



Internal Capital Adequacy Assessment Process ('ICAAP')

PRiM event 7th April 2008

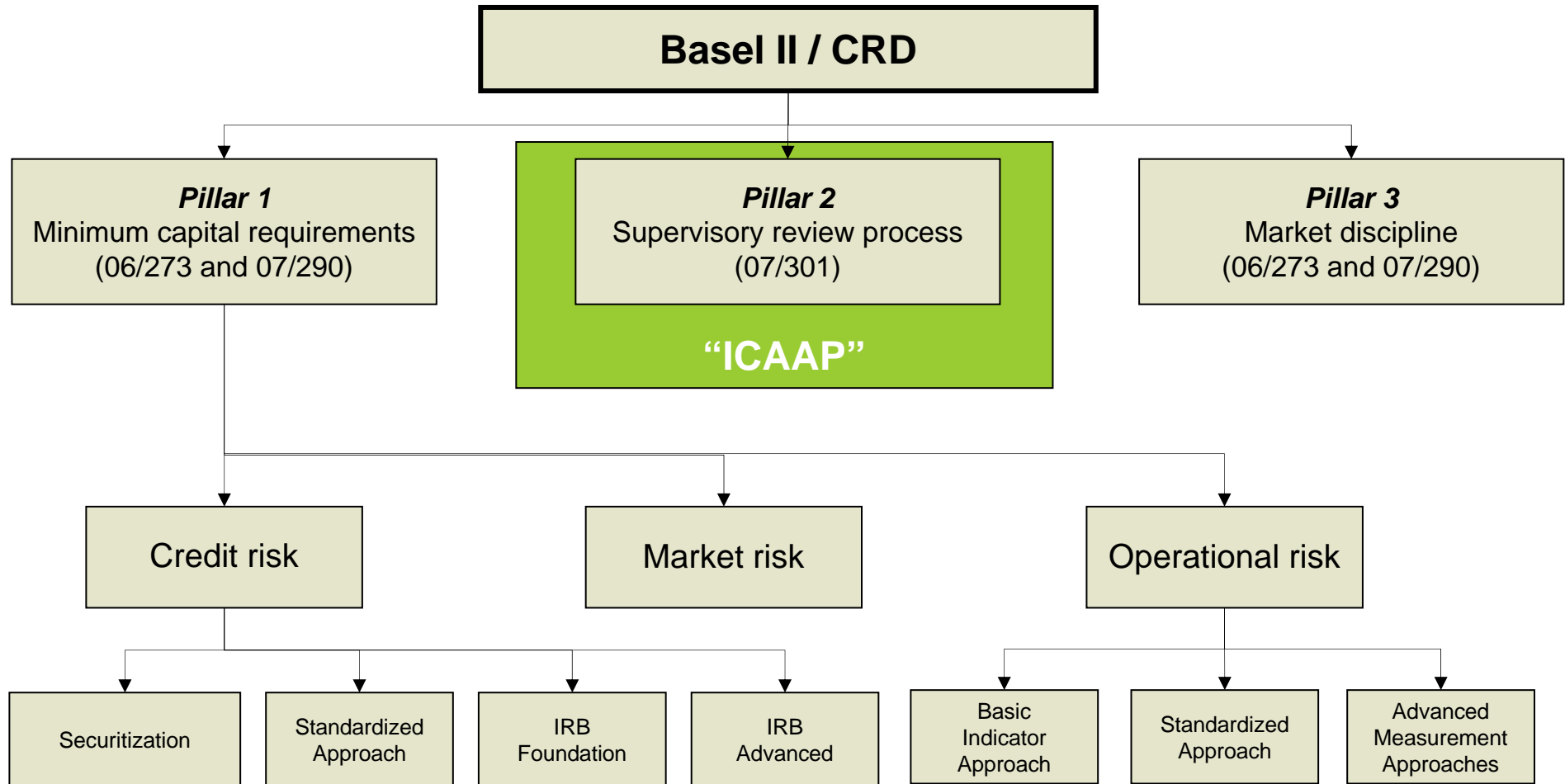
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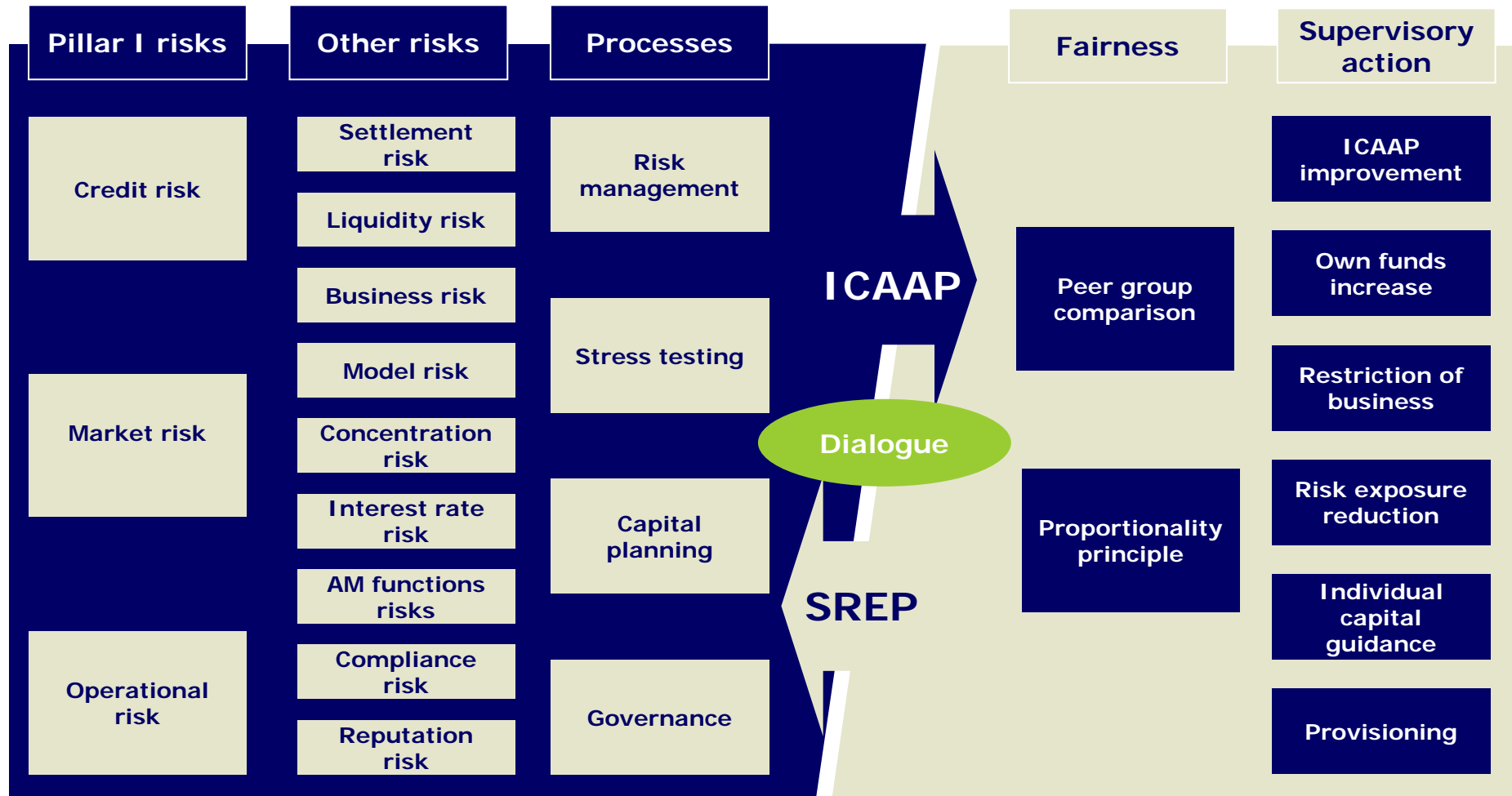
AGENDA

- Context reminder
- Importance of the ICAAP
- Regulatory update
- The ICAAP and the Supervisory Review Process
- Findings

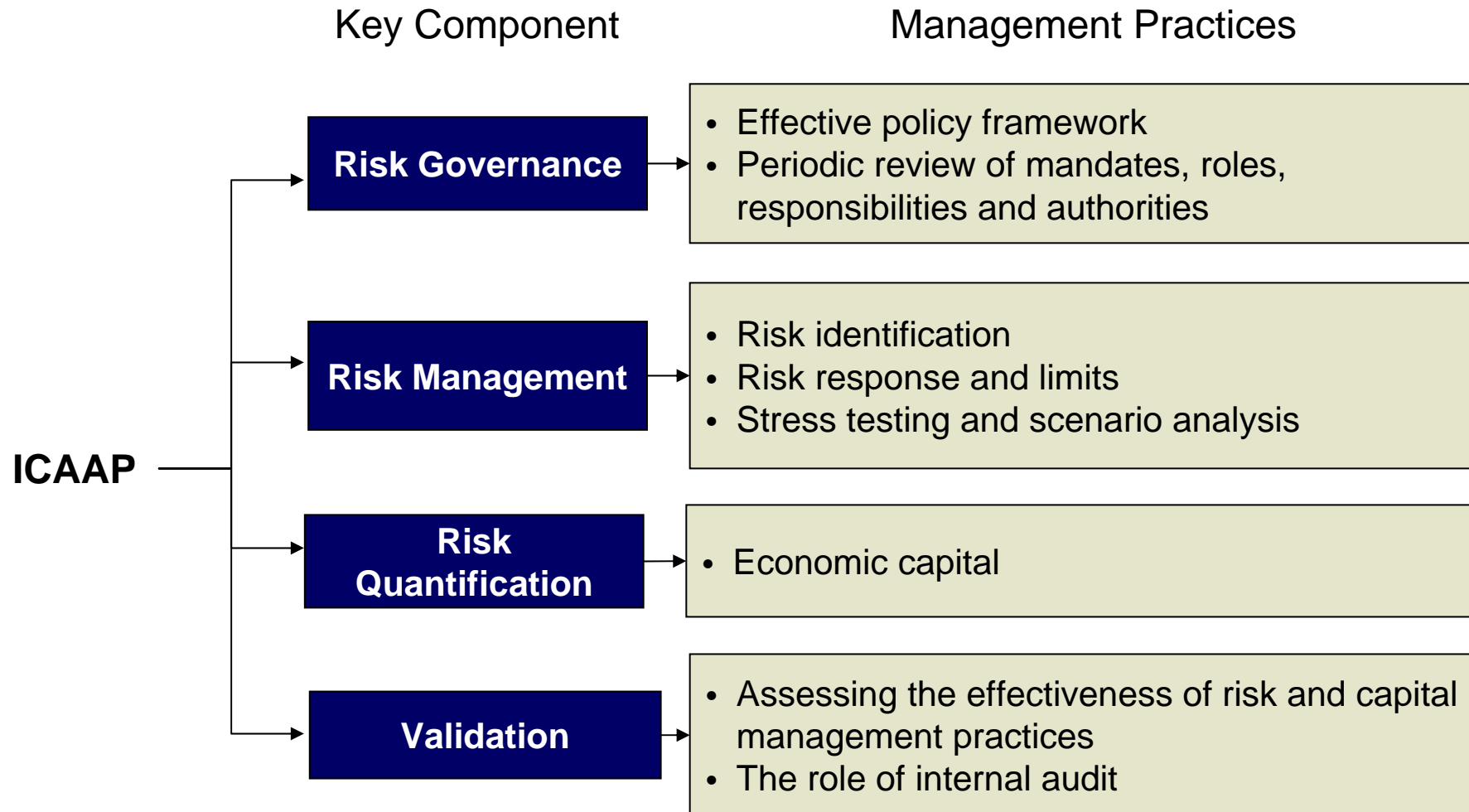
Context reminder



Overview of Pillar II



Embedding the ICAAP



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Why is the ICAAP important?

Financial

- Better understanding of risk versus regulatory capital relationship and drivers
- More informed capital allocation decisions
- Optimize balance sheet forecasting

Operational

- Regulatory incentives to focus on where money is lost
- Impacts the operating model (e.g. roles of risk and finance)
- Can be used to improve decision making

Strategic

- Defines elements of the competitive landscape and how your institution is positioned
- Opportunity to enhance competitive position
- Explicit links to risk appetite

What does ICAAP mean for governing bodies?

- The ICAAP is primarily a self-evaluation of risk and capital management and has two primary audiences:
 - The Board
 - The Regulator
- The ICAAP is management's expression of the level of confidence it has in the institution's:
 - Oversight of significant risks;
 - Ability to identify significant risks;
 - Specific risk management practices; and;
 - Ability to respond to extreme but plausible events.
- While regulatory capital is one outcome it is not the only outcome
 - Has management made a reasonable effort to identify the potential impact and response to the '*unknown unknowns*'?

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Update on regulatory context

- Upon initiative from ABBL, a dialogue has been initiated between CSSF, ABBL, PRiM and ALCO in December 2007.
- CSSF has consequently published some clarifications related to issues raised by institutions designing and implementing their ICAAP on their website:
<http://www.cssf.lu/index.php?id=215>
- Topics covered include:
 - Submission process
 - Home/host supervision issues
 - Practical implementation issues (incl. roles of various functions)
 - Quantification of risks
 - Level of involvement by senior management

Update on regulatory context (II)

Submission process

- CSSF will start the formal review of ICAAP in 2009, based on the situation as at December 31, 2008.
- The internal ICAAP report submitted to the Board of Directors may be sufficient (no extra reporting required) if it complies with Circular 07/301
- The first report must be addressed to CSSF in 2009 together with the other documents required by the Visa procedure (CSSF Circular 08/340)
- In 2008, CSSF will initiate a direct dialogue with banks, i.e. information sessions to better understand how they address the ICAAP

Home/host supervision issues

- For cross-border banks, possible overlaps between the group's consolidated ICAAP and the subsidiaries' local ICAAPs
- ICAAP may be partly outsourced (amongst other to the parent company) as regards technical infrastructure, calculations or databases. However, the decisional process and the monitoring of risks cannot be outsourced
- CSSF is ready to recognise that the consolidated ICAAP be allocated at the Luxembourg subsidiary's level: no individual calculation would then be required at the subsidiary's level

Update on regulatory context (III)

Quantification of risks

- CSSF does not expect sophisticated methods to measure all risks: experience and documented judgment from management could be sufficient for some risks
- A less sophisticated ICAAP may be sufficient for some banks => a “Pillar 1 plus” methodology
- Quantification and allocation of capital for compliance and reputation risks is not mandatory provided the bank can justify to CSSF that these risks are properly identified, monitored and mitigated. If it is not the case, compliance and reputation risks must be measured and covered by internal capital.
- For liquidity risk, CSSF agrees that capital is generally not the best solution and that appropriate risk mitigants are:
 - The prudent management of liquidity in both normal and stress conditions
 - Contingency planning
 - Monitoring of liquid assets and of first quality collateral to receive credit lines from other market participants and from central banks
- Business risk could be quantified via a stress test on the loss of significant customers: the concentration of the customer base could be a useful indicator

Update on regulatory context (IV)

Practical implementation issues

- The allocation of tasks between Risk Management, Internal Audit and Compliance should be:
- Risk Management and Finance implements and operates the ICAAP
- Internal Audit controls the ICAAP procedures
- Compliance checks the compliance risks in relation to the ICAAP
- In practice, such an allocation may not be feasible in small entities. Provided the ICAAP's integrity is ensured, the Management is free to delimit internally the respective scopes of the three functions

Level of involvement of Senior Management

- Local management to at least be able to:
- Understand and explain the level of capital allocated to the Luxembourg subsidiary;
- Understand what the model covers and what it does not cover (limitations and potential weaknesses);
- Assess whether the model is adapted to the specificities of the subsidiary's activities in Luxembourg and, if necessary, correct the capital allocation in order to adequately reflect the specificities and the risks of the Luxembourg business.

Update on regulatory context (V)

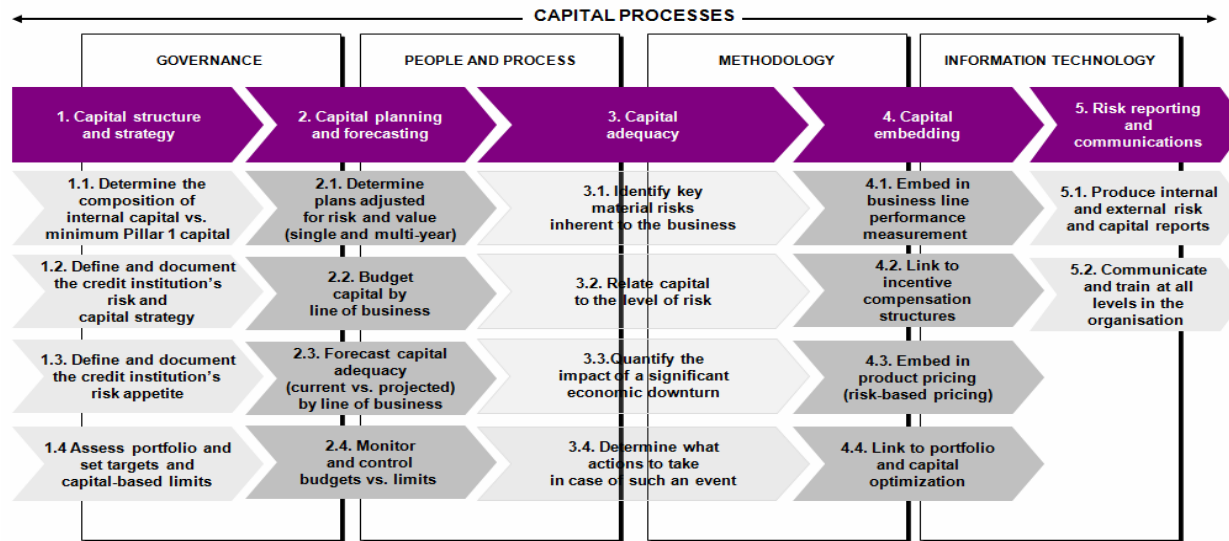
CSSF Circular 08/338

- A regulatory stress test for the interest rate risk of the banking book is imposed by the CRD in art. 124(5) even if banks use their sophisticated internal models. This has been transposed in Luxembourg regulation via CSSF circular 08/338.
- Similar to ICAAP (Circular 07/301), its scope includes both the credit institutions and the investment firms.
- Objective: a minimum exercise whereby banks must be able to compute and report to their supervisor the change in their economic value as a result of applying a standard shock.
- Assumption: parallel shift of the yield curve by +/- 200 bps in major currencies.
- If the standard shock leads to a decline of more than 20% of own funds, then a discussion is initiated with the supervisor
- First reporting to CSSF shall be established as of June 30, 2008.

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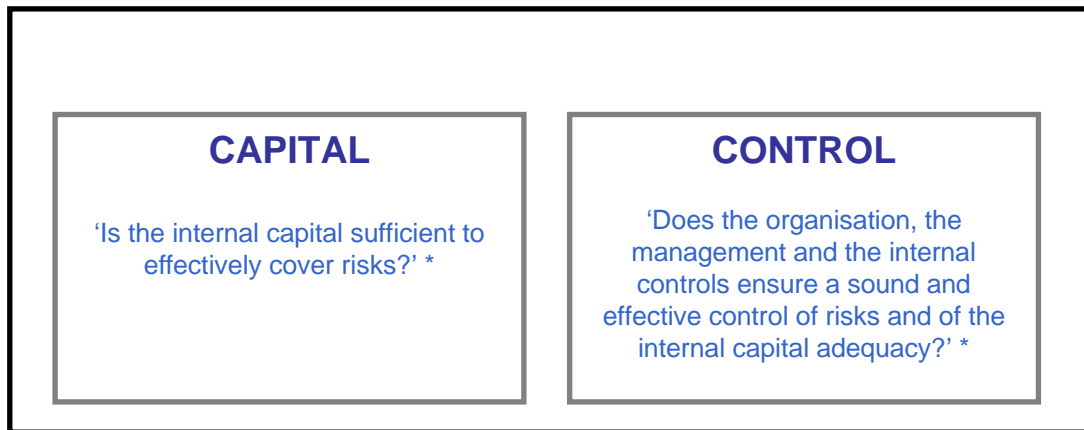
THE ICAAP AND THE SUPERVISORY REVIEW PROCESS



The ICAAP is a process of continuous improvement. A logical grid allows financial institutions to oversee the main process steps and apportion these into manageable capabilities

Prudential Measures

- **Article 46** : Requires any bank to take the necessary measures in order to comply.
- **Article 47**: If insufficient, the CSSF may:
 - ✓ request ICAAP reinforcement;
 - ✓ restrict or limit the business or operations;
 - ✓ request the institution to reduce the risk inherent in its activities, products and systems;
 - ✓ require the institution to apply a specific provisioning policy or a specific treatment of assets in terms of own funds requirements to its exposures;
 - ✓ require the institution to hold prudential own funds above the minimum level set by the CSSF.



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SPECIFIC FINDINGS

Risk Assessment, Risk Mitigation and Capital Calculation						
Risk Type	Assessment		Mitigation		Calculation	
	Local	Group	Local	Group	Local	Group
• Credit/Counterparty	✓		✓	✓		✓
• Operational	✓		✓			✓
• Market	✓		✓		✓	✓
• Concentration	✓			✓		✓
• Country	✓		✓			✓
• Liquidity	✓	✓	✓	✓	✓	✓
• Clearing/Settlement	✓		✓			✓
• Compliance	✓		✓			✓
• Reputation	✓		✓			✓
• Legal			✓			✓
• Residual						
• Securitisation		✓		✓		✓
• Business		✓		✓		✓
• Macroeconomic		✓		✓		✓
• Model		✓		✓		✓

Note: Where a tick (✓) appears in both 'Local' & 'Group' column, the particular action for the relevant risk type is partially conducted (or conducted in a rudimentary fashion) at local level then confirmed/completed at Group level.

Scenario Testing & Management

- General reliance on Group
- Group methodologies not shared with local staff (thereby limiting local knowledge & understanding)
- Local simulations qualified by Group models

Risk Framework & Governance

- Capital reviewed (specifically) at Board level at least annually, and quarterly in the context of business development updates.
- Holistic view rather than granular (ie. not at level of individual risk types)
- ALCO & Credit Risk Committee kept informed – capital is a standing agenda item at monthly meetings
- Risk Management represented at every Bank committee.

FINDINGS (2/4)

Credit Risk

- The risk that a counterparty fails to meet its obligations
- Is the ICAAP methodology and the Pillar one methodology the same
- Does Pillar one underestimate credit risk
 - IRB curve, Standardised
- Regulators expect there to be a clear understanding and explanation of what the differences between pillar one and ICAAP credit risk are (granular analysis of the numbers)

Residual Risk

- The risk that credit risk mitigation (CRM) techniques prove less effective than planned
- Often not considered specifically may or may not be covered implicitly
- The introduced CRM can actually increase risk rather than reduce it
 - Operational Risk, Liquidity Risk, Concentration Risk, Credit Risk
- Regulators expect there to be a specific reference to how this risk is dealt within the organisation.

Liquidity Risk

- The risk that the firm is unable to fund its obligations as they come due
- Are the liquidity drivers understood
 - Markets, credit rating, cash outflows
- Regulators expect complete understanding and stress testing of liquidity

Scenario Testing and Management

- Have stress tests where profits are challenged, assumptions are flexed and mitigating actions are constrained been completed
- What is the approach
 - Cyclical, one time event, single name, market or operational
- Regulators expect close engagement of senior management in this process to challenge planning assumptions

Senior Management Understanding

- Understanding the Full Set of Risks Inherent to the Business
- Understanding and Embedding Methods to Mitigate the Risks
- Understanding the Management Actions that would be Enacted if Risks Materialised
- Ensuring there is Robust Governance of the Capital Process
- Regulators will vigorously test senior management's understand of this

FINDINGS (4/4)

ICAAP OPTIONS

Option 1 – Group Approach with Home Regulator & CSSF Granting Mutual Recognition

Advantages:

No model development required
Limited investment in developing an understanding of the numbers

Issues:

CSSF require granular risk data
Local management must be able to explain difference between P1 & P2
Home regulator may not approve models or agree mutual recognition with CSSF

Gaps:

Source data not uniform
Group provides numbers at BU rather than legal entity level
Methodologies not shared with Luxembourg so staff cannot explain output

Option 2 – Group Approach with Trained-up Luxembourg Staff

Advantages:

No model development required
Limited investment in developing an understanding of the numbers (although more than in the previous option)

Issues:

Limited understanding of data sourcing, calculations & allocations.
Non-transparent Group processes
Models do not produce granular data

Gaps:

Same as previous option, but also:
- Training resources
- Appropriate infrastructure to access, reconcile & understand capital allocation

Option 3 – Pillar 1 Plus (Local Luxembourg Staff Understand Calculations)

Advantages:

Numbers can be identified, broken down & allocated locally
CSSF may not require calculation due to high capital levels (assuming all risks are covered by processes)

Issues:

Many risk types not calculated locally
Capital is managed relatively passively
Will possible/probable misalignment with Group be acceptable (to Group)?

Gaps:

Explanation of how all risks are mitigated/covered if a capital number for the risk is not actually calculated

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CSSF Clarification points

- Text of responses are found in the following slides as an appendix
- The website address is: <http://www.cssf.lu/index.php?id=215&L=1>

Does the ICAAP of a Luxembourg institution – bank or investment firm – have to include its branches and/or subsidiaries?

- Part XVII of circulars CSSF 06/273 and CSSF 07/290 imposes ICAAP on credit institutions and investment firms incorporated under Luxembourg law, and on branches of non-EU credit institutions and investment firms (“institutions”), based on their individual situation.
- This individual situation includes all the branches of the Luxembourg institutions as branches do not have a legal personality.
- As far as compliance with ICAAP at a consolidated level is concerned, Chapter 3 of Part VI of circulars CSSF 06/273 and CSSF 07/290 provides that the ICAAP requirement under Part XVII must also be complied with based on the consolidated situation of the institutions. The same provision is laid down in article 51(1)(b) and article 51-5(1)(b) of the law of 5 April 1993 on the financial sector, as amended. The scope of the consolidation, governed by the provisions of Chapter 3 and 3a respectively of Part III of that law, includes, as a general rule, the subsidiaries both within and outside the European Union.
- It should be noted that the scope of ICAAP, as delimited above, may vary, where applicable, according to the derogations set out in articles 51(3) and 51-5(3) of the law of 5 April 1993 on the financial sector, as amended. Pursuant to those articles, the CSSF may exempt Luxembourg subsidiaries of a Luxembourg parent undertaking from the provisions applicable to ICAAP, under the conditions set out in those articles.
- In practice, it is incumbent upon the institutions, i.e. upon their board of directors and authorised management, to implement an ICAAP that fulfils best their internal capital adequacy assessment needs. ICAAP, whatever its form, must be comprehensive within the meaning of point 10 of circular CSSF 07/301. According to this point, ICAAP shall cover “all the risks to which the institution is or could be exposed”, irrespective of the portfolio or the entity (subsidiary or branch) where those risks are incurred.
- In this context, the CSSF expects the “ICAAP report” referred to in points 17 and 26 of circular CSSF 07/301 to adequately reflect the individual and consolidated situation of the institution, by considering all the risks to which the institution is exposed.

When does the ICAAP annual report, referred to in points 17 and 26 of circular CSSF 07/301, have to be submitted to the CSSF?

- As far as credit institutions are concerned, the “ICAAP report” referred to in points 17 and 26 of circular CSSF 07/301 must be submitted to the CSSF together with the documents on the annual accounts to be published (“VISA” procedure). As regards investment firms, the report must be submitted to the CSSF within the month following its discussion within the board of directors in accordance with point 17 of circular CSSF 07/301.
- The first mandatory submission of the ICAAP report to the CSSF shall be in 2009.

Do all risks, including Compliance risk and reputation risk, need to be subject to a quantitative assessment?

- According to point 11 of circular CSSF 07/301, the purpose of the ICAAP is to “ensure that institutions maintain, on an ongoing basis, an amount, a type and an internal capital distribution allowing them to effectively cover the risks to which the institutions are or could be exposed”. Achieving that goal necessarily requires a quantitative risk assessment in order to determine the internal capital needed to cover those risks. For Compliance risk or reputation risk, such quantification could prove to be difficult for want of confirmed measurement methods or reliable data. Assessment of those risks is, where applicable, of a more qualitative and subjective nature (expert judgment).
- Whichever of the approaches is chosen, institutions must be able to justify the robust and appropriate character of the risk measurement they implement.
- Notwithstanding the fact that risk measurement is mandatory, the CSSF may allow that certain risks, such as Compliance risk or reputation risk, when negligible, are not subject to frequent and rigorous quantification. This would be the case for institutions that, by virtue of a zero tolerance policy towards Compliance risk and reputation risk, have implemented an efficient and comprehensive set of procedures and internal controls aiming at strictly avoiding those risks. Where that regime is such as to ensure the absence of such risks, so that internal capital allocated for that purpose tends to zero, the goal of capital adequacy can be achieved without having to rigorously quantify those risks. The institutions concerned shall prove the non-material character of the risks for which a frequent and rigorous quantification is not being made.
- The treatment referred to above remains strictly limited to risk quantification. In any case, all the risks must be identified, as well as monitored and controlled on an ongoing basis. It is thus imperative that at the launch of new products and activities or expansion of activities through external growth, institutions assess in particular the connected Compliance and reputation risks.

Do all risks, and in particular liquidity risk, need to be covered by own funds?

- According to point 11 of circular CSSF 07/301, the purpose of the ICAAP is to “ensure that institutions maintain, on an ongoing basis, an amount, a type and an internal capital distribution allowing them to effectively cover the risks to which the institutions are or could be exposed”.
- In general, prudential own funds constitute an efficient safety cushion allowing to absorb financial losses and to protect third-party funds. However, the efficiency of the risk coverage by prudential own funds or internal capital varies. It depends in particular on the nature of the risks and the quality of the management and internal governance. Thus the existence of material liquidity risks is not necessarily reduced through the injection of additional own funds, just as own funds do not constitute an efficient solution to a bad organisation or internal management. This is notably the case for new activities or products, supported by own funds, but for which the existing risk management is not suitable. Conversely, where the risk coverage by own funds is weak, liquidity risks are more likely to occur. Thus, where market sentiment turns prudent, a weakly capitalised bank may rapidly be refused access to refinancing by market operators that become very selective in risk-taking.
- For the ICAAP, every institution implements a combination of mitigants, i.e. internal capital and internal management and control mechanisms, which allow to efficiently cover the risks to which it is or might be exposed. In the context of liquidity risk, the internal management mechanism shall in particular ensure a sound and prudent management of the liquidity situation in normal circumstances and provide for efficient measures to face a tightening of liquidity in stress situations.

To what extent does management need to be involved in the technical aspects of ICAAP?

- Point 19 of circular CSSF 07/301 provides that the authorised management is responsible for the development and implementation of a sound and effective ICAAP which fully meets the objective of internal capital adequacy. In this context, the management shall approve the ICAAP, which has been implemented according to its instructions, based on its own assessment of the ICAAP's ability to meet the targeted objective. While such assessment does not necessarily require a thorough knowledge of all the (technical) details of the ICAAP, it relies nonetheless on a sound comprehension of the main mechanisms of the ICAAP, and in particular risk measurement and the manner in which that measurement is translated into internal capital.
- The outsourcing of certain ICAAP aspects, in particular within the same group, does not relieve the local management of the above-mentioned responsibilities. The latter will still have to approve the local ICAAP based on its own assessment, verifying in particular that the ICAAP fully reflects the risks incurred by the Luxembourg entity, that capital adequacy is consistent on the local level and that those assessments are based on appropriate local documentation.
- As regards day-to-day management of risks and internal capital, the management shall be in a position to assess, based on their knowledge of the ICAAP's functioning, to what extent the ICAAP continues to provide a fair view of all the risks and internal capital incurred, in particular in a context of business development and market downturn.