



臺灣銀行新加坡分行

# 新加坡政經情勢簡報

報告人：潘榮耀經理

民國 99 年 9 月 21 日



臺灣銀行新加坡分行

## 新加坡簡介

土地面積	710.3平方公里
人口總數	507.7萬
2009年平均國民所得	3萬8,473美元
2009年經濟成長率	-1.28%
2009年通貨膨脹率	0.6%
外匯準備(2010/8)	美金2,064.2億
Moody's 信用評等	Aaa
Standard and Poor's 信用評等	AAA



## 新加坡政治簡述

- 西元1330年，中國元代航海家汪大淵首次到新加坡，並在所著《島夷志略》一書中將之稱為「單馬錫」，我們現在常看到的名詞「淡馬錫」，都是馬來文「Temasek」（海城）的音譯。
- 1963年新加坡、馬來亞聯邦、砂勞越和北婆羅州（現在的沙巴）成立馬來亞聯邦，完全脫離英國統治。1965年8月9日新加坡宣佈退出聯邦，成為獨立的主權國家。
- 第一任總理李光耀(1965~1990)，第二任總理吳作棟，第三任總理李顯龍(2004.8.12~)接任。
- 現任國會議員於2006年5月選出84席，人民行動黨(執政黨)82席，新加坡勞工黨1席，新加坡人民黨1席；另有9席為任命國會議員(NMP)，1席為不分選區國會議員(NCMP)。



臺灣銀行新加坡分行

Managing Director 行長

# 新加坡人口結構及種族分配(1)

單位:萬人

年度	2010	2000	1990
總人口成長率	26.04%	32.20%	26.22%
總人口數	507.7	402.8	304.7
1)新加坡公民 (citizen)	323.1	298.6	262.4
2)永久居民(PR)	54.1	28.8	11.2
3)外國人	130.5	75.4	31.1

開列給一  
華人之數



臺灣銀行新加坡分行

## 新加坡人口結構及種族分配(2)

年度	2010	2000	1990
公民與PR合計總人口數	377.2萬人	327.4萬人	273.6萬人
公民與PR合計人口成長率	15.21%	19.66%	19.89%
各種族比重(%)			
1)華人	74.1%	76.8%	77.8%
2)馬來人	13.4%	13.9%	14.0%
3)印度人	9.2%	7.9%	7.1%
4)其他	3.3%	1.4%	1.1%



臺灣銀行新加坡分行

## 世界經濟論壇(WEF)2010年全球競爭力排名

年 度	2010年	2009年	2008年	2007年
新加坡	3	3	5	7
臺 灣	13	12	17	14



臺灣銀行新加坡分行

# 台灣與新加坡經濟成長率之比較

年 別	臺 灣	新加坡
2000	5.8%	9.1%
2001	-1.7%	-1.2%
2002	5.3%	4.2%
2003	3.7%	4.6%
2004	6.2%	9.2%
2005	4.7%	7.4%
2006	5.4%	8.6%
2007	6.0%	8.5%
2008	0.7%	1.8%
2009	-1.9%	-1.3%
2010Q1	13.7%	17.4%
2010Q2	12.5%	18.7%



臺灣銀行新加坡分行

# 台灣與新加坡平均每人GDP之比較

年 別	臺 灣	新加坡	新加坡為本國之倍數
2000	14,704美元	23,414美元	1.59
2001	13,147美元	21,194美元	1.61
2002	13,404美元	21,705美元	1.62
2003	13,773美元	23,319美元	1.69
2004	15,012美元	27,046美元	1.80
2005	16,051美元	29,400美元	1.83
2006	16,491美元	32,961美元	2.00
2007	17,154美元	38,523美元	2.25
2008	17,507美元	39,951美元	2.28
2009	16,423美元	38,473美元	2.34





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## 台灣與新加坡2009年對外貿易依存度比較

年度	出口總額 nominal	進口總額 nominal	出進口總和 nominal	GDP nominal	對外貿易 依存度
新加坡	2689.03億美 元	2449.64億美 元	5138.67億美 元	1822.34億美 元	281.98%
臺灣	2036.7億美 元	1743.7億美 元	3780.4億美 元	3789.5億美 元	99.76%



臺灣銀行新加坡分行

# 星幣與台幣近三十年兌美元變動分析

期 間	美元兌新加坡幣 USD/SGD	新加坡幣較上期 升值幅度	美元兌新台幣 USD/TWD	新台幣較上期 升值幅度
1980年底	2.1412		36.000	
1990年底	1.8125	15.35%	26.890	25.31%
2000年底	1.7240	4.88%	31.225	-16.12%
2005年底	1.6644	3.46%	32.167	-3.02%
2010.9.10	1.3405	19.46%	31.910	0.80%

新加坡幣兌美元 2010.9.10較1980年底升值幅度為59.73%  
 新台幣兌美元 2010.9.10較1980年底升值幅度為12.82%

兩國幣對美元  
訂定目標  
Caution

M2

5.19

10XKINGFA RAS.R



## 新加坡外國商業銀行執照分類

➤新加坡外國商業銀行執照共有三類：

- (1) Full Bank
- (2) Wholesale Bank
- (3) Offshore Bank

*25家新幣銀*

➤除Full Bank 為零售銀行，其餘Wholesale Bank、Offshore Bank 因業務均受有限制，屬批發性銀行。

➤新加坡商業銀行總數120家(本地銀行7家，外國銀行113家)

➤台資銀行計有土地、兆豐、華銀、第一、彰化、中國信託、國泰世華、台銀等8家。

*o c b c, 大華, DBS  
cabel & saila 兆, China Trust*



臺灣銀行新加坡分行

# 新加坡台資銀行基本資料表

單位：新台幣千元

銀行名稱 (新加坡分行)	成立日期	現任經理	到職日期	全行人數(臺灣幹 部)	98.12.31 資產總額	98年度 稅前盈餘
臺灣銀行	84.08.29	潘榮耀	98.08.17	16(4)	27,994,211	385,585
土地銀行	91.08.05	劉慧年	98.04.13	14(5)	13,894,790	138,699
兆豐商業銀行	95.08.21 (合併日)	陳國振	98.07.17	32(10)	53,408,662	10,435
第一商業銀行	66.03.25	賴仁育	98.09.25	27(6)	21,832,060	-276,167
彰化商業銀行	86.10.16	陳明	97.04.16	17(5)	15,599,052	71,845
華南商業銀行	84.11.20	蔡政直	99.09.09	18(6)	19,154,638	396,010
中國信託商業銀行	98.05.20	林保泉	97.11.24	31(7)	13,089,631	-87,320
國泰世華商業銀行	98.04.03	陳偉智	98.04.03	12(3)	2,760,000	-3,000

葉揚立  
會計師  
台資銀行

註：1.兆豐商業銀行係由原交通銀行及中國國際商業銀行於95.08.21合併改名，至於合併前，原交通銀行新

加坡分行於72.05.10成立，原中國國際商業銀行新加坡分行於85.12.07成立。

2.凱基證券新加坡子公司於99年9月初獲新加坡金管局(MAS)核准設置，經洽該公司尚未派臺灣幹部到任。

- **Regulatory adjustments generally are not applied to common equity.** These adjustments are currently generally applied to total Tier 1 capital or to a combination of Tier 1 and Tier 2. They are not generally applied to the common equity component of Tier 1. This allows banks to report high Tier 1 ratios, despite the fact that they may have low levels of common equity when considered net of regulatory adjustments. It is this common equity base which best absorbs losses on a going concern basis, and to which the market looks when assessing solvency in times of stress.
  - **There is no harmonised list of regulatory adjustments.** Although the broad definitions of Tier 1 and Tier 2 capital were designed to promote consistency, the manner in which these adjustments are applied across Basel Committee countries varies substantially, undermining the desired consistency of the regulatory capital base.
- The existing definition of capital suffers from certain fundamental flaws:

On the whole, the global banking system entered the crisis with capital which was of insufficient quality. Despite apparently easily meeting regulatory capital standards, market participants lost confidence in the solvency of many large international banks. As a result, banks were forced to rebuild their capital bases in the midst of the crisis, just at the point when it was most difficult to do so. In many countries, the result was a deepening of the economic downturn and the need for substantial government support of the banking sector.

One of the highest priority issues on the Basel Committee's regulatory reform agenda is the need to strengthen the quality, consistency and transparency of the regulatory capital base. This objective was endorsed by the G20 Leaders and the Financial Stability Board. While it is critical that the regulatory capital framework captures the key risks to which a bank and the banking sector are exposed, it is equally important that these risks are backed by a high quality buffer of capital which is capable of absorbing losses when the risks identified materialise.

## Introduction

**Chair: Wayne Byres**  
**Executive General Manager, Diversified Institutions Division,**  
**Australian Prudential Regulation Authority**

## Workshop 1 Strengthening regulatory capital

**Towards a more resilient banking sector** 22 September 2010

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In many jurisdictions, banks are attracted to hybrid instruments because of their capacity to arbitrage the prudential framework of the banking supervisor and laws of the relevant tax authorities. In short, banks seek to convince their supervisor that the instrument is equity-like, while maintaining its debt status with the tax authorities. This creates a tax-deductible Tier 1 instrument, which are considerably cheaper to issue than common equity and provides an avenue for banks to fund growth and improve their return on equity. Following the Basel Committee's 1998 Sydney press release, which created a 15% limit within Tier 1 for these instruments, many large banks have sought to maximise the usage of this limit. This led to banks effectively funding much of their growth with hybrid instruments rather than traditional common equity. Supervisors, however, tended to continue to focus on Tier 1 capital as the prime measure of capital strength without necessarily responding to the deterioration in the quality of capital which was occurring.

Other features, such as issuance through consolidated special purpose vehicles and stock settlement of coupons, also helped to undermine the requirements for capital to be paid-up, subordinated and have cancellable coupons.

One such example is the use of 'step-ups'. These are arrangements in which the issuing bank contracts to pay an increased rate of interest on the capital instrument if it does not exercise its discretion to redeem it a fixed call date in the future. In theory these instruments remain perpetual, as they have no legal maturity date. In practice, however, both the bank and in the investor expect the instrument to be redeemed at the call date to avoid the bank having to pay the stepped-up rate of interest. This incentive to redeem creates a *de facto* maturity date.

To be compliant with existing Basel Committee standards on the definition of capital, all Tier 1 instruments should be paid-in, perpetual and subordinated, and give the issuing bank full flexibility to cancel dividend/coupon payments. These features, combined with other requirements, should make Tier 1 instruments similar to common shares in their ability to absorb losses. However, over time banks have chipped away at these rules, devising ways to comply with their form but not necessarily their substance.

## Other Tier 1 capital instruments

- |  |  |
|--|--|
| Q1. Do participants believe a greater focus on Common Equity Tier 1, compared with Tier 1 or Total capital, is appropriate from a supervision perspective in future? | Q2. Do participants foresee any practical challenges with this regime? |
|--|--|

Furthermore, the Basel Committee intends to introduce an explicit minimum for common equity tier 1 net of regulatory adjustments. Taken together, these measures will help ensure that in the future banks have a sufficient amount of the highest quality capital.

level of common equity. There are two main reasons for this: (i) if an element of the balance sheet is of insufficient quality to be included in the calculation of Tier 1 capital or Total capital, then it cannot be of sufficient quality to be included in the calculation of its highest quality component; and (ii) regulatory adjustments should be applied to that component of capital which is affected by the recognition of the relevant element on the balance sheet, which is generally retained earnings: if a bank writes-off an asset, it is common equity that reduces, not hybrid Tier 1.

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An important aspect of this proposal is its potential impact on incentives. In the absence of a presumption of public sector intervention, subordinated forms of funding should impose significant incremental costs on shareholders of firms that pursue increased rewards by assuming additional risk. This incremental cost is a direct consequence of the limited upside of subordinated forms of funding combined with their potential to receive little or nothing in insolvency. However, this deterrent mechanism, which should lean against excessive risk taking, is broken if the holders of subordinated funding see their downside as limited due to an expectation of a public sector bailout. The Basel Committee proposal attempts to revive this mechanism.

The development of this new proposal is driven by a desire to ensure the gone-concern loss absorbercy of all regulatory capital instruments (including cases when there is public sector support). This should also help to reduce a source of moral hazard, seen by some as an underlying cause of the current financial crisis and a potential cause of future crises.

To address this problem, the Basel Committee has recently issued for consultation a proposed additional entry criteria for all Tier 1 and Tier 2 capital instruments. This proposal is based on a requirement that the contractual terms of capital instruments will allow them, at the option of the regulatory authority, to be written-off or converted to common shares in the event that a bank is unable to support itself in the private market in the absence of such conversions.

These Tier 2 entry criteria, combined with the Tier 1 entry criteria, mean that all regulatory capital instruments will be fully effective at absorbing losses in insolvency and liquidation. This loss absorbercy is achieved through their subordination, which results in investors only receiving repayment in liquidation if all depositors and senior creditors are first repaid in full. However, during the financial crisis, numerous public sector injections of capital, and other forms of public support, were provided to systemically important banks. As this public support averted the insolvency and liquidation of the banks that received it, liquidation did not occur and this had the unintended consequence of ensuring that in many instances the capital instruments issued by these banks did not absorb any losses at all.

The main proposed entry criteria for Tier 2 capital instruments, as set out in the December 2009 consultative document of the Basel Committee, are that they are subordinated and have an original maturity of at least 5 years. In addition, its recognition in regulatory capital must be gradually reduced over the final 5 years before maturity and so in practice banks are likely to choose to issue Tier 2 capital instruments with a maturity somewhat in excess of 5 years.

This structure was seen as unnecessarily complex, so the Basel Committee's proposed new definition of capital is intended to greatly simplify these 'gone-concern' elements of capital. Firstly, Tier 3 capital will be abolished to ensure that market risks are met with the same quality of capital as credit and operational risks. Secondly, there will be just one category of gone-concern capital, Tier 2, with one set of entry criteria.

There are various types of instrument, other than Tier 1, permitted to be included in total regulatory capital under the existing Basel standards. Tier 2 is permitted to include both perpetual subordinated instruments with deferrable coupons and, to a limited extent, 5 year dated subordinated debt instruments with non-deferrable coupons. Furthermore, Tier 3, which is only permitted to cover market risks, can include short term subordinated debt.

## Tier 2 capital

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- Q7. How important are improvements in the consistency of bank capital adequacy disclosures?
- Q8. Have participants encountered problems with existing disclosures provided by banks? Are there any items missing from new disclosure requirements above?
- Q9. Is it enough to specify the elements that banks must disclose, or should there be a common international reporting template?

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It is important to note that these measures complement one another as they all look to reduce the risk of bank failures during a crisis. Addressing the cyclical nature of the minimum capital requirement should help to reduce procyclicality by promoting a better balance between risk sensitivity and the stability of capital requirements. Forward looking provisioning rules promote earlier recognition of loan losses that could have potentially reduced procyclicality during the current crisis. And, regulatory buffers that have a capital conservation and a countercyclical component help to moderate procyclicality pressures by ensuring that banks take prompt corrective actions to conserve capital before the minimum requirement is breached and indeed to raise additional capital when there is a build-up of risks in the financial system as a whole.

- Reducing the cyclical nature of minimum capital requirements;
- Forward looking provisioning requirements;
- Capital conservation capital buffers that can be used in times of stress; and
- Countercyclical capital buffers that achieve the broader macroprudential goal of protecting the banking sector from periods of excess credit growth.

The Basel Committee is introducing a number of measures to make banks more resilient to such procyclical dynamics. In addition to the leverage ratio, the following measures are being introduced to address procyclicality and raise the resilience of the banking sector in good times. They are intended to ensure that the banking sector serves as a shock absorber, instead of a transmitter of risk to the financial system and broader economy.

"Procyclicality" refers to the positive feedback loops that exist between the financial and real sectors of the economy that amplify economic cycles and contribute to financial instability. They were especially evident during the recent financial crisis, and amplified the effects on the crisis on the financial system and the broader economy. These positive feedback loops are closely associated with the build up and release of leverage among financial institutions, business firms and consumers. In recent years they were exacerbated by the use of fair-value accounting standards for valuing loans and trading portfolios, the use of recent loss experience (incurred loss experience) to set loan loss provisions and credit risk metrics like default probabilities and loss-given default statistics, and risk models for trading books that set bank capital and margin requirements on the basis of the recent behaviour of asset prices.

**Chair: Mark Zelmer  
Chief of Financial Stability Department, Bank of Canada**

## Workshop 2 Addressing procyclicality

22 September 2010

Towards a more resilient banking sector

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OF BANKING SUPERVISORS  
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<sup>3</sup> Under the current accounting requirements of an incurred loss model, a provision for loan losses is recognised only when a loss impairment event or events have taken place that are likely to result in non-payment of a loan in the future. Identification of the loss event is a difficult and subjective process that results in a range of practice and, potentially, a failure to fully recognise existing credit losses earlier in the credit cycle. Earlier identification of credit losses is consistent both with providing financial statement users transparency into changes in credit trends and regulators with the prudential objectives of safety and soundness.

**Supervisory Guidance** The Committee has begun the process of revising its supervisory guidance on sound provisioning practices to be consistent with the desired EL approach. In practice, this means updating the 2006 document *Sound Credit Risk Assessment and*

the loan or loan portfolio to an allowance account at the time interest income is recognised. generally be built up progressively by allocating a share of the interest income over the life of losses that are anticipated over the life of the loan or loan portfolio. Provisions would be subject to a qualitative adjustment to ensure that provisions reflect the best estimate of representative of at least a complete economic cycle. This quantitative element will be would include a quantitative element based on historical losses over a time period that is experience over the complete economic cycle. A bank's estimate of expected credit losses cover the expected credit losses within the upcoming period (typically 1 year). Expected proposal requires that at the balance sheet date the provision or allowance is adequate to expected credit losses built over the life of the loan at the balance sheet date. The EL The Committee's EL proposal recognises that provisions are based on best estimates of

downturn. provisions when credit exposures are taken on in good times that can then be used in a approaches that are consistent with these principles and that promote the build up of auditors, supervisors and other constituents. It also allows so-called "through-the-cycle" And, finally, it is transparent and subject to appropriate internal and external validation by. Fifth, it is based on information from banks' risk management and capital adequacy systems. Fourth, it incorporates a broader range of credit information, both quantitative and qualitative. it addresses concerns about procyclicality under the current incurred loss provisioning model. early identification and recognition of credit losses in a consistent and robust manner. Third, accounting. Second, it promotes adequate and more forward looking provisioning through deficiencies of the incurred loss approach without introducing an expansion of fair value The Committee's EL proposal addresses the following key objectives. First, it addresses the

be integrated with the IASB's own EL proposal. of the Committee's EL proposal have been communicated to the IASB and are designed to (high-level guiding principles) that were sent to the IASB in July 2009. The principal elements To assist the IASB in this endeavour, the Committee has developed and approved an EL

behaviour, and the measurement of its performance in its financial statements. between an institution's internal risk management approaches and incentives, its risk-taking an expected credit loss (EL) approach. An EL approach is likely to facilitate greater alignment Accounting Standards Board (IASB) to move from the current incurred credit loss model to **Expected Loss approach** The Committee strongly supports the initiative of the International

thereby mitigating procyclicality.<sup>3</sup> Second, it is updating its supervisory guidance to be consistent with the move to such an expected loss approach. Third, it is addressing disincentives to provisioning in the regulatory capital framework.

<sup>5</sup> For details on how the Committee's Countercyclical capital buffer proposal would operate please see the BIS website [www.bis.org](http://www.bis.org). Annex 1 Integrating the countercyclical capital buffer and the capital conservation buffer in the proposal provides an example of how both buffers would operate together in practice.

An internationally consistent credit-GDP guide would be used as a starting common reference guide for taking buffer decisions. However, rather than rely mechanically on the credit-GDP guide, authorities are expected to apply judgment in setting the buffer in their demand larger buffers for foreign exposures than the host counterparts if the need arises.

Authorities in each jurisdiction would be responsible for setting the countercyclical buffer add-internationally-active banks would be expected to respect the decisions of host authorities on applicable to private-sector credit exposures in that jurisdiction. Home authorities of under the international reciprocity provisions of the proposal. The former could of course demand larger buffers for foreign exposures than the host counterparts if the need arises.

The countercyclical buffer component would adjust the capital buffer range, established through the capital conservation buffer proposal outlined in section (c) above, when excess aggregate credit growth is judged to be associated with a build-up of system-wide risk. This approach ensures that the banking system has a buffer of capital to protect it against future potential losses following a turn in the credit cycle. The focus on excess aggregate credit growth means that jurisdictions are likely to only need to deploy the buffer on an infrequent basis, perhaps as infrequently as once every 10 to 20 years; although internationally-active banks will likely find themselves carrying a small buffer on a more frequent basis, since credit cycles are not always highly correlated across the jurisdictions to which they have credit exposures.

The Committee recently issued a countercyclical capital buffer proposal for public comment.<sup>5</sup> This proposal aims to ensure that banking sector capital requirements take account of the macro financial environment in which banks operate.

**(d) Countercyclical capital buffer**

**Q2. What practical challenges do participants foresee with a capital conservation buffer?**

The distribution constraints imposed on banks when their capital levels fall into the range increase as the banks' capital levels approach the minimum requirement. By design, the constraints imposed on banks with capital levels at the top of the range would be minimal. This reflects an expectation that banks' capital levels will fall from time to time into this range. If a bank wants to make payments in excess of the constraints imposed by this regime, it would have the option of raising capital in the private sector equal to the amount above the constraint which it wishes to distribute. This would be discussed with the bank's supervisor as part of the capital planning process. Supervisors would have the discretion to impose time limits on banks operating within the buffer range on a case-by-case basis. Expressed in another way, supervisors would ensure that the capital plans of banks seek to rebuild buffers over an appropriate timeframe.

normal when their capital levels fall into this range as they experience losses. The constraints imposed only relate to distributions, not the operation of the bank.

1. Pillar 1: Minimum liquidity standards
  - A. Liquidity Coverage Ratio
  - B. Net Stable Funding Ratio
2. Pillar 2: Supervision of liquidity risk management
  - A. Principles for Sound Liquidity Risk Management and Supervision
  - B. Monitoring tools developed by the BCBS

This workshop considers the response of the Basel Committee and seeks to assess participants' views on the effectiveness of regulatory and supervisory responses to the crisis, and asks whether there are additional supervisory lessons relating to liquidity that can be drawn from the financial crisis. The discussion will be structured in a fashion to mirror capital's three pillars – quantitative requirements, supervisory approaches, and market discipline and disclosure. The discussion will then consider the potential impact of and financial institution reaction to the standards and cross-border concerns that could arise. The framework for the discussion is as follows:

Many markets appeared to be liquid in early 2007 which ended up experiencing extreme liquidity pressures during the crisis. Some banks had insufficient liquidity at the beginning of the crisis and others saw their liquidity dry up quickly as markets closed and banks reduced lending activity in the interbank markets. As such, many banks were not prepared or able to meet their own liquidity needs and the public sector in many countries had to provide liquidity injections and special liquidity facilities for bank access. While banks and supervisors had utilised a wide range of tools in managing liquidity risk prior to the crisis, there had been, to some extent, a lack of focus on liquidity as a key driver of systemic stability. In order to increase systemic resilience to liquidity shocks, the Basel Committee developed internationally harmonised standards for liquidity and updated its guidance on liquidity risk management practices.

## Introduction

### Workshop 3 Strengthening liquidity risk supervision

Chair: Marc Saldenberg  
Senior Vice President, Bank Supervision,  
Federal Reserve Bank of New York

Towards a more resilient banking sector 22 September 2010

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*Level 2 assets* are also meant to have high levels of liquidity, as evidenced by a high credit rating and low bid-ask spreads and price volatility. These assets are corporate and covered bonds with a AA- rating and above, and bonds issued by 20% risk weighted sovereigns, central banks, and public sector entities.

*Level 1 assets* are meant to be highly liquid at all times, even during a time of market stress. These assets should have very low credit and market risk, ease and certainty of valuation, and an active and sizable market, amongst other characteristics. These assets are cash; bonds issued by 0% risk weighted sovereigns, central banks, and public sector entities; central bank reserves beyond any required minimum; and domestic government or central bank debt in non-0% risk weighted jurisdictions.

Two levels of assets can be held in the stock. "Level 1" assets can be held on an unlimited basis, while "Level 2" assets can only comprise up to 40% of the stock.

After much debate over the definition of what could be considered a liquid asset, the BCBS decided on the following:

*Liquid assets:* A pool of liquid assets must be held to match the identified net cash outflows up to 30 calendar days.

In summary, the stress scenario specified incorporates many of the shocks experienced during the recent crisis into one acute stress for which sufficient liquidity is needed to survive

- (g) the need for the institution to fund balance sheet growth arising from non-contractual obligations honoured in the interest of mitigating reputational risk.
- (f) unscheduled draws on all of the institution's committed but unused credit and liquidity facilities; and
- (e) additional collateral that would be contractually required to be posted in a situation of up to a 3-notch downgrade;
- (d) total loss of secured, short-term financing transactions for all but high quality liquid assets and transactions with the domestic central bank, sovereign, or PSE as a counterparty;
- (c) a partial loss of wholesale funding from other counterparties (such as non-financial corporates and sovereigns)
- (b) a total loss of unsecured wholesale funding capacity from financial institutions, except for deposits tied to operational deposits (as defined as custody, settlement, and cash management activities)
- (a) run-off of 5% of insured retail and SME deposits and a minimum of 10% run-off of non-insured retail and SME deposits;

The liquidity coverage ratio identifies the amount of unencumbered, high quality liquid assets an institution holds that can be used to offset the net cash outflows it would encounter under an acute short-term stress scenario specified by supervisors. The specified scenario entails both institution-specific and systemic shocks built upon actual circumstances experienced in the global financial crisis. Cash outflows under the scenario reflect:

#### 1A. Liquidity Coverage Ratio (LCR)

transparent, both within the jurisdiction and internationally, by incorporating the parameters into local regulations and supervisory standards.

Restricted

<p>Q6. Are there areas where banks continue to have gaps in their compliance with the <i>Principles</i>? What are the drivers behind those gaps?</p>	<p>Q7. To what extent do the monitoring tools proposed by the BCBS align with current supervisory practice in participants' jurisdictions? What value, and difficulties, do supervisors anticipate with having a set of harmonised monitoring tools across jurisdictions?</p>
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- Liquidity Coverage Ratio by Significant Currency*: The LCR is required to be met at 100% on a consolidated basis. In order to capture potential difficulties that could arise in a specific currency, the LCR will be collected for currencies in which a bank has significant exposure. This metric is not structured with a specific target result for banks, but rather as a tool to facilitate discussion and improve management of liquidity risk that could arise from difficulties in the FX market.
- Market-related monitoring tools*: Banks and supervisors should monitor market-wide data on asset prices and liquidity, institution-related information such as credit default swap (CDS) spreads and equity prices, and additional institution-specific information related to the ability of the institution to fund itself in various wholesale funding markets and the price at which it can do so.
- Available unencumbered assets*: This metric measures the amount of unencumbered assets a bank has which could potentially be used as collateral for secured funding either in the market or at standing central bank facilities. This should make banks (and supervisors) more aware of their potential capacity to raise additional secured funds, keeping in mind that in a stressed situation this ability may decrease.
- Concentration of funding*: This metric involves analysing concentrations of wholesale funding provided by specific counterparties, instruments and currencies. A metric covering concentrations of wholesale funding assists supervisors in assessing the extent to which funding liquidity risks could occur in the event that one or more of the funding sources are withdrawn.
- Contractual maturity mismatch*: This metric provides an initial, simple baseline of contractual commitments and is useful in comparing liquidity risk profiles across institutions, and to highlight to both banks and supervisors when potential liquidity needs could arise.

The monitoring tools are as follows:

2B. *Monitoring tools*

In addition to the two standards which banks will be required to meet, the BCBS has developed monitoring tools for the use of banks and supervisors. These metrics do not have a specific quantitative target that must be met. Rather, supervisors will monitor the level and trend of the metrics and will take action as necessary if trend levels indicate a weakening of the liquidity position. The BCBS expects that supervisors would also continue to use their own additional monitoring tools that they have developed for specificities in their jurisdiction. However, the BCBS thought it important to have a baseline of monitoring tools that collect information in a similar way.

Q12. Do participants plan to require the banks in their jurisdiction to also meet the standard at a legal entity level? Or do supervisors think that it is sufficient if banks adhere to the standards at a consolidated level?

*Location of the pool of assets:* There are various levels of comfort with allowing liquidity to be held at the parent level to be used at various subsidiaries in time of need. Many supervisors have suggested that they would be more comfortable with having some level of liquidity held at the legal entity level as that way it is guaranteed to be available in a time of need. Other supervisors are more comfortable with allowing a centralised management of liquidity in a banking group, with funds ear-marked for use at a specific subsidiary. Many supervisors are reluctant to allow only a general pool of liquidity to be held at the parent level, as there is no assurance that the liquidity would be available for a certain legal entity in a time of crisis, or that the funds could actually be transferred immediately when needed (due to time zone differences, restrictions on capital movement, etc).

*Level of application:* As with the capital standards, the liquidity standards are expected to be met on a consolidated basis. Supervisors may choose to also apply the standards at additional levels, such as for legal entities. There has been considerable discussion about whether certain characteristics of liquidity make these standards more important at the legal entity level than for capital, and some voices have suggested that the standards should be required to be met at the legal entity level as well. As bankruptcy and resolution regimes are conducted on a national basis, some supervisors have stated that they are more comfortable requiring the standards to be met by the legal entities in their jurisdictions, rather than relying on the consolidated standard for a foreign bank.

#### 4B. Cross-border issues

Q10. What potential impact do participants expect from the introduction of the liquidity standards on banks, markets and financial sector activities?

Q11. What do participants view as the key impediments to meeting the standards and enhancing liquidity resilience in the financial system?

cannot be found, that banks should restrict to some extent the amount of maturity mismatch that had funded much of their growth in recent years.

Restricted

These measures, however, have been proposed to properly capture the risks associated with these exposures regardless of whether or not the bank is systemically important. As such

- Higher capital requirements for trading book positions which affect activities mainly undertaken by SIBs. This can be considered an indicator of their systemic relevance proxying for interconnectedness and lack of substitutability.
- The proposed changes to the treatment of counterparty credit risk will result in increased capital requirements for the potential exposure resulting from derivative contracts. Such contracts have been a major source of complexity and interconnectedness, and are typically dominated by SIBs.
- The proposed increase in asset value correlations for interbank lending to regulated counterparties with assets exceeding \$100 billion will result in an increase in capital requirements that is directly related to interbank exposures, and to the size of the borrower, which form a major source of interconnectedness.
- The recent proposal by the Committee to improve the gone-concern loss absorbercy of all regulatory capital aims to ensure that holders of capital instruments issued by "failed" SIBs take losses. This would help to reduce a major source of moral hazard that was evident during the crisis.

than other banks. These initiatives include:  
 In response to the crisis, the Basel Committee has undertaken numerous capital related initiatives, which are likely to have a greater impact on systemically important banks (SIBs)

measures to reduce the likelihood and cost of any such intervention in the future.  
 interventions and the associated increase in moral hazard led public authorities to work on necessary and done on a massive scale. Both the financial and economic costs of these shocks arising at the firm level from spreading across the financial system. As a consequence, public sector intervention to restore financial stability during the crisis was and other relevant authorities had limited options to mitigate the transmission of negative shocks through the financial system, which in turn, harmed the real economy. Supervisors During the financial crisis, the failure or impairment of certain financial institutions sent

## 1. Introduction

Chair: David Strachan  
 Director, Financial Stability  
 Financial Services Authority, United Kingdom

## Workshop 4 Addressing systemic risk and interconnectedness

22 September 2010

Towards a more resilient banking sector



This section discusses the policy tools that could be implemented to address the specific risks created by SIBs. The tools, which may be complementary, include: (i) the introduction of a surcharge (eg an additional capital or liquidity surcharge above minimum regulatory requirements) that would need to be linked to a measure of systemic importance; and (ii) other tools that place much less reliance on the measurement of systemic importance, such as improvements in market infrastructure, enhanced supervision, and large exposure restrictions.

### 3. Policy tools

- |  |
|--|
| <p>Q3. There are challenges in implementing a bucketing approach. Are there other options that could be pursued?</p> <p>Q4. How can a regulatory approach that combines both a quantitative foundation to measure systemic importance and an overlay of supervisory judgement best be designed? What safeguards can be put in place to promote international consistency in the application of such an approach?</p> |
|--|

Given current measurement techniques, purely quantitative measures are unlikely to capture all elements of systemic importance. Given this uncertainty, an overlay of supervisory judgement is likely to be required. Using the output of a quantitative measure as a base, supervisors could for example, use their discretion over whether to increase their assessment of systemic importance of individual banks. For example, factors such as whether a bank performs a critical role in payment and settlement activities, and the nature and complexity of the group structure can be separately assessed by supervisors. The outcome of such assessments could be used to adjust the output of the purely quantitative benchmark.

#### (b) Supervisory discretion

While a bucketing approach requires less precision than a purely continuous measure of systemic importance, it still requires a method to link the components of systemic importance (size, interconnectedness, and substitutability) to the buckets. Moreover, a weighting scheme is needed to combine the components of systemic importance into a single overall measure.

Against this backdrop, an alternative to the discrete list or purely continuous measures of systemic importance is to use measures of systemic importance as a basis for allocating banks into several different categories - a bucketing approach - and then applying differentiated policy tools to the various buckets. Ideally, the number of buckets would be set to achieve a balance between, on the one hand, minimizing cliff effects and, on the other hand, avoiding making fine distinctions between banks given the accuracy of current measurement approaches.

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<sup>1</sup> See Basel Committee, *Enhancing corporate governance for banking organisations*, February 2006.

<sup>2</sup> As was the case for the Committee's previous corporate governance work, the Committee is following the lead of the OECD. The OECD finalised its own recommendations reflecting on the lessons from the crisis: *Corporate Governance and the Financial Crisis – Conclusions and emerging good practices to enhance implementation of the Principles*.

- the role of the board and board practices;
- the role of senior management;
- risk management and internal controls;

The Committee's work, following the OECD work on governance,<sup>2</sup> aims to further develop certain principles in areas where corporate governance weaknesses have been identified during the crisis. These include:

The Basel Committee on Banking Supervision (the Committee) has had a longstanding commitment to promoting sound corporate governance practices for banking organisations. It published initial guidance in 1999, with revised principles in 2006.<sup>1</sup> The Committee's guidance assists banking supervisors and provides a reference point for promoting the adoption of sound corporate governance practices by banking organisations in their countries. The principles also serve as a reference point for the banks' own corporate governance efforts.

Subsequent to the publication of the Committee's 2006 principles, there have been a number of corporate governance failures and lapses, many of which came to light during the financial crisis that began in mid-2007. Against this backdrop, the Committee decided in March 2009 to set up a task force to review the 2006 principles. The Committee approved the task force's draft at its March 2010 meeting and it was issued for consultation after the meeting. The Committee will review a revised document incorporating the public comments received at its September 2010 meeting. The final document is scheduled to be issued after the September 2010 Committee meeting.

## 1. Introduction

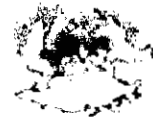
**Chair: Daniele Nouy**  
**Secretary General of French Prudential Supervisory Authority**

## Workshop 5 Enhancing Corporate Governance

**Towards a more resilient banking sector** 22 September 2010

HOSTED BY THE MONETARY AUTHORITY OF SINGAPORE  
 INTERNATIONAL CONFERENCE  
 OF BANKING SUPERVISORS

**ICBS 2010**



Some banks and supervisors use the term "risk tolerance" to describe the amount of risk the bank is willing to accept. Other banks and supervisors use the term "risk appetite" to create a distinction between the absolute risks which a bank *a priori* is open to take (risk appetite) versus the actual limits within the risk appetite which the bank pursues (risk tolerance). Risk appetite can imply a more forward-looking or wider view of acceptable risks, whereas risk tolerance suggests a more immediate definition of the specific risks that banks will take.

- Transparency is an important tool to help emphasise and implement the main principles for good corporate governance.

### Disclosure and transparency

- Senior management, and the board as appropriate, should understand the purpose of any structures that impede transparency, be aware of the special risks that such structures may pose, and act to mitigate the risks identified.
- The board and senior management should know, understand and guide the bank's overall corporate structure and its evolution, ensuring that the structure (and the entities that form the structure) is justified and does not involve undue or inappropriate complexity; and

### Complex or opaque corporate structures

- The bank should fully implement the FSB *Principles for Sound Compensation Practices* and the FSB's *Implementation Standards* or the applicable national provisions that are consistent with the FSB principles and standards.

### Compensation

- Risks should be identified, assessed and monitored on an ongoing firm-wide and individual entity basis;
- An internal controls system which is effective in design and operation should be in place;
- The sophistication of a bank's risk management, compliance and internal control infrastructures should keep pace with changes to its risk profile (including its growth) and to the external risk landscape; and
- Effective risk management requires frank and timely internal communication within the bank about risk, both across the organisation and through reporting to the board and senior management.

### Risk management and internal controls

- Under the direction of the board, senior management should ensure that the bank's activities are consistent with the business strategy, risk tolerance/appetite,<sup>3</sup> and policies approved by the board.

### Senior management

Q4. How do you view the role of supervisors in promoting sound corporate governance?  
Q5. What is your view on enhancing the implementation process of the revised principles?

The accounting perspective on impairment of financial assets has some similarities with the supervisory perspective on loan losses and provisioning. Accounting standard setters are concerned with presenting a "true and fair view" of the financial condition of a firm at a specific point in time. This "true and fair view" should consider the credit risk embedded in the contractual rates of financial instruments, and to account for it as provisions for future losses. This is consistent with the aim of prudential supervisors to instill prudent behaviour in supervised entities through the earlier recognition of credit losses that are inherent in the entities' portfolios.

## 2. Incurred Loss Provisioning Model – Current Practice

This paper briefly examines some of the issues around the proposed move from the current incurred loss model to a more forward-looking expected loss model for provisioning. What are some of the weaknesses of the current incurred loss model? What alternative practices have been developed to encourage adequate provisioning? What are the advantages and potential difficulties faced in transitioning to an expected loss model? How can the operational complexities of an expected loss model be overcome?

As part of broader efforts to enhance financial regulation and strengthen financial stability, the international community has focused considerable attention on improving accounting standards, including those that affect bank provisioning practices. In designing a new and more forward-looking approach to provisioning, accounting standard setters may face inherent trade-offs between the divergent demands placed on financial accounts by different stakeholders, such as investors looking for short term profits and prudential regulators with a longer term perspective.

## 1. Introduction

# Workshop 1 Strengthening Provisioning – Can Accounting and Regulatory Objectives be Reconciled?

Chair: Sylvie Mathérat

Director of Financial Stability, Banque de France

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23 September 2010

<sup>2</sup> Exposure Draft on Financial Instruments: Amortised Cost and Impairment, IASB, November 2009.  
<sup>3</sup> The EAP has highlighted certain operational issues to the IASB, including: (a) the 'decoupling' of the contractual return and expected loss information; (b) estimation of expected cash flows indirectly by allowing the use of estimated lifetime expected losses (i.e. estimating cash flows not expected to be received); (c) application to open portfolios; and (d) alignment whenever possible to entities' risk management practices.  
<sup>4</sup> Press release, Group of Central Bank Governors and Heads of Supervision (GHOS), 11 January 2010.

(i) address the deficiencies of the incurred loss approach without introducing an expansion of fair value accounting;

(a) **Basel Committee on Banking Supervision**

The Group of Central Bank Governors and Heads of Supervision, the oversight body of the Basel Committee on Banking Supervision (BCBS), proposed six principles for the development of a practical expected loss model.<sup>4</sup> Specifically, a sound expected loss provisioning approach should:

Following the IASB's proposals, various parties have come up with alternative approaches and proposals which may help to reduce the complexities of applying the IASB's proposed model. A brief summary of selected alternative approaches is provided below.

The IASB is aware of the significant practical challenges of moving to an expected loss model for provisioning. For this reason, an Expert Advisory Panel (EAP) comprising experts in credit risk management has been established to advise the IASB on how the operational challenges might be resolved; and to assist in organising and running field tests of proposals.<sup>3</sup>

The implementation of IASB's proposed impairment model would be operationally challenging in many ways. First, banks may not have sufficiently robust historical data on default probabilities and losses given defaults. New systems would also be needed to store data and estimate cash flows on a probability-weighted average basis. Second, the requirement to continually re-estimate cash flows will require significant management judgement and introduce increased complexity. Third, where there are revisions of estimated expected losses, all changes in estimations over the life of the loan are accounted for in one period instead of being spread over the remaining life of the loan. This "catch up adjustment" would have a procyclical impact. Finally, the IASB's proposed model appears to be applied to closed portfolios of financial instruments. This is contrary to how financial institutions manage their credit risk on an "open" portfolio basis, where exposures within portfolios are continuously being added or removed.

The impairment model proposed by the IASB<sup>2</sup> would require interest revenue for financial assets accounted for at amortised cost to be initially recognised on the basis of expected cash flows (including expected credit losses) on a probability-weighted average basis. IASB's expected cash flow impairment approach would entail the need to formulate expected cash flow data for individual assets and/or portfolios of assets over the life of the assets, as well as to estimate initially and subsequently re-estimate credit loss expectations for individual assets and portfolios of assets.

↑

Furthermore, an expected loss model would potentially allow banks to leverage on information from their risk and capital management systems, as similar forms of data would be used for both expected loss provisioning and risk and capital management.

7 In addition to the differences in the proposals relating to impairment, the US FASB's proposals for the recognition and measurement of financial instruments also differ from IASB's. For example, under the US FASB's proposals, most financial instruments would be measured at fair value (including most loans), with changes in fair value recognised under either net income or other comprehensive income.

Q2.	What are the challenges in implementing an expected loss model for provisioning by banks in participant countries? What are some potential solutions (e.g. practical expedients) to the likely operational complexities?
Q3.	What are areas that bank supervisors can issue guidance on that would help ease banks' transition to an expected loss model for provisioning?
Q4.	Which of the alternative approaches (or particular aspects of the alternative approaches) do participants think offer a practical and workable solution to operationalise the expected loss model for provisioning?
Q5.	Following the implementation of an expected loss model for provisioning, do participants view that supervisory guidance to banks continue to be necessary with respect to ensuring adequate provisioning levels?

It is worthwhile noting that the proposals described above would not cover expected losses beyond the life of a bank's current loan portfolio. In all likelihood, it would not be reasonable to expect the accounting framework to allow for such provisioning buffers. However, bank supervisors may consider implementing further measures to ensure a prudent level of provisions. For example, banks could be required to set aside the difference between a full through-the-cycle average loss rate and the expected credit losses under the accounting framework in the form of additional regulatory reserves.

classified as "fair value through other comprehensive income" (e.g. loans) and short-term receivables accounted for at amortised cost. In determining whether a credit loss exists, an entity need not apply any probability threshold (i.e. the entity would not need to wait until a loss is probable before recognising impairment). While it should not forecast future events or economic conditions that do not exist as of the reporting date, the entity would consider the impact of past events and existing conditions on the current and future collectibility of cash flows associated with the financial asset. At initial recognition, interest revenue recorded would not be adjusted for initially expected future credit losses, unlike IASB's proposed model.<sup>7</sup>

Significant progress has been noted in these reforms, with the full set of standards expected to be developed by the end of 2010. A significant proportion of the reform work relates to strengthening of the regulatory framework surrounding a large cross-border banking group. While these improvements are important, they need to be complemented by enhancements in supervisory cooperation. Therefore, this may be an opportune time to take stock of the current state of supervisory cooperation, and assess how they should be enhanced so that all cross-border banks and banking groups are properly supervised.

- (d) Strengthening adherence to international supervisory and regulatory standards.
- (c) Addressing the risk of systemically important banking institutions; and
- (b) Reforming compensation practices;
- (a) Building high quality capital and liquidity standards and mitigating procyclicality;

The key regulatory reforms proposed by BCBS can be summarised as follows:

In the aftermath of major disturbances to international financial markets in late 2007 and early 2008, the Basel Committee on Banking Supervision (BCBS) has undertaken a number of initiatives to reform the regulatory architecture for financial services, so as to promote and strengthen international financial stability. These initiatives are intended to address the key weaknesses revealed by the financial market crisis, and many are related to the regulation and supervision of an internationally-active bank.

## 1. Introduction

# Workshop 2 Strengthening Consolidated Supervision, Supervisory Colleges and Home-host Cooperation to Complement Key BCBS Regulatory Reforms

Chair: José-Maria Roldán  
Director General of Banking Regulation, Banco de España

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In addition to the challenges of overseeing the risks in a bank with cross-border operations, supervisors of a banking group also need to contend with the challenge of assessing risks found in non-bank subsidiaries in the group. Some of these non-bank subsidiaries could be supervised by another regulator, e.g. an insurance or securities regulator, or could be unlicensed entities. When such non-bank subsidiaries are located in foreign jurisdictions, the challenges can be daunting. Bank supervisors therefore need to also improve their cooperation with other non-bank supervisors so that the banking group is adequately supervised on a consolidated basis.

The examples above highlight some of the challenges facing home and host supervisors in supervising the cross-border bank properly when that bank implements different, and sometimes complicated, organisational arrangements and legal structures. Apart from the difficulty in assessing the risks in the different parts of the bank, such structures also sometimes create ambiguity in the responsibilities of home and host supervisors. A host supervisor may mistakenly assume that the home supervisor is looking at a particular area, and *vice versa*. Hence, both home and host supervisors would need to work closely to reduce any information gaps.

(d) As bank branches are considered legally indistinguishable from the parent bank, host supervisors generally are more concerned where these become significant players in their domestic markets. However, as these branches may not be significant or material relative to the size of the bank, challenges exist as to how sufficient information can be obtained from home supervisors to facilitate supervision of the branch. Furthermore, given the relatively smaller size of the branch, host supervisors may be in the dark on how the bank would be dealt with, when a problem or crisis occurs.

(c) Other banks could borrow using a branch in country A to fund assets held by another branch in country B. In this situation, both host supervisors find it challenging to supervise the liquidity risks of the two branches, without initiating a three-way conversation with the home supervisor included.

(b) Some banks organise different parts of the business chain in different jurisdictions, e.g. the front-line sales personnel are based in one country, the transactions are booked in a second country, and the risks are managed in a third country. Again, no single bank supervisor has complete information of the entire business, and significant responsibility falls on the home supervisor to ensure that there are no problems in such arrangements.

(a) For efficiency reasons, some large banks are centralising certain management functions, including information technology, risk management, compliance and other key functions, at either the head office or in a major transaction-processing centre. Home and host supervisors need to work closely together to have a complete picture of these banks' risk profiles.

These organisational structures which add complexity could be in the form of booking arrangements, funding arrangements and structures, location of business or risk management functions. Some examples are provided below:

Large cross-border banks are often organised along global business lines and in matrix structures with activities distributed around the world. These organisational arrangements and fragmentation of data and activities add substantial complexity to the work of supervisors. Home supervisors need substantial access to information of a bank's activities offshore, and host supervisors need more sharing of information and cooperation with the home supervisor.

<p>Q1. There has been a proliferation of supervisory colleges following the crisis. These supervisory colleges are no longer focused on the implementation of Basel II but as a key platform for information sharing and closer cooperation between supervisors to enable effective consolidated supervision of large cross-border banks. Some supervisors have also set up crisis management groups to develop recovery and resolution plans for large cross-border banks.</p>	<p>(a) Have participants found supervisory colleges useful and helpful in terms of supervisory cooperation?          (b) Have the developments in the supervisory colleges improved the level of supervisory cooperation between home and host supervisors?          (c) In your opinion, what are the remaining challenges and improvements that can be made?</p>
<p>Q2. What are some of the difficulties that home or host supervisors face in supervising large financial groups operating in multiple jurisdictions?</p>	<p>Q3. Are there any specific areas where there could be greater cooperation or coordination between home/host supervisors, such that these financial groups may be supervised better on a consolidated basis?</p>

principles set out in this document would help to promote and strengthen their operation in the supervision of cross-border banking groups.

Responding to the issue of how to resolve problems of a cross-border bank, BCBS issued a set of recommendations on cross-border bank resolution in March 2010. These recommendations focused on enhancing national authorities' resolution powers and frameworks for a coordinated resolution of financial groups, and promoting effective procedures that facilitate cross-border information sharing and coordination of resolution measures. The recommendations also call for wind-down contingency planning to become a regular feature of supervision, and for supervisors to take into account cross-border interdependencies and implications of complex group structures for effective resolution.

Many of these initiatives and measures introduced following the crisis will enhance the way banking supervisors regulate and supervise cross-border banking or financial groups. However, is there more that can be done?

For example, under the format of supervisory colleges, some supervisors have noted that the forum is primarily for information sharing, and few of these supervisory colleges have really evolved into meetings where supervisory issues are discussed and resolved.

1 The introduction of the Basel Capital Accord, the IMF's financial sector assessment programmes, financial soundness indicators, industry-wide stress testing, and the publication of financial stability reports all predate the 2008/09 financial crisis and were also motivated by macroprudential concerns.

2 The cross-sectional dimension refers to the distribution of risks across financial institutions/parts of the financial system at a given point in time. The time dimension refers to the evolution of system-wide risk over time.

3 Borio, C. "Towards a macroprudential framework for financial supervision and regulation?", *BIS Working Papers*, no. 128, February 2003.

Macroprudential supervision aims to promote financial stability and ensure the sustainable provision of financial services to the economy. This requires analyses along both time and cross-sectional dimensions<sup>2</sup> to identify, assess, and where appropriate, consider policy tools to limit aggregate, network, and tail risks to financial stability<sup>3</sup>. Surveillance is thus an important aspect of macroprudential supervision. Together they form a mutually reinforcing loop to give more effective oversight over the financial system. This note focuses on the issues and challenges surrounding the integration of surveillance with regulation and macroprudential supervision.

The global financial crisis has prompted many national financial authorities to reinforce their mandates for macroprudential oversight. The manner and speed of such reviews and their ensuring structural changes vary, but the common motivation is to formalise and institutionalise macroprudential supervision to mitigate the risk of another systemic crisis.

The concept of macroprudential supervision is not new. For instance, G10 central banks and the BIS began collecting local banking statistics in the mid-1960s over concerns of international credit growth and its implications<sup>1</sup>. However, there is now a renewed desire to implement effective measures to meet macroprudential objectives.

## 1. Introduction

### Workshop 3 Macroprudential Supervision – Integrating Surveillance with Regulation and Microprudential Supervision

Chair: Teo Swee Lian  
Deputy Managing Director of Monetary Authority of Singapore

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- 4 Such as the macroprudential desire to smooth out the credit cycle compared to the social objective to support credit to certain under-served sectors.
  - 5 These included loan-to-value ratios, property ownership rules, transaction taxes and increases in land supply, among others.
  - 6 This could also include establishing channels where surveillance results are regularly highlighted to microprudential supervisors and on the ground findings from the latter are promptly channelled back.
- 

Achieving effective cross-border cooperation and coordination is often challenging. Macroprudential mandates can perhaps be taken on by relevant regional or international organisations or committees, such as the newly proposed European Systemic Risk Board. However, it may be difficult to achieve regional or global financial stability without the input

where industry views are regularly sought and considered could be useful. expectations of the private sector also matter for macro outcomes, establishing a forum pooling and for data-sharing across agencies. To the extent that the actions and toolkit available. It may thus be helpful to develop frameworks for resource and expertise aforementioned property sector measures were wide-ranging<sup>5</sup> and indicative of the larger Cross-agency cooperation helps expand the policy arsenal. Policy tools deployed in the

Expanding macroprudential oversight and responsibilities beyond the traditional circle of central banking, regulatory and supervisory authorities could help improve analysts and policy efficacy. A broad range of stakeholders representing different interests could contribute diverse perspectives and aid robust policy formulation. The property sector cooling measures introduced in Australia, China, Hong Kong and Singapore in recent years involving cross agency cooperation and coordination. However, there may be conflicts of interest among key stakeholders, and balancing their various needs and interests may be challenging. It may therefore be useful to design robust decision-making mechanisms for policy actions.

In designing an appropriate governance architecture, it may be useful to identify the key stakeholders and determine whether the macroprudential mandate should be assigned to a particular agency or committee. Putting in place a process to combine macro and micro perspectives rather than to look at them in isolation may be worthwhile. Recent regulatory proposals in the United Kingdom and the United States have included the set up of financial stability committees to organise and improve macroprudential oversight.

#### (a) Organisation and Roles

Integrating surveillance with regulation and microprudential supervision can be challenging. Some key challenges include adopting the appropriate governance architecture to facilitate integration (*organisation and roles*), designing the policy output (*policy design*), determining how policies and messages are communicated (*communication*), considering possible changes to the perimeter of regulation to improve macroprudential supervision (*regulatory perimeter*).

#### 4. Challenges in Integration

surveillance can help reveal supervisory blindspots, such as pockets of risk concentrations when individual bank exposures are aggregated. Integrating surveillance with regulation may help reduce the procyclicality of regulatory requirements; and prevent inappropriately designed policies that may disrupt key credit channels, or result in structurally higher funding costs for desirable economic activities.

7 Such as disallowing credit, liquidity, or maturity transformation, and limiting excessive leverage.

Q5:	What are some possible emerging areas of systemic risk? What will be a suitable regulatory and supervisory response?
Q6:	What are the other challenges faced in adopting macroprudential policy measures and integrating surveillance with regulation and microprudential supervision? Are there any tradeoffs and how are these best overcome?

Finally, there will also be "unknown unknowns", because macroprudential supervision will not eliminate the probability of future systemic crises. Indeed, it is impossible to supervise every entity and financial innovation has historically outpaced regulatory and supervisory capabilities. However, a step forward could be to incorporate wild card-type scenario analyses and simulations of network contagion in macroprudential assessments. There is also much to learn from techniques employed in other fields. The rigour in which scenario analyses are conducted at reinsurers and the network theories advanced in epidemiology, ecology and engineering to prevent, contain or manage systemic risk are possible starting points for macroprudential application.

to the unregulated sector. New regulations that may reduce earnings could perversely cause financial institutions to take on new risks in search of revenue. Keeping pace with market developments and behavioural responses may therefore be an important priority. It may also be necessary to expand the regulatory perimeter or restrict the type of activities that the unregulated sector can do<sup>7</sup> or at least subject it to greater transparency and disclosure requirements.

Further deterioration of financial markets subsequently further highlighted the importance of the risk management practices described above. For example, we have seen how banks

- (d) Better performing institutions had more adaptive risk measurement processes and systems. Management also had a wide range of risk measures and employed more effective stress testing with greater use of scenario analysis.
- (c) Institutions with more active controls over the consolidated organisation's balance sheet, liquidity and capital positions performed better during the turmoil.
- (b) Institutions with rigorous internal processes requiring critical judgment and discipline in the valuation of holdings of complex or potentially illiquid securities were able to value their exposures more appropriately to avoid significant unexpected losses.
- (a) Institutions with a comprehensive approach to viewing firm-wide exposures and risk were able to identify sources of significant risk early.

The Senior Supervisors Group (SSG) published a report in Mar 2008 to assess the risk management practices that have worked well, and those that did not, based on a sample of eleven major banking and securities institutions during the preceding market turmoil. Some observations noted by the SSG include the following:

## 2. Risk Management Lessons

There are important lessons that financial institutions should draw from the recent financial crisis, in particular to improve their own risk management policies and controls on a holistic firm-wide basis. At the same time, certain elements of microprudential supervision may need to be revisited to enhance effective oversight of the financial sector.

## 1. Introduction

# Workshop 4 Lessons from the Crisis for Effective Risk Management in Financial Institutions and Microprudential Supervision

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A Stable Financial Environment For  
Sustained Economic Growth

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<sup>1</sup> "The Making of Good Supervision: Learning to Say 'No'." 18 May 2010. IMF Monetary and Capital Markets Department. Jose Vinals and Jonathan Fiechter with Aditya Narain, Jennifer Elliott, Ian Tower, Pierluigi Bologna, and Michael Hsu.

<sup>2</sup> "Is there a need to rethink the supervisory process?" 15 June 2009. Discussion paper prepared for a conference by World Bank and Banco de España. John Palmer and Caroline Cerutti.

(b) **Proactive / Intrusive Supervision**

Consistent with the idea of intensive supervision, supervisors should adopt a proactive approach and make no apologies for being "intrusive" where necessary. This may include the exercise of supervisory actions, e.g. through curbing banks' expansion in certain activities even when no regulatory rules are breached, if the bank is deemed to be engaging in

(a) **Intensive Supervision**

Relating to supervisory intensity, the amount of attention supervisors devote to banks may differ according to the impact and risk posed by each institution. For example, systemically important financial institutions (SIFIs) may be accorded a higher level of supervisory resources and intensity relative to other financial institutions. This may mean obtaining detailed updates and developments on the SIFIs' operations; identifying emerging risks and ensuring that the SIFIs have accorded them the appropriate levels of attention and action; and independently validating the effectiveness of their controls and risk management processes with higher frequency relative to other institutions. Robust on-site inspections are also necessary as they often uncover weaknesses that are not evident from regulatory/supervisory reports or detected by the banks' internal and external auditors, as well as the compliance and risk management functions. These steps should form a iterative and reinforcing process to ensure the ultimate goal of enhancing the effectiveness of the supervision of banks is met.

To examine how the above features of microprudential supervision might have enabled countries to cope better with the crisis, we refer to a June 2009 discussion paper prepared by John Palmer and Caroline Cerutti<sup>2</sup> - which examined why some supervisors appeared to have avoided the pitfalls into which their developed country peers have fallen. Based on a study of the Office of the Superintendent of Financial Institutions in Canada, the Australian Prudential Regulation Authority and the Monetary Authority of Singapore, the paper noted that common features among all three jurisdictions included (i) a commitment to on-site supervision with a relatively high degree of supervisory intensity; and (ii) a results-oriented supervisory style which emphasised early intervention and prompt correction of weaknesses.

and ability to act.

of effective microprudential supervision, which is necessary to ensure that the objective of reducing probability and impact of bank failures, especially those of systemically important ones, can be achieved. In rethinking the supervisory process, an IMF paper<sup>1</sup> published in May 2010 described instances where supervision could have failed to recognise or address growing risks, and hence contributed to the financial crisis. These included instances where supervisors were too deferential to bank management and/or cases where supervisors were not proactive enough in addressing emerging risks, hence leading to opportunities for regulatory arbitrage and excessive risk concentrations. The paper identified intrusiveness and proactiveness as key elements of good supervision, among others, and concluded that to be effective, the policy and institutional environment must support both the supervisory will

#### 4. Other Lessons

There are other important lessons which supervisors can learn from the recent crisis, and these may extend beyond the scope of microprudential supervision. For example, an important learning point gleaned from the financial turmoil is that there is a greater need to integrate macroprudential supervision with microprudential supervision, e.g. through greater use of macroprudential or market-related information / analyses to identify broad trends (such as credit growth rates) that may not be easily observable at the institution level. The inter-connectedness of different financial services industries also calls for a regulatory framework that is sufficiently wide to effectively encompass these industries, whether administered by a single supervisor, or a number of collaborating supervisors with defined mandates.

The crisis has also highlighted the importance of cross-border supervisory cooperation - both from the perspectives of the prevention of bank failures and the cross-border resolution of failed banks. Without sufficient information on the activities of the SIFIs or other large cross-border groups, it is difficult for supervisors to gain a comprehensive understanding of the risk profile of a banking group.

#### 5. Conclusion

Overall, the crisis has taught us many important lessons. However, just as there is no perfect paradigm in risk management within financial institutions, there is also no foolproof regulation. Both bankers and regulators have to work closely together to develop a shared ownership of supervisory outcomes.





**Workshop 5  
Regulatory Frameworks and Models  
to Support Financing for Real Economic Needs**

**Chair: Usha Thorat  
Deputy Governor of Reserve Bank of India**

**1. Introduction**

In both the developed and developing world, households, businesses, and other economic agents depend on access to financing in order to capitalise on economic opportunities. They require the services of deposit-taking institutions, credit-providers, and other financial service providers to make contributions to the real economy and grow. Globally however, the G20 Financial Inclusion Experts Group (FIEG) has estimated that over two billion adults do not have a basic bank account<sup>1</sup>, suggesting that over 70% of the world's poor may be financially excluded and have limited participation in the real economy. This translates into a real impact on areas that are critical for economic advancement, such as agriculture, education, infrastructure, and the growth of small and medium enterprises (SMEs). Improved financial inclusion would be one pillar that can support development in these areas.

Coupled with financial inclusion, the recent crisis has also demonstrated that there must be ample confidence and trust in the financial infrastructure for markets to remain functional. A lack of confidence may generate panic and contagion across markets, driving lenders toward an adverse preference for liquidity and causing credit markets to be constrained. Regulators therefore play an important role in ensuring that the regular workings of the market do not become unhinged due to shocks to the financial system.

**2. Real economic needs that are unmet**

In examining critical areas that need financing, the sectors of agriculture, microfinance, education, infrastructure, and SME financing must be considered, as these areas are closely linked with economic growth and development.

<sup>1</sup> G20 Financial Inclusion Experts Group, "Principles and Report on Innovative Financial Inclusion from the Access through Innovation Sub-Group of the G20 Financial Inclusion Experts Group," 25 May 2010.

West, John, "SME Financing and the Crisis", Conference on Employment in the Post-Crisis Context, Tokyo, December 2009.

In agriculture and microfinance, natural disasters, such as floods, drought, and pests, could be significant risks that inhibit the flow of credit. Such events may prevent income from being

**(c) Risk on account of natural calamities**

Lack of liquid collateral is a major obstacle for development finance. The repayment is expected to come from the income generated by the activity being financed, or, in the case of microfinance, from the overall cash flows of the poor household. In agriculture, land may not always be available as collateral in the case of shareholders and tenant farmers. Hence, tangible security, such as property or financial security, may not be available. And even where collateral is available, its enforcement could be difficult.

**(b) Lack of collateral**

At the individual level, banks may also be hesitant to offer financial services to individuals who lack proper proof of identification or address. This may be the case with remote rural populations, migrant workers, and other displaced peoples who lack the documents to open even a basic bank account.

Likewise for trade finance, domestic banks may not have access to information about the credit-worthiness of foreign trade counter-parties. Hence, banks may be unwilling to take on trade finance credit risk, resulting in legitimate trades remaining unconsummated.

Banks may not have sufficient local knowledge about micro-businesses and farms, possibly due to geographical hurdles or insufficient reach by bank branches. Furthermore, some of these businesses may be part of the informal sector and lack proper financial documentation. Consequently, banks may be disinclined to lend as they may not be able to perform proper credit risk analyses to determine the credit-worthiness of these enterprises.

**(a) Access to information and proof of identification**

Despite the benefits of increasing financial inclusion and increasing economic participation, gaps still persist. Some factors that can explain this include:

**3. Reasons for financing needs remaining unmet**

In terms of financing needs, SMEs generally require support for daily operations (e.g. working capital, letters of credit, trade finance), as well as for longer term projects (e.g. product development, business expansion). However, the G20 FIEG estimates that only 20% of SMEs in developing countries have access to credit and debt financing – a problem that has provided the impetus for the global SME Finance Challenge, which is aimed at finding public and private solutions.

In most economies, SMEs play a critical role in generating economic activity. For example, the Asian Development Bank<sup>5</sup> has estimated that SMEs provide between 50% to 90% of manufacturing employment in Asia, with potentially higher contributions in agriculture and services.

**(e) Small and medium enterprise (SME) financing**

- (a) Programs to direct credit or provide temporary subvention for critical sectors identified above. At the same time, the Indian experience suggests that it is critical that prudential regulations are not compromised even in sectors to ensure proper use of funds and sustainability of the financial sector. Subventions even if used should not get entrenched as they tend to be misused.
- (b) Creating appropriate regulatory regimes for specialised FIs (e.g. microfinance banks, agricultural banks, trade finance banks) or capital markets (e.g. via securitization) to finance real economic needs. For instance, non-banking financial
- in instances where the provision of financial access is commercially viable, regulation should serve to facilitate the smooth functioning of such activities. In other cases however, interventions may be required should the market be able to deliver the desired developmental objectives. The following are thereby some measures that regulators could consider adopting:
- 5. Role of Regulation/State Intervention**

Q2. Have participants noted other instances where regulation has contributed to the problem? Or conversely, are there specific examples where existing regulation has helped to spur economic development?

- (c) **Proportional regulation**
- Given the establishment of different types of institutions (e.g. MFIs, cooperatives, NBFIs) to help serve the under-banked, separate regulatory regimes may be necessary. For example, in cases where the alternative FIs are not deposit-takers, there could be more focus accorded to non-prudential regulations (e.g. fraud prevention, tax and accounting issues, fair business practices). Otherwise, if alternative FIs are subjected to similar requirements as larger commercial banks (e.g. higher capital maintenance requirements, extensive "know Your Customer" information-gathering), this could curtail the amount of support that they can provide to the under-banked.
- (b) **Ratings based approach**
- SMEs that do not qualify for retail credit are subject to an external rating that is based on risk weights under the standardised approach. EMES face significant challenges in this regard. *Firstly*, the rating agencies in these countries do not have a credit history to model the default rate of SMEs. Unlike larger corporate entities, SMEs hardly issue corporate bonds, where the default data could provide a proxy for bank loan default data. *Secondly*, in large developing countries like India, the rating agencies find it difficult to cope with the substantial requirements of rating assignments due to sheer volumes. *Thirdly*, the ratings increase the cost of credit for SMEs, particularly if they are not able to get a good rating that would have otherwise lowered the capital requirement for the bank on the loan. *Fourth*, a good credit rating is not a guarantee for obtaining a loan, as the actual credit decision would depend upon the combination of various factors including credit history, pricing, innovation, market volatility, etc. *Finally*, SME borrowers may not be able to present relevant factors to the rating agencies for external rating or to banks for internal rating. Such factors may include market and business dynamics, as well as well-audited financial statements that can be relied upon for the purpose of ratings.
- amongst banks and supervisors to move to advanced approaches in emerging market economies (EMES), where the credit risk in development finance can be properly captured.