Risk & Capital Management under Basel III

London, 15 February 2011
Agenda

• The ICAAP under Basel III

• Challenges for capital management

• Interaction of Risk & Finance

• Conclusions
ICAAP – Impacted by Basel III?

Components of ICAAP
- Governance over the ICAAP
- Risk assessment
- Internal capital assessment
- Risk strategy
- Capital planning
- Stress testing
- Use test
ICAAP – Impacted by Basel III?

Capital planning

- Conservation buffer
- Uncertainty on countercyclical buffer
- Transition period to 2019: lengthening the capital planning period
**Basel III – putting the squeeze on capital**

- **Available total capital (illustrative)**
- **Available Core Tier 1 (illustrative)**
- **Minimum Total Capital**
- **Minimum Core Tier 1 (common equity)**

- **2%**
- **3.5%**
- **4%**
- **4.5%**
- **5.125%**
- **5.75%**
- **6.375%**
- **7% (including Conservation Buffer)**
- **10.5% including Conservation Buffer – 1/1/19**
- **New total capital**
- **New available CT1**
- **4.5% minimum -- 1/1/15**

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The approach to buffers is complex and can double-count

1. TTC adjustments.
2. Basel III RWAs
3. Definition change
4. Conservation buffer (2.5%)
5. Countercyclical buffer (0.0% - 2.5%)
6. Systemic buffer (tbc)
7. Economic growth buffer
8. Market buffer
9. Management buffer
10. Impact of future accounting changes
11. Volatility buffer

Target CT1 ratio

Basel III minimum (4.5%)

Basel III: the outlook for capital and liquidity

Basel III minimum (2.0%)

Basel III and other regulatory changes

Additional considerations in setting target CT1 ratio
Agenda

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Four main themes will dominate bank capital management practices going forward.

1. Capital **Optimization and Mitigation** will be critical to reset business models and become integral part of decision making – e.g. strategic planning & budgeting, new business, and performance evaluation.

2. Capital **Structures** will emphasize high quality equity, discourage hybrids, and allow for entrance of new instruments such as CoCos.

3. Capital **Analytics and Measures** will rely less in statistical models and combine forward looking stress testing and risk measures with enhanced coverage.

4. Capital **Contingency Planning** will be integrated with liquidity risk management and corporate recovery / resolution planning processes.
Capital is increasingly becoming an explicit component of all decision making processes.

Integrated Capital Management Framework

- Governance & Organization
  - Strategic & Business Planning
  - Front Office
  - Risk Mgmt.
  - Finance
  - Controls
  - Performance Evaluation

Business Processes and Controls
- Risk Appetite
- Strategic Planning
- Budget and Forecast
- New Product / New Business / M&A
- Origination & Pricing
- Execution
- P&L and Risk Analysis
- Supervisory Controls
- Risk Identification
- Risk Measurement
- Stress Testing
- Risk Monitoring & Limits
- P&L Production & Attribution
- Liquidity & Funding
- Capital Evaluation
- Contingency Planning
- Compliance
- Internal Controls
- Model Validation
- Internal Audit
- Performance Measurement
- Reporting
- Incentives & Compensation
- Disclosure

Analytics
- Pricing Models
- Risk Measures
- Stress Testing
- Capital Measures
- Performance Measures
- Control Indicators

Infrastructure
- Technology
- Data
- Resources

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In the area of capital measures and analytics, more emphasis to stress testing will be placed relative to economic capital.

Comparison of Economic Capital and Actual/Stressed Losses

- Economic capital failed in most instances to capture fat tail risks
- Stress testing techniques to be combined with economic and regulatory capital measures
- Need for global stress testing practices level playing field
- Economic capital measures to converge with regulatory capital calculations
Upgrades in capital planning are necessary, including capital contingency plans that link to recovery plans and living wills.

### Capital Contingency Planning Overview

#### Key Components

- **Capital Measures**
  - Regulatory
  - GAAP
  - Economic Capital

- **Assessment Scenarios**
  - Forecast under specific current forecast (base case)
  - Forecast under stressed scenarios (unexpected events)

- **Early Warning Triggers**
  - Market Perception
  - Capital Change
  - Liquidity Impact

#### Capital Crisis Level

- **Level 1** – Normal
- **Level 1B** – Normal with Heightened Capital Concerns
- **Level 2A** – No Crisis but Potential for Crisis Above Normal
- **Level 2B** – No Crisis but Potential for Crisis is More Probable
- **Level 3** – Capital Crisis That Should not Threaten the Bank’s Survival
- **Level 4** – Capital Crisis That May Threaten the Bank’s Survival

#### Capital Response Actions

- Increase Available Capital
- Reduce Required Capital
- No Actions

#### Key Considerations

- Response Time & Operational Readiness
- Magnitude
- Type of Capital
- Stakeholder Reaction

#### Mobilizing Plan

- Testing & Communication
- Monitoring & Activation

### Key Processes

1. Perform Periodic Assessment
2. Determine Capital Crisis Level
3. Select and Implement Capital Response Actions

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Slide 11
**Enterprise-wide initiatives like recovery and resolution planning emphasize the need for integrating capital and liquidity contingency planning**

<table>
<thead>
<tr>
<th>Capital Contingency Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Capital measures</td>
</tr>
<tr>
<td>• Early warning triggers</td>
</tr>
<tr>
<td>• Specific stress scenarios</td>
</tr>
<tr>
<td>• Crisis levels</td>
</tr>
<tr>
<td>• Capital response actions</td>
</tr>
<tr>
<td>• Communication and escalation</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Liquidity Contingency Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Liquidity measures</td>
</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>• Crisis levels</td>
</tr>
<tr>
<td>• Funding response actions</td>
</tr>
<tr>
<td>• Communication and escalation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Integration of Capital and Liquidity Contingency Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inputs, results, and actions</strong></td>
</tr>
<tr>
<td>• Common early warning triggers</td>
</tr>
<tr>
<td>• Impact of liquidity specific stress test results on capital position and vice versa</td>
</tr>
<tr>
<td>• Impact of liquidity response actions on capital position and vice versa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enterprise-wide applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enterprise-wide stress testing</td>
</tr>
<tr>
<td>• Recovery and resolution plans</td>
</tr>
<tr>
<td>• Dividends and other earning retention/distribution decisions</td>
</tr>
<tr>
<td>• Ongoing risk management</td>
</tr>
</tbody>
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Bringing it all together – the overarching capital challenge

Banks: cost of equity vs. return on equity

Source: Capital IQ; PwC analysis – UK banks

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**Bringing it all together – the overarching capital challenge**

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RoE

CoE

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Slide 14
**Agenda**

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Liquidity and capital constraints force risk & finance to work together

- Management is forced to have a much sharper focus on capital and funding (and therefore risk) management
- Resource allocation decisions are top of the agenda – both in terms of capital and liquidity
- Liquidity risk function will need to get sole control over stock of liquid assets under Basel III liquidity rules
- Increased disclosure of capital and liquidity management approaches and measures to investors and other external stakeholders
- Valuation of illiquid instruments, products and collateral remains a critical issue
- CEO and Board insist on better decision support, management information and data consistency
In addition, there are internal drivers pushing in the same direction ...

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<tr>
<th>Internal drivers</th>
<th>Implications for risk and finance</th>
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| Strategic choices require an integrated assessment of risk perspectives          | • Risk needs to be integrated at the front end of strategy and business planning processes.  
• Risk appetite needs to be formulated clearly, communicated and monitored  
• Economic capital and risk-adjusted performance measurement are no longer optional extras |
| Performance challenges require improved operational efficiency                   | • Increased appetite for simplified, integrated IT and data platforms  
• Finance and transactional activities increasingly standardised and off-shored or outsourced  
• Assessment of opportunities to apply similar approaches to risk activities |
| Attracting and retaining talent                                                  | • CROs and CFOs both seen as leaders with seats at the top table  
• Organisation models that provide challenging career paths across risk and finance  
• Well-defined, proactive commercial roles for risk and finance personnel, partnering with middle and front office colleagues |
Linking risk & finance

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Aligned risk & finance structure

- CFO:
  - Financial and capital strategy planning and analysis
  - Tax planning and compliance
  - Treasury and balance sheet management

- CRO:
  - Risk governance and policy centres of excellence e.g.
    - Market risk
    - Credit risk
    - Operational risk/control
  - Oversight, policy and model development
  - Risk committees

- Aligned teams:
  - External relations
  - Capital strategy, allocation and planning
  - Risk and finance partners in the business
    - Bus A
    - Bus B
    - Bus C
  - Change management
  - M&A
  - Integrated financial and risk reporting and control

Financial and risk transaction, data and systems – Consistent data with supporting change of accounts across financial, risk and regulatory reporting, supporting data dictionary, shared services, offshored or outsourced run on tailored service orientated architecture between existing systems.
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Capital management is an integral process, touching a number of organisational functions

- Risk appetite is set by the Board and cascaded through the organisation through limits, etc.
- Risk measurement is undertaken by the respective risk functions and reported to decision makers
- Finance produces planning and budgeting figures, which have to be supplemented with the relevant risk estimates
- Stress tests applied to forecasts are a joint endeavour of business lines, risk and financial planning
- Management (committees) decide on actions to be taken as a result of forecasts
- Execution of capital management actions is the responsibility of Treasury