institutions, achieving greater consistency in the regulatory principles that would apply to similar markets and institutions performing similar activities, both within and across borders, would be desirable in order to reduce the scope for regulatory arbitrage. The Working Group recommends that the expanded FSF conduct an analysis of the regulatory perimeter to examine practical issues related to putting greater emphasis on functions and activities and less emphasis on legal status.

The minimum degree of oversight applicable to the entire financial system has been an area of considerable discussion within the Working Group. The majority of Working Group members consider that some form of disclosure requirements for material entities or markets are an appropriate minimum standard, with authorities in each jurisdiction assessing risks posed by financial institutions, markets and instruments and increasing the degree of oversight and regulation according to their risk. However, some Working Group members would prefer a global standard for regulation and oversight applicable to all financial institutions, markets and instruments.

***Recommendation 5:* All systemically important financial institutions, markets and instruments should be subject to an appropriate degree of regulation and oversight, consistently applied and proportionate to their local and global systemic importance. Consideration has to be given to the potential systemic risk of a cluster of financial institutions which are not systemically important on their own. Non-systemically important financial institutions, markets and instruments could also be subject to some form of registration requirement or oversight, depending on the type and degree of risk posed, for example for the integrity or efficiency of markets.**

In order to determine the appropriate degree of regulation or oversight, national authorities should determine appropriate mechanisms for gathering relevant information on all material financial institutions, markets and instruments. This information will allow national authorities to assess the potential for their failure or severe stress to contribute to systemic risk, either on their own, as part of a cluster, or through linkages with other segments of the financial system. Information on systemic risk should be monitored through a globally coordinated mechanism.

National authorities should have the authority to expand the perimeter of regulation in a timely way, recognizing that it may vary across countries and through time. They should do so in close coordination with appropriate global fora and standard-setters in order to achieve as much consistency as possible across jurisdictions.

- **Responsibility:** National authorities, central banks, IOSCO, IAIS and BCBS, with recommendations from the expanded FSF and the IMF
- **Timeline:** Two stages: process to obtain information underway in Fall 2009, with system in place within 2 years
- **Monitoring:** Expanded FSF to ensure a consistent approach to the perimeter of regulation, and the information collection framework to be monitored by IMF-WB (through FSAP and Article IV)

Recommendation 6: The systemic importance of financial institutions, markets and instruments depends on a wide range of factors, including their size, leverage, interconnectedness, as well as funding mismatches. The IMF, in consultation with the BIS and the expanded FSF and other bodies, should jointly develop a common international framework and guidelines to help national authorities assess whether a financial institution, market or an instrument is systemically important as consistently as possible across jurisdictions.

This framework should strive to treat similar activities more similarly for regulatory or oversight purposes regardless of the legal form of the institution, so as to avoid regulatory arbitrage.

- **Responsibility:** IMF, BIS, expanded FSF
- **Timeline:** Fall 2009
- **Monitoring:** G20

Recommendation 7: Large complex financial institutions require particularly robust oversight given their systemic importance, which arises in part from their size and interconnectedness (or correlation) with other institutions, and from their influence on markets.

- **Responsibility:** Prudential supervisors, with recommendations from the expanded FSF
- **Timeline:** Ongoing
- **Monitoring:** Expanded FSF

Recommendation 8: The boundaries of the regulatory framework should be reviewed periodically within national jurisdictions, in light of financial innovation and broader trends in the financial system. International bodies will promote good practice and consistent approaches in this area.

- **Responsibility:** Prudential supervisors, central banks, and securities regulators, with guidance from the expanded FSF and the IMF
- **Timeline:** Ongoing
- **Monitoring:** Expanded FSF

Two areas of particular concern have been raised by members of the Working Group, which are given attention below: the oversight of credit rating agencies and of hedge funds.

4.1.2 Oversight of Credit Rating Agencies

Investors in fixed income markets failed to probe deeply enough into the nature of the assets they bought, and instead relied too much on credit ratings. In addition, several issues related to credit rating agencies (CRAs) and their ratings have been cited as contributing factors to the current crisis, including:

- Concerns that they relied on flawed rating methodologies in determining ratings for structured products;
- Insufficient transparency concerning their assumptions, criteria and methodologies used for rating structured products; and
- Potential conflicts of interest.

In response to these concerns, IOSCO updated its Code of Conduct Fundamentals for CRAs in May 2008. The revised Code of Conduct incorporates changes designed to directly address conflicts of interest and transparency issues associated with ratings of structured financial instruments. The Code of Conduct requires CRAs to disclose their own codes of conduct and explain how these individual codes are consistent with the IOSCO standards.

As originally envisioned, enforcement of the Code was left to market participants (e.g., investors, issuers) by virtue of their ability to assess for themselves the degree of compliance of any given CRA with the Code and to adjust their views of this particular CRA's rating opinions accordingly. While this approach offered the benefit of flexibility, the difficulty of confirming compliance remained a weakness which IOSCO and securities regulators in many jurisdictions have been working towards addressing.

Action Item: Regulators should take steps to ensure that credit rating agencies meet the highest standards of IOSCO and that they avoid conflicts of interest, provide greater disclosure to investors and to issuers, and differentiate ratings for complex products. This will help ensure that credit rating agencies have the right incentives and appropriate oversight to enable them to perform their important role in providing unbiased information and assessments to markets. (For immediate action by March 31, 2009)

Action Item: IOSCO should review credit rating agencies' adoption of the standards and mechanisms for monitoring compliance. (For immediate action by March 31, 2009)

Action Item: Credit Ratings Agencies that provide public ratings should be registered. (For action in the medium term)

Process for Taking Forward the Leaders' Action Item

Following publication of the revised IOSCO *Code of Conduct Fundamentals for Credit Rating Agencies*, all of the major rating agencies adopted codes of conduct based on this enhanced set of guidelines. IOSCO is currently reviewing the extent to which these agencies' own codes satisfy its guidelines, and a report will be published in early March. The report indicates that the large global CRAs have largely adopted the changes to the Code or, in certain instances, such as in relation to considering a separate rating scale or subscript for structured products, have clearly explained why they have not adopted that part of the Code. Some smaller national agencies have not adopted the changes but appear likely to do so soon, and a few small agencies have yet to adopt codes based on the IOSCO Code.

Since the Code lacks legal authority, any enforcement of the Code rests with national regulators. Certain credit rating agencies whose ratings are used for regulatory purposes are registered in the U.S., and similar proposals are at various stages of the regulatory process in other jurisdictions, including in the European Union and Japan. The FSF is following these national and regional initiatives and is working to promote a globally consistent approach to oversight of credit rating agencies.

The IOSCO Task Force on Credit Rating Agencies has developed a model examination module for regulators undertaking inspections of CRAs in their jurisdictions. The module provides a model for monitoring compliance with the substance of the IOSCO Code. The Task Force is also in the process of drafting a paper outlining an approach that securities regulators can use to oversee globally active CRAs. This approach will include a permanent IOSCO committee for regular dialogue with the CRA industry and for information sharing among IOSCO members regarding the regulation of CRAs. This paper will also discuss a college of regulators approach and bilateral arrangements regarding ongoing supervision of globally active CRAs. The intention is for this paper to be available by mid March.

Working Group Assessment

The two action items for immediate action – taking steps towards ensuring compliance with the IOSCO code and developing mechanisms for monitoring compliance – are on track to be met by the April Leaders Summit, and the medium term action of national registration is already underway in many jurisdictions.

The Working Group is of the opinion that the IOSCO Code of Conduct is a helpful common frame of reference and that it establishes appropriate standards with respect to incentives alignment, due diligence and transparency. However, a self-regulatory framework does not appear sufficient to ensure compliance with the IOSCO Code. A sound regulatory framework with robust supervision of CRAs by public authorities is necessary to ensure that professional standards are applied, that procedures and policies agreed upon by CRAs are adequately followed, that the integrity of the rating process is upheld, and that conflicts of

interest are eliminated or adequately managed. Effective supervision requires surveillance of CRAs' activities and, where necessary, enforcement of rules applying to CRAs. Therefore, rigorous but proportionate rules should be enacted, consistent with international standards, concerning:

- The prevention of conflicts of interest, and the adequate management of those conflicts that arise;
- Transparency about the quality of ratings and of the ratings methodology; and
- Transparency regarding the rating process, both in general and with respect to a specific issuer or financial instrument, to the credit rating agencies' historical performance and to how credit rating agencies operate internally. Moreover, a dual rating scale or an identifier distinguishing between corporate and sovereign debt, on the one hand, and structured financial products, on the other, would be desirable.

The Working Group has focused on strengthening enforcement mechanisms in order to foster discipline in the credit rating industry. Specifically, the Working Group recommends that Leaders complement their commitment on the registration of credit rating agencies with one to enhance enforcement, by empowering regulators with the ability to require changes to a CRA's practices and procedures for managing conflicts of interest at credit rating agencies and assuring the transparency and quality of the rating process.

Given the global scope of some credit rating agencies, it is desirable for the oversight framework to be consistent across jurisdictions in order to avoid regulatory arbitrage, and to avoid unnecessary compliance costs for those CRAs conducting international activities. Conflicting national-based regulation could have unintended consequences for users of credit ratings and should be avoided where possible. The common monitoring module developed by IOSCO and the role of the IOSCO Task Force on Credit Rating Agencies in ensuring global consistency in the supervision of CRAs are welcome developments in this regard.

A small number of rating agencies which have global operations, and others specialize within a national market. In order to avoid duplication, regulators should strengthen cooperation arrangements to effectively address supervisory issues of global nature. Enhanced international cooperation arrangements could be developed through IOSCO.

Recommendation 9: All credit rating agencies whose ratings are used for regulatory purposes should be subject to a regulatory oversight regime that includes registration and that requires compliance with the substance of the IOSCO Code of Conduct Fundamentals. National authorities should obtain the authority to enforce compliance and require changes to a rating agency’s practices and procedures for managing conflicts of interest and for assuring the transparency and quality of the rating process. Given the global scope of some credit rating agencies, the oversight framework should be consistent across jurisdictions with appropriate sharing of information between national authorities responsible for the oversight of credit rating agencies.

- **Responsibility:** National authorities
- **Timeline:** To be completed within 2 years
- **Monitoring:** by IOSCO and IMF-WB (through FSAP and Article IV)

4.1.3 Private Pools of Capital

While the benefits of hedge fund activity to the functioning of financial markets have been recognized, questions have been raised about the comparatively limited extent to which hedge fund managers and funds are subject to direct oversight. Concerns expressed relate, in particular, to the risks that their leverage and short-term funding represent for the stability of the financial system; and to a perceived lack of transparency of hedge funds *vis-à-vis* regulators and other financial market actors. Recently, there have also been concerns about the abusive use of short selling by hedge funds as well as some internal processes, in particular the manner in which hedge funds manage their risks, value their asset portfolios and avoid potential conflicts of interest.

Action Item: Private sector bodies that have already developed best practices for private pools of capital and/or hedge funds should bring forward proposals for a set of unified best practices. Finance Ministers should assess the adequacy of these proposals, drawing upon the analysis of regulators, the expanded FSF, and other relevant bodies. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders’ Action Item

In 2007, the FSF called on the hedge fund industry to develop a code of best practices in the context of an update to its report on highly leveraged institutions. In response, two hedge fund associations, the Hedge Fund Standards Board in the U.K. and the Asset Managers’ Committee in the U.S., have prepared separate codes of good practice for the industry. Additional standards have been developed by the Alternative Investment Management Association. Work is now

underway amongst these private bodies to produce a single summary standards document. When this becomes available, the FSF and IOSCO will assess and comment on the adequacy of these proposals.

Working Group Assessment

Working Group members expressed concerns that some hedge funds – or groups of hedge funds – may generate systemic risk and impose externalities on the financial system.

There is some form of oversight over hedge funds in most G20 jurisdictions. First, the management companies, or advisors, of these funds may be required to register in order to do business in a jurisdiction. Second, regulators may be able to monitor the linkages between hedge funds and regulated institutions where there is a prime broker relationship, and thereby have some indirect oversight on the exposures and risk management practices with respect to the potential impact of hedge funds on systemically important institutions. Third, the activities of hedge funds on regulated markets are subject to the oversight of the market conduct authorities responsible for regulating these markets.

Given the global scope of activity by hedge funds from non-G20 jurisdictions, there are differing views on the extent to which these current arrangements need to be complemented by deepening of direct regulatory oversight of hedge funds, accompanied by some global or international capacity to aggregate information on financial system exposures to hedge funds.

There is a consensus within the Working Group that authorities need better information on the structure and activities of hedge funds, as well as on the risks they are exposed to, in order to assess whether hedge funds should be subject to a higher degree of oversight or regulation. There is also a consensus on the importance of achieving a coordinated policy response internationally.

Recommendations made by the Working Group to enhance the perimeter of the regulatory framework (see section 4.1.1, recommendations 5 through 8) address the need for national authorities to gather better information on all material financial institutions, including hedge funds, in order to determine the appropriate degree of regulation or oversight, commensurate with the risk posed. Recommendation 5 addresses the need to enhance the oversight and regulation of hedge funds as appropriate, depending on risks revealed by the analysis of the information obtained.

In order to help operationalize these recommendations for hedge funds, the Working Group is recommending they or their managers register with financial authorities and disclose appropriate information on the risks they pose. The data collected would likely include the size, investment style, leverage and performance of the fund along with its participation in certain systemically important markets. In addition, since one mechanism through which the failure of a systemically important hedge fund or cluster of hedge funds would be transmitted to the broader financial system – and potentially the real economy - is through its counterparties, it would be appropriate for regulators to develop and

monitor common metrics to assess the significant exposures of counterparties, including prime brokers for hedge funds.

Global fora, such as IOSCO and the FSF, allow for global discussion of issues related to hedge funds and for coordinating possible policy responses.

While some Working Group members favoured a stronger recommendation on the regulation of hedge funds, there was common ground that authorities required information to assess the risks they pose and the need to regulate them if they are systemic. They recognized that systemic importance can change over time, and that hedge funds are at different stages of development across the G20.

Recommendation 10: Private pools of capital, including hedge funds, can be a source of risk owing to their combined size in the market, their use of leverage and maturity mismatches, and their connectedness with other parts of the financial system. They or their managers should therefore be required to register with financial authorities and disclose appropriate information to assess the risks they pose.

- **Responsibility:** National Authorities
- **Timeline:** To be implemented within 2 years
- **Monitoring:** Expanded FSF

4.1.4 Transparent Assessment of Regulatory Regimes

The Financial Sector Assessment Program aims to promote the soundness of financial systems through evaluations supported by experts from a range of national agencies and standard-setting bodies with the objectives of identifying the strengths and vulnerabilities of a country's financial system; determining how key sources of risk are being managed; ascertaining the sector's developmental and technical assistance needs; and helping prioritize policy responses. As such, this program represents a useful tool for enhancing the regulatory framework.

Action Item: To the extent countries or regions have not already done so, each country or region pledges to review and report on the structure and principles of its regulatory system to ensure it is compatible with a modern and increasingly globalized financial system. To this end, all G-20 members commit to undertake a Financial Sector Assessment Program (FSAP) report and support the transparent assessments of countries' national regulatory systems. (For action in the medium term)

Process for Taking Forward the Leaders' Action Item

Fifteen member countries of the G20 have undertaken a FSAP assessment.

Working Group Assessment

The IMF and the World Bank are continuing to enhance the analytical framework for financial sector assessments. For instance, they are focusing more on systemic linkages and dynamics, and are taking a more systematic approach to stability and developmental assessments to enhance their comparability across countries.

Recent assessments for advanced economies have focused mainly on evaluating the risks of exposure to US subprime-related products. More broadly, they focused on the risk of external contagion, as well as cross-border crisis management.

Assessments in emerging market countries have focused on evaluating resilience to a range of possible shocks that could be triggered as a consequence of the unfolding crisis; for example, stress-testing scenarios where external sources of liquidity suddenly dry up. In addition, the assessment examines crisis management frameworks and, in countries where foreign banks predominate, cross-border cooperation arrangements among host and home country supervisors.

Outside the FSAP process, it is possible for jurisdictions to undertake self-assessments or assisted assessments to diagnose weaknesses in their systems and identify remedial actions. For example, India has recently undertaken such a self-assessment. IOSCO and the IAIS have developed self-assessment frameworks that can be used to identify areas for enhancement in preparing for the FSAP. To ensure objective and appropriate assessments, the appropriate self-assessment tools and sufficient methodology for assessments should be developed by international financial standard-setting bodies (IOSCO, IAIS, CPSS and BCBS) in cooperation with the IMF and the World Bank.

IOSCO and the IAIS encourage countries conducting self-assessments to obtain assistance from independent experts to develop action plans for addressing gaps in the implementation of global standards. They also facilitate this process. For instance, IOSCO recently conducted a workshop to train assessors to be able to undertake peer reviews of these self-assessments.

The Working Group recommends that Leaders reiterate their commitment made in Washington to undertake an FSAP and to make it public. The IMF and the WB should prepare a plan and timetable of completed and upcoming assessments by the Fall of 2009. Periodic self-assessments of regulatory frameworks should also be undertaken and these should be based on internationally agreed methodologies and tools. These actions would allow for a monitoring of progress on improvements to transparency and to compliance with international standards and regulations.

FSAPs should also be used to monitor consistency in regulatory frameworks and the perimeter of regulation. The basis upon which countries are assessed should be expanded to include macroprudential oversight and the regulatory oversight of the structure of compensation schemes at financial institutions

Given the increasing globalization of the financial system, G20 Leaders should also encourage non-G20 countries to take similar steps to assess the strength of their national financial systems.

Recommendation 11: All G20 members should commit to undertake a Financial Sector Assessment Program (FSAP) report and to publish its conclusions. National authorities may also periodically undertake a self-assessment of their regulatory frameworks based on internationally agreed methodologies and tools.

To improve the FSAP process, the basis upon which countries are assessed should be expanded to encompass macroprudential oversight, the scope of regulation, and supervisory oversight of the influence of the structure of compensation schemes at financial institutions on risk taking.

- **Responsibility:** Finance Ministries, IMF/WB
- **Timeline:** G20 countries that have not undertaken an FSAP should immediately commit to do so, in consultation with the IMF/WB; Countries with systemically important financial systems should be subject to a self-assessment every 5 years, and FSAP Updates in consultation with IMF/WB
- **Monitoring:** IMF/WB

4.2 Procyclicality

The crisis has raised questions whether certain aspects of accounting frameworks and capital regulation increase the natural tendency of the financial system to amplify business cycles. This tendency is particularly disruptive and apparent during an economic downturn or when the financial system is facing strains. There is a lack of incentives for the financial system to lean against rapid growth of credit and asset values during benign economic conditions. This would not only mitigate the build-up of imbalances that give rise to systemic risk but, by building up prudential buffers during the benign phase of an economic cycle, when it is easier and cheaper to do so, institutions would enter more challenging times from a stronger position.

Action Item: The IMF, expanded FSF, and other regulators and bodies should develop recommendations to mitigate pro-cyclicality, including the review of how valuation and leverage, bank capital, executive compensation, and provisioning practices may exacerbate cyclical trends. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders' Action Item

The FSF and its members have formed three workstreams to study the forces that contribute to procyclicality in the financial system and examine possible options for mitigating them, drawing on a framework paper prepared by the BIS. These workstreams have focused on (i) bank capital, (ii) loan loss provisioning, and (iii) the interaction of valuation and leverage practices. The FSF has also formed a workstream to develop sound practice principles for ensuring that compensation schemes do not provide incentives for excessive risk taking. This work is discussed in section 4.4.1.

- Bank capital: A Joint FSF-BCBS workstream is examining the impact of Basel II on the cyclicity of capital requirements and developing ways to mitigate the risk of regulatory capital amplifying shocks to the financial sector and the real economy going forward. The workstream is developing recommendations on changes to the regulatory capital framework so that it raises over time the quality and level of capital in the banking system during strong economic conditions that can be drawn down during periods of economic and financial stress; revision to the market risk framework of Basel II to reduce the reliance on cyclical VaR-based capital estimates; supplementing the risk-based capital framework with a simple, transparent measure to help contain the build up of leverage in the banking system; and recommending that supervisors use stress tests as part of the Pillar 2 supervisory review process to validate the adequacy of banks' capital buffers above the regulatory minimum during periods of rapid growth.
- Loan loss provisioning: A workstream is analyzing the potential contribution of loan loss provisioning to procyclicality with a view to recommending that accounting standard setters consider enhancements to loan loss provisioning practices and standards. Recommendations under consideration include that accounting standards setters issue a statement that reiterates the required use of sound management judgement as part of existing loan loss provisioning standards; and that they reconsider their current loan loss provisioning requirements and related disclosures on an expedited basis to reflect a broader range of available credit information, including by analysing expected loss and through-the-cycle provisioning approaches. Other recommendations under consideration include reviewing and eliminating constraints in Basel II that may limit banks from maintaining robust loan loss provisions; and reviewing and enhancing the Pillar 3 disclosures about loan loss provisioning practices and related credit risk and credit losses in loan portfolios.
- Valuation and Leverage: A joint FSF-CGFS workstream is analyzing the significance of the link between valuation and leverage as a source of procyclicality. It is considering the use of quantitative indicators and/or constraints on leverage and margins as macroprudential tools for supervisors; a research program to measure funding and liquidity risk

attached to maturity transformation and based on its findings, which information should be made available to supervisors on leverage and on maturity mismatches on a system-wide basis; the use of valuation reserves or adjustments be considered for fair valued financial instruments when data or modelling needed to support their valuation is weak; and an examination of possible changes to relevant standards to dampen adverse dynamics potentially associated with fair value accounting.

The FSF will discuss reports from these workstreams in mid-March.

Working Group Assessment

This action item has been achieved. The Working Group now proposes that recommendations from the FSF workstreams be assessed by the BCBS, accounting standard setters and other authorities, taking into consideration practical issues related to their use and implementation, and that regulation and standards be enhanced over time to mitigate procyclicality. The Working Group proposes that a roadmap be prepared for the Fall of 2009, and that annual updates be provided to the expanded FSF afterwards.

The assessment of these recommendations should include an analysis of the interaction between measures to mitigate procyclicality and the objective should be to attain a comprehensive strategy that achieves the best overall outcome. In the near term, consideration could be given to options that do not require a major reworking of accounting standards for provisions and impairment. The roadmap to address pro-cyclicality should also take into account the need for training and for technical assistance at institutions and regulators, with particular attention to those in emerging market economies.

Measures that are simple to understand and to implement would be preferable to more complex ones, and policy tools that are based on rules are attractive. However, as the recent crisis made plain, rules-based tools can be arbitrated, so the informed judgment of regulators will also be an important part of efforts to dampen procyclicality.

Although there is consensus on objectives and willingness to collaborate going forward, it has proven difficult to fully develop recommendations on the implementation of provisioning techniques that are more forward-looking or less procyclical. Accounting standards for provisioning of loan losses through the income statement require evidence, coupled with management judgment, that there is a deterioration in the loan portfolio. Through-the-cycle or less procyclical provisioning, where provisions are increased in good times for the possibility that the environment may deteriorate in the future is not consistent with accounting standards which strive to be neutral through the cycle, unless these provisions represent credit losses that are truly inherent in and accumulating in loan portfolios at balance sheet date. While accounting standards setters agree in principle that such through-the-cycle provisioning practices would be desirable from a financial stability perspective, they argue that provisions that do not reflect incurred credit losses would reduce the integrity of financial statements, whose

function is to present an objective and accurate representation of the financial situation of an entity.

However, there is also a view that a key lesson from the current crisis is that accounting standards in fact have not succeeded in accurately representing the financial situation of entities, as they did not take into account available information on risks. While collaboration between supervisors and accountants is definitely important, this has been ongoing and in order for it to deliver, there must be a realization that accounting standards need to be strengthened to better reflect risks through the cycle. Mitigating the procyclicality arising from provisioning practices requires that the BCBS and accounting standards setters collaborate to identify solutions that are compatible with their complementary objectives of enhancing the stability of the financial sector and promoting transparency of economic results in financial reports, respectively.

Recommendation 12: The FSF and other bodies, particularly the BCBS, should develop and implement supervisory and regulatory approaches to mitigate procyclicality in the financial system by promoting the build-up of capital buffers during the economic expansion and by dampening the adverse interaction between fair valuation, leverage and maturity mismatches in times of stress.

- **Responsibility:** FSF and member bodies, BCBS, CGFS
- **Timeline for development:** Strategic plan Fall 2009, with further progress reported by year end
- **Timeline for implementation:** As appropriate, with discussion with sector and coordination by the expanded FSF
- **Monitoring:** Expanded FSF

Recommendation 13: Accounting standard setters should strengthen accounting recognition of loan loss provisions by considering alternative approaches for recognizing and measuring loan losses that incorporate a broader range of available credit information. They should also examine changes to relevant standards to dampen adverse dynamics associated with fair value accounting, including improvements to valuations when data or modelling is weak. Accounting standards setters and prudential supervisors should work together to identify solutions that are consistent with the complementary objectives of promoting the stability of the financial sector and of providing transparency of economic results in financial reports.

- **Responsibility:** Accounting standards setters, BCBS
- **Timeline for development:** Strategic plan Fall 2009
- **Timeline for implementation:** As appropriate, with discussion with sector and coordination by the expanded FSF
- **Monitoring:** Expanded FSF

4.3 Prudential Oversight

This section addresses actions to enhance prudential oversight with respect to capital and liquidity, in addition to the need for a sound infrastructure for OTC derivatives that would reduce their potential systemic risk.

4.3.1 Capital

The crisis has shown that a strong capital base is critical to bank resilience, and broader financial stability, by underscoring a number of weaknesses in capital adequacy, primarily with respect to banking institutions. First, the Basel II framework did not properly capture the risk associated with certain assets, in particular complex credit products in the *trading book*. These products, to date, have produced the majority of the losses at banks, as well as complex securitisations and contingent exposures to off-balance sheet vehicles. Second, the minimum level of capital, as well as its quality, failed to support the banks' risk exposures going into the crisis. Third, the cyclicity of capital buffers has amplified the economic downturn (see section 4.2). Fourth, discrepancies across financial institutions in measures of capital make solvency ratios difficult to compare.

Action Item: Authorities should ensure that financial institutions maintain adequate capital in amounts necessary to sustain confidence. International standard setters should set out strengthened capital requirements for banks' structured credit and securitization activities. (For immediate action by March 31, 2009)

Action Item: Definitions of capital should be harmonized in order to achieve consistent measures of capital and capital adequacy. (For action in the medium term)

Process for Taking Forward the Leaders' Action Item

The Basel Committee on Banking Supervision has announced a package of measures to strengthen the Basel II capital framework in order to address weaknesses revealed by the crisis in the banking sector, and additional measures are being developed. These measures form part of a comprehensive strategy to strengthen the regulation, supervision and risk management of internationally active banks.

In addition to mitigating the influence of the capital framework on risk-taking and the economic cycle (see section 4.2), two key building blocks of this strategy are:

- Strengthening the risk capture of the Basel II framework: In January 2009, the BCBS issued for consultation proposals to strengthen the risk capture of Basel II framework. These include enhancements to the capital treatment of securitizations, off-balance sheet exposures, and trading book activities.

- *Enhancing the consistency and quality of the Tier 1 capital base*: The BCBS is considering various measures to promote the quality of capital, in particular, ordinary shares and reserves in the Tier 1 capital base and enhancing the global consistency of minimum capital requirements. The definition of capital is being reviewed as part of this work in order to achieve global consistency. It will be a medium term project, however, as many jurisdictions are currently using new types of capital instruments to inject public money and strengthen the capital base of their banking system. The BCBS will review recommendations to achieve this at its March 2009 meeting.

These two building blocks are being considered in conjunction with a third strategic priority, mitigating procyclicality, which is addressed in section 4.2. The BCBS will consider preliminary recommendations to mitigate procyclicality at its March 2009 meeting, along with recommendations for enhancing the consistency and quality of capital.

Further initiatives of the BCBS to enhance the capital framework that are less advanced include:

- Reviewing the treatment of external ratings under the framework and whether there are any adverse incentives that should be mitigated (at the July 2009 BCBS meeting);
- Strengthening the treatment of counterparty credit risk under the three pillars of Basel II (at the December 2009 BCBS meeting); and
- Evaluating concrete ways to supplement the Basel II risk-based capital framework with a simple, transparent measure, for example to help contain the build up of leverage over the cycle.

The BCBS plans to develop recommendations in these areas by the end of 2009.

In the insurance sector, the IAIS is developing a comprehensive and cohesive set of supervisory papers which will take into account issues that have emerged from the financial crisis with respect to the assessment of the solvency of insurance companies. For instance, standards and guidance on the structure of regulatory capital requirements and on the use of internal models and enterprise risk management for solvency purposes which have been completed are undergoing review to address issues which have emerged from the financial crisis. Other solvency supervisory papers taking into account recent events are under development or review, including standards and guidance on capital resources, valuation for solvency purposes and investment and asset-liability management. The IAIS will continue to work with its members to facilitate proper implementation of these standards to enhance resilience of the solvency position of insurers.

Working Group Assessment

The capital adequacy framework for the banking sector has been enhanced in response to the action items above. For instance, enhancements to the risk

capture of the Basel II framework have established stronger capital requirements for banks' structured credit and securitization activities, and the medium term action item of harmonizing definitions of capital is being addressed in conjunction with work to improve the quality of capital. Further, the strategic plan of the BCBS includes enhancements to the capital adequacy framework not part of the Washington Action Plan.

A strong, high quality capital base is critical for banks to be able to absorb losses and maintain lending during periods of severe economic and financial stress. Based on lessons drawn from recent developments, authorities should ensure that financial institutions maintain strong prudential buffers while accommodating a need for flexibility to raise capital in difficult market conditions.

The Working Group was of the view that the financial system had entered the current crisis undercapitalized and the international standard for the minimum level of capital for banks should be reviewed. It recommends that higher buffers above a minimum level of capital are needed for the system once the current crisis has abated and that the quality and global consistency of capital should be enhanced.

It is important for G20 Leaders to send a clear message that supervisors will be extremely cautious about adding to the already severe tension in the marketplace, and therefore will not consider raising capital buffers above minimum capital ratios during the crisis. Any enhancements will be introduced in a manner that promotes the near term resilience of the banking sector and its ability to provide credit to the economy, and would be communicated to markets at an appropriate time to mitigate the countercyclical effects of any proposed change in capital levels. Timelines for implementation may vary across the G20 depending on the technical capabilities of each country's institutions and regulators.

Recognizing the need to also mitigate procyclicality (see section 4.2), high quality capital should serve as a buffer which would be built up during periods of rapid earnings growth and be drawn down in a downturn.

The Working Group also recommends that G20 Leaders support the progressive adoption of the Basel II capital framework across the G20 once strains in markets have abated. The move to the Basel II framework improves risk capture and better handles periods of rapid innovation and the new products that such periods produce. Moreover, Basel II captures off-balance-sheet vehicles, ensuring they are subject to regulatory capital requirements. Timelines for implementation may vary across the G20 depending on the level of technical capabilities of each country's regulators and institutions (see section 5.2 for more on technical assistance).

Nonetheless, in the context of rapid financial innovation and risk-based regulatory capital requirements, a well constructed non-risk-based capital measure can at least partially address the problem of modelling deficiencies for the advanced approaches and ensure a minimum level of capital is retained in the banking system. The case for a complementary, non-risk-based capital

measure as a regulatory “back-stop” to the Basel II risk-based capital requirement should be examined by the BCBS.

The Working Group welcomes efforts by the IAIS to address issues that have emerged from the crisis with respect to the solvency of insurance companies. This workplan should take into consideration the need for group-wide solvency requirements that take into account all the subsidiaries in internationally active insurance groups.

Recommendation 14: Capital should serve as an effective buffer to absorb losses over the cycle, so as to protect both the solvency of financial institutions in the event of losses, and their ability to lend.

In the near term, capital buffers above required minimums should be allowed to decline in response to deteriorating economic conditions and credit quality, and urgent consideration should be given to measures that would facilitate access to additional private sector capital in the downturn.

Once conditions in the financial system have recovered, the adequacy of the international standard for the minimum level of capital for banks should be reviewed and the quality and global consistency of capital should be enhanced. In addition, capital buffers above minimum requirements and loan-loss provisions should be built up in good times in order to enhance the ability of regulated financial institutions to withstand large shocks.

In this context, the BCBS should develop standards to promote the build-up of capital buffers in good times that can be drawn down in periods of stress. The BCBS should also complement risk-based capital measures with simpler indicators to monitor the build-up of leverage.

The international standard for the minimum level of capital should remain unchanged until the financial system has recovered.

- **Responsibility:** BCBS
- **Timeline:** The review of international standards related to capital buffers and the quality and consistency of capital will be discussed at periodic BCBS meetings and the transition will be completed as appropriate, in consultation with the industry and with coordination by the expanded FSF.
- **Monitoring:** Expanded FSF

Recommendation 15: G20 Leaders should support the progressive adoption of the Basel II capital framework, which will continue to be improved on an ongoing basis, across the G20.

- **Responsibility:** Prudential supervisors, BCBS
- **Timeline:** The transition to Basel II is to be completed as appropriate, in consultation with the industry and with coordination by the expanded FSF
- **Monitoring:** IMF-WB (through FSAP and Article IV), BCBS

4.3.2 Liquidity

Recent events have highlighted a number of limitations in the lines of defence of financial institutions during a period of severe liquidity strain. Many of the actions by which financial institutions can address liquidity pressures, for example by selling illiquid assets for cash or by competing more aggressively for retail deposits, suffer when liquidity pressures are widespread and many institutions attempt to use the same funding strategies.

The increasing complexity of financial instruments also creates challenges for managing liquidity. The inclusion of options in financial instruments (e.g., credit rating downgrade clauses) and the fact that some instruments have short track records or do not trade actively, increases the difficulty in assessing the behaviour of these instruments during periods of stress and consequently, for managing liquidity.

Another weakness revealed by the crisis is that liquidity, which some large global financial institutions are increasingly managing in a centralised manner across borders, may not be fully transferable across borders in times of stress, as national supervisors and domestic crisis management policies may require that sufficient liquidity be held for local operations.

Action Item: Regulators should develop and implement procedures to ensure that financial firms implement policies to better manage liquidity risk, including by creating strong liquidity cushions. (For immediate action by March 31, 2009)

Action Item: Supervisors and central banks should develop robust and internationally consistent approaches for liquidity supervision of, and central bank liquidity operations for, cross-border banks. (For action in the medium term)

Process for Taking Forward the Leaders' Action Item

Standards for liquidity management in the banking sector will be materially raised by the BCBS' *Principles for Sound Liquidity Risk Management and Supervision*, published in September 2008. The foundation for this guidance is the fundamental principle that banks should establish a robust framework for managing liquidity risk, and that they maintain sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources. This guidance also clarifies expectations that supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position, and should take prompt action if a bank is deficient in either area in order to protect depositors and limit potential damage to the financial system.

These guidelines include a principle calling for cooperation and information sharing among supervisors and other stakeholders, such as central banks, for the liquidity supervision of cross-border banks. This principle provides examples of firm-specific stress situations that should require closer and more frequent communication among stakeholders.

The BCBS Working Group on Liquidity has initiated work to promote greater consistency of liquidity regulation and supervision for cross-border banking groups, including by clarifying the roles of, and improving coordination between, supervisors in home and host countries. Regulatory cooperation in the oversight of cross-border institutions is addressed by G20 Working Group 2.

Enhancing liquidity supervision includes an evaluation of tools, metrics and benchmarks that supervisors can use to assess the resilience of banks' liquidity cushions and constrain any weakening in liquidity maturity profiles, diversity of funding sources, and stress testing practices. This will be discussed at the July 2009 BCBS meeting.

In addition, the Committee on the Global Financial System (CGFS) released a report in July 2008 to enhance the operational frameworks for the provision of liquidity by central banks, including cross-border banks. This report recommends that central banks enhance their capacity to address problems in the international distribution of liquidity by establishing or maintaining standing swap lines among themselves, and by accepting assets denominated in a foreign currency or obligations booked abroad as collateral. Moreover, the CPSS prepared a report on operational arrangements that central banks could make, on an individual or coordinated basis, to strengthen their operational readiness to cope with a wide range of scenarios under which they might seek to provide cross-border liquidity. Many central banks across the G20 have begun implementing these recommendations.

Although recent events did not reveal weaknesses with respect to the liquidity management in the insurance sector, the IAIS has expanded its planned review of solvency supervisory papers to take into account this issue. Insurance firms have not faced the same liquidity pressures as other types of financial institutions in part because they tend to have longer-term financial obligations.

Working Group Assessment

The BCBS guidance establishes guidelines for the management of liquidity risk, including the use of cushions of unencumbered, high quality assets to withstand a range of stress events. This adequately addresses the Washington action item to this effect, as the weaknesses that were revealed by the crisis with respect to liquidity pertained mainly to the banking sector. The BCBS will conduct a comprehensive review of whether its standards for liquidity have been effectively implemented in the second half of 2009.

The Working Group proposes that Leaders support the implementation of these principles. In order to improve liquidity resilience against future crises, financial institutions will need to hold increased levels of stable core funding that is more likely to be stable across the economic cycle.

An effective global liquidity framework for managing liquidity in large, cross-border financial institutions should include internationally agreed levels of liquidity buffers, and should encourage an increase in the quality of their composition. Such a framework needs to be comprehensive and take into account liquidity needs for the overall institution.

Recommendation 16: Prudential supervisors and central banks should deliver a global framework for promoting stronger liquidity buffers at banks, including cross-border institutions, to ensure that they can withstand prolonged periods of market and funding liquidity stress.

In addition, the BCBS should enhance tools, metrics and benchmarks that supervisors can use to assess the resilience of banks' liquidity cushions and constrain any weakening in liquidity maturity profiles, diversity of funding sources, and stress testing practices.

- **Responsibility:** Prudential supervisors, central banks, BCBS
- **Timeline:** To be completed within 2 years
- **Monitoring:** Expanded FSF

4.3.3 Infrastructure for OTC Derivatives

The market for credit default swaps (CDS) operates on a bilateral, over-the-counter (OTC) basis and has grown to many times the size of the market for the underlying credit instruments. In light of problems involving some large players in this market, attention has focused on the systemic risks posed by CDS. For instance, the inability of certain protection sellers to meet their CDS obligations has raised questions about the potentially destabilizing effects of the CDS market on other markets. Also, the deterioration of credit markets generally has increased the likelihood of CDS payouts, thus prompting protection buyers to seek additional margin from protection sellers. These margin calls have strained the balance sheets of protection sellers, and may have forced asset sales that contributed to put downward pressure on cash securities markets.

Action Item: Supervisors and regulators, building on the imminent launch of central counterparty services for credit default swaps (CDS) in some countries, should: speed efforts to reduce the systemic risks of CDS and over-the-counter (OTC) derivatives transactions; insist that market participants support exchange traded or electronic trading platforms for CDS contracts; expand OTC derivatives market transparency; and ensure that the infrastructure for OTC derivatives can support growing volumes. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders' Action Item

A group of global prudential supervisors is working with the industry to strengthen the infrastructure for OTC credit derivatives. The top near-term priority is to oversee the implementation of central counterparties for CDS.

Representatives from regulatory agencies with direct authority over one or more of the existing or proposed CDS central counterparties (including those in the U.S., U.K., Germany and the European Union) and some central banks (including the ECB) have begun discussing possible information sharing

arrangements and other methods of cooperation within the regulatory community. The primary objectives of this effort include the application of consistent standards and the promotion of consistent public policy objectives and oversight approaches for all CDS central counterparties, as well as logistical support in carrying out oversight responsibilities.

In the U.S., the President's Working Group announced in November 2008 a broader set of policy objectives to guide efforts aimed at addressing the full range of challenges associated with OTC derivatives, with a primary focus on CDS. Policy objectives include:

- Public reporting of prices, trading volumes and aggregate open interest;
- The development by supervisors of consistent policy standards and risk management expectations;
- The registration of all transactions in credit default swaps not cleared through a CCP in central contract repositories;
- Support for trading on exchanges or other centralized trading platforms for standardized CDS contracts; and
- A review by regulatory agencies to determine if they have adequate enforcement authority to police against fraud and market manipulation (with proposals for changes in authority where warranted).

The creation of a central counterparty for OTC credit derivatives is also a priority in Europe, where the European Commission has established a Working Group composed of market participants, national regulators and the European Central Bank to deliver progress in this area. As a result of discussions within this EC Working Group, a group of derivatives dealers and the European Banking Federation have committed to the use of at least one central counterparty established, regulated and supervised in the EU to clear CCP-eligible CDS on European reference entities and indices based on these entities. These associations have also committed to work closely with infrastructure providers, regulators and the European authorities including the European Central Bank in resolving outstanding technical, regulatory, legal and practical issues. These efforts mirror the engagement the industry has made in other jurisdictions.

At the same time, following a request from EU Member States, the Committee of European Securities Regulators and the European System of Central Banks are in the process of revising their recommendations for CCPs in order to ensure that they are appropriate for derivatives markets, particularly CDS. Furthermore, the European Commission is also examining whether additional regulatory requirements might be necessary to enhance transparency and deal with any systemic risks in the area of derivatives.

Working Group Assessment

The launch of central counterparties (CCPs) for OTC credit derivatives is an important step towards reducing systemic risk. Clearing and settling CDS contracts through a central counterparty means that the two counterparties to a CDS are no longer exposed to each other's credit risk. Hence, well-managed,

and properly regulated CCP help contain the failure of a major market participant. Central counterparties also contribute to enhancing market efficiency by helping ensure that eligible trades are cleared and settled in a timely manner, thereby reducing the operational risks associated with significant volumes of unconfirmed and failed trades. Furthermore, the development of a CCP facilitates greater market transparency, including the reporting of prices for CDS, trading volumes, and aggregate open interest. The availability of pricing information can improve the fairness, efficiency, and competitiveness of markets — all of which enhance investor protection and facilitate capital formation. The degree of transparency, of course, depends on the extent of participation in the CCP, which is not mandatory. The industry's commitment to clear CDS through central counterparties should ensure a substantial increase in the transparency and safety of the market for these contracts.

Prudential supervisors have been collaborating with market participants to increase market transparency. One major step in this initiative is the publication of weekly aggregate market data from a central repository. Regulators are working to identify a consistent set of data that central counterparties should make available to the public on a regular basis, including market prices, market depth and open interest.

The Working Group supports central counterparty clearing for other types of derivatives trading over-the-counter. As such, it recommends that the financial industry take the necessary steps to clear OTC transactions in derivatives, including for credit derivatives, through central counterparties in order to reduce systemic risk. If needed, some incentives may be provided by national authorities, for example, by taking a higher capital charge for transactions not cleared through central counterparties.

In order to foster transparency and to promote the use of CCP and of exchange trading for credit derivatives, public authorities should also encourage the financial industry to standardize contracts and to use data repository for the remaining non-standardized contracts and promote fair and open access to central counterparty services.

In addition, in order to ensure that the infrastructure for centralized clearing and settlements meets high prudential standards, the Working Group recommends that a review of the CPSS-IOSCO Recommendations for Central Counterparties and the accompanying guidance be undertaken, and that prudential supervisors apply these (possibly enhanced) standards.

In order to mitigate systemic risk resulting from counterparty credit risk, in the short run, it would be beneficial for there to be a competitive environment for central counterparties without imposing regulatory requirements that unduly fragment the market.

Recommendation 17: Financial institutions should continue work to strengthen the infrastructure supporting OTC derivatives markets. In the case of credit derivatives, this includes standardizing contracts to facilitate their clearing through a central counterparty. National authorities should enhance incentives as needed for the use of central counterparties to clear OTC credit derivatives.

- **Responsibility:** Financial institutions, prudential supervisors and other authorities, central banks
- **Timeline:** To be completed within two years; Industry to prepare an action plan on standardization in the Fall 2009
- **Monitoring:** Prudential supervisors and expanded FSF

Recommendation 18: Central counterparties should be subject to transparent and effective oversight by prudential supervisors and other relevant authorities, including central banks, and meet high standards in terms of risk management, operational arrangements, default procedures, fair access and transparency. The CPSS and IOSCO should review their experiences in applying their recommendations for central counterparties to derivatives.

- **Responsibility:** Prudential supervisors, central banks, CPSS, IOSCO
- **Timeline:** To be completed within 2 years
- **Monitoring:** Expanded FSF

4.4 Compensation Schemes and Risk Management

4.4.1 Compensation Schemes

General consensus has emerged that compensation practices at financial institutions are one factor, among many, that contributed to the financial crisis. For instance, bonus payments were tied to short-term profits without adequate regard to the longer-term risks they imposed on their firms, and this misalignment of incentives amplified the risk-taking that severely threatened the global financial system.

Action Item: Financial institutions should have clear internal incentives to promote stability, and action needs to be taken, through voluntary effort or regulatory action, to avoid compensation schemes which reward excessive short-term returns or risk taking. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders' Action Item

To better understand the forces at play, an FSF Working Group reviewed relevant reports and analyses by other bodies and experts, engaged in discussions with experts from the financial industry, the public sector and academia, and investigated industry practice by conducting a global survey of practice at major financial firms. It also reviewed the results of a number of surveys commissioned by others.

In its assessment of compensation practices, the FSF has observed that too little attention was given to links between compensation and risks. In particular, the FSF observed that:

- Most financial institutions viewed compensation systems as being unrelated to risk management and risk governance; and
- Financial supervisory and regulatory authorities did not focus on the implications for risk of compensation systems.

In this context, it is clear that changes to existing practices are necessary on several fronts to ensure that perverse compensation incentives do not induce excessive risk-taking in financial institutions in the future. As such, the FSF developed Principles for Sound Compensation Practices for financial institutions to prevent incentives towards excessive risk taking that may arise from compensation schemes. The FSF formulated nine principles to achieve more effective governance in setting and in monitoring compensation within financial institutions, to better align compensation practices with prudent risk taking, and to ensure effective supervisory oversight and improve disclosure practices.

Additional initiatives undertaken to guide the adoption of improved compensation practices in the financial sector include the consultation guidance on Basel II Pillar 2 to enhance sound corporate governance and risk management, which will help reinforce adherence to sound compensation practices.

In addition, the OECD will explore, in the context of the OECD Principles of Corporate Governance, how compensation practices at both the management and operating levels should be amended to achieve sounder long-term strategies that better address the interests of the institution, its shareholders and other stakeholders.

Working Group Assessment

In order to build on the analysis of remuneration practices that was conducted and on the sound practice principles that were developed, the Working Group recommends that Boards of Directors and the management of financial institutions take appropriate actions to structure compensation in a manner consistent with the sound practice principles developed by the FSF.

A number of financial institutions have announced changes to their compensation structures. However, it is important that reforms in this regard be done on an industry-wide basis, so that improved risk management and compensation

practices by some systemically important firms are not undermined by the unsound practices of others.

Since competitive pressures, a perceived first-mover disadvantage, or other factors could hinder the ability of financial institutions to effectively address deficiencies in compensation schemes, the Working Group views national authorities' supervisory and regulatory infrastructure as the appropriate vehicle for promoting compliance with sound compensation practices. In general, it is not intended, however, that national authorities or prudential supervisors would prescribe particular designs or levels of compensation. Since financial firms differ in goals, activities and culture, and since there is also a wide range of employees within a firm, any compensation system must work in concert with other management tools to promote prudent risk taking.

Recommendation 19: Large financial institutions should ensure that their compensation frameworks are consistent with their long-term goals and with prudent risk-taking. As such, the Boards of Directors of financial institutions should set clear lines of responsibility and accountability throughout their organizations to ensure that the design and operation of its remuneration system supports the firm's goals, including its overall risk tolerance. Shareholders may have a role in this process. Boards should also ensure there are appropriate mechanisms for monitoring remuneration schemes.

- **Responsibility:** Boards of Directors of financial institutions
- **Timeline:** Fall 2009
- **Monitoring:** Prudential supervisors or other relevant national authorities

Recommendation 20: In order to promote incentives for prudent risk taking, each financial institution must review its compensation framework to ensure it follows sound practice principles developed by the FSF. These include the need for remuneration systems to provide incentives consistent with the firm's long-term goals, to be adjusted for the risk taken by employees, and for the variable components of compensation to vary symmetrically according to performance.

- **Responsibility:** Financial institutions
- **Timeline:** Fall 2009
- **Monitoring:** Prudential supervisors or other relevant national authorities

Recommendation 21: Prudential supervisors should enhance their oversight of compensation schemes by taking the design of remuneration systems into account when assessing risk management practices. The BCBS should more explicitly integrate this dimension in its guidance for the assessment of risk management practices by national prudential supervisors.

- **Responsibility:** Prudential supervisors, BCBS
- **Timeline:** Fall 2009
- **Monitoring:** Expanded FSF

4.4.2 Risk Management Practices

Shortcomings in risk management practices revealed by the current crisis reflect a failure to implement effective firm-wide risk management systems as well as a number of more technical limitations associated with risk management tools, including their inability to model severe financial shocks and the fact that most quantitative tools are backward looking. The many weaknesses in risk management practices that were revealed include the inability of financial institutions to adequately monitor risk concentrations across products and geographical areas, shortcomings in stress testing and inappropriate practices for managing risks arising from structured products.

Action Item: Regulators should develop enhanced guidance to strengthen banks' risk management practices, in line with international best practices, and should encourage financial firms to re-examine their internal controls and implement strengthened policies for sound risk management. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders' Action Item

In the banking sector, the BCBS is enhancing guidance for supervisory oversight in a number of important risk management areas, using Pillar 2 of Basel II as a foundation. The focus of this guidance is on:

- Enhancing firm-wide risk oversight, risk management and internal controls;
- Managing more effectively specific risk areas such as firm-wide risk concentrations, off-balance sheet exposures and associated reputational risks, securitization exposures, valuations and liquidity risk; and
- Improving banks' stress testing practices.

These enhancements were included as part of the Basel II consultative document issued in January 2009.

In addition to the BCBS guidance, supervisors from most G20 countries have published, or are in the process of publishing, supplementary guidance on a wide variety of areas in response to the crisis, including securitization, risk concentrations, contingency planning and stress testing.

The Senior Supervisors Group (SSG), a group of prudential supervisors, is undertaking an assessment of major institutions' strengths, weaknesses and gaps in relation to the recommendations for strengthened risk management practices that have been made in public and private sector reports during 2008

(e.g., Financial Stability Forum, Senior Supervisors Group, U.S. President's Working Group, International Institute of Finance, Counterparty Risk Management Group III). A summary of the findings is expected in the Spring of 2009.

In the insurance sector, the IAIS is reviewing all existing and new supervisory papers to incorporate lessons drawn from the financial crisis. More specifically, the standards and guidance on asset-liability management and investment risk management are being updated to reinforce coverage on issues such as the use of stress testing in identifying risks, including concentration and liquidity risk. An issues paper on corporate governance is also being developed as foundation for future supervisory papers on corporate governance. In addition, an IAIS standard on reinsurance and other forms of risk transfer is addressing the assessment of the appropriateness of the reinsurance cover, the risk management strategy of direct insurers, as well as the appropriate supervision of reinsurance companies.

Working Group Assessment

The Working Group welcomes the BCBS consultative document to address a wide range of weaknesses in risk management practices that played a significant role in causing and accelerating the crisis.

In addition to shortcomings with risk management tools and with the supervision of risk management practices, the global financial crisis has highlighted the failure of the Boards of Directors of many financial institutions in fostering an effective risk management culture in their organizations. It should be recognized that, first and foremost, it remains the responsibility of the private sector to take the lead in strengthening firm-wide risk management frameworks. Both management and the Board of Directors are responsible for putting in place adequate risk management and control systems.

Action Item: Supervisors should ensure that financial firms develop processes that provide for timely and comprehensive measurement of risk concentrations and large counterparty risk positions across products and geographies. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders' Action Item

The BCBS's Basel II consultative document issued in January 2009 includes enhanced Pillar 2 guidance on the assessment by management and supervisors of risk concentrations. The Committee's enhanced guidance sets clear expectations for Boards of Directors and senior management to set incentives across the firm to control risk exposures and concentrations in accordance with the firm's stated risk appetite. The guidance also sets supervisory expectations for capturing firm-wide risk concentrations arising from both on- and off-balance sheet exposures and securitization activities. Generally, banks are expected to

have in place effective internal policies, systems and controls to identify, measure, monitor, manage, control and mitigate their risk concentrations in a timely manner, and under various conditions, including stressed market situations.

Working Group Assessment

The BCBS guidance establishes processes that provide comprehensive measurement of concentration risk, ensure that banks have credit risk mitigation strategies and internal limits to risk concentrations and ensure that these risks should be assessed under a supervisory review process. This addresses the Washington action item in holding supervisors responsible for the due diligence of risk concentrations held by their financial institutions. The BCBS will begin a review of its existing guidance on sound practices for managing risk concentrations and large exposures later in 2009.

Action Item: The Basel Committee should study the need for and help develop firms' new stress testing models, as appropriate. (For immediate action by March 31, 2009)

Action Item: Firms should reassess their risk management models to guard against stress and report to supervisors on their efforts. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders' Action Item

The BCBS issued a consultative paper on principles for sound stress-testing practices and supervision in January 2009. This paper presents sound principles for the governance, design and implementation of stress testing programmes at banks and addresses weaknesses in stress testing exposed by the financial crisis.

Many Working Group members have indicated that the guidance from the BCBS will be used to help refine stress-testing practices in their countries. A number of Working Group members have also indicated plans to extend stress-testing activities as part of their supervisory framework in their countries, and some recommendations will be issued, following consultations, in the near-term.

In addition, the October 2008 follow-up report of the FSF urged private sector organisations that have recommended improvements to industry risk management practices to establish frameworks for rigorously monitoring and reporting on the timely implementation of these improvements. Implementation will be monitored by prudential supervisors and, in the case of banks, reinforced through Pillar 2 reviews under the Basel II framework. The Institute of International Finance has prepared and distributed an assessment framework for financial institutions to use.

Working Group Assessment

Stress testing is an ongoing process and the Working Group urges financial institutions to continuously improve their practices. Sound stress testing also involves selecting appropriate scenarios, and the Working Group encourages financial institutions to pay particular attention to this, including in reflecting the important system-wide interactions between the various institutions, markets and instruments in the financial system. This would facilitate the development of risk mitigation or contingency plans across a range of stressed conditions

Stress testing is an important tool to alert management to adverse unexpected outcomes related to a variety of risks, and it should be used as such. It is especially important after long periods of benign economic and financial conditions, when fading memory of negative conditions can lead to complacency and the underpricing of risk.

Action Item: Banks should exercise effective risk management and due diligence over structured products and securitization. (For immediate action by March 31, 2009)

Process for Taking Forward the Leaders' Action Item

The Basel II consultative document issued in January 2009 includes enhanced Pillar 2 guidance in this area. Standards for the risk management and due diligence of structured products and securitization are being enhanced in most G20 countries where markets for these instruments are developed. Securitization practices are being clarified, and some countries are setting stronger due diligence standards over structured products and securitization.

Working Group Assessment

The Working Group welcomes the steps taken by the BCBS to address the risks of securitization. The BCBS' guidance to include a bank's on- and off-balance sheet securitization activities in risk management, including product approval, risk concentration limits and estimates of market, credit and operational risk largely addresses the previous deficiencies in risk-management of securitized products.

4.5 Transparency

In hindsight, weaknesses in public disclosures have played a significant role in the crisis. In addition, recent events in financial markets revealed some weaknesses and inconsistencies in the application of fair value accounting at financial institutions.

The type of information disclosed heading into the turmoil was often not sufficiently timely and useful to many investors and other market participants. Public disclosures by financial institutions did not always make clear the type and magnitude of their risk exposures, including those associated with their on- and off-balance sheet exposures. There were also shortcomings in the other information firms provided about market and credit risk exposures, particularly as these related to structured products. Where information was disclosed, it was often not done in an easily accessible or usable way.

***Action Item:** The key global accounting standards bodies should work to enhance guidance for valuation of securities, also taking into account the valuation of complex, illiquid products, especially during times of stress. (For immediate action by March 31, 2009)*

Process for Taking Forward the Leaders' Action Item

Several accounting standard setting bodies published guidance to clarify expectations for the valuation of complex securities and other financial instruments during the Fall of 2008. These notices were broadly consistent with one another. They emphasized the need for greater management judgment in estimating fair values when markets are inactive and provided advice for evaluating the reliability of valuation inputs.

In addition, at the end of November 2008, the BCBS released a consultation paper that provides guidance to banks and banking supervisors to strengthen valuation processes for financial instruments. This guidance reinforces the guidance published by accounting standard setters.

The IASB is in the process of enhancing guidance for fair value measurement more generally, for both financial and non-financial assets and liabilities. This broad review of fair value measurement was initiated in November 2006 to simplify, clarify and harmonize the overall body of guidance that has been added piecemeal to a number of standards over the years. The objective of this project is to create a single source of guidance for fair value measurement and disclosure. An exposure draft is expected in the first half of 2009.

In February 2009, FASB indicated it would re-examine its guidance for fair value accounting and disclosures in 2009.

Working Group Assessment

Considerable work has been undertaken to enhance guidance for the valuation of financial instruments, including complex and illiquid instruments, and more work is underway. We consider that the action plan with respect to fair value guidance has been achieved.

In order to support transparency and allow the users of financial statements to assess the financial health of a company, fair value valuation needs to be complemented with sufficient disclosure standards on valuation techniques. When valuation models are used, notes to financial statements must include a description of assumptions taken and a discussion of the incidence of alternative inputs on valuation. The Working Group recommends that efforts to reduce the complexity of accounting standards for financial instruments and to enhance disclosure standards be accelerated in order to allow the users of financial statements to better evaluate the uncertainty surrounding valuation.

Some EMEs consider that accounting standard bodies should review accounting standards for currency conversion in the context of this work, with the objective of assessing whether the accounting treatment of fluctuations in the exchange rate introduces excessive fluctuations in financial results during periods of high volatility in foreign exchange markets. IASB has indicated that it will examine the issue.

Recommendation 22: Accounting standard setters should accelerate efforts to reduce the complexity of accounting standards for financial instruments and enhance presentation standards to allow the users of financial statements to better assess the uncertainty surrounding the valuation of financial instruments.

- **Responsibility:** Accounting standard setters
- **Timeline:** Fall 2009
- **Monitoring:** Expanded FSF

Action Item: Accounting standard setters should significantly advance their work to address weaknesses in accounting and disclosure standards for off-balance sheet vehicles. *(For immediate action by March 31, 2009)*

Process for Taking Forward the Leaders' Action Item

The FASB issued, for public comment, proposed accounting changes for de-recognition of financial assets and consolidation of off-balance sheet entities. These revised standards are expected to be finalized in 2009 and effective in 2010. The FASB also issued enhanced disclosure standards for off-balance sheet entities that were effective beginning with 2008 year-end reporting.

The IASB issued, for public comment, proposed accounting changes for consolidation of off-balance sheet entities. This revised standard is expected to be effective in 2011. The IASB also accelerated its de-recognition project and expects to publish an exposure draft in the first half of 2009, to be effective no earlier than 2011.

Given the complexity of the issues involved, the effective dates could change.

Working Group Assessment

This Action Item has been largely met. While initiatives by accounting standards setters to enhance consolidation requirements, including disclosure standards for off-balance sheet entities have been underway since before the crisis began, the standards have been further strengthened and revisions accelerated, and the two major accounting bodies plan to converge their standards.

Action Item: Regulators and accounting standard setters should enhance the required disclosure of complex financial instruments by firms to market participants. (For immediate action by March 31, 2009)

Action Item: Financial institutions should provide enhanced risk disclosures in their reporting and disclose all losses on an ongoing basis, consistent with international best practice, as appropriate. Regulators should work to ensure that a financial institution's financial statements include a complete, accurate, and timely picture of the firm's activities (including off-balance sheet activities) and are reported on a consistent and regular basis. (For action in the medium term)

Process for Taking Forward the Leaders' Action Item

To enhance transparency and market confidence, the FSF recommended in its April 2008 report that financial institutions draw from leading practices to ensure that they provide robust meaningful disclosures about risk exposures, including those associated with complex financial instruments, in mid-year 2008 statements. Prudential supervisors of countries that are part of the FSF strongly encouraged their internationally active financial institutions to use these recommended practices in their mid-year reporting. The FSF also asked IOSCO to assess the adequacy of initiatives that private sector groups are taking forward to enhance issuer transparency for securitized products. This assessment was undertaken as part of IOSCO's work on securitized products, on which it will produce an interim report in March.

In January 2009 the BCBS issued for comment proposals to strengthen Pillar 3 disclosure standards for banks' securitisation activities, building on the recommended sound practice disclosures of the FSF.

In addition, the IASB has released several proposals in recent months to improve disclosure of financial instruments. These include enhancements to the disclosure of exposure to risk from off-balance sheet items, and an amendment to the standard for the presentation of financial statement (IFRS 7) to clarify and enhance disclosures about fair value measurements and the liquidity risk of financial instruments, including for complex financial instruments.

Working Group Assessment

Following the leading practice disclosure framework advanced by the FSF, large financial institutions have substantially expanded their disclosures about risk exposures, including those associated with complex financial instruments and other related policies.

Action Item: *Regulators, supervisors, and accounting standard setters, as appropriate, should work with each other and the private sector on an ongoing basis to ensure consistent application and enforcement of high-quality accounting standards. (For action in the medium term)*

Process for Taking Forward the Leaders' Action Item

The IASB has established an external monitoring body composed of representatives of public authorities and of international organizations that have requirements for accountability to public authorities. This monitoring body includes IOSCO, the European Commission, the US SEC, and the Japan FSA. The BCBS will also be participating as an observer.

In addition the IASB and the U.S. FASB have established an advisory group comprised of senior leaders with broad international experience in financial markets to advise the Boards in considering accounting issues emerging from the global crisis. The primary function of the Financial Crisis Advisory Group (FCAG) is to advise the Boards about standard-setting implications of (1) the global financial crisis and (2) potential changes to the global regulatory environment. The group will conclude its activities within approximately six months, and will conduct advisory meetings during that time.

The FCAG will consider how improvements in financial reporting could help enhance investor confidence in financial markets. The advisory group also will help identify significant accounting issues that require the urgent and immediate attention of the Boards, as well as issues for long-term consideration. In providing that advice, the advisory group will draw upon work already underway in a number of jurisdictions on accounting and the credit crisis, as well as information gathered from the public roundtables—one each in Asia, Europe, and North America—that the Boards hosted in November and December 2008.

Working Group Assessment

High level committees established by accounting standard setters to obtain feedback from users of financial statements will help foster consistent application of accounting standards.

Action Item: *The key global accounting standards bodies should work intensively toward the objective of creating a single high-quality global standard. (For action in the medium term)*

Process for Taking Forward the Leaders' Action Item

IFRS are in use in over 100 countries, and about 40 more are in the process of either adopting or converging with them. While some countries have adopted the IFRS without modifications, others have tailored the IFRS to their country-specific conditions during the process of convergence.

Working Group Assessment

The long-term benefits likely to result from the use of a harmonized set of international accounting standards are considerable, in particular from a market transparency and cost perspective. While adapting IFRS according to national circumstances rather than fully complying with them may be appropriate in some cases to take into account country-specific characteristics of markets, it also voids some of the benefits of a global set of accounting standards.

The Working Group recommends that the IASB facilitate the transition towards a single set of high-quality global standards globally by sharing the experience of countries that have completed this process and by providing global assistance.

Enhanced representation of EMEs within the IASB governance structure would also be desirable to allow for standards that better reflect the unique circumstances of these countries. We note that G20 Working Group 2 is addressing issues related to the governance of the IASB, including the level of involvement of individuals from EMEs within the IASCF and the various IASB working groups and committees.

Recommendation 23: The IASB should enhance its efforts to facilitate the global convergence towards a single set of high-quality accounting standards by sharing the experience of countries that have completed this process and by providing technical assistance.

- **Responsibility:** IASB
- **Timeline:** Fall 2009
- **Monitoring:** Expanded FSF

5. Going beyond the Action Plan

In this section, we propose recommendations for addressing concerns not covered by the Washington Action Plan. They relate to ensuring that appropriate resources are available for effective enforcement and to providing assistance to countries that require it for enhancing their regulatory frameworks.

5.1 Enforcement

Achieving the objectives of the regulatory framework requires not only sound regulation but also effective enforcement. No matter how sound the rules are for regulating the conduct of market participants, if the system of enforcement is ineffective – or is perceived to be ineffective – the ability of the system to achieve the desired outcome is undermined.

It is thus essential that participants are appropriately monitored, that offenders are vigorously prosecuted and that adequate penalties are imposed when rules are broken. A regulatory framework with strong monitoring, prosecution, and application of penalties provides the incentives for firms to follow the rules. This, in the end, adds to the framework's credibility and enhances investor confidence in the financial system. Thus, a coordinated approach by securities regulators and self-regulatory organizations, law enforcement agencies and other actors in the legal system to monitor, investigate, and punish improper behaviour is necessary at a national and, in the context of globalization of the financial system, at the international level.

In terms of international cooperation, IOSCO has developed a multilateral memorandum of understanding (MMOU) on cooperation and information sharing for securities regulation and enforcement purposes. The MMOU is specific about the information, including banking and brokering information, which must be made available on request of signatories for the specific purpose set out in the MMOU. It has raised the standard of international information sharing by requiring that banking secrecy laws do not prevent the exchange of information for securities enforcement purposes. Applicants to become a signatory are required to undergo an independent verification process. Over two thirds of IOSCO's eligible members have become signatories or undergone the verification process and committed to addressing the gaps identified by the process, including seeking legislative change if necessary.

The IAIS has also put in place a *MMOU* framework back in February 2007 to facilitate information exchange among insurance supervisors both under normal circumstances and in times of crisis. The IAIS regards the MMOU initiative as a high priority and efforts are underway to expedite the operation of the regime in the near future.

Supervisory colleges, which are within the remit of G20 Working Group 2 are an effective mechanism for enforcement in cross-border institutions.

We recommend that authorities review the effectiveness of their enforcement activities and ensure that appropriate resources, including both human and financial resources, are available to achieve this.

Recommendation 24: The effective enforcement of regulation should be a priority of all financial regulators. As such, national financial regulators and oversight authorities should ensure the effectiveness of their enforcement activities and that appropriate resources are available for monitoring the application of regulation and for prosecuting offenders. The enforcement function should be independent from other activities or from external influences.

- **Responsibility:** Prudential supervisors and other authorities
- **Timeline:** To be completed within 2 years
- **Monitoring:** IMF-WB (through FSAP and Article IV)

5.2 Technical Assistance and Capacity Building in Emerging Market Economies

For some countries, for example those with less-developed financial systems, transition towards the implementation of enhanced standards and regulations may present a greater challenge. The Working Group recommends that national authorities commit to assist each other in order to enhance the capacity of the G20 as a whole to strengthen the regulatory framework. Appropriate technical assistance should also be provided to these countries by international standard setting bodies in order to allow for the effective implementation of more challenging new regulations that are consistent with international standards and codes. Examples include those for mitigating procyclicality, for adopting the Basel II capital framework and for converging towards a global set of high-quality accounting standards.

Recommendation 25: Recognizing that the degree of development of financial systems varies considerably across the G20, national authorities should commit to assist each other in enhancing their capacity to strengthen regulatory frameworks. In addition, IOSCO, the IAIS and the BCBS should have the appropriate capacity to provide technical assistance. The needs of emerging market economies deserve particular consideration.

- **Responsibility:** Finance Ministries, prudential supervisors and other authorities, IOSCO, IAIS, BCBS
- **Timeline:** Ongoing
- **Monitoring:** IMF-WB (through FSAP and Article IV)

Annex 1 - Abbreviations

BCBS	Basle Committee of Banking Supervision
CDS	Credit default swaps
CGFS	Committee on the Global Financial System
CCP	Central counterparty
CPSS	Committee on Payment and Settlement Systems
CRA	Credit rating agency
EC	European Commission
EU	European Union
EME	Emerging market economy
FASB	Financial Accounting Standards Board
FCAG	Financial Crisis Advisory Group
FSA	Financial Services Agency (Japan)
FSAP	Financial Sector Assessment Program
FSF	Financial Stability Forum
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
IASCF	International Accounting Standards Committee Foundation
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commission
MMOU	Multilateral memorandum of understanding
OECD	Organization for Economic Cooperation and Development
OTC	Over-the-counter
SEC	Securities and Exchange Commission (US)
SSG	Senior Supervisors Group
WB	World Bank

Annex 2 – List of Members of the Working Group

Co-Chairs	Tiff Macklem (Canada) Rakesh Mohan (India)
Argentina	Jose Rutman
Australia	Kerstin Wijeyewardene
Brazil	Nelson Barbosa
Canada	David Longworth
China	Han Mingzhi
European Union	Pierre Delsaux
France	Hervé de Villeroché
Germany	Dietrich Lingenthal
India	Anand Sinha
Indonesia	Hekinus Manao
Italy	Andrea Enria
Japan	Takehiko Nakao
Mexico	Guillermo Zamarripa
Russia	Yana Pureskina
Saudi Arabia	Fahad Al Mufarrij
South Africa	Nkosana Mashiya
South Korea	Jong-Goo Yi
Turkey	Ihsan Delikanli
United Kingdom	David Strachan
United States of America	Patrick Parkinson
Basel Committee for Banking Supervision	Stefan Walter
Financial Stability Forum	Svein Andresen
International Accounting Standards Board	John Smith
International Association of Insurance Supervisors	Yoshihiro Kawai
International Monetary Fund	Jaime Caruana
International Organization of Securities Commissions	Greg Tanzer
World Bank	Michael U. Klein