

Strengthen the Financial System: Operationalizing the New Guidelines

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Outline

To reduce the failure probabilities and improve the banking sector's ability to absorb shocks arising from financial and economic stress:

- **Part I: From Basel II to Basel III**
 - **New capital**
 - **Leverage**
 - **Liquidity framework**
- **Part II: Macro-prudential Policies**
 - **Dampening pro-cyclicality**
- **Part III: SIFI Framework**
 - **Addressing the 'too-big-to-fail' issue**
 - **Effective supervision**
 - **Cross border cooperation & resolution**

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Outline

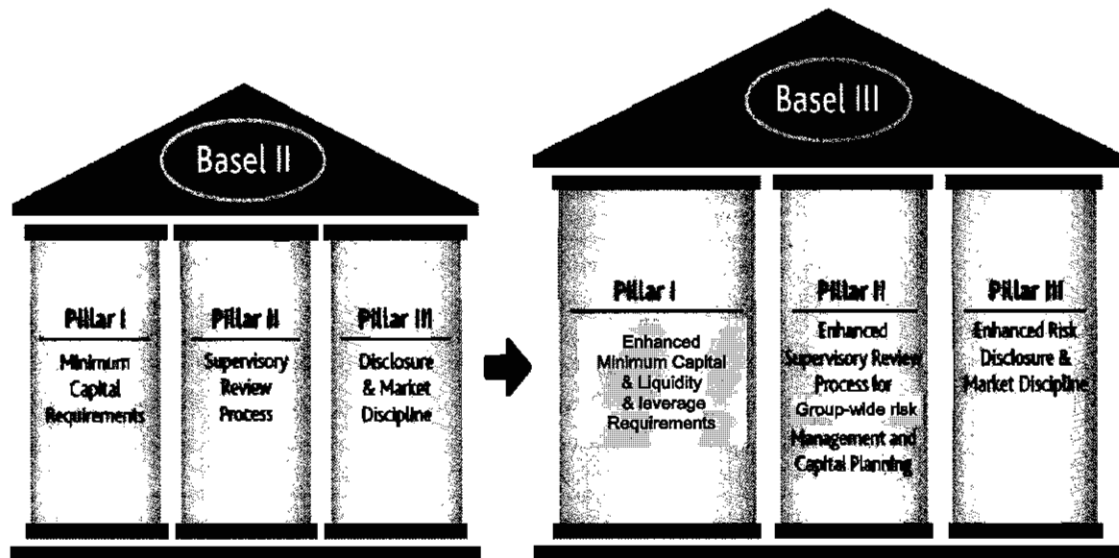
To improve the banking sector's ability to absorb shocks arising from financial and economic stress:

- **Part IV:**
 - **Shadow Banking**
- **Part V:**
 - **Supervisor's Perspective & Questions**

Part I: From Basel II to Basel III

- **Capital Framework**
- **Leverage Framework**
- **Liquidity Framework**
- **Recommendations**

From Basel II to Basel III: Overview

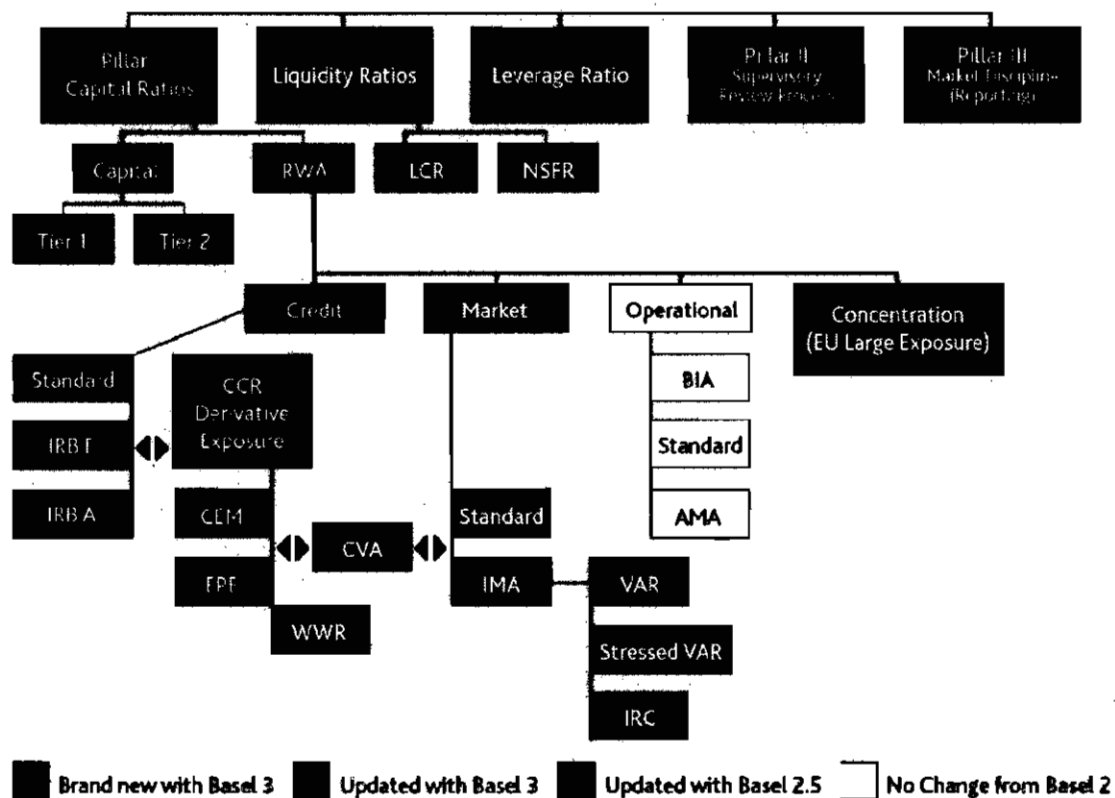


Basel III strengthens the three Basel II pillars, especially pillar 1 with enhanced minimum capital, leverage and liquidity requirements

irements.

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Basel III - Framework



Basel III: Key components

Regulatory Element	Proposed Requirement
Higher Minimum Tier 1 Capital Requirement	<ul style="list-style-type: none"> » Tier 1 Capital Ratio: increases from 4% to 6% » The ratio will be set at 4.5% from 1 January 2013, 5.5% from 1 January 2014 and 6% from 1 January 2015 » Predominance of common equity will now reach 82.3% of Tier 1 capital, inclusive of capital conservation buffer
New Capital Conservation Buffer	<ul style="list-style-type: none"> » Used to absorb losses during periods of financial and economic stress » Banks will be required to hold a capital conservation buffer of 2.5% to withstand future periods of stress bringing the total common equity requirement to 7% (4.5% common equity requirement and the 2.5% capital conservation buffer) » The capital conservation buffer must be met exclusively with common equity » Banks that do not maintain the capital conservation buffer will face restrictions on payouts of dividends, share buybacks and bonuses
Countercyclical Capital Buffer	<ul style="list-style-type: none"> » A countercyclical buffer within a range of 0% - 2.5% of common equity or other fully loss absorbing capital will be implemented according to national circumstances » When in effect, this is an extension to the conservation buffer

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Basel III: New Liquidity Requirements

Regulatory Element	Proposed Requirement
Higher Minimum Tier 1 Common Equity Requirement	<ul style="list-style-type: none"> » Tier 1 Common Equity Requirement: increase from 2% to 4.5% » The ratio will be set at 3.5% from 1 January 2013, 4% from 1 January 2014 and 4.5% from 1 January 2015
Liquidity Standard	<ul style="list-style-type: none"> » Liquidity Coverage Ratio (LCR): to ensure that sufficient high quality liquid resources are available for one month survival in case of a stress scenario. Introduced 1 January 2015 » Net Stable Funding Ratio (NSFR): to promote resiliency over longer-term time horizons by creating additional incentives for banks to fund their activities with more stable sources of funding on an ongoing structural basis » Additional liquidity monitoring metrics focused on maturity mismatch, concentration of funding and available unencumbered assets
Leverage Ratio	<ul style="list-style-type: none"> » A supplemental 3% non-risk based leverage ratio which serves as a backstop to the measures outlined above » Parallel run between 2013-2017; migration to Pillar 1 from 2018
Minimum Total Capital Ratio	<ul style="list-style-type: none"> » Remains at 8% » The addition of the capital conservation buffer increases the total amount of capital a bank must hold to 10.5% of risk-weighted assets, of which 8.5% must be tier 1 capital » Tier 2 capital instruments will be harmonized; tier 3 capital will be phased out

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Basel III: a stronger buffer is required to meet tightened requirements

	Capital requirements							Additional macro-prudential overlay	
	Common equity			Tier 1 capital		Total capital		Counter-cyclical buffer	Additional loss-absorbing capacity for SIFIs
	Minimum	Conservation buffer	Required	Minimum	Required	Minimum	Required	Range	
Basel II	2%			4%		8%			
Memo:	Equivalent to around 1% for an average international bank under the new definition			Equivalent to around 2% for an average international bank under the new definition					
Basel III	4.5%	2.5%	7.0%	6%	8.5%	8%	10.5%	0-2.5%	1-2.5%
Notes: Ratio is a percentage of risk-weighted assets								10.5%-15.5%	

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Tightened Capital Requirement: Implications - Higher Cost of Capital

- Capital requirements increase progressively and significantly under Basel III framework, which might result in a higher cost of capital.

$$\text{Capital Ratios} \uparrow = \frac{\text{Eligible Capital} \downarrow}{\text{Risk Weighted Assets} \uparrow}$$

Factors that might increase the cost of capital

- Increasing capital ratios (CET 1, Tier 1, conservation buffer, countercyclical buffer)
- Stricter rules on eligible capital
- Higher capital requirements (RWAs increase for certain classes in Corporate, Sovereign, Retail and Equity)

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Components of Capital: Overview

- **Tier 1 capital (going concern capital)**
 - **Common Equity Tier 1: common shares and retained earnings (CET1)**
 - **Additional Tier 1 (AT1)**
- **Tier 2 capital (gone concern capital)**

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Components of capital: Additional Tier 1

Management View - beyond the tool:

- Legal framework for haircuts or conversion
 - Contractual or statutory?
- Ways of loss absorption: How to practice?
 - Principal write-down or conversion into common equity
 - Size of write-down: full or partial
 - Some incentives (re-pricing, selective mechanism, etc.)
- Nature of trigger event: When to do?
 - Capital adequacy ratio, share price, regulatory discretion, financial metrics, etc.(combining multi-measures, but fundamentally subject to CE Level)
 - If capital adequacy ratio, AT 1 when CE downward to 5.125%, Tier 2 at non viability point

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Components of capital: Additional Tier 1 (AT1)

- Instruments classified as liabilities for accounting purposes must have principal loss absorption through either
 - (i) conversion to common shares at an objective pre-specified trigger point* or
 - (ii) a write-down mechanism which allocates losses to the instrument at pre-specified trigger point.
- The write-down will have the following effects:
 - Reduce the claim of the instrument in liquidation;
 - Reduce the amount re-paid when a call is exercised; and
 - Partially or fully reduce coupon/dividend payments on the instrument.

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Components of capital: Additional Tier 1 (AT1)

Criteria for Additional Tier 1 (AT1)

- AT1 is subordinated to depositors, general creditors and subordinated debt of the bank.
- AT1 is neither secured nor covered by a guarantee of the issuer or related entry or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis bank creditors.
- AT1 is perpetual, i.e. there is no maturity*, and there are no step-ups or other incentives to redeem.
- Any repayment of principal (redemption) must be with prior supervisory approval and banks should not assume or create market expectations that supervisory approval will be given.

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Components of capital: Tier 2 Capital

- Tier 2 is subordinated to depositors and general creditors of the bank.
- Loss absorption
 - Other loss absorption features are similar to AT1.
- Trigger point
 - Supervisory judgment on the non viability point.

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Tightened capital requirement: - Quality Comes First

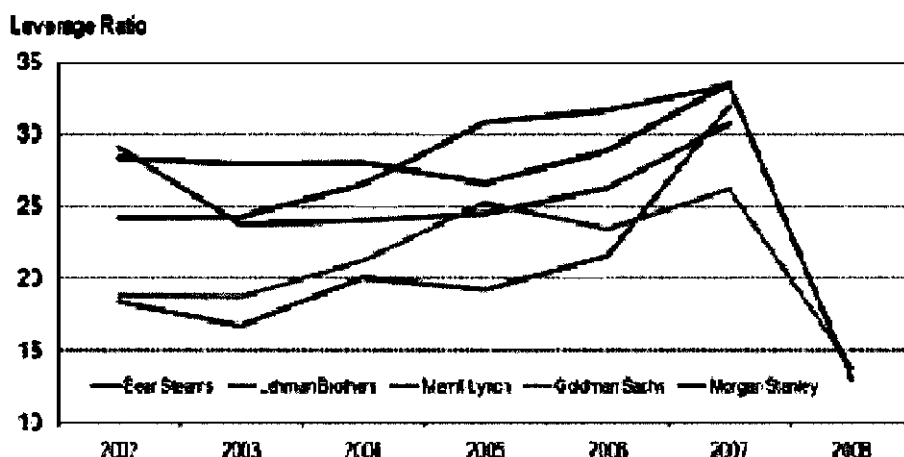
- **CET 1:** More deductions in the Common Equity Tier 1 (CET1) to ensure it serves as a predominant instrument to absorb losses on going-concern basis: goodwill, intangibles, significant investment in other financial entities, etc., are excluded from CET1.
The implementation period is phased in from 2013, with a gradual introduction of deduction from 2014, to reach 7% CET1 by 2019.
- **Tier 2:** Conversion or write-down feature is a must for Tier 2 capital instrument to make them absorb losses in the case of gone-concern.
- **Tier 3:** Tier 3 capital, which is originally only allowed for market risk in Basel II, is removed (now all under the first 2 tiers. This increase in the level of capital comes on top of an increase in the capital requirement for trading book exposures, counterparty credit risk, and exposures to other financial institutions. Banks are expected to comply with the revised requirements for better risk recognition and capital coverage by the end of 2011).

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Leverage Ratio: Lessons from the Crisis



- One of the underlying features of the crisis was the build-up of excessive on- and off-balance sheet leverage in the banking system. In many cases, banks built up excessive leverage while still showing strong risk-based capital ratios.
- During the most severe period of the crisis, the banking sector was forced by the market to reduce its leverage in a manner that amplified downward pressure on asset prices, further exacerbates the positive feedback loop among losses, declines in bank capital, and contraction in credit availability.

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Leverage Ratio: Objectives

Leverage Ratio:

• Background

- The BCBS agreed to introduce a simple, transparent, non-risk based leverage ratio that is calibrated to act as a credible supplementary measure to the risk based capital requirements.

• Objectives

- To constrain the build-up of leverage in the banking sector, helping avoid destabilising deleveraging processes which can damage the broader financial system and the economy; and
- To reinforce the risk based requirements with a simple, non-risk based “backstop” measure.

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Leverage Ratio: Definition and Requirement

- $$\text{Leverage Ratio} = \frac{\text{Tier 1 Capital}}{\text{Total Assets} - \text{Intangibles}} \geq 4\% \text{ (China, US), or } 3\sim 5\% \text{ (BCBS)}$$
- $$\text{Leverage Ratio} = \frac{\text{Total Assets}}{\text{Tier 1} + \text{Tier 2 Capital}} \leq 20\text{X (Canada)}$$
- Total assets include most of the off-balance sheet items (**OBS items**), e.g. commitments (including liquidity facilities), unconditionally cancellable commitments, direct credit substitutes, acceptances, standby letters of credit, trade letters of credit, failed transactions and unsettled securities.

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Leverage Ratio: Credit Conversion Factor

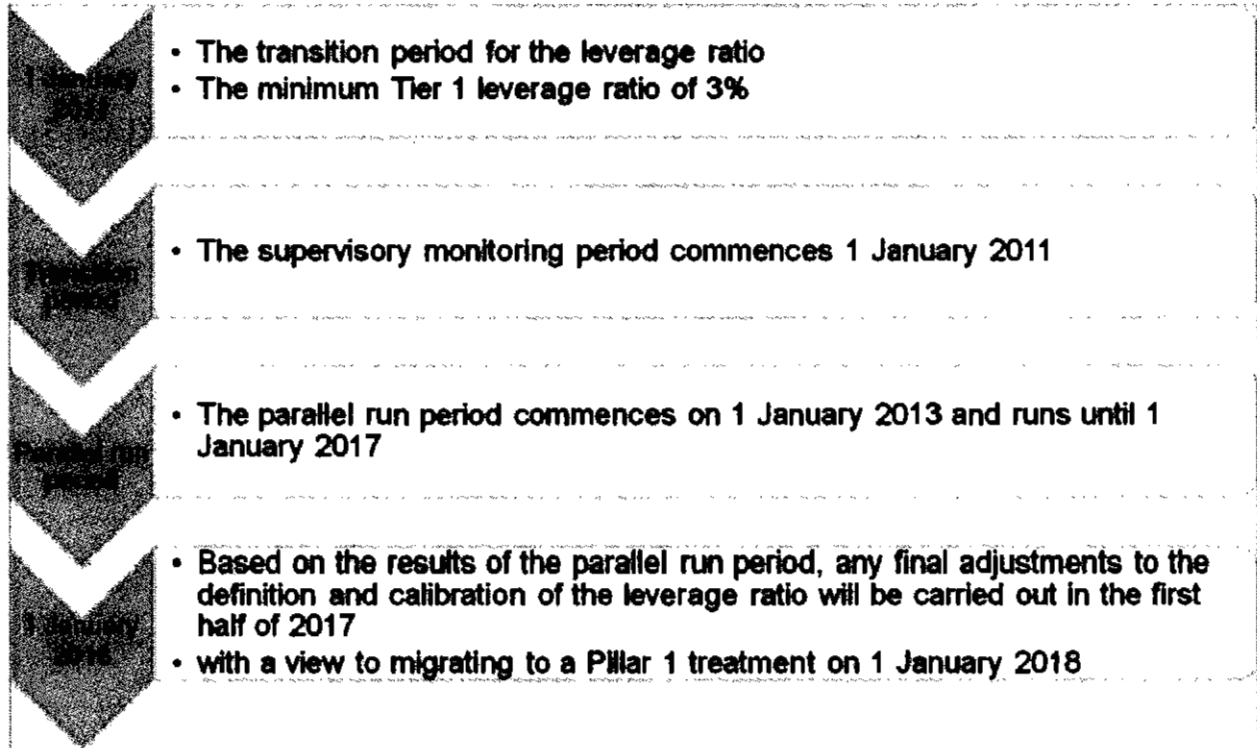
The Committee recognizes that Off-Balance Sheet (OBS) items are a source of potentially significant leverage.

Therefore, banks should applying a uniform 100% credit conversion factor (CCF) to OBS items in calculating the leverage ratio.

Banks can apply a CCF of 10% for any commitments that are unconditionally cancellable at any time by the bank without prior notice.

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Leverage Ratio: Agenda



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Part I: From Basel II to Basel III

- Capital Framework
- Leverage Framework
- Liquidity Framework
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Liquidity Ratios: Major Objectives

- To promote resilience of a bank's liquidity risk profile;
- To ensure that a bank has an adequate stock of unencumbered high quality liquid assets which consists of cash or assets that can be converted into cash at little or no loss of value in private markets;
- To meet its liquidity needs for a 30 calendar day and 1 year liquidity stress scenario;
- Thus, the bank failure rate will be reduced and central banks won't become the "lender of first resort".

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Liquidity Ratios: LCR and NSFR

- **Liquidity coverage ratio (LCR) has two components:**
 - The value of the stock of high-quality liquid assets (HQLA), and
 - total net cash outflows, and is expressed as:

$$\text{LCR} = \frac{\text{Stock of high-quality liquid assets (HQLA)}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%$$

- **Net stable funding ratio (NSFR):**
 - To control the extent to which banks rely on short-term funding (i.e. less than **one year** to maturity) as a proportion of their overall funding. This therefore directly restrains the traditional banking exercises in maturity transformation.
 - Requirement : The NSFR is based on two elements: available stable funding (ASF) and required stable funding (RSF). The ASF has to equal or exceed the RSF, i.e. the NSFR should be no lower than **100%**.

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Liquidity Ratios: Monitoring

- **2 Regulatory Standards:**
 - $LCR \geq 100\%$ (during stress, banks may use their stock of HQLA, thereby falling below 100%) and $NSFR \geq 100\%$
 - Minimum quantitative requirements to be set for the first time as the worldwide liquidity supervisory standards.
- **Advantages compared to traditional liquidity measures:**
 - Introducing stress scenarios;
 - Applying differentiated factors (weights) to a full-scope coverage of various assets, liabilities, off-balance-sheet items, based on their liquidity characteristics;
 - The two standards cover short-term and long-term objectives separately.
- **Potential shortcomings and unintended consequences including:**
 - Concentration of liquid assets
 - Accuracy of calibrations
 - Impact on lending on the real economy

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Liquidity Coverage Ratio: Revisions under discussion

The BCBS will continue to:

- since deposits with central banks are the most - indeed, in some cases, the only - reliable form of liquidity, the interaction between the LCR and the provision of central bank facilities is critically important. The Committee will therefore continue to work on this issue over the next year.
- develop disclosure requirements for bank liquidity and funding profiles.
- explore the use of market-based indicators of liquidity to supplement the existing measures based on asset classes and credit ratings.
- reviewing the treatment of inter-bank transactions.

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Liquidity Risk Management: Over the next two years

- Complete the review of the Net stable funding ratio (NSFR).
- Continue to strengthen the peer review programme established in 2012 to monitor the implementation of reforms in individual jurisdictions; and monitor the impact of, and industry response to, recent and proposed regulatory reforms.
- During 2012 the Committee has been examining the comparability of model-based internal risk weightings and considering the appropriate balance between the simplicity, comparability and risk sensitivity of the regulatory framework. The GHOS encouraged continuation of this work in 2013 as a matter of priority.
- The GHOS supported the Committee's intention to promote effective macro- and microprudential supervision.

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Net Stable Funding Ratio: Definitions and Requirements

Basel Proposal	July 2010	Used In NSFR Calculations	July 2010
Available Stable Funding	Availability Factor	Available Stable Funding	Availability Factor
Tier I	100%	Equity	100%
Tier II	100%	Subordinated debt and hybrid capital	100%
Stable deposits of retail and small business customers (residual maturity < 1y)	90%	Demand deposits	85%
Less stable deposits of retail and small business customers (residual maturity < 1y)	80%		
Wholesale funding by non-financials (residual maturity < 1y)	50%	Bank deposits	50%
Other preferred shares, capital instruments in excess of Tier II and other liabilities with maturity > 1y	100%	Saving deposits	100%
All other liabilities and equity not included above	0%	Residual funding	40%
Required Stable Funding	Required Factor	Required Stable Funding	Required Factor
Cash	0%		0%
Securities and non-renewable loans to financials with remaining maturity < 1y; short-term actively traded instruments	0%		
Debt issued or guaranteed by sovereign and IFIs	5%	Government securities	5%
Unencumbered non-financial senior unsecured corporate bonds rated at least AA, maturity ≥ 1y	20%	Investment securities	20%
Unencumbered listed equity securities or non-financial senior unsecured corporate bonds rated at least A-, maturity ≥ 1y; loans to non-financial corporate clients, maturity < 1y; gold.	50%	Equity investment	50%
Retail loans, maturity < 1y	85%	Customer loans, maturity < 1y	85%
Mortgages	65%		
All other assets	100%	Customer loans, maturity > 1y	75%
		Residual assets	80%
Off-Balance sheet exposures	5%	Contingent liabilities	0-5%

Source: BCBS 2009 and IMF.

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Review of Agenda

(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 <small>(Transition starts 1 Jan 2016)</small>					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.0%	4.5%	4.0%	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%	4.0%	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						
Liquidity coverage ratio	Observation period begins				Introduce minimum standard				
Net stable funding ratio	Observation period begins							Introduce minimum standard	

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Observation Period & Transitional Arrangements

- QIS: semiannually, since end 2010
- Reporting to supervisors started from Jan 2012
 - In China, it started from Q1 of 2011
- Further revisions would be made to the LCR by mid-2013
 - Revision could be closed early 2013 according to the new time schedule of the BCBS
- Further revisions would be made to the NSFR by mid-2016

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Part I: From Basel II to Basel III

- Capital Framework**
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Recommendations: The supervisor's perspective

➤ **Risk appetite/tolerance management**

Banks are now required to clearly define their appetite/tolerance for liquidity risk, and to enhance their managerial effectiveness. The two ratios of Basel III (LCR and NSFR) would be a good starting point in determining the level of risk tolerance but would not be enough to reflect group-wide or jurisdiction-specific factors that each level of the bank is taking in risks, (e.g. right deposit with right cost) or each subsidiary is operating in line with the HQ's appetite for risks. Among managerial issues, a constant challenge is to control liquidity risk to ensure it is kept below risk appetite/tolerance.

Various limiting structures on liquidity should be linked with the outcomes of stress testing. Additionally, liquidity cost for fund transfer pricing also has to be defined based on the outcome of stress testing. Before crisis, limiting structures and liquidity cost were heavily dependent on expert judgments and not on the outcome of stress testing. More efforts (like practical and persuasive scenarios) for the front business lines are therefore required. Banks need to improve controls.

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Recommendations: The supervisor's perspective

- Finally, a contingency funding plan should be with every bank and effectively combined with stress testing (where clear definition of trigger points using stress testing or escalating alarming phases of the contingency funding plan is warranted). Banks must talk to central banks and regulators to nourish such a plan and a process.
- Having said all the above recommendations, we should pay attention of the shortcomings of stress tests (con't)

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Recommendations: The supervisor's perspective (Con't)

Critics of Stress Tests:

A costly burden

Though useful, it's an enormous burden on supervisors. At the core of stress testing is data aggregation and many regulators and bankers noted that this is an important job but very costly for firms (and regulators) to improve.

Market volatility

Some members highlighted the potential danger of such a doing that can induce volatility in the market, especially in relation to the publication of the results.

Supervisors' Image

Some members noted in the other way round, too many stress testing were witnessed so mild that ruined the image of supervisors.

"Behind the Curve"

Stress tests are conducted according to historical data and their aggregation, thus bear "behind the curve" features, which could be less prudent.

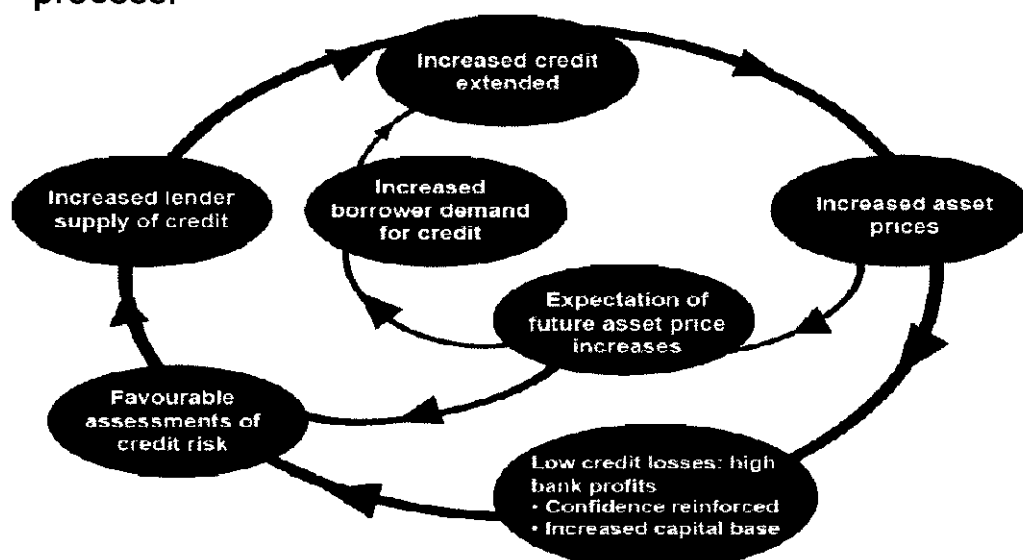
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Part II: Macro-prudential policies

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Macro-Prudential Policies

Banks help finance firms and households to strengthen when in booms. Credit expansion is a Pro-Cyclical self-reinforcing process.

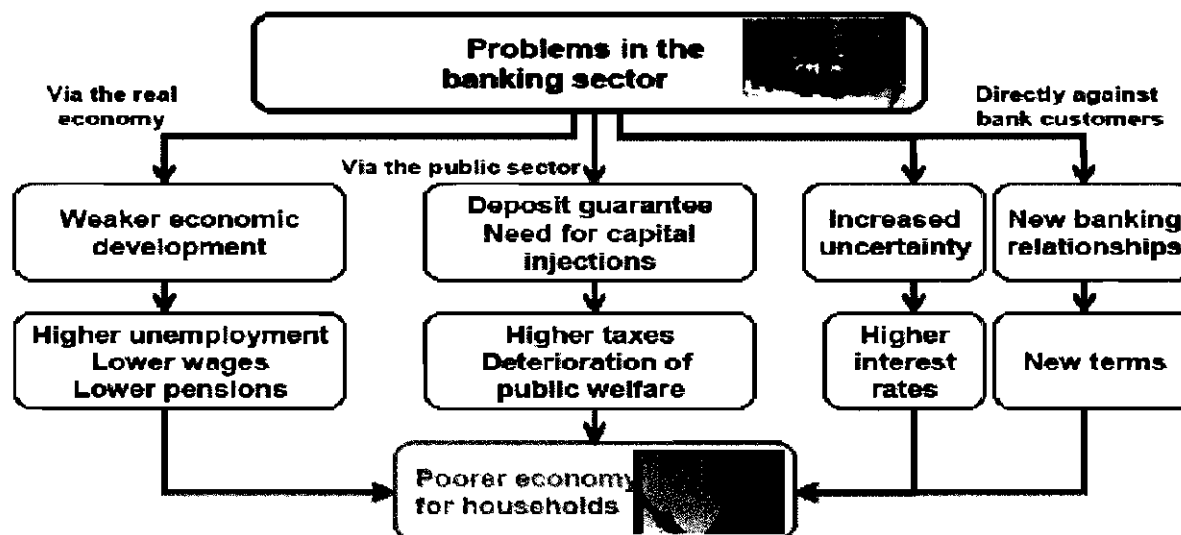


Source: FSA, 2012

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Macro-Prudential Policies

However, bust in corporate and/or household lending can lead to credit crunch, which will further transmit the risk to sovereigns, and possibly resulting in a vicious circle showcased in the current European sovereign debt crisis.



Source: BIS, 2012

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Macro-Prudential Policies

■ Macro-prudential tools:

- reducing common exposures: large exposure limits, industry concentration limits etc.;
- mitigating cyclicity: counter-cyclical capital requirement, and the traditional tools, e.g. variable LTV, LTI, LTD ratios;
- changing deposit reserve ratios / interests / open market operations / discount window and repo mechanism, etc.

■ Macro-prudential arrangement:

- redefining the roles of central bank and regulators: UK FSA absorbed back to Bank of England; US has set up the Financial Stability Oversight Council;
- rethinking the role of firewalls: US Volcker Rule in Dodd-Frank Act; UK Vickers Report to ring-fence key retail banks from investment arms.

■ Cautions needed over trigger point to move in and to exit.

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Part III: SIFI Framework

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G-SIFI Framework: Agenda

- 2011 G20 Summit: a policy package to address the **global systemically important financial institutions** (28 institutions have been identified as **G-SIFIs**) vs. “dynamism” of the name list.
- 2012 Basel Committee: a policy guideline to extend the G-SIFI framework to **domestically important banks**.
- Five key issues in identifying G-SIFIs
 - Size
 - Interconnectedness,
 - Substitutability and
 - Complexity
 - Cross Jurisdictional Activities (not for D-SIFI)

G-SIFI Framework

Effective Resolution Framework <ul style="list-style-type: none"> • Regulators have necessary resources and tools • To avoid taxpayer's losses in the process of resolution • Bail-in required but only beat the PONV. 	Supervisory Intensity and Effectiveness <ul style="list-style-type: none"> • Data aggregation, risk governance and risk control; • Shall meet all the requirements prior to Jan. 1st 2016.
Mandatory Resolution and Recovery Plan (RRP) <ul style="list-style-type: none"> • RRP to be completed by the end of 2012 • Home-host cooperative agreement and establish cross-border crisis management group (CMG) • Peer Review • Supervisory College 	G-SIFIs capital surcharge <ul style="list-style-type: none"> • Additional 1-3.5% capital surcharge (1-2.5% for the time being); • To phase-in from 2016 till end-2018.

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G-SIFI Framework: Calculations and Requirements

- Bucketing approach
- Dynamism (in every 2 years)
- Intensity of risk management (loss absorbency requirements in place + RRP + cross-border resolution agreements in advance + full transparency and effective communication to the market)

Bucketing approach

Bucket	Score range*	Minimum additional loss absorbency (common equity as a percentage of risk-weighted assets)
5 (empty)	D -	3.5%
4	C - D	2.5%
3	B - C	2.0%
2	A - B	1.5%
1	Cut-off point - A	1.0%

* Scores equal to one of the boundaries are assigned to the higher bucket.

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**G-SIFIs
(2012-11)**



Bucket⁴	G-SIBs in alphabetical order within each bucket
5 (3.5%)	(Empty)
4 (2.5%)	Citigroup Deutsche Bank HSBC JP Morgan Chase
3 (2.0%)	Barclays BNP Paribas
2 (1.5%)	Bank of America Bank of New York Mellon Credit Suisse Goldman Sachs Mitsubishi UFJ FG Morgan Stanley Royal Bank of Scotland UBS
1 (1.0%)	Bank of China BBVA Groupe BPCE Group Crédit Agricole ING Bank Mizuho FG Nordea Santander Société Générale Standard Chartered State Street Sumitomo Mitsui FG Unicredit Group Wells Fargo

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SIFI Framework: Bail-in debt

- The recent financial crisis demonstrated that the distress of a systemically important financial institutions (SIFIs) and its subsequent disorderly liquidation can create risks to overall financial stability.
- Government-funded rescue of SIFIs to preserve financial stability have been costly, and, as a result, the potential risks to financial stability posed by SIFIs have increased.
- An effective and credible resolution framework for distressed SIFIs is one important element of a comprehensive solution to minimize potential costs to taxpayers of future bank failures, and to break the adverse feedback loop between sovereign debt and bank debt.
- Hence, bail-in concept is introduced.

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SIFI Framework: Bail-in debt

- Bail-in is a power to restructure the liabilities of a distressed SIFI by converting and/or writing down unsecured debt on a “going concern” basis.
- In bail-in, the concerned SIFI remains open and its existence as an ongoing legal entity is maintained.
- The idea is to eliminate insolvency risk by restoring a distressed financial institution to viability through the restructuring of its liabilities and without having to inject public funds, except for the provision of liquidity support as backstop.
- This would require restoring capital to a level over and above regulatory requirements to ensure the institution’s survival, including under stressed assumptions.

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SIFI Framework: Bail-in debt

- It could be achieved either by converting existing debt to equity as part of the debt restructuring or by injecting capital brought in by new shareholders, or by a combination of the two.
- The aim is to have a private-sector solution as an alternative to government-funded rescue of SIFIs.
- The characteristics required for bail-in to serve as a loss-absorption and a resolution tool.

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Cross-border Cooperation and Resolution

(what is a “living will”?)

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Recovery and Resolution Plans: Comparisons

Description	Recovery	Resolution/Wind-down
Situation	• Going concern (with a risk of failure)	• Gone concern (bankruptcy, receivership)
Owner/Driver	• Management/Board	• Regulatory authorities/Board
Scope/ Perspective	• Group level/top down • Significant legal entities which conduct core business and systemic activities	• All systemically important functions/activities and significant legal entities/top down and bottom up
Objectives	• Stabilization of banks in a market or idiosyncratic crisis (done by management) • Identification of core businesses • Identification and definition of triggers • Identification of recovery options to mitigate risks of failure • Evaluate viability, credibility of recovery	• Forced restructuring and efficient resolution (done by regulator) • Identification of systemic/critical market functions, significant legal entities, and underlying key processes, dependencies • Mitigation of contagion risks • Maintain continuity of systemically important functions/activities
Key Planning Measures	• Governance and MIS • Stress scenario development • Vulnerability analysis • Capital and liquidity actions • Asset sales/Balance Sheet de-risking • Run-off options • Qualitative analysis of actions (impediments, timing, dependencies)	• Extended governance and MIS • Divestitures of parts of the firm • Bridge bank • Separation of functions/entities • Orderly Liquidation • Data pack

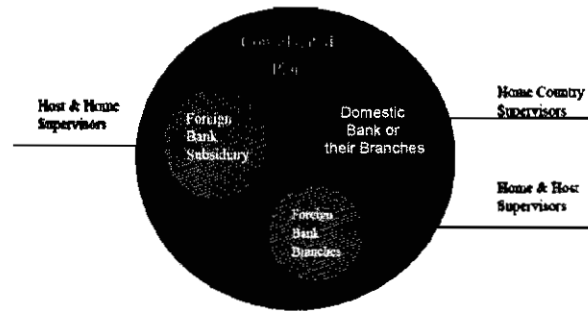
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Recovery and Resolution Plans: Considerations for Global Banks

G-SIFIs have multiple constituents asking for RRP:

- Country Supervisors
- Central banks

Interested Parties: External Auditors,
Rating Agencies and Counterparties



Global approach:

- Flexible global framework
- Local execution with centralized oversight for consistency
- Centralization promotes harmonization of the master plan, strategies and supporting information

Considerations for G-SIFIs:

Grading will be relative to peers for each plan.

Need to proactively manage “home” and “host” supervisory relationships.

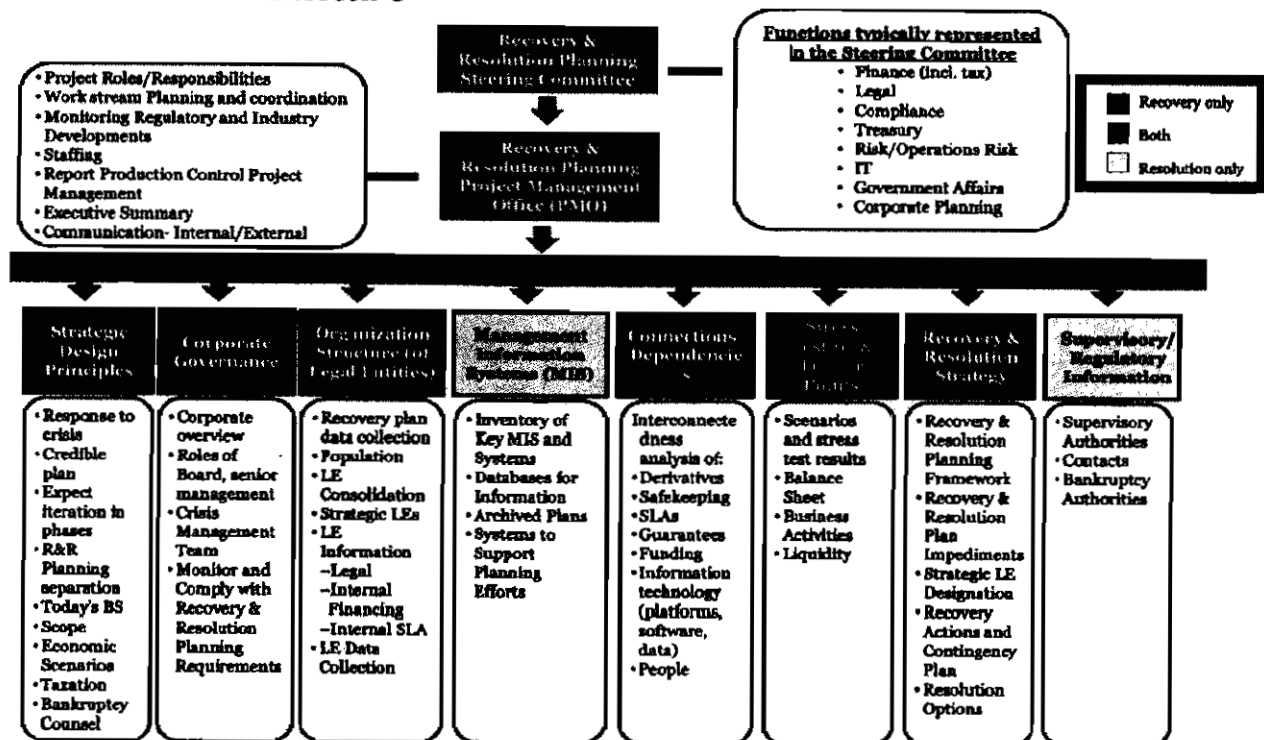
Confidentiality issues will likely require very specific plans.

Consider impact of the broader public disclosure.

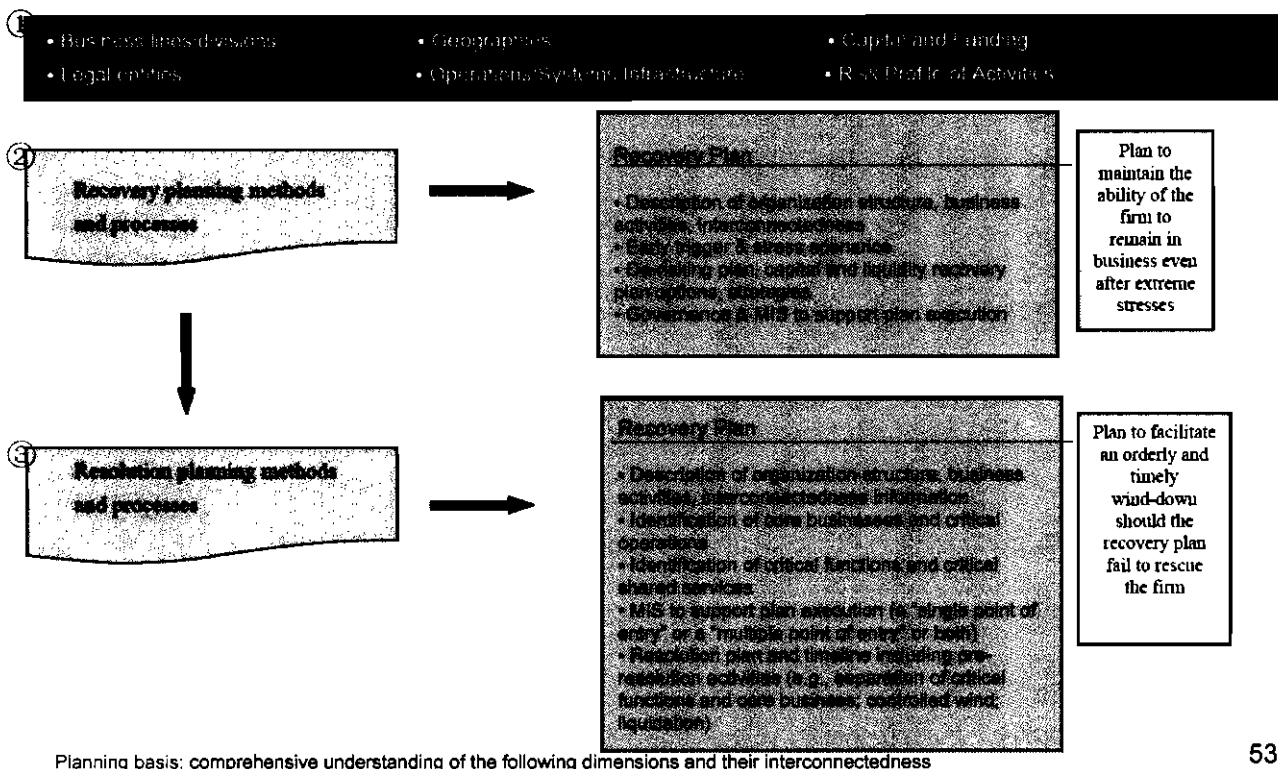
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Recovery and Resolution Plans: A Sample

Sample Recovery & Resolution Plan Organization and Governance Structure

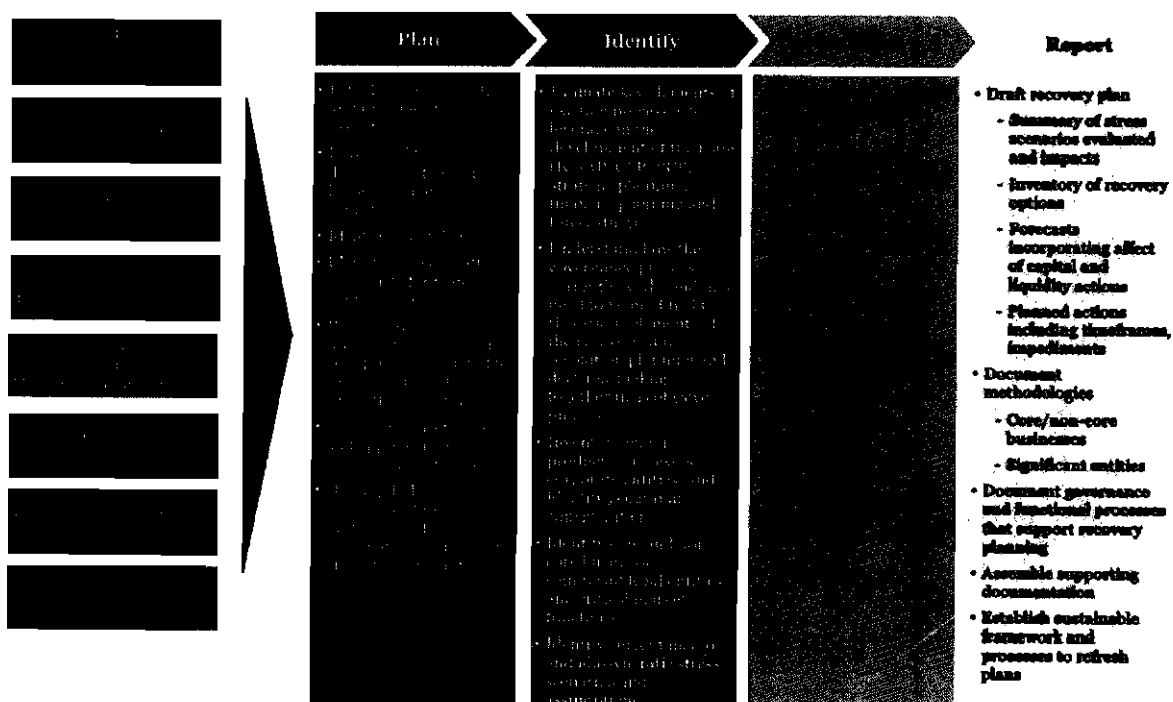


Recovery and Resolution Plans: Approaches



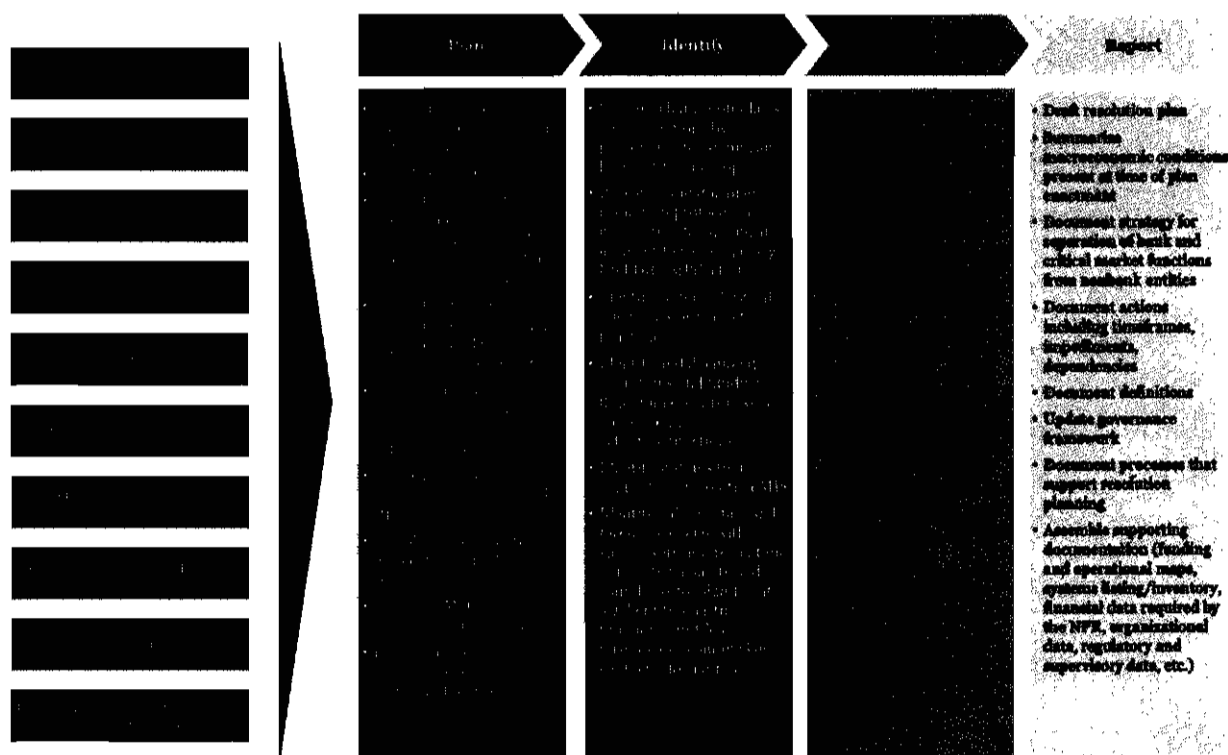
Recovery and Resolution Plans: Approaches (Con't)

Approach to Recovery Planning



Recovery and Resolution Plans: Approaches (Con't)

Approach to Resolution Planning



Recovery and Resolution Plans: Questions About Cross-border Cooperation

- Do we need a single designated resolution authority in each jurisdiction that would facilitate cross-border cooperation?
- Would effective cross-border cooperation also require that the resolution authority had the powers which would need to apply not only to locally incorporated firms, but also to local branches of foreign financial institutions?
- How could we achieve effective cross-border cooperation and agreement in a crisis where the above was not the case and the local courts were in charge?
- Is RRP important while it brings to light many obstacles to resolution arising, such as from structural complexities and lack of adequate documentation?
- Should we simplify unnecessarily complex corporate structure of financial institutions?
- Which is more preferable? Should the effective cross-border cooperation framework arrangement be multilateral or bilateral?

Part IV:

Shadow Banking

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Shadow Banking: A Brief History

- Since the late 1970s and 80s, the shadow banking system had an explosive growth in developed countries like the US, due to development of the financial market, financial innovation and change of the regulatory framework.
- Firstly, in the US, the **traditional commercial banking** became less profitable because of decline of deposit base. As a result, securitization emerged as a major business, since it could lower the funding cost and transfer assets out of banks' balance sheet.

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Shadow Banking: A Brief History

- Secondly, **institutional investors** like mutual funds, pension fund and insurance companies grew rapidly. They had huge amount of cash, and demanded safe investment products with short duration and high liquidity. Check accounts in the traditional commercial bank could no longer meet their requirements, therefore, money market funds and the repo market grew dramatically to meet the demand of the market.
- To dampen the incentives associated with securitization, we may require a high retention (10-20% or even more) for the issuing bank and to enhance the transparency, standardization and disclosure of information for the securitization and all the transfer contracts. Re-securitization should be banned.

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Shadow Banking: A Brief History

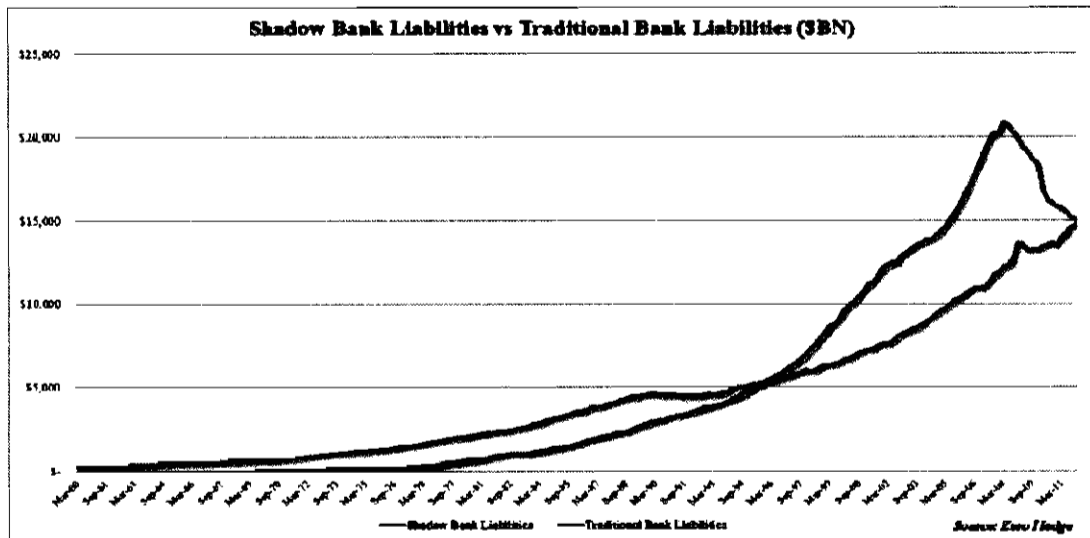
- Thirdly, at the same time, there have been significant changes in the **regulatory framework and legal system**.
 - On one hand, the financial regulation system in the United States experienced a “deregulation” that lasted for about thirty years, and restrictions on cross-sector businesses imposed by Glass-Steagall Act of 1932 had been gradually loosened and eventually abolished.
 - On the other hand, regulatory arbitrage emerged as a result of differential capital requirements as introduced by Basel Capital Accord.

Due to the three factors mentioned above, the shadow banking system has experienced a rapid growth in the United States, and grew into an indispensable part of the core financial system.

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Shadow Banking: A Brief History

- The total liability of shadow banking system in the US stood at \$21 trillion in March 2008, which was significantly larger than the total liabilities of the traditional banking system. Even after a dramatic decline since the onset of the financial crisis, the size of the shadow banking system in the US was roughly \$15 trillion at the end of March, 2012.



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Shadow Banking: Definition

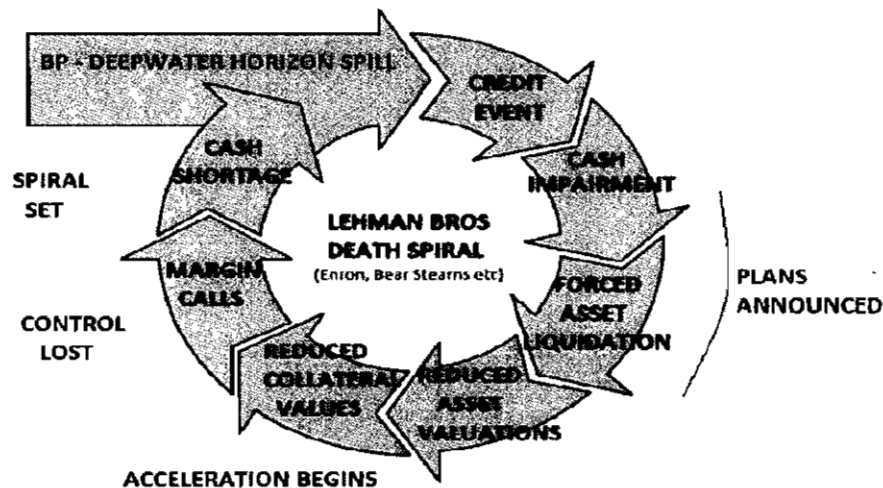
- A precise definition of the shadow banking system did not exist before the crisis.
- According to the FSB, Banking Supervisory and Regulatory Cooperation Committee, the definition of shadow banking is "credit intermediation involving entities and activities outside the regular banking system" or non-bank credit intermediation in short.
- While this definition is broad, it catches two key characteristics of the shadow banking system:
 - The first is "entities and activities outside the regular banking system", and,
 - the second is "**credit intermediation**".

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Shadow Banking: The Role in Crisis

The most significant issues during the recent crisis could be interpreted as “run on the shadow banking system”.

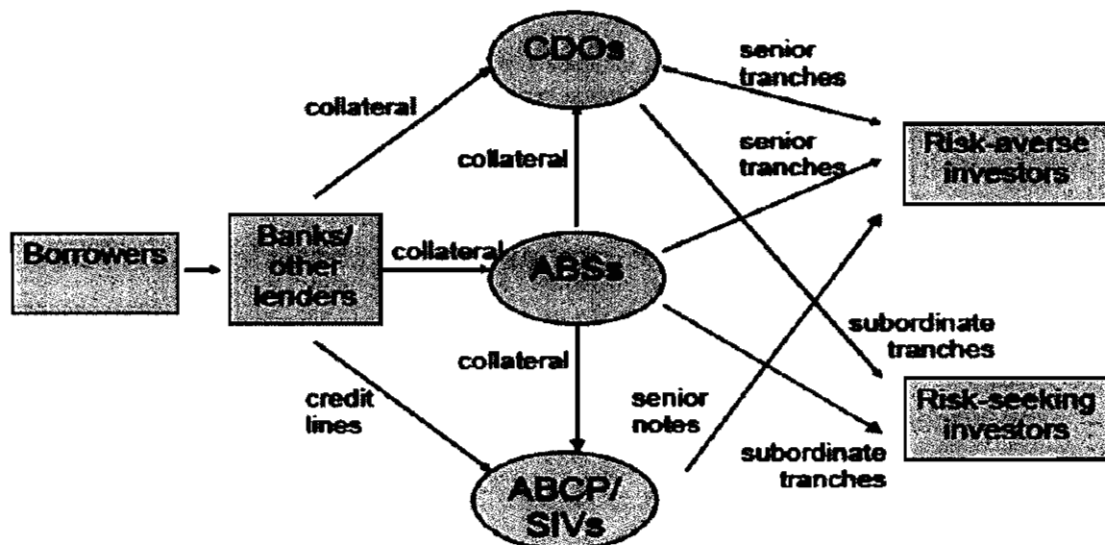
- The liquidity crisis on asset-backed commercial paper market in the summer of 2007;
- The failure of the wholesale funding market and the run on Bear Stearns in spring of 2008;
- The panic after Lehman collapse in fall of 2008, and the run on the wholesale funding market and the money market mutual funds at the peak of the crisis.



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Shadow Banking: A System

The shadow banking system



source: Speech by Hervé Hannoun, Deputy General Manager of the BIS March, 2008
<http://www.bis.org/speeches/sp080403.pdf>

Shadow Banking: Causes of Systemic Risks

Shadow banking system can cause systemic risks from following aspects:

- Shadow banks facilitate a building-up of **leverage**. Take repo market between shadow banks as an example, the repo agreements were secured by collaterals, which could be used repeatedly and increase the leverage of the whole system.
- The shadow banking system's **interconnectedness** with the regular banking system can raise systemic risks. The traditional banks provided explicit or implicit support to the shadow banking entities to enable maturity and liquidity transformation, thus reducing the costs of short-term fund raising for shadow banks. Through "cooperation" between the traditional banks and shadow banks, leverage and interconnectedness in the financial system were driven up, accumulating huge risks.
- **Regulatory arbitrage** was the root motivation for many shadow banks to exist. Some shadow banking entities are not subject to prudential regulatory standards and supervisory oversight.
- Activities of the shadow banking system can also amplify **pro-cyclicality**. Experience has showed that rapid growth of shadow banking was accompanied by credit extension in the economic circle, which amplified pro-cyclicality.

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Shadow Banking: Supervision and Regulation

- The FSB has conducted a series of discussions and developed recommendations to strengthen the regulation and oversight of the shadow banking system. The task force recommended 13 regulatory options in 5 categories undertaken by different organizations
 - Category I: Supervisory options addressing shadow banking business interconnected with traditional banks is undertaken by the Basel Committee.
 - Category II: Regulatory reform of money market funds is undertaken by the IOSCO.
 - Category III: Regulating other shadow banking entities will be undertaken by a special work stream.
 - Category IV: Regulating securitization is undertaken by the Basel Committee and the IOSCO.
 - Category V: Regulating repos and securities lending programs will be undertaken by a work stream.

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Shadow Banking: My Proposals

1. “Two-prang Approach”

First of all, we should understand there are two sides of shadow banking system. On one hand, evolvement of shadow banking was a natural development of the financial system and the economy. On the other hand, without proper supervision, shadow banks can impose huge risk to the system. Based on this judgment, a “two-prang approach” should be followed: First, those customer-based, low risk shadow banking activities should be allowed, while there should be on-going reviews or oversight of these activities. Second, shadow banking activities with a pure purpose of regulatory arbitrage and illegal fund raising should be banned.

2. Combination of “Regulation by institutions” and “Regulation by function”

Because of the complex and evolving nature of shadow banking, an approach combined with “regulation by institutions” with “regulation by function” shall be applied. Regulation by function is able to have a full coverage of shadow banking activities. Regulation by institutions is more direct and efficient. These two approaches can be complementary to each other.

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Shadow Banking: My Proposals (Con’t)

3. Monitoring Framework

Set up a comprehensive monitoring framework of the shadow banking system. One of the key problems now is that regulatory authorities lack quality data and monitoring framework of the shadow banking system. Increase transparency of reporting. Comprehensive reporting or disclosure could be required for shadow banks to improve transparency. Map out specific rules for contents and frequency of information disclosure. Establish reporting obligations on securitization, off-balance sheet asset and leverage. Enhance international coordination to develop international standard on information disclosure to obtain a full and precise picture of the shadow banking system.

4. Firewalls

Regulate banks’ interactions with shadow banking entities to reduce the spill-over effects of risks. Firewalls between traditional banks and shadow banks should be in place to reduce risk contagion.

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Shadow Banking: My Proposals (Con't)

5. Regulatory Arbitrage Gap

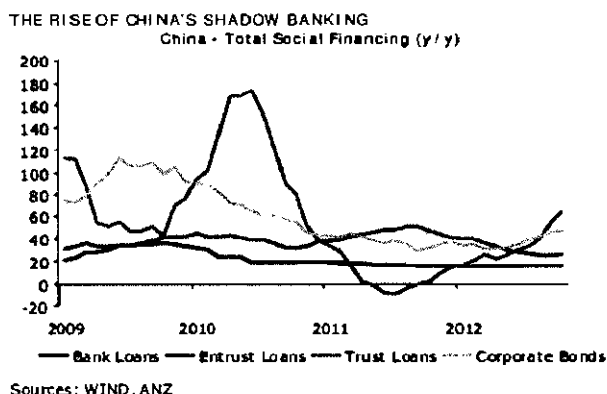
Regulate shadow banking entities to close the loopholes for regulatory arbitrage. One way to close the regulatory arbitrage gap is to extend the prudential regulation of capital, liquidity and large exposure to shadow banks to reduce regulatory cost gaps between banks and shadow banks.

My personal experience:

Guard against those shadow banking activities which are (or were) only "partially" outside the banking system and which precisely create instability risks by intertwining with the banking system.

Once found, we should take the following actions

- Mandate banks to convert back to on B/S.(prudential consolidation)
- Treat shadow institutions as traditional banks in terms of cost in operation and regulation e.g. capital charge and provisioning requirements.



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Shadow Banking: My Proposals (Con't)

6. Macro-prudential Measures

Regulate through macro-prudential measures. For example, according to its judgment on market liquidity situation, the supervisor may enforce minimum repo haircuts to control the repo market

- Restrictions on the categories of collateral that can be used within different types of secured financing arrangement
- Changes in bankruptcy laws which eliminate or restrict the special 'safe harbor' status of collateral held under repo or derivative contracts (political support for legislation change in different jurisdictions may be required).
- Restrictions on the ability to use collateral or guarantee in a way which creates complex and extended finance chains.
- The regulation of initial margin of repo or other secured funding contracts, involving either 1) constant minimum initial margins seeking to fight against pro-cyclicality; or 2) actively counter-cyclical initial margins – higher margins in periods of strong market upswing and increasing activity.
- It is vitally important to agree an international approach, given the globalization and possible arbitrage.

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Shadow Banking: Lessons from Global Crisis

More appropriate policy responses need to be worked out

- Restrictions on the categories of collateral that can be used within different types of secured financing arrangement
- Changes in bankruptcy laws which eliminate or restrict the special “safe harbor” status of collateral held under repo or derivative contracts (political support for legislation change in different jurisdictions may be required).
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- It is vitally important to agree an international approach, given the globalization and possible arbitrage.

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Open Questions for Discussion

- What had we learned from the global crisis?
- How to evaluate the usefulness of the preventive approaches ?
 - e.g. capital adequacy, its level and quality change, bail-in, non-risk sensitive leverage limit, liquidity risks control (LCR & NSFR), provisioning coverage, enhanced supervision, cross-border cooperation, etc..
- How important are transparency, culture, value, and corporate governance by large?
- Anything important missing?

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Effective Supervision: My Views (1)

Approaches toward emerging trends and developments:

- The expectations on, and of, supervisors will need to be of a higher order for SIBs, which will commensurate with the risk profile and systemic importance of these banks (includes operational risk prevention and control).
- Should we review risk profiles on yearly basis? How about examinations and ratification measures in high frequency?
- More direct and frequent interaction with Boards, independent directors, external auditors, etc.

- Supervisors and other authorities need to assess risk in a broader context than that of the balance sheet of individual banks, but we can never catch everything.
- Large exposure limit and provisioning coverage are always important.

Banks will run into difficulties from time to time, and to minimise the adverse impact both on the troubled bank and on the banking and financial sectors as a whole, we need

- Effective crisis preparation and management, and orderly resolution frameworks and measures.
- Cooperation between central bank and supervisors, local governments and FDIC or similar institutions.

Managing risk rests with Boards management in cultivating a stringent risk culture and value to support sound governance and let their risk, compliance and internal audit managers to speak loudly. Effective supervision requires constant, quality disclosure and transparency.

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Provisioning Ratio and Large Exposure Limit Are Very Useful: My Views (2)

Provisioning Ratio is the first line of defense to prevent potential risks

1. Loan Loss Provisioning Ratio (China)

Loan Classification	Previous	Current (amended in 2012)
Normal	1%	1.5%
Special-mentioned	2%	3%
Sub-standard	25%	30%
Doubtful	50%	60%
Loss	100%	100%

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Provisioning Ratio and Large Exposure Limit Are Very Useful: My Views (3)

2. Loan Loss Coverage Ratio & Provisioning to Loan Ratio (China)

Loan Loss Coverage Ratio	Provisioning to Loan Ratio
Provisioning / RWAs	Provisioning / Total Loans
$\geq 150\%$	$\geq 2.5\%$
Mandatory requirement: the combination of risk-sensitive and non risk-sensitive barometers are more suitable for our banks' risk management concrete situation.	

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Provisioning Ratio and Large Exposure Limit Are Very Useful: My Views (4)

- Laws, regulations or the supervisor require banks to have policies and processes that provide a comprehensive bank-wide view of significant sources of concentration risk (both balance sheet and off-balance sheet).
- The supervisor determines that a bank's risk management policies and processes establish thresholds for acceptable concentrations of risk, reflecting the bank's risk appetite, risk profile and capital strength, which are understood by, and regularly communicated to, relevant staff. The supervisor also determines that the bank's policies and processes require all material concentrations to be regularly reviewed and reported to the bank's Board.
- The supervisor regularly obtains information that enables concentrations within a bank's portfolio, including sectoral, geographical and currency exposures, to be reviewed.
- In respect of credit exposure to single counterparties or groups of connected counterparties, laws or regulations explicitly define, or the supervisor has the power to define, a "group of connected counterparties" to reflect actual risk exposure. The supervisor may exercise discretion in applying this definition on a case by case basis.
- Laws, regulations or the supervisor set prudent and appropriate requirements to control and constrain large credit exposures to a single counterparty or a group of connected counterparties.

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Effective Supervision: My Views (5)

Whether we should advocate:

- **Institutional supervision** (transform from bank-wide to group-wide supervision);
- **Functional supervision** (transform from simple to complex product specific supervision);
- **Information sharing** among on-site/off-site/market entry supervisory staff;
- **Simple, basic but useful** supervisory tools;
- **Communications** between external auditors, independent directors, board of supervisors (if any) and supervisors.

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Challenges for Effective Supervision: My View (6)

Resources

Resources were identified as a major constraint on supervisors (e.g. salary constraints, headcount constraints).

Supervisor's Authority

Some supervisors lack the authority (mandate) and independence to review acquisitions, appointment process for key positions and for some supervisors that do have the authority but do not have a process in place. The BCBS Core Principle are being strengthened substantially to ask supervisors to “approval or reject” versus the current “review” major acquisitions.

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Recommendations: My Views (8)

➤Market Dynamism

Markets change quickly. In order to cope up with them accurately, banks need considering some **dynamic aspects** of market liquidity after the triggering events e.g.

- second-round effects
- herding behavior of market participants
- feedback effects of its own reactions including reputational risk (e.g. by fraudulent cases) and
- interaction among different risk factors.

Recommendations

- More studies on market structure change and the behavioral tendencies of market participants are helpful.

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Recommendations: What Else Banks Should Do? My Views (10)

- KPIs are true driving force in each bank that provides more upon which to make decisions, change behavior and engage in strategic discussions about the business. Banks should determine which and what factors KPIs will allow them to gain insights into the underlying performance of the business beyond a purely financial view and to gain insights how to moderate and when.
- Funds transfer pricing (FTP) is also very important to help managing the bank's profitability by analyzing earnings for the whole institution or for different profit centers. Banks should make rational decisions about resource allocation, cost control and level of profitability. Information on product and customer profitability creates the basis for pricing decisions, and indicates which products and customers are the most cost-effective for the bank. But a lot of banks couldn't deliver FTP accurately and in good time.
- A strong first line of defense cannot be emphasized more. Therefore, having a strong risk culture is necessary for risk management to be embedded within the business. Culture has to be driven firmly from the top, at the Board level, all the way through executive management, and this needs monitoring.
- It has been widely reported that banks that performed better than peers during the crisis gave: 1) their compliance officers and; 2) their risk managers equal or high status than to their risk-taking business managers. Those banks also allow them to interpret and manage.

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Recommendations: What Else Banks should do? My Views (11)

- **Spend more money on governance, education and analysis:**

-- **Lehman** would not fail if they had sufficient data. They failed because their indicators showed they were doing fine and no one questioned the indicators.

-- **MF Global** would not fail if they had tracked their trades. They failed because they blindly followed their trading algorithms without questioning their strategy.

-- Why did **Northern Rock** crash? Because its historical data showed that their strategy had always made money and would continue to make money without doubt.

-- **Icelandic banks** (Landsbanki, and Kaupthing) failed and caused huge stir in UK not because they are G-SIFIs but because both central banks in UK and Iceland didn't think they needed to talk about deposit insurance scheme coverage beforehand.

Thank you !