



Key Challenges faced by Banks

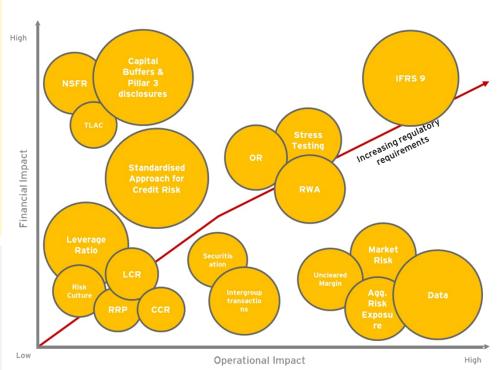


- ▶ Demand in Reporting: Regulatory reporting is becoming increasingly detailed, required at increased frequencies and is expected to be in a state of continual change for the foreseeable future
- ► Granularity of Data: Regulations, both future and present require data at an increased grain and frequency; a level of detail not typically provided to central Risk and Finance systems.
- ► Increased Costs: The requirements and the typical response commonly result in compounding costs, incurred for both project implementation and ongoing BAU
- Segregation of Duties: In the face of such growing requirements the Risk resources have been diverted towards meeting immediate regulatory requirements. There is little capacity to consider and adopt new techniques, technology and approaches.
- ► Impact on structuring businesses: Banks are facing challenges in segmenting and structuring their businesses in line with growing regulatory requirement

How do meet these challenges?

- Building a strong technology platform
- Ensuring there is a robust governance framework which supports periodic challenge and review
- Revisiting segmentation of portfolios
- ✓ Streamlining processes to reduce cost and effort
- Building data infrastructure capabilities to meet data granularity requirements

Regulatory Landscape



Note: The size of the bubble indicates the implementation challenge for meeting the regulatory requirements







Challenges faced in implementing IFRS 9

Practical challenges faced by Banks during Implementation



Lack or absence of strong Models

- For some of the Bank's while conducting the validation, it was observed that existing models were not robust enough to provide accurate ECL estimates for PD and LGD
- No existing models



Governance

- Clear definition of roles and responsibilities within the different functions of the bank
- IFRS 9 principles embedded within the policies and procedures
- Model Ownership



Availability of empirical data

- Concerns observed include sparsity of recovery data more than default data
- Data availability constraints can limit discriminatory power of models, distribution of observations (Poisson)
 may not be tractable, difficult to back-test PD estimates



Forward looking

- Not enough historical data differentiation available to make a probability-weighted best estimate outcome
- Macro-economic factor correlation to observed defaults may be weak



Risk to Finance Reconciliation

 Impairment Modelling data set reconciliation with the financial reports is a bigger challenge as the size of bank increases



Standardized portfolios or Lack of internal historical experience

- Segmentation of the portfolio can be a challenge due to constant strategy changes (new product, etc..)
- Development of accurate methodology based on type of portfolio

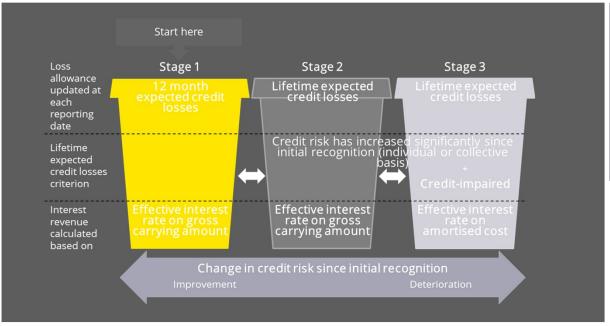








Expected Credit Loss Implications



Segmentations

Reb. Presumption

30 DPD SICR

90 DPD of Default

Current Stage-01

1-30DPD Stage-01

31-60DPD Stage-02

61-90DPD Stage-02

90> Stage-03

Management overlays



Building Macro Economic Scenarios



What impacts staging



Deployment of proper collection strategy



Elevated Risk Industries





Measuring Expected Credit Losses

Unbiased and probability-weighted estimate

Best available information

Information about past events

Information about current conditions

+

Reasonable and supportable forecasts

The time value of money





Model Functionality

$$LECL_{t} = \sum_{t=1}^{T} S_{t-1} \cdot PD_{t} \times EAD_{t} \times LGD_{t} \times EFA \times D$$

S_{t-1} : Survival function

 S_{t-1} is the probability that a customer has not defaulted or prepaid their balance in a previous period.

It is calculated as:

 $S_{t-1}=$ $\prod_{1}^{t-1} (1 - PD_{t-1} - PP_{t-1})$ where PP = prepayment

PD_t : Probability of Default

Likelihood that a borrower will not be able to meet its debt obligations over the course of the next 12 months

- Point in time and forward looking
- Counterparty level and refreshed on a frequent basis
- Key driver in stage allocation

EAD_t : Exposure at Default

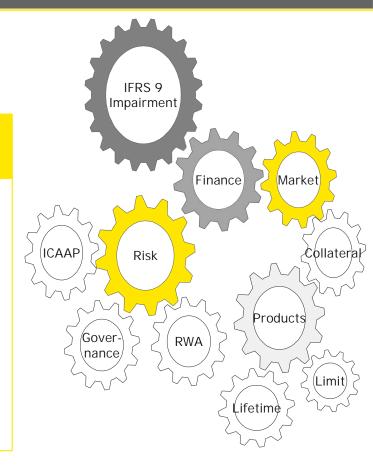
The estimated outstanding exposure at the time of a default

- Only contractually irrevocable undrawn commitments should be considered
- Point in Time
- No embedded regulatory conservatism
- Amortisation and prepayment should be modelled

LGD_t : Loss Given Default

The percentage of exposure at risk that is expected not to be recovered in the event of default

- Not downturn and no regulatory add-ons
- Forward looking
- ► Time variant (static values may be acceptable for some portfolios
- EIR used for discounting purposes



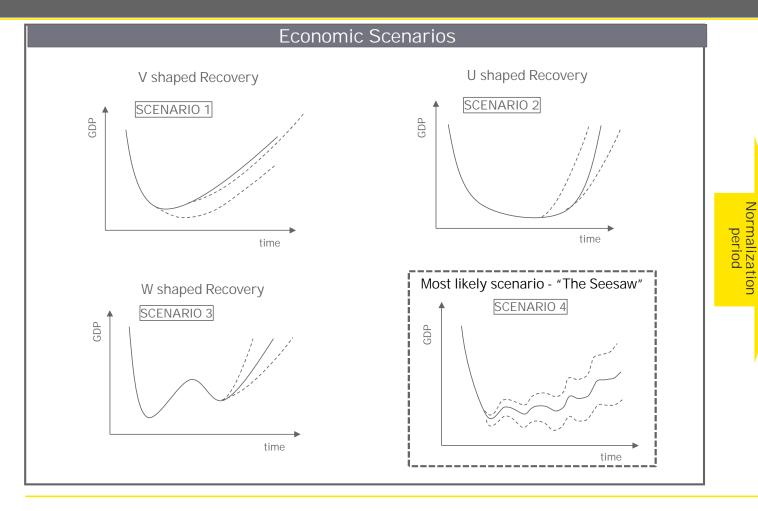






Economic Scenario – Management Overlay

How to establish the Economic Scenarios













Credit Risk Management Information System (MIS)

The objective of Credit MIS is to enable the management assess the performance of the bank and make faster decisions in relation to credit risk to benchmark the existing process with industry leading practices.

Following ECL information can be included in a credit MIS report.

| 1. | Elevated risk industries | , |
|----|------------------------------|---|
| 2. | Industry Analysis | 7 |
| 3. | Quarterly Staging Comparison | 7 |
| 4. | Geographical Analysis | 7 |

Off Balance sheet limit utilization









Quarterly Staging Comparison

By analysing quarterly staging movement of bank's loan portfolio, management would be able to gain valuable insights and will enable taking necessary actions to mitigate credit risk in the future.

2020 quarter 1 - Stage composition Stage 3, 8% **ECL Information Actions** Insights Stage 2, 12% Adverse staging Strengthen credit **Expected Credit Loss** movement for the period granting process Competitive advantage in Staging composition Strengthen on going the market credit monitoring Changes to the Stage 1, 80% recovery channels and techniques 2020 quarter 2 - Stage composition Stage 3, Quarterly staging comparison 2020 - With peer bank Quarterly staging comparison 10% 2,500 100% 12% 15% Stage 2, 90% 2.000 15% 1,500 80% ■ Stage 3 ■ Stage 3 Stage 2 1,000 70% Stage 2 Stage 1 ■ Stage 1 500 60% Stage 1, 75% 50% 2020 2019 2020 2019 2020 2019 2019 Bank B Bank A Bank B Bank B

Q3

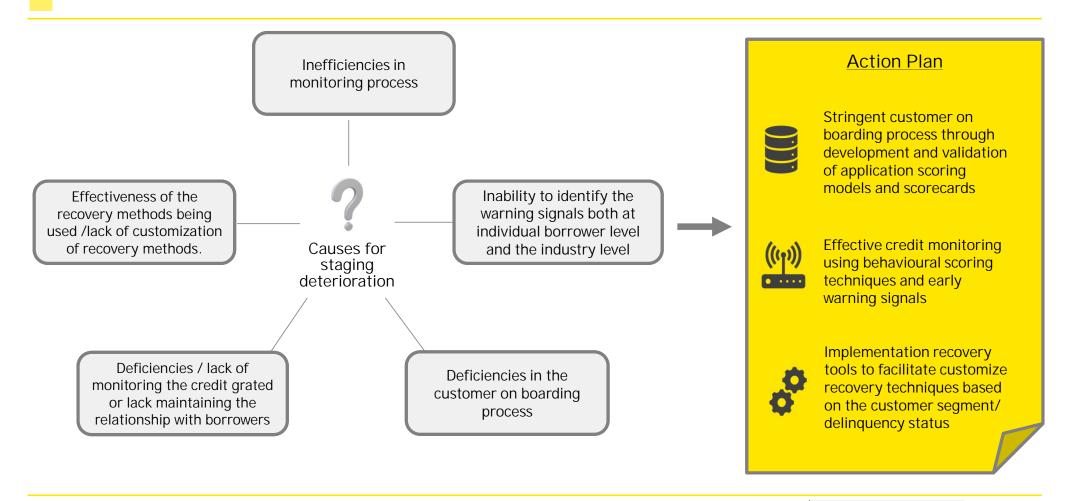
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Staging Analysis









Key Lessons Learnt



Lessons learnt



Governance

- ► IFRS 9 impacts the entire organisation (i.e. not just Finance)
- Tight and ongoing interaction of Accounting Policy, Finance, Risk, Technology and other functions is required
- Knowledge transfer from project team. Particularly if third party vendor are engaged to assist with the implementation. Some FIs did not manage to perform more than 1 parallel run. The effectiveness in a "Business As Usual" (BAU) is critical part of successful implementation.
- Inadequate involvement from senior management stakeholders may cause lack of ownership on the IFRS 9 numbers.







Lessons learnt

Modelling/Approach

- Clear trade-off between simplistic and sophisticated approaches
- Judge the right level of proportionality
 - Reference to 'undue cost and effort' in IFRS 9
 - Consider regulatory expectations
- Leverage existing tools and practices where suitable
- Transition from tactical to strategic solutions (i.e rating based approach)
 - (Re)assess application of practical expedients and emerging peer practice as required
- Budget/time constraints may have caused implementation shortfalls that require remediation
- Consideration of new products/ new business in year of implementation and whether IFRS 9 model methodology is able to accommodate the changes.

Data/Technology

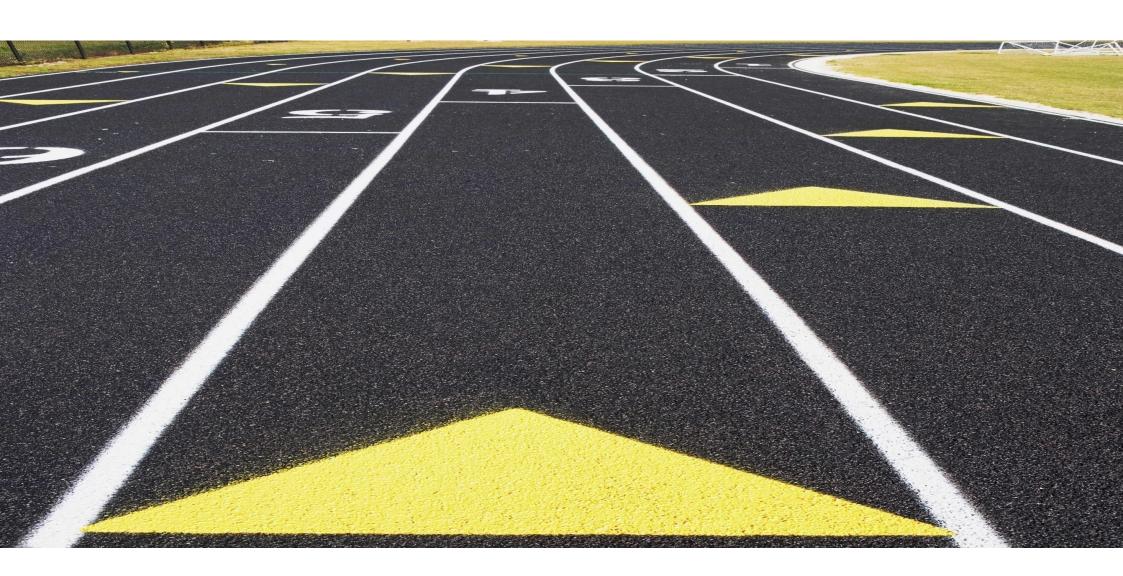
- Early involvement of Technology specialists critical for successful implementation
- Future proof implementation and testing (e.g. for loan volume increases)
- Data issues impact robustness of IFRS adoption
 - Data quality/availability is critical
 - Need for management overlays?
- Assess/test quality of data
 - Data validation controls and governance



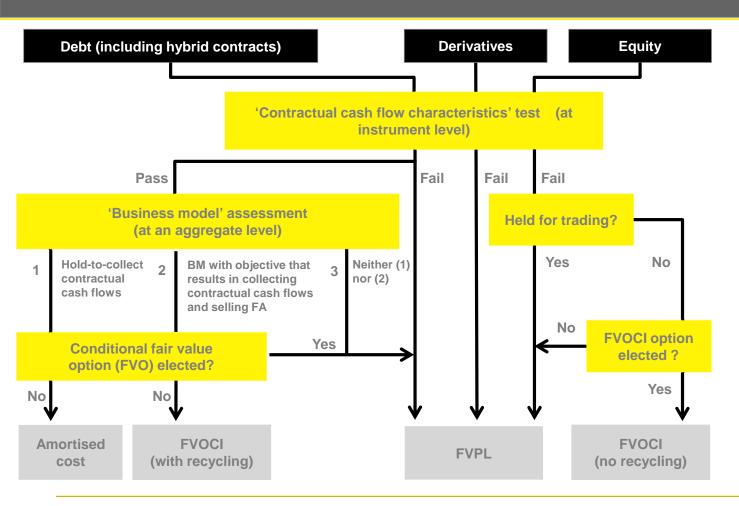




Financial Asset Classification



Classification Process & Challenges



Key Challenges

- Contractual Cashflow Characteristic Test :
 - Deminimis Criteria
 - Non-Genuine Criteria
- Business model assessment
- Fair Value measurement for all equity instruments
- If The Bank Group or any of its in-scope entities makes FVO election, obtain documented evidence of FVO election made by management:
 - For debt instruments that The Bank Group or its in-scope entities decides to select the FVTPL measurement basis despite having the business model 1 or 2; and
 - b. For equity instruments that The Bank Group or its in-scope entities decides to select the fair value through other comprehensive income ("FVOCI") without recycling as its measurement basis.







Questions?

