Basel Committee
on Banking Supervision

The Basel Committee's response to the financial crisis: report to the G20

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Executive summary

The Basel Committee on Banking Supervision and its oversight body, the Group of Governors and Heads of Supervision[1], have developed a reform programme to address the lessons of the crisis, which delivers on the mandates for banking sector reforms established by the G20 at their 2009 Pittsburgh summit. This report, which the Committee is submitting to the G20, details the key elements of the reform programme and future work to strengthen the resilience of banks and the global banking system.

The depth and severity of the crisis were amplified by weaknesses in the banking sector such as excessive leverage, inadequate and low-quality capital, and insufficient liquidity buffers. The crisis was exacerbated by a procyclical deleveraging process and the interconnectedness of systemically important financial institutions. In response, the Committee's reforms seek to improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spill over from the financial sector to the real economy.

The reforms strengthen bank-level, or micro prudential, regulation, which will help raise the resilience of individual banking institutions in periods of stress. The reforms also have a macro prudential focus, addressing system wide risks, which can build up across the banking sector, as well as the procyclical amplification of these risks over time. Clearly, these micro and macro prudential approaches to supervision are interrelated, as greater resilience at the individual bank level reduces the risk of system wide shocks.

Collectively, the new global standards to address both firm-specific and broader, systemic risks have been referred to as "Basel III". Basel III is comprised of the following building blocks, which have been agreed and issued by the Committee and the Governors and Heads of Supervision between July 2009 and September 2010:

- Raising the quality of capital to ensure banks are better able to absorb losses on both a going concern and a gone concern basis;
- Increasing the risk coverage of the capital framework, in particular for trading activities, securitisations, exposures to off-balance sheet vehicles and counterparty credit exposures arising from derivatives;

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[1] The Basel Committee on Banking Supervision provides a forum for regular cooperation on banking supervisory matters. It seeks to promote and strengthen supervisory and risk management practices globally. The Committee is comprised of central bank and supervisory authority representatives from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Committee's Secretariat is based at the Bank for International Settlements in Basel, Switzerland.

The Basel Committee's governing body is the Group of Central Bank Governors and Heads of Supervision, which is comprised of central bank governors and (non-central bank) heads of supervision from member countries.

- Raising the level of the minimum capital requirements, including an increase in the minimum common equity requirement from 2% to 4.5% and a capital conservation buffer of 2.5%, bringing the total common equity requirement to 7%;
- Introducing an internationally harmonised leverage ratio to serve as a backstop to the risk-based capital measure and to contain the build-up of excessive leverage in the system;
- Raising standards for the supervisory review process (Pillar 2) and public disclosures (Pillar 3), together with additional guidance in the areas of sound valuation practices, stress testing, liquidity risk management, corporate governance and compensation;
- Introducing minimum global liquidity standards consisting of both a short term liquidity coverage ratio and a longer term, structural net stable funding ratio; and
- Promoting the build up of capital buffers in good times that can be drawn down in periods of stress, including both a capital conservation buffer and a countercyclical buffer to protect the banking sector from periods of excess credit growth.

The Committee is also working with the Financial Stability Board to address the risks of systemic banks. On 12 September 2010, the Governors and Heads of Supervision agreed that systemically important banks should have loss absorbing capacity beyond the minimum standards of the Basel III framework.

The Committee's reforms will transform the global regulatory framework and promote a more resilient banking sector. Accordingly, the Committee has undertaken a comprehensive assessment of Basel III's potential effects, both on the banking sector and on the broader economy. This work concludes that the transition to stronger capital and liquidity standards is expected to have a modest impact on economic growth. Moreover, the long-run economic benefits substantially outweigh the costs associated with the higher standards.

Going forward, the Committee will concentrate its efforts on the implementation of the Basel III framework and related supervisory sound practice standards. It is also conducting work in the following areas:

- A fundamental review of the trading book;
- The use and impact of external ratings in the securitisation capital framework;
- Policy response to systemically important banks;
- The treatment of large exposures;
- Enhanced cross-border bank resolution;
- A review of the *Core Principles for Effective Banking Supervision* to reflect the lessons of the crisis; and
- Standards implementation and stronger collaboration among bank supervisors through supervisory colleges.

In 2009 the membership of the Basel Committee doubled in size to 27 jurisdictions. It is now represented by senior officials from 44 central banks and supervisory authorities. The greater diversity of supervisory views and practices shared among members has enriched the Committee's discussions. The broader representation has also served to enhance the Committee's legitimacy as a global standard setter.

In the course of its standard-setting process, the Committee regularly solicits public comments on its proposals. For example, its December 2009 proposals on capital and liquidity generated close to 300 comments from bankers, academics, governments, other standard setters and prudential supervisors, and various other market participants and interested parties. Such comments are carefully reviewed by the Committee and its working groups and proposed standards are modified as appropriate. Together, the transparent public consultations and comprehensive impact assessments help ensure that the Committee is developing standards on a well informed and inclusive basis.

Section I – Micro prudential, firm-specific reform measures

The cornerstone of the Basel Committee's reforms is stronger capital and liquidity regulation. But at the same time, it is critical that these reforms are accompanied by improvements in supervision, risk management and governance, as well as greater transparency and disclosure.

1. Capital

The global banking system entered the crisis with an insufficient level of high quality capital. Banks were forced to rebuild their common equity capital bases in the midst of the crisis at the point when it was most difficult to do so. The crisis also revealed the inconsistency in the definition of capital across jurisdictions and the lack of disclosure that would have enabled the market to fully assess and compare the quality of capital across institutions.

Quality and level of the capital base

The Basel Committee reached agreement on a new definition of capital in July 2010. Higher quality capital means more loss-absorbing capacity. This in turn means that banks will be stronger, allowing them to better withstand periods of stress.

A key element of the new definition is the greater focus on common equity, the highest quality component of a bank's capital. Credit losses and write downs come directly out of retained earnings, which are part of a bank's common equity base. The Committee therefore has adopted a stricter definition of common equity, requiring regulatory capital deductions to be taken from common equity rather than from Tier 1 or Tier 2 capital as is currently the case. As a result, it will no longer be possible for banks to display strong Tier 1 capital ratios with limited common equity net of regulatory deductions. As part of its reforms, the Committee also recognised the unique circumstances of non-joint stock companies, which are not in a position to issue common shares to the public.

The Basel Committee is of the view that all regulatory capital instruments must be capable of absorbing a loss at least in gone concern situations. The Committee has consulted on a proposal to ensure that all non-common Tier 1 and Tier 2 capital instruments are able to absorb losses in the event that the issuing bank reaches the point of non-viability.

By itself, the new definition of capital constitutes a significant improvement in the global capital regime, which will be enhanced further by better risk coverage, the introduction of buffers and higher minimum capital requirements.

Risk coverage

In addition to raising the quality and level of the capital base, there is a need to ensure that all material risks are captured in the capital framework. During the crisis, many risks were not appropriately covered in the risk-based regime. For example, some banks held significant volumes of complex, illiquid credit products in their trading books without a commensurate amount of capital to support the risk. Moreover, failure to capture major on- and off-balance sheet risks, as well as derivative related exposures, was a key factor that amplified the crisis.

In response, in July 2009 the Committee introduced a set of enhancements to the capital framework that, among other things, considerably strengthen the minimum capital requirements for complex securitisations. This includes higher risk weights for resecuritisation exposures (eg CDOs of ABS) to better reflect the risk inherent in these products, as well as raising the capital requirements for certain exposures to off-balance sheet vehicles. The Committee also required that banks conduct more rigorous credit analyses of externally rated securitisation exposures.

Increasing regulatory capital for the trading book has been another crucial element of the Committee's reform programme. In July 2009 the Committee substantially strengthened the rules that govern capital requirements for trading book exposures. This included a stressed value-at-risk requirement, an incremental risk charge for migration and default risk, as well as higher requirements for structured credit products held in the trading book. The revised trading book framework, on average, requires banks to hold additional capital of around three to four times the old capital requirements, thus better aligning regulatory capital requirements with the risks in banks' trading portfolios. These higher capital requirements for trading, derivative and securitisation activities reinforce the stronger definition of capital and will be introduced at the end of 2011.

Deterioration in the credit quality of counterparties also was a significant source of credit-related loss. In response, the Committee has focused on increasing regulatory capital requirements and improving risk management for counterparty credit risk. This includes the use of stressed inputs to determine the capital requirement for counterparty credit default risk, as well as new capital requirements to protect banks against the risk of a decline in the credit quality of a counterparty, for example, as occurred in the case of the monoline insurers.

Raising the level of capital

Basel III also introduces higher *levels* of capital. The minimum requirement for common equity, the highest form of loss absorbing capital, will be raised from the current 2% level, before the application of regulatory adjustments, to 4.5% after the application of stricter adjustments. In addition, factoring in the capital conservation buffer brings the total common equity requirements to 7%. The higher level of capital is in addition to the stricter definition of common equity and the increase in capital requirements for trading activities, counterparty credit risk and other capital markets related activities. Taken together, these measures represent a substantial increase in the minimum capital requirement to help ensure that banks are able to withstand the type of stress experienced in the previous crisis. Moreover, as discussed below, supervisors can require additional capital buffers during periods of excess credit growth and, in the case of systemically important banks, they can demand additional loss absorbency capacity.

The Tier 1 capital requirement, which includes common equity and other qualifying financial instruments whose inclusion is based on stricter criteria, will increase from 4% to 6% (before factoring in the conservation buffer).

Containing leverage

Another key element of the Basel III regulatory capital framework is the introduction of a non-risk-based leverage ratio that will serve as a backstop to the risk-based capital requirement. In the lead up to the crisis, many banks reported strong Tier 1 risk-based ratios while still being able to build high levels of on- and off-balance sheet leverage. The use of a supplementary leverage ratio will help contain the build-up of excessive leverage in the system. It will also serve as an additional safeguard against attempts to "game" the risk-based requirements and will help address model risk.

The Committee's governing body in July 2010 agreed on the design and calibration of the leverage ratio, which will serve as the basis for testing during a parallel run period. It is proposing to test a minimum Tier 1 leverage ratio of 3% over this period that begins in 2013. The leverage ratio will capture both on- and off-balance sheet exposures and derivatives. The treatment of derivatives will be harmonised across accounting regimes using the regulatory definition of netting. While there is a strong consensus to base the leverage ratio on the new definition of Tier 1 capital, the Committee also will track the impact of using total capital and tangible common equity.

For global banks with significant capital market activities, the 3% calibration is likely to be more conservative than the traditional measures of leverage that have been in place in some countries. The main reasons for this are the new definition of capital and the inclusion of off-balance sheet items in the calculation of the leverage ratio.

2. Liquidity

Strong capital requirements are a necessary condition for banking sector stability but by themselves are not sufficient. Equally important is the introduction of stronger bank liquidity as inadequate standards were a source of both firm level and system wide stress.

Global liquidity standards and supervisory monitoring

During the crisis, funding suddenly dried up and remained in short supply for a very long period. In response, the Committee will introduce global minimum liquidity standards to make banks more resilient to potential short-term disruptions in access to funding and to address longer-term structural liquidity mismatches in their balance sheets. The liquidity coverage ratio (LCR) will require banks to have sufficient high-quality liquid assets to withstand a stressed funding scenario that is specified by supervisors. This is complemented by the net stable funding ratio (NSFR), which is a longer-term structural ratio designed to address liquidity mismatches. It covers the entire balance sheet and provides incentives for banks to use stable sources of funding.

The framework also includes a common set of monitoring metrics to assist supervisors in identifying and analysing liquidity risk trends at both the bank and system wide level. To introduce more consistency, the Committee has developed a set of common metrics that should be considered as the minimum types of information which supervisors should use in monitoring the liquidity risk profiles of supervised entities.

3. Risk management and supervision

Stronger capital and liquidity standards must be accompanied by better risk management and supervision. This is particularly important in an environment of continuously rapid financial innovation.

In July 2009, the Committee conducted a review of the Pillar 2 supervisory review process to address several notable weaknesses that were revealed in banks' risk management processes during the financial crisis. The areas addressed include:

- firm-wide governance and risk management;
- capturing the risk of off-balance sheet exposures and securitisation activities;
- managing risk concentrations;
- providing incentives for banks to better manage risk and returns over the long term; and
- sound compensation practices.

In addition to the enhanced Pillar 2 guidance, the Committee strengthened supervisory guidance in the following key areas:

- Liquidity risk management: In September 2008 the Committee issued guidance entitled *Principles for Sound Liquidity Risk Management and Supervision*. This guidance, which is arranged around 17 principles for managing and supervising liquidity risk, takes account of lessons learned during the crisis and is based on a fundamental review of sound practices for managing liquidity risk in banking organisations. The guidance for supervisors has also been augmented substantially. It emphasises the importance of supervisors assessing the adequacy of a bank's liquidity risk management framework and its level of liquidity, and suggests steps that supervisors should take if these are deemed inadequate. The principles also stress the importance of effective cooperation between supervisors and other key stakeholders, such as central banks, especially in times of stress.

- Valuation practices: In order to enhance the supervisory assessment of banks' valuation practices, the Committee in April 2009 published *Supervisory guidance for assessing banks' financial instrument fair value practices*. This guidance applies to all positions that are measured at fair value and at all times, not only during times of stress.
- Stress testing: In May 2009, the Committee published *Principles for sound stress testing practices and supervision*. The paper sets out a comprehensive set of principles for the sound governance, design and implementation of stress testing programmes at banks. The principles address the weaknesses in banks' stress tests that were highlighted by the financial crisis.
- Sound compensation practices: In January 2010, the Committee issued *Compensation Principles and Standards Assessment Methodology*, which seeks to foster supervisory approaches that are effective in promoting sound compensation practices at banks and help support a level playing field. The Methodology will help supervisors assess a firm's compliance with the FSB's *Principles for Sound Compensation Practices* and related implementation standards. In addition, the Committee published for consultation in October 2010 a report on the *Range of Methodologies for Risk and Performance Alignment of Remuneration*. The report responds to an FSB recommendation that the Committee should develop a report on the range of methodologies for risk and performance alignment of compensation schemes and their effectiveness in light of experience to date.
- Corporate governance: Following a public consultation, in October 2010 the Committee issued a set of principles for enhancing sound corporate governance practices at banking organisations. The *Principles for enhancing corporate governance* address fundamental deficiencies in bank corporate governance that became apparent during the financial crisis. In line with the Committee's principles, and consistent with national laws, regulations, and codes, supervisors should establish guidance or rules requiring banks to have robust corporate governance strategies, policies and procedures.
- Supervisory colleges: Following a public consultation, the Committee in October 2010 published final guidance on *Good Practice Principles on Supervisory Colleges*. The financial crisis underscored the challenges to home and host supervisors in the consolidated supervision of international banking groups. Besides strengthening supervisory cooperation and coordination at the micro prudential level, the implementation of these principles will further foster the increasingly important function of supervisory colleges in promoting financial stability at the macro prudential level.

4. Market discipline

The crisis revealed that the disclosures provided by many banks about their risk exposures and regulatory capital bases were deficient and inconsistent.

In response to these observed weaknesses in public disclosure and after a careful assessment of leading disclosure practices, the Committee in July 2009 agreed to revise the existing Pillar 3 requirements relating to securitisation exposures and sponsorship of off-balance sheet vehicles, among others. Banks are expected to comply with the revised requirements by end-2011.

In addition, there was insufficient information about the components of capital, making an accurate assessment of its quality or a meaningful comparison with other banks difficult. Furthermore, reconciliation to the reported accounts is often absent. To improve transparency and market discipline, the Committee is requiring that banks disclose all elements of the regulatory capital base, the deductions applied and a full reconciliation to the financial accounts. A bank will need to make available on its website the full terms and conditions of all instruments included in regulatory capital. The existing requirement for the main features of capital instruments to be easily understood and publically disclosed will be retained.

The Committee in consultation with the FSB has developed a proposal for Pillar 3 Disclosure Requirements for Remuneration, which aims to ensure that banks disclose clear, comprehensive and timely information about their remuneration practices with the overarching goal of promoting more effective market discipline. Consistency of disclosure requirements should indeed contribute to a greater convergence of practices and should also promote a level playing field in the industry. The proposed requirements will allow meaningful assessments by market participants of banks' remuneration practices, while not creating excessive burden or requiring disclosure of sensitive or confidential information. The Committee expects to issue the proposed disclosure requirements for public consultation before year end.

Section II – Macro prudential measures

While, all else equal, stronger individual banks will lead to a stronger banking system, such a firm-specific approach by itself has not been sufficient to promote financial stability. Broader measures to address procyclicality and to strengthen the resilience of the entire banking system are equally important. These include measures to address the risks of systemically important global banks arising from their interconnectedness, the challenges around domestic and global resolution, and the moral hazard associated with the perception of too-big-to-fail. Moreover, a heightened sensitivity to financial innovation and the regulatory perimeter, a renewed focus on consistent and timely implementation, as well as more rigorous supervision will help safeguard against risks arising from or concentrating in the non-bank sector.

1. Addressing procyclicality

Several initiatives discussed in the section above will help reduce procyclicality. These include the introduction of the leverage ratio to help contain the build-up of excessive leverage in the system during periods of credit expansion, as well as the use of stressed inputs for the calculation of value-at-risk and counterparty credit risk. In addition, the Committee is reviewing different approaches to address any excess cyclicality of the minimum capital requirements. It has also developed a concrete proposal to operationalise an expected loss approach to provisioning as input to the IASB's reform efforts in this area.

Capital buffers

An essential element of the new regulatory capital framework is the build-up in good times of buffers that can be drawn down in periods of stress. This promotes the goal of mitigating procyclicality in the banking and broader financial system.

The Group of Governors and Heads of Supervision agreed that banks will be required to hold a *capital conservation buffer* comprising common equity of 2.5%. This buffer above the minimum could be used to absorb losses during periods of financial and economic stress. However, as a bank's capital level moves closer to the minimum requirement, the conservation buffer would impose a constraint on the bank's discretionary distributions. Retaining a bigger proportion of earnings during a downturn will help ensure that capital remains available to support the bank's ongoing business operations during the period of stress. This framework will reinforce the objective of sound supervision and bank governance and address the collective action problem that has prevented some banks from curtailing distributions such as discretionary bonuses and higher dividends, even in the face of deteriorating capital positions.

In addition, the Committee's oversight body agreed on a *countercyclical buffer* within a range of 0 to 2.5% comprised of common equity or other fully loss absorbing capital, which will be implemented according to national circumstances. The purpose of the countercyclical buffer is to achieve the broader macro prudential goal of protecting the banking sector in periods of excess aggregate credit growth. For any given country, this buffer will only be in effect when there is excess credit growth that is resulting in a system wide build up of risk. The countercyclical buffer, when in effect, would be imposed as an extension of the conservation buffer range. Conversely, the buffer would be released when, in the judgment of the authorities, the released capital would help absorb losses in the banking system that pose a risk to financial stability. This would help reduce the risk that available credit is constrained by regulatory capital requirements.

Provisioning

In August 2009, the Committee published a set of high level guiding principles to assist the IASB in addressing issues related to provisioning and fair value measurement. The principles were in response to recommendations made by the G20 leaders at their April 2009 summit to strengthen financial supervision and regulation. To address particular concerns about procyclicality, the principles called for valuation adjustments to avoid misstatement of both initial and subsequent profit and loss recognition when there was significant valuation uncertainty. Moreover, loan loss provisions should be robust and based on sound methodologies that reflect expected credit losses in the banks' existing loan portfolio over the life of the portfolio.

The Committee has also developed a concrete proposal to operationalise the expected loss approach to provisioning proposed by the IASB. The Committee submitted a comment letter to the IASB on 30 June 2010 in which it spelled out its proposed approach. It has remained in close dialogue with the IASB on this topic.

2. Systemic risk and interconnectedness

While procyclicality amplified shocks over the time dimension, excessive interconnectedness among systemically important banks also transmitted shocks across the financial system and economy. Systemically important banks should have loss absorbing capacity beyond the minimum standards and work on this issue is ongoing. The Basel Committee and the FSB are developing a well integrated approach to systemically important financial institutions which could include combinations of capital surcharges, contingent capital and bail-in debt. As part of this effort, the Committee is developing a proposal on a provisional methodology comprising both quantitative and qualitative indicators to assess the systemic importance of financial institutions at a global level. The Committee is also conducting a study of the magnitude of additional loss absorbency that globally systemic financial institutions should have, along with an assessment of the extent of going concern loss absorbency which could be provided by the various proposed instruments. The Committee's analysis has also covered further measures to mitigate the risks or externalities associated with systemic banks, including liquidity surcharges, tighter large exposure restrictions, and enhanced supervision.

Several of the capital requirements introduced by the Committee to mitigate the risks arising from firm-level exposures among global financial institutions will also help to address systemic risk and interconnectedness. These include:

- capital incentives for banks to use central counterparties for over-the-counter derivatives;
- higher capital requirements for trading and derivative activities, as well as complex securitisations and off-balance sheet exposures (eg structured investment vehicles);
- higher capital requirements for inter-financial sector exposures; and
- the introduction of liquidity requirements that penalise excessive reliance on short term, interbank funding to support longer dated assets.

Contingent capital

The use of "gone concern" contingent capital would increase the contribution of the private sector to resolving future banking crises and thereby reduce moral hazard. The Committee recently published a proposal that would require the contractual terms of capital instruments to include a clause that will allow them – at the discretion of the relevant authority – to be written off or converted to common shares if the bank is judged to be non-viable by the relevant authority or if it received a public sector capital injection (or equivalent support) without which it would have become non-viable.

The Committee also is reviewing the potential role of "going concern" contingent capital and bail-in debt as a further way to strengthen the loss absorbency of systemic banks. The objective here is to decrease the probability of banks reaching the point of non-viability and, if they do reach that point, to help ensure that there are additional resources that would be available to manage the resolution or restructuring of banking institutions.

Cross-border bank resolution

The resolution of a cross-border bank is a complex process, and the financial crisis exposed wide gaps in intervention techniques and tools needed for an orderly resolution. The orderly resolution of a cross-border bank is a critical element in addressing systemic risk and the too-big-to-fail problem. Based on the lessons of the crisis and an analysis of national resolution frameworks, in March 2010 the Committee issued its *Report and Recommendations of the Cross-border Bank Resolution Group*, which set out practical steps to improve cross-border crisis management and resolutions. The report and recommendations were endorsed by the G20 Leaders and serve as a basis for further work on this critical issue.

Section III – Implementation of reform measures

An integral component of the Committee's standard-setting activities is to take careful consideration of the potential impact of its proposed standards. This section reviews the work undertaken by the Committee to assess the impact of the reforms. It also details the transitional arrangements.

1. Impact assessment

Comprehensive quantitative impact study

The Committee has conducted a comprehensive quantitative impact study (QIS) based on the December 2009 capital and liquidity proposals to assess the impact of the reform package on individual banks and on the banking industry. The impact study has helped inform the calibration of the requirements and to help ensure an appropriate set of minimum standards across banks, countries and business models. The Committee expects to publish the results by year end, which will reflect the impact of the agreements reached by Governors and Heads of Supervision at their July and September 2010 meetings.

Macroeconomic impact assessment

On 18 August 2010, the FSB and the Basel Committee published a joint interim report on the macroeconomic implications of the proposed higher regulatory standards during the transition to these new standards, the Macroeconomic Assessment Group (MAG) report. This report was accompanied by an additional study conducted by the Committee on the long-term economic impact of the new standards (LEI report).[2]

The MAG report, which focused on the costs during the transition, concluded that the transition to stronger capital and liquidity standards is likely to have only a modest impact on economic growth. The group estimated that, if higher requirements are phased in over four years, the level of GDP would decline by about 0.19% for each 1 percentage point increase in a bank's capital ratio once the new rules were in place.[3] This means that the annual growth rate would be reduced by an average of just 0.04 percentage points over a period of four and a half years. With respect to the impact of stronger liquidity standards, the MAG study found that these are also likely to have only mild transitional effects. In all of these estimates, GDP returns to just below its baseline path in subsequent years.

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2 The two reports are *An assessment of the long-term economic impact of stronger capital and liquidity requirements*, prepared by the Basel Committee, and *Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements*, the interim report of the joint FSB-BCBS Macroeconomic Assessment Group (MAG). The reports can be accessed at www.bis.org/press/p100818.htm.

3 In a few instances, MAG members reported impact figures in excess of 0.5%; the three most negative values represent the outcome of models estimated by the Bank of Japan and the Federal Reserve (both institutions also estimated models with smaller effects under alternative assumptions).

With regard to the long-term economic impact, the Committee's assessment found that there are clear economic benefits from increasing the capital and liquidity requirements from their current levels. These benefits accrue immediately and result from reducing the probability of financial crises and the output losses associated with such crises. The output benefits substantially exceed the potential output costs for a range of higher capital and liquidity requirements. For example, with regard to the output benefits associated with reducing the probability of a financial crisis, the Committee estimates that each 1 percentage point reduction in the annual probability of a crisis yields an expected benefit per year ranging from 0.2% to 0.6% of output depending on the assumptions used. The Committee's analysis suggests that in terms of the impact on output, there is considerable room to tighten capital and liquidity requirements while still yielding positive net benefits.

2. Transition to the new standards

Since the onset of the crisis, banks have already undertaken substantial efforts to raise their capital levels. However, preliminary results of the Committee's comprehensive QIS show that as of the end of 2009, large banks will need, in the aggregate, a significant amount of additional capital to meet these new requirements. Smaller banks, which are particularly important for lending to the SME sector, for the most part already meet these higher standards.

The Governors and Heads of Supervision agreed on transitional arrangements for implementing the new standards. These will help ensure that the banking sector can meet the higher capital standards through reasonable earnings retention and capital raising while still supporting lending to the economy. In recognition of the more stringent regime and to support the ongoing recovery, the Committee has agreed on appropriate arrangements to help ensure a smooth transition. During this transition, the Committee will closely monitor the impact and behaviour of the new standards. It will continue to review the implications of the standards and address unintended consequences as necessary.

National implementation of the Basel III risk-based capital requirements by member countries will begin on 1 January 2013. Member countries must translate the capital rules into national laws and regulations before that date. From that point forward, the capital standards rise each year, reaching their final level at the end of 2018.

Regarding the leverage ratio, the parallel run period will begin on 1 January 2013, with full disclosure starting on 1 January 2015. The Committee will monitor the performance of the leverage ratio over different points of the economic cycle, the impact on different types of business models, and its behaviour relative to the risk-based requirement. Based on the results of the parallel run period, any final adjustments would be carried out in the first half of 2017 with a view to migrating to a Pillar 1 treatment on 1 January 2018 based on appropriate review and calibration.

Introducing a new global liquidity standard is a complex process. Unlike the capital framework, for which extensive experience and data help inform the calibration, there is no similar track record for liquidity standards. The Committee is therefore taking a carefully considered approach to refine the design and calibration and will review the impact of these changes to ensure that they deliver a rigorous overall liquidity standard. It will carry out an "observation phase" to address any unintended consequences across business models or funding structures before finalising and introducing the revised standards. The LCR will be introduced as a minimum standard on 1 January 2015 and the NSFR will move to a minimum standard by 1 January 2018. The Committee will issue a proposal on the NSFR by the end of this year which will be subject to testing during the observation phase and reflect the adjustments proposed by the Governors and Heads of Supervision in July 2010.

The transitional arrangements are also summarised in Annex 1.

Based on the agreements reached by its governing body and the elaboration of certain technical details, the Committee will publish the final Basel III rules text around year end.

Section IV – Future work

The Committee continues to work on a range of initiatives important to bank resilience. In addition, timely and full implementation and rigorous supervisory follow up are necessary next steps. These efforts are detailed below.

Fundamental review of the trading book

The financial crisis has exposed significant flaws in the existing regulatory capital approach to market risk and trading activities. These immediate shortcomings were addressed in the July 2009 enhancements to the regulatory capital framework. However, the Committee also agreed that a fundamental review of the trading book framework is required. This review is studying, in particular, whether or not the distinction between the banking and the trading book should be maintained, how trading activities are defined and how risks in trading books (and possibly market risk more generally) should be captured by regulatory capital. The work on the fundamental review of the trading book will be completed by end 2011.

Ratings and securitisations

The G20 Leaders at their June 2010 Toronto summit expressed their commitment to reduce reliance on external ratings in rules and regulations. The Leaders "acknowledged the work underway at the BCBS to address adverse incentives arising from the use of external ratings in the regulatory capital framework, and at the FSB to develop general principles to reduce authorities' and financial institutions' reliance on external ratings. We called on them to report to our Finance Ministers and Central Bank Governors in October 2010".

The Committee's work in this area has several dimensions. First, the Committee has reviewed a quantitative retention requirement and evaluated the related benefits balanced by any implementation challenges. This note was shared within the supervisory community as a tool for better aligning the interests of originators and investors in the securitisation market. Second, the Committee is currently reviewing the various approaches used for calculating regulatory capital for securitisations, with a view to reducing incentives to rely on external ratings. Third, the Committee is assessing ways to mitigate the "cliff effects" in the capital treatment for securitisation exposures, particularly once such exposures are downgraded below investment grade. Finally, the Committee has already introduced additional due diligence requirements that must accompany the use of external ratings under the securitisation framework. Failure to collect the additional information about the exposures and risks underlying a securitisation exposure will lead to a full deduction from regulatory capital. The Committee is assessing whether additional guidance is needed to accompany this requirement. The work on ratings and securitisations is to be completed by end 2011.

Systemically important banks

As noted, systemically important banks should have loss absorbing capacity beyond the Basel III standards discussed above and work continues on this issue in the FSB and the Committee. The Committee will develop by end 2010 a provisional methodology comprising both quantitative and qualitative indicators to assist in assessing the systemic importance of financial institutions at the global level. The Committee will complete by mid-2011 a study of the magnitude of additional loss absorbency that global systemically important banks should have.

Contingent capital

The Committee is also assessing the extent of going-concern loss absorbency which could be provided by the various proposed contingent capital instruments and will complete this review by mid-2011. The Committee is currently reviewing comments received on its gone concern capital proposal.

Large exposures

Credit risk concentrations of one kind or another have consistently been the source of a number of major bank failures over the years and many jurisdictions have in place regulations that limit large exposures. This necessity is even more crucial for systemically important banks given the potential impact that their weakened solvency could have on other financial institutions and therefore the stability of the financial system. In this regard, the Committee is currently reviewing large exposure rules in place across different jurisdictions to strengthen guidance in this area.

Cross-border bank resolution

The Committee has initiated further work on cross-border bank resolution issues building on its 2010 *Report and Recommendations of the Cross-border Bank Resolution Group*. There have been a number of efforts at the national and multinational level to adopt improvements that enhance authorities' capability to manage and resolve distressed financial institutions in a manner that minimises disruptions to the financial system. As part of this effort, the Committee has discussed conducting an evaluation of different legal and policy changes to assist authorities in their ongoing efforts to better prepare to address future needs for crisis management and resolution of financial institutions.

Review of Core Principles for Effective Banking Supervision

The Committee's *Core Principles for Effective Banking Supervision* and *Core Principles Methodology* have been used by countries as a benchmark for assessing the quality of their supervisory systems and for identifying future work to achieve a baseline level of sound supervisory practices. These principles also form the basis for IMF and World Bank assessments of banking supervision in different jurisdictions. The Core Principles were last revised in October 2006. Since that time, the Committee has released a significant volume of supervisory guidance and reports largely in response to the financial crisis. Many of the supervisory lessons learned during the crisis and articulated in the Committee's documents need to be incorporated in a revised set of Core Principles. In addition, the FSB has identified different areas of the Core Principles that could be expanded or clarified to address topics related to the supervision of systemically important financial institutions. The Committee expects to initiate a revision of the Core Principles at the beginning of 2011.

Standards implementation

The reform programme described above is an aggressive response to the financial crisis. The Committee expects these measures to increase the resilience of banks and the banking system but only if they are effectively implemented and enforced. Accordingly, the

Committee's focus in the coming year will be on monitoring and assessing the implementation of its standards and guidance, particularly for topics identified as deficient during the crisis (eg liquidity and stress testing). Looking ahead, it will also be essential for regulatory standards to keep pace with financial innovation.

A key objective of the Basel Committee is to promote common understanding of supervisory issues and improve the quality of banking supervision worldwide. The Committee's Standards Implementation Group (SIG), which was established in January 2009, furthers this goal by exchanging information on supervisory approaches to the implementation of Basel Committee standards and sound principles, thereby promoting consistency in their application. The SIG has developed a Standards Surveillance Framework, applicable to all Basel Committee standards, with the aim of promoting consistency and comprehensiveness of the standards. This will also help ensure that the standards keep up to date with market practices and financial innovation. The Committee will also consider, as necessary, developing standards implementation guidance that will promote greater effectiveness, consistency and flexibility in standards implementation.

The Committee has undertaken a review of implementation issues. Based on this study, it has agreed to undertake thematic peer reviews related to the implementation of selected Basel Committee standards. It will monitor follow up action plans to help promote the implementation of standards. A pilot review will be undertaken in 2011.

Annex 1: Phase-in arrangements

Shading indicates transition periods - all dates are as of 1 January

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Leverage ratio	Supervisory monitoring		Parallel run 1 Jan 2013–1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum common equity capital ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital conservation buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum total capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio		Observation period begins						Introduce minimum standard	