Iceland: IFRS 9 governance

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Presentation by

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Risk Consulting

- Steven leads our credit risk and capital management work in the UK in our Banking Risk and Regulatory Practice. Steven has over 18 years’ experience of advisory work supporting firms with their credit risk modelling and governance arrangements, including stress-testing practices for regulatory and business purposes. He co-leads our UK IFRS 9 project driving the credit risk and regulatory aspects of our engagements.

- He is currently providing credit risk implementation advice in respect of IFRS 9 across the UK, Europe and globally, including HSBC, Nationwide and AIB. He regularly interacts with the Prudential Regulation Authority (PRA) Supervisory Risk Specialists team in respect of credit risk methodologies, IFRS 9 implications for credit risk management and the associated regulatory capital implications.

- Steven is a frequent conference speaker on credit risk, prudential capital and IFRS 9 and often provides training and 1:1 coaching to senior management, UK and overseas regulators, and internal audit departments.
IFRS 9 impacts many elements of governance:

1. Independent model validation
2. Management overlays
3. Governance and operating model
4. Sophistication and proportionality
5. IFRS 9 training
Independent model validation
Why IFRS 9 model validation is crucial?

**Regulatory compliance**

‘Principle 5 – ECL model validation

*A bank should have policies and procedures in place to appropriately validate models used to assess and measure expected credit losses*

— BCBS Guidance on credit risk and accounting for expected credit losses, December 2015

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**Amount and complexity of inputs**

<table>
<thead>
<tr>
<th>Scope</th>
<th>Segmentation</th>
<th>Materiality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity</td>
<td>Staging</td>
<td>Definition of default</td>
</tr>
<tr>
<td>Management overlays</td>
<td>Modelling approach</td>
<td></td>
</tr>
<tr>
<td>Economic Outlook</td>
<td>Non-modelled portfolios</td>
<td></td>
</tr>
</tbody>
</table>

**Importance of outputs**

Provisions, Capital, Pricing, Planning, Stress testing
## Independent model validation

### What type of validation is performed for IFRS 9?

#### Quantitative
- Quantitative validation performed for each model component separately and covers at least the following:
  - Discrimination power
  - Accuracy
  - Stability
  - Correlation
  - Representativeness
- In comparison to IRB model, validation of IFRS 9 model faces number of considerations:
  - Lifetime values
  - Forward-looking view
  - Back-testing of losses
  - Transfer criteria

#### Qualitative
- Qualitative validation involves review of model use and model governance
- Substantial efforts of the qualitative validation focused on the roles and responsibilities, involvement of senior management, segregation of duties and credit risk management processes
- Separate large topic of the qualitative review is analysis of model design and model limitations as well as quality and comprehensiveness of the model documentation

#### Compliance assessment
- Compliance assessment as the part of IFRS 9 model validation includes review of the decisions, methods and approaches used in IFRS 9 model
- Besides analysis of modelling approaches, covered by qualitative validation, compliance assessment includes review of different regulatory interpretations, such as ‘significant increase in credit risk’, ‘forwards-looking adjustment’, etc.

### Key challenges for IFRS 9 model validation

- Intense data requirements
- New quantitative tests and thresholds
- Large scope of validation
- Impact on number of internal risk management processes and procedures
- Large amount of documentation
- Ambiguous regulatory standards
- Multiple possible compliant options
- Lack of common industry solution

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**Illustrative IFRS 9 model structure (example)**

- **IRB models (PD, LGD, EAD)**
- **‘Point-in-time’ adjustments**
- **Forward-looking guidance**
- **IRB to IFRS 9 adjustments**
- **IFRS 9 models (12 month)**
- **Lifetime PD profiles determination**
- **Macroeconomic model adjustments**
- **Calculation of IFRS 9 ECL depending on Stage**
- **IFRS 9 models (lifetime)**
- **Determination of IFRS 9 Stage**
- **IFRS 9 Staging**
- **IFRS 9 Expected credit losses**

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- Full validation of IFRS 9 model would include quantitative validation of all the underlying models, compliance assessment of all the decisions and adjustments made and qualitative review of all the documentation.
- To avoid undue costs and efforts, scope of IFRS 9 model validation could be decreased without significant decrease of the validation quality.
Validation in the light of IFRS 9 model structure

Independent model validation

Focus for today

IRB models (12 month)  IFRS 9 models (lifetime)

YES

IRB models leveraged for IFRS 9?

— Leveraging of IRB model validation results in regards to 12 month models
— Compliance assessment of necessary IRB to IFRS 9 adjustments
— Full scale quantitative lifetime models validation
— Full scale qualitative validation of both 12 month and lifetime models

NO

— Full scale quantitative and qualitative validation of both 12 month and lifetime IFRS 9 models
— Full scale compliance assessment of IFRS 9 models
Higher scope and, potentially, higher time and people resources required

Not discussed

Forward-looking guidance  BAU IRB model validation  IFRS 9 Staging  IFRS 9 Expected credit losses

Due to nature of model  Back-testing only  Back-testing only

Due to nature of model
## Four-level model validation documentation

<table>
<thead>
<tr>
<th>Model Validation Framework</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IFRS 9 ECL Model validation framework</strong></td>
<td></td>
</tr>
<tr>
<td>— Overarching model validation document</td>
<td></td>
</tr>
<tr>
<td>— Covers standards and principles of IFRS 9 model validation (quantitative, qualitative and compliance assessment)</td>
<td></td>
</tr>
<tr>
<td>— No details on the specific quantitative tests etc.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Validation Methodology</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IFRS 9 ECL Model validation methodology</strong></td>
<td></td>
</tr>
<tr>
<td>— Covers detailed information on how model validation should be performed, including mandatory and indicative quantitative tests</td>
<td></td>
</tr>
<tr>
<td>— Model assessment methodology (e.g. traffic lights approach) with details on the overall model grading</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Periodic Validation Report</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IFRS 9 periodic model validation report</strong></td>
<td></td>
</tr>
<tr>
<td>— Includes actual validation results of IFRS 9 model</td>
<td></td>
</tr>
<tr>
<td>— Contains results of all quantitative tests, qualitative and compliance model assessment and overall grading</td>
<td></td>
</tr>
<tr>
<td>— See next slide for document structure</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Monitoring Report</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IFRS 9 Model monitoring report</strong></td>
<td></td>
</tr>
<tr>
<td>— Frequent (monthly/quarterly) on model performance</td>
<td></td>
</tr>
<tr>
<td>— Contains only mandatory quantitative tests and high-level qualitative assessment</td>
<td></td>
</tr>
<tr>
<td>— Base for decision on more in-depth validation</td>
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</tbody>
</table>
Management overlays
Adjustments overview

— Adjustments to IFRS 9 data can happen at various points:
  - Adjustments in the source systems leveraging existing tools and processes
  - Adjustments in Impairment Calculation System to Input feed (Input Adjustments)
  - Adjustments in Impairment Calculation System to Results (Outbound Adjustments)
  - Adjustments in the downstream systems leveraging existing tools and processes
— The expectation is that source data will be correct and accurate at the input stage to minimise data quality remediation
— Along the IFRS 9 Operational timeline three categories of adjustments are possible:
  - Amendments and Enrichment of Input Feed
  - Adjustments of Results
  - Overlays for Post Sign Off Events
From a practical point of view, it is likely that provision overlays will persist under IFRS9 to account for localised impacts on the portfolio that are either not picked up by the model or for late breaking news where running the ECL models would not be feasible.

**Why is it important for IFRS 9 modelling?**

As IFRS9 is more quantitative in nature, it is likely that the formulation of provision overlays in an IFRS9 environment will have significant involvement and analysis that would be required from Risk. However as this is an accounting standard, Risk might be required to:

- Provide rationale as to why the overlay is appropriate
- Document the methodology and data used in determining the overlay
- Documenting how the overlay would then be incorporated into the ECL modelling at a future date (where appropriate)

**So what can be done?**

- Determining how the model validation/redevelopment process will log and process overlays that would lead to model changes
- Enhanced documentation and governance of data sources and methodologies used
Governance and operating model implications
Key governance questions to ask

— Who develops and ensures compliance with accounting and risk policy?
— Is there appropriate governance and control to ensure transparency between accounting interpretations and risk interpretations?
— What existing governance framework is there over model design, development and maintenance?
— Is there an existing forum to challenge, review and approve impairment?
— What is the policy and who has responsibility for approving adjustments/overlays made to the impairment figures and models?
— Who is responsible for the business model review? Is there input/guidance/review from finance?
Using a maturity model framework we can identify where you are currently situated under your IAS 39 operating model and where its target operating model sits under IFRS 9. The outcome will be based on the appetite for change and the current state maturity.

**Finance and risk operating model**

<table>
<thead>
<tr>
<th>People</th>
<th>Data quality</th>
<th>Systems</th>
<th>Process</th>
<th>Governance and controls</th>
<th>Risk management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate training for Risk and accounting functions</td>
<td>Inconsistent data sources for finance and risk data</td>
<td>Bespoke disparate systems architecture</td>
<td>Non-standard</td>
<td>Unreliable MI and inconsistent monitoring of controls</td>
<td>Judgement based provisioning</td>
</tr>
<tr>
<td>Accounting and risk functional capability gaps met through consultants/contractors</td>
<td>Data inconsistent and unreliable – Data errors common</td>
<td>Multiple data models, tools/applications and G/L’s. Extensive use of EUC’s</td>
<td>Low degree of standardisation and automation (divisions)</td>
<td>Inconsistent MI is produced manually for multiple stakeholders and control structures do not exist</td>
<td>Provisions based on historical losses and inconsistent management judgement</td>
</tr>
<tr>
<td>Good all – Round functional capability and experience with broad links between functions</td>
<td>Multiple data sources – High level largely manual quality controls</td>
<td>Consolidation and reporting layer to integrate output from disparate systems</td>
<td>New business process ensuring regular SPPI review of new products into the business</td>
<td>Some controls exist but accountabilities have not been identified</td>
<td>Consistent management views feeding simplistic historical loss models used as an overlay to current process</td>
</tr>
<tr>
<td>All resources understand drivers of provision volatility</td>
<td>Data controlled but multiple sources requiring extensive reconciliations. Limited drill down</td>
<td>Risk and finance systems aligned</td>
<td>Standalone bolt-on required for ELS to calculate expected loss bucket classification</td>
<td>MI exists and controls are embedded but are managed inconsistently across the organisation</td>
<td>One year EL and LEL models in place, economic expectations are overlayd</td>
</tr>
<tr>
<td>Strong functional expertise. Proactive, insightful analysis, commentary and challenge</td>
<td>Most core data from single source. Automated data controls</td>
<td>Common chart of accounts and data definitions. Standardised systems. Well controlled EUC</td>
<td>Revised processes to incorporate system solution to the generation of accounting information</td>
<td>Management hierarchies exist with manual monitoring of controls</td>
<td>Economic outlook adjustments are driven by basic statistical modelling and are input into the EL models</td>
</tr>
<tr>
<td>Business performance orientation. Trained for new process and systems</td>
<td>One source of reliable data at required granularity, with full drill down capability</td>
<td>Lines and accounts within the GL and sub ledgers are remapped</td>
<td>Fully standardised processes</td>
<td>Critical MI is delivered to key stakeholders in an accurate and timely manner and robust control mechanisms to exist</td>
<td>EL models feedback into other strategic processes (e.g. capital management, pricing, stress testing, etc.)</td>
</tr>
</tbody>
</table>

**Key:** Target industry scope
Governance and operating model implications

The below diagram illustrates a best practice governance framework indicating some of the areas of change required for IFRS 9.
Governance and operating model implications

The below diagram illustrates the high level processes and control touch points for the ‘to-be’ state under IFRS 9.

**Processes and controls**

**Data Inputs**
- Obtain credit information from external sources
- Obtain behavioural scoring to credit facilities
- Obtain forward economic guidance
- Obtain credit information from external sources
- Obtain data from core lending system/GL/trading system
- Reaffirm model for appropriateness

**Execute Model Cycle**
- Initiate model cycle by refreshing PDs, EADs, and LGDs
- Calculate ECL for 12 month and lifetime
- Allocate instruments to model stages 1 and 2
- Identify impaired loans to populate stage 3 ECL
- Obtain data from core lending system/GL/trading system
- Obtain credit information from external sources
- Obtain forward economic guidance
- Recognise ECL figures

**Review and Challenge**
- Review and Challenge ECL figures at group level
- Produce MI and Challenge Pack
- Produce overall ECL figures
- Review and Challenge ECL figures at local level
- Agree the ECL figure
- Review and Challenge ECL figures at local level

**Sign-Off**
- Sign-off the ECL figures
- Sign-off the ECL figures

**Book**
- Recognise ECL figures
- Produce MI and Challenge Pack
- Review and Challenge

**Review and Challenge**
- Review and Challenge ECL figures at local level
- Agree the ECL figure
- Review and Challenge ECL figures at group level
- Produce MI and Challenge Pack
- Review and Challenge

**Potential Manual Adjustments**
- Apply overlay
- Apply known Manual Adjustments
- Apply exceptions to model

**Reconciliation**
- Model input data store reconciliations to source systems

**For illustration purposes only**
Sophistication and proportionality
Sophistication and proportionality of approach to implementing IFRS 9 impairment requirements is discussed in the GPPC paper “The implementation of IFRS 9 impairment requirements by banks” released in June 2016. Banks will need to develop an appropriate framework and provide guidance on its application.

The framework is intended to cover the decision making process and scoping decisions that must be made as part of IFRS 9 implementation.

Sophistication and proportionality framework

- Accounting policies
  - Financial reporting
  - IFRS 9 key decisions

- Risk policies
  - Data definitions
  - Modelling policies
Guidance available for developing a framework

Sophistication and proportionality

- Existing entity specific materiality framework
- Regulatory guidance (CRR, EBA)
- ISA 320
- ESMA
- ITG
- BCBS: GCRAECL
- Draft IASB Guidance: ‘Application of Materiality to Financial Statements’
- IASB Conceptual Framework
- IFRS
- ISA

Conceptual Framework

Application of Materiality to Financial Statements

Draft IASB Guidance
The framework needs to be designed such that it can be applied to each key stage in an IFRS 9 ECL process from scoping through to financial reporting.

Areas of application

1. Application of IFRS 9 to exposures and portfolios – Scoping and segmentation
   - Sundry balances
   - Exit portfolios

2. Data sourcing and governance
   - Data gaps
   - Reliability of estimates

3. Model architecture – Sophistication and complexity
   - Use of regulatory models
   - Model overlays
   - Model validations

4. Analytics and governance – Internal reporting
   - Appropriate governance and oversight
   - KPIs and MI

5. Financial reporting
   - Timeliness of data availability
   - Approval and sign-off of adjustments
Sophistication and proportionality

Key considerations

- Principles versus rules-based framework
- Consistency in approach
- Individual versus aggregate assessment
- Visible and documented decisions
- Interaction with other reporting requirements
- Internal control framework
- Internal escalation of materiality judgements
- Legal entity versus consolidated group level
- Determining a quantitative benchmark
- Stakeholders
- Sophistication and proportionality decisions
- Incorporation of both quantitative and qualitative factors

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IFRS 9 training
IFRS 9 training

Why is there a need for IFRS 9 training?

IFRS 9 is technically complicated and many organisations have intimated that it will have a significant impact on their current governance arrangements and business model.

The need for IFRS 9 training stems from two sources:

1. Theoretical understanding
   - The need to develop an understanding of the accounting standard and the way it may impact an organisation’s current day-to-day activities.

2. IFRS 9 process understanding
   - The need to understand the IFRS 9 operating model and requirements to produce IFRS 9 compliant numbers and disclosures.
Who requires IFRS 9 training

Each organisation will need to identify stakeholder groups that require IFRS 9 training and decide on the appropriate training programme that will be suitable and relevant for each group.

Illustrative stakeholder groups and training requirements

- **Process users**: Key finance and risk personnel who will be responsible IFRS 9 BAU
- **Key committee members e.g. Impairment committee**: Divisional CROs, CFOs, Business teams
- **Board members and senior executives**: Group audit/risk committee members, business executives and entity board members
- **Business leads**: Product development, Relationship Managers, business risk leads and accounting advisory
- **Special interest groups**: Working groups responsible for stress testing, investor relations, tax

Theoretical understanding vs. Process understanding
What are the training options available?

### Classroom-based training

**Suitable for:**
- Senior executives/non-executives who may benefit from face-to-face interactions with the trainers

**Other considerations:**
- Availability of subject matter experts (SMEs) to design and author the content
- Prohibits widespread adoption due to:
  - Cost of delivery per person
  - Availability of trainers
  - Availability of learners

### Webinars

**Suitable for:**
- Large group of learners

**Other considerations:**
- Availability of SMEs to design and author the content
- User engagement could be at risk
- Formal testing or auditability of understanding is difficult to ascertain even if webinars are recorded

### eLearning

**Suitable for:**
- Large group of learners

**Other considerations:**
- Availability of SMEs to design and author the content
- No face-to-face interaction

Generally, organisations consider a combination of some or all of the above options in their IFRS 9 training programme. From our experience, the common key constraint tends to be the availability and bandwidth of SMEs to create and deliver the content.
We observed that currently in most IFRS 9 projects, SMEs are busy with implementation and struggle to have the bandwidth to devote their time to training stakeholder groups. We are aware that generally, eLearning tends to be ‘text and next’ and could result in lack of engagement by the learner and failure to achieve the learning outcomes. However, if an eLearning is designed well, it can reach a large group of learners without disrupting their day-to-day activities and achieve the learning outcome that can support the learning accreditation required.

Therefore, we have designed our IFRS 9 eLearning offering based on the following design principles:

— **Control**: The learner will feel that they control their learning experience i.e. able to go as fast or slow as they wish

— **Relevance**: IFRS 9 is a complex issue whose essence can be difficult to distil. We have designed each frame of the training with ‘Why am I reading this?’ and ‘Why is this piece of information here?’ in mind

— **Action**: Our training is designed to be active, to engage learners into what we call ‘action’ and ‘consequences’ as opposed to interaction for interaction sake

— **Multi-media**: We use animation and analogies to build up complex concepts and provide a comforting human voice to explain some of the complexities to the learner to address the lack of face-to-face interaction
Overview of IFRS 9 Basic eLearning modules

- **Introduction to IFRS 9**
- **Impairment**
- **Classification and measurement (C&M)**
- **Risk methodology**
- **Terminology – IFRS 9 Impairment and Capital Requirements**
- **Regulatory versus accounting approaches**
- **Presentation and disclosure**
- **Implications of regulator and audit focus**
- **Implications of investor focus**
- **Financial impacts of IFRS 9**
- **Wider impacts of IFRS 9**
- **Overview of IFRS 9 operating model**
- **Linkage and dependencies to other key processes**

**Keys**
- Introduction
- Technical
- Impacts
- Operating model
Conclusion
Time is running out

The weight of expectations bears heavily on banks who are due to adopt IFRS 9 *Financial Instruments* by 2018

### Increased complexity for preparers

Audit committees of banks are expected to play an oversight role during the implementation phase and beyond.

### A diverse range of approaches and outcomes

The **Global Public Policy Committee** – which comprises representatives from BDO, Deloitte, EY, Grant Thornton, KPMG and PwC – has published a joint paper that seeks to help audit committees of banks meet their responsibilities.

The paper is addressed primarily to systemically important banks but is relevant to other banks and financial institutions in a proportionate way.

### Time and effort to implement
Guidance in the GPPC paper

We expect that the six large accountancy networks will each use the paper when assessing the quality of individual banks’ IFRS 9 implementation

**Key focus areas for those charged with governance**

- Recommendations for governance and control frameworks to provide clear oversight
- Factors to consider when determining the sophistication of the modelling approaches to be adopted
- Transition considerations
- Ten questions for audit committees to discuss with management

**Key modelling principles**

- Example of a sophisticated approach for a number of important concepts and parameters, including:
  - definition of default
  - probability of default
  - exposure – period and amount at default
  - loss given default
  - discounting
  - stage assessment
  - macro-economic forecasts and forward-looking information
- Considerations for simpler approaches
- Examples of approaches that are not compliant

Besides impairment, banks will also need to consider classification and measurement of financial instruments, hedge accounting and related disclosures
Ten key questions

Audit committees can focus discussions with management using these ten key questions

<table>
<thead>
<tr>
<th>Key decisions and interpretations of IFRS 9</th>
<th>Expected loss credit modelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>What plans are in place to conclude on key decisions, build and test necessary models and infrastructure, execute dry/parallel runs and deliver high quality implementation by 2018?</td>
<td>What are the planned levels of sophistication for different portfolios and why are these appropriate?</td>
</tr>
<tr>
<td>What are the key accounting interpretations and judgements and why are they appropriate?</td>
<td>How will a 'significant increase in credit risk' be identified and why are the chosen criteria appropriate?</td>
</tr>
<tr>
<td>How will implementation decisions be monitored to ensure they remain appropriate?</td>
<td>How will a representative range of forward-looking scenarios be used to capture non-linear and asymmetric impacts?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Systems and controls</th>
<th>Transparency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has the bank identified all changes to existing systems and processes, including data requirements and internal controls, to ensure they are appropriate for use under IFRS 9?</td>
<td>What KPIs and management information will be used to monitor drivers of ECLs and support effective governance over key judgements?</td>
</tr>
<tr>
<td>How will reporting processes and controls be documented and tested, particularly where systems and data sources have not previously been subject to audit?</td>
<td>How will the IFRS disclosure requirements be met and how will those disclosures facilitate comparability?</td>
</tr>
</tbody>
</table>
Thank you
The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

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