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ICAC Annual Conference 2018

IFRS 9 Implementation
Common Challenges & Possible Solutions

23 June 2018

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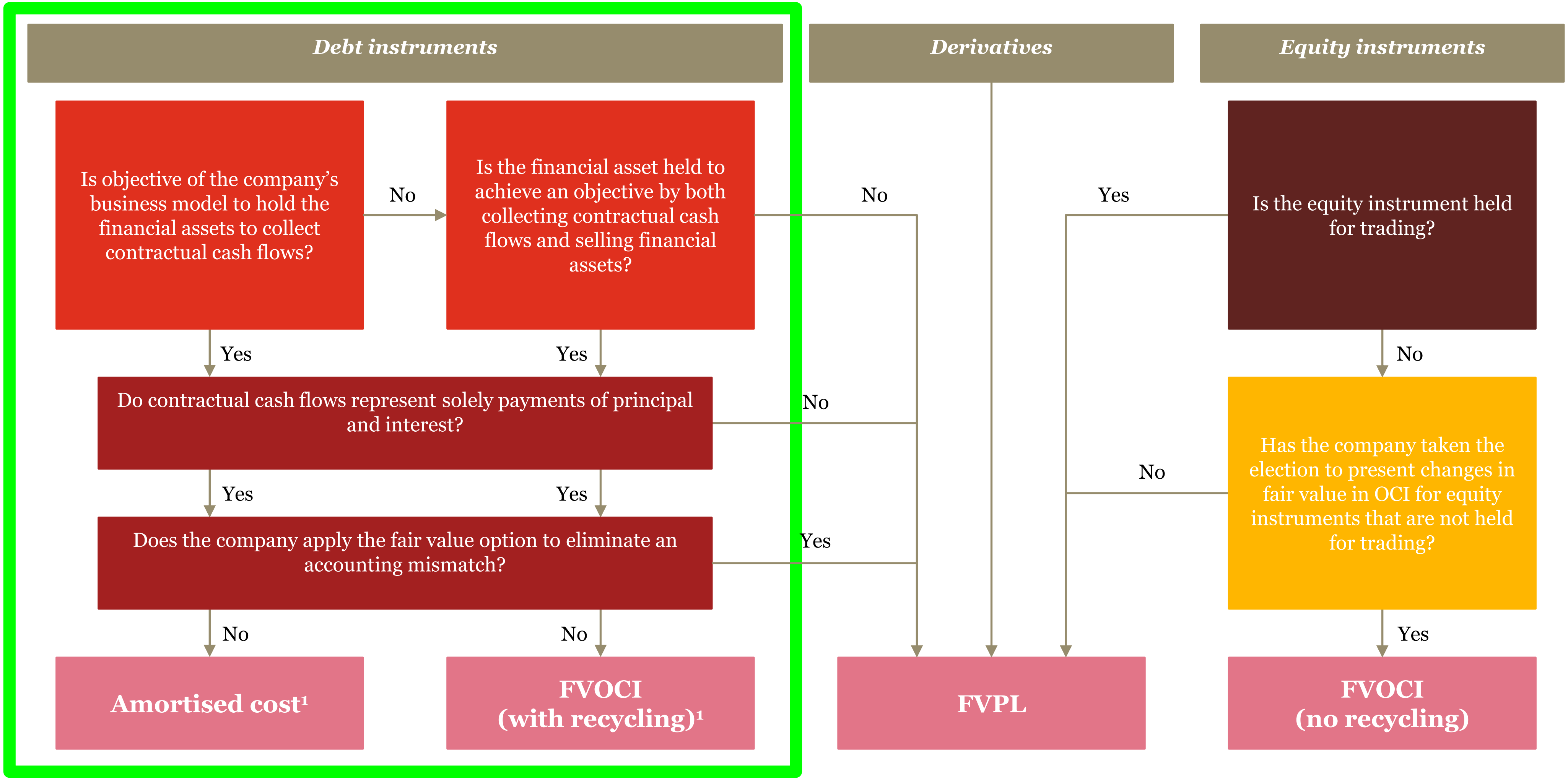
Agenda

Recap	Key aspects of IFRS 9 – classification
	Key aspects of IFRS 9 - Impairment
Discuss	Common Challenges for developing economies
	Possible solutions
	Impact of IFRS 9

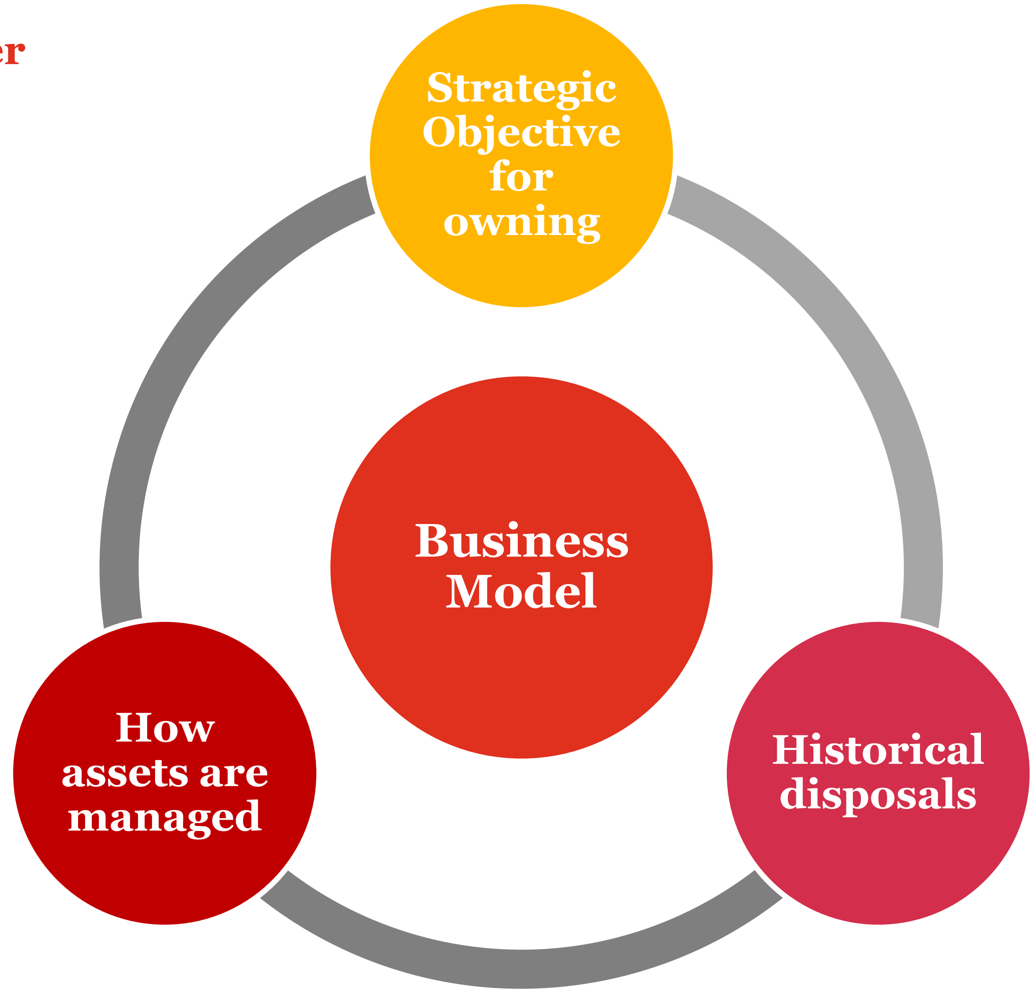
Key aspects of the standard
- overview of classification & measurement



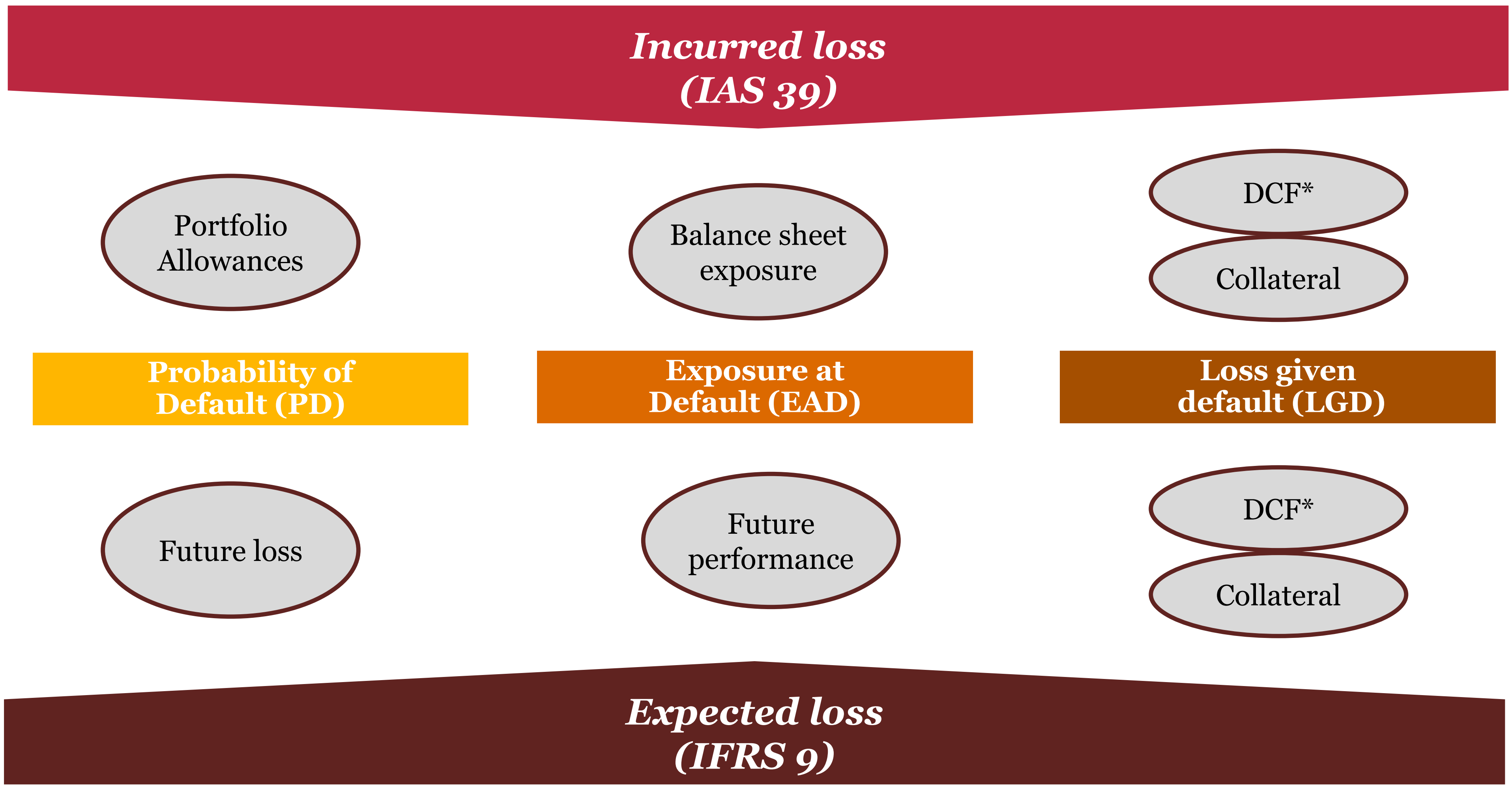
[1] Impairment considerations apply.

Key aspects of the standard
- overview of classification & measurement

Factors to consider



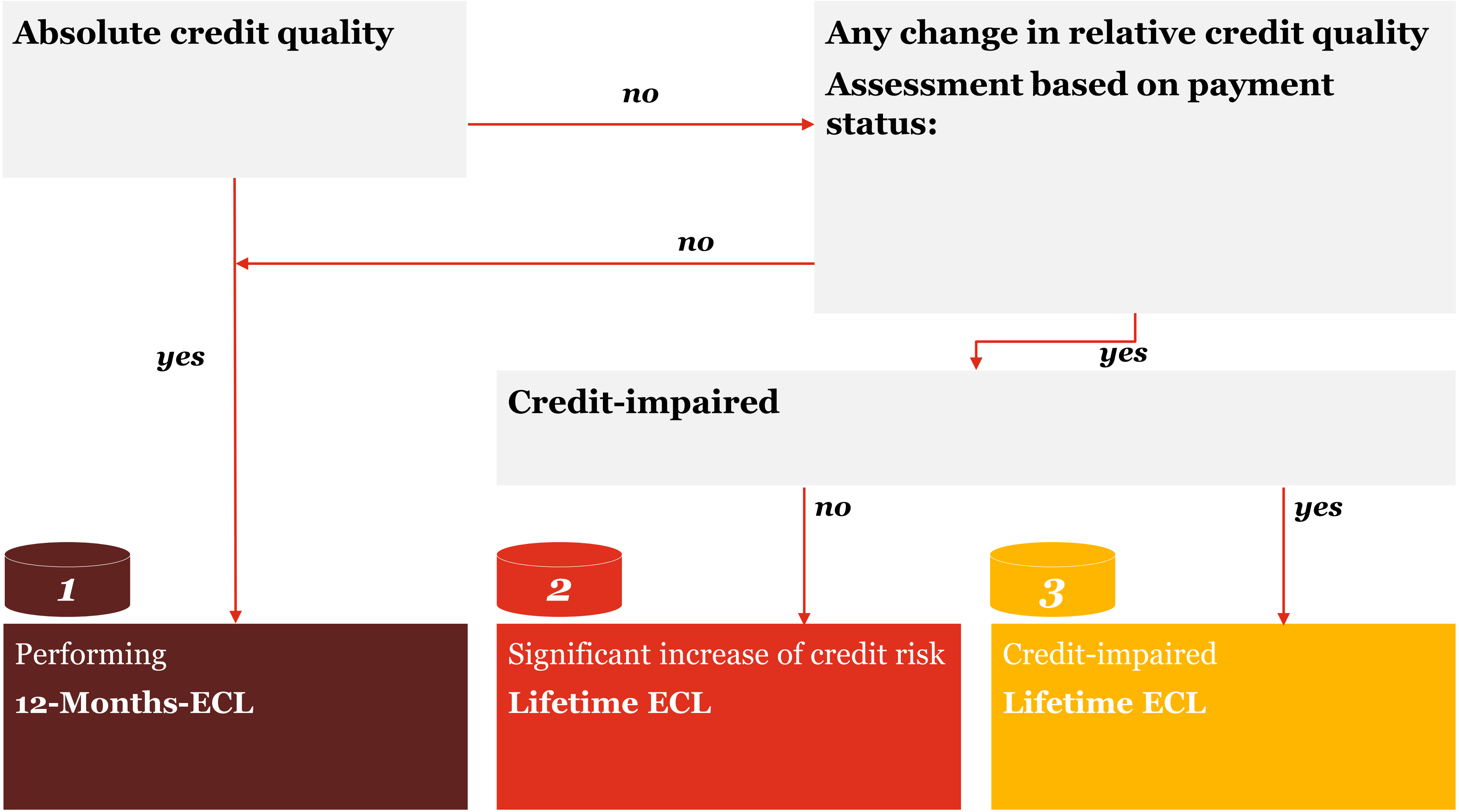
Key aspects of the standard
- overview of impairment



* Discounted Cash Flows

Key aspects of the standard
- Overview of impairment

The three stages – Decision tree



Expected credit losses
Disclosures

Quantitative

Reconciliation of opening to closing amounts of loss allowance showing key drivers of change

Write off, recovers and modifications

Reconciliation of opening to closing amounts of gross carrying amounts showing key drivers of change

Gross carrying amounts per credit risk grade

Qualitative

Inputs, assumptions and estimation techniques for estimating ECL

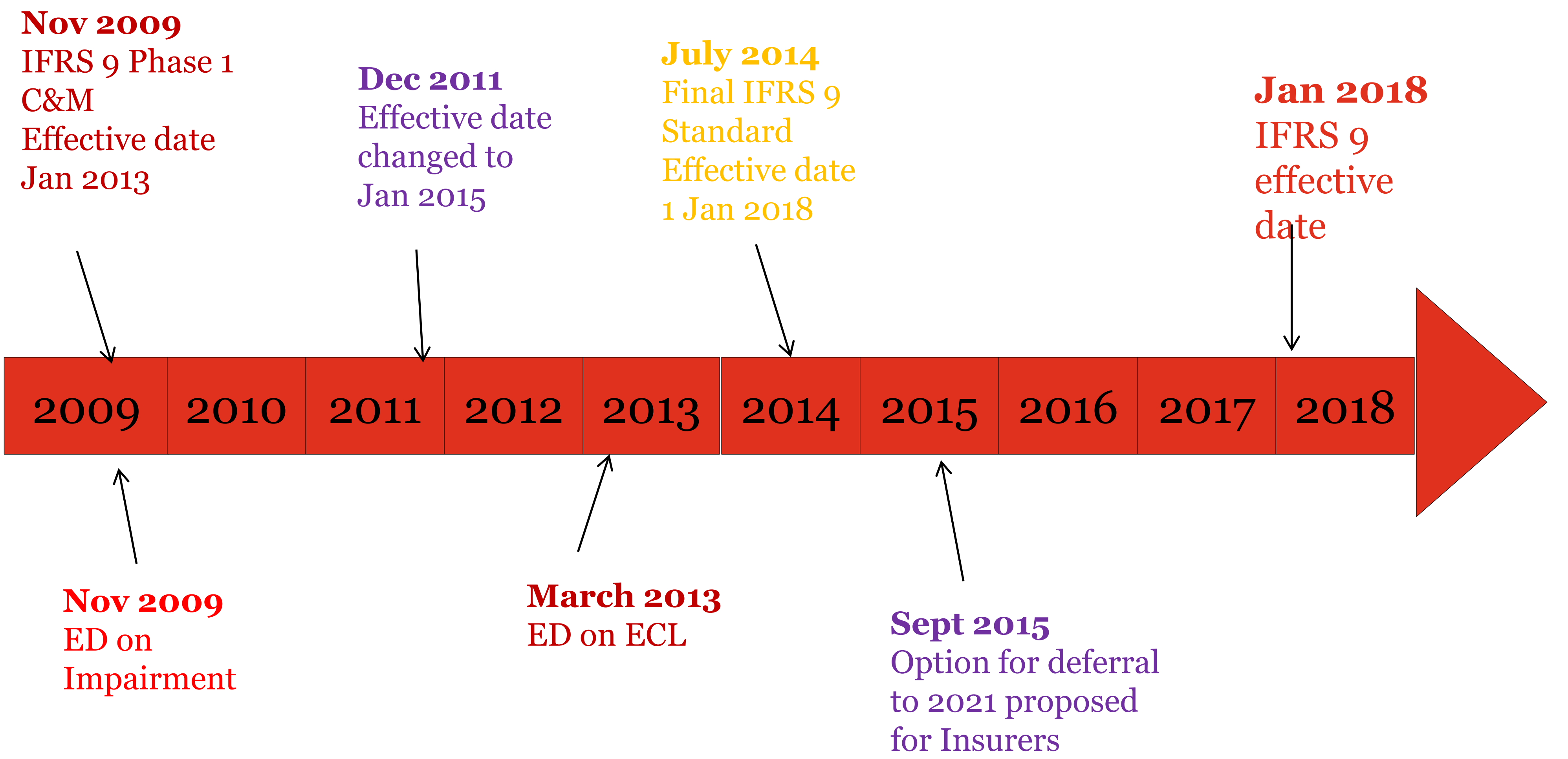
Write off policies, modification policies and collateral

Inputs, assumptions and estimation techniques to determine SICR and default

Inputs, assumptions and techniques to determine credit impaired

Common Challenges in our environment

Challenges in our environment
- Implementation timeline and project governance



Challenges in our environment
- Implementation timeline and project governance

1. Right Areas
Which areas of IFRS 9 ECL pose the biggest challenge?

2. Right Team
Which people challenges should banks focus on?

3. Right now
Which areas are the immediate priorities?

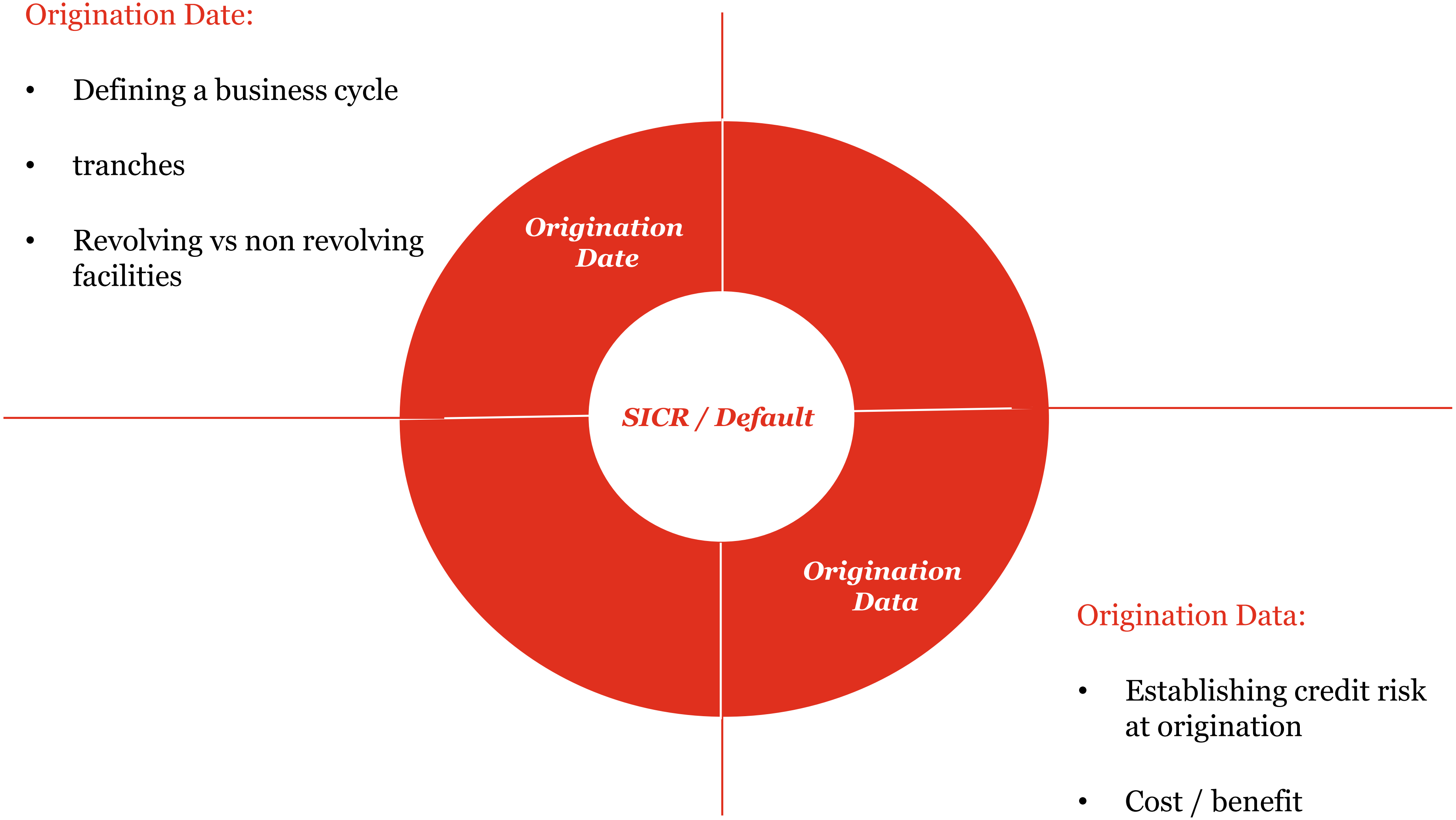
4. The Future
What else needs focus now to avoid issues in the future?

- Documentation
- Project Governance
- Exercising judgment
- Now vs Future
- Internal Controls
- Disclosure

Challenges in our environment
- internal data availability

Origination Date:

- Defining a business cycle
- tranches
- Revolving vs non revolving facilities



Origination Data:

- Establishing credit risk at origination
- Cost / benefit

Challenges in our environment
- internal data availability
How is expected lifetime determined?

	1 Contractual maturity	2 Behavioural maturity	3 Combine contractual and behavioural
Options	• For non-revolving facilities, this will be easy to identify.	• Analyse historical data to identify average customer lifetime for each product type.	• Select either behavioural or contractual approach. • This will be informed by the product management strategies in place, e.g. for revolving facilities - use behavioural lifetime.
PwC conceptual suitability	• For revolving loans, this may not be appropriate.	• Potential difficulty justifying this approach on non-revolving products. • Note, behavioural life must be capped at contractual life (for non-revolving facilities).	• Need to justify and potentially disclose the choice between contractual and behavioural lifetime.

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Challenges in our environment

- Defining a significant increase in credit risk (SICR) – forward transition?

	1 Absolute value	2 Relative value	3 Change in grade or bucket	4 Different value for each credit grade
Options	• Absolute value (e.g. 5% threshold would trigger move if PD increased from 5% to 10%).	• Relative value (e.g. a 5% threshold would trigger move if PD increased from 2% to 2.10%).	• Loan moves to stage two when it moves by a number of internal credit grades.	• Option 1, 2 or 3 adopted but with a different threshold for each credit grade (or PD bucket).
PwC conceptual suitability	• Potential calibration issues as appropriate absolute change in PD for high credit risks would not be suitable for low credit risks.	• Potential calibration issues in that an appropriate relative change in PD for high credit risk would not be suitable for low credit risk.	• The suitability is dependent on the structure of the internal credit grades.	• Conceptually appropriate but needs justification for differences for each grade.

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Challenges in our environment

- Defining a significant increase in credit risk (SICR) – backward transition?

	1 No longer increased credit risk	2 Probation period	3 Minimum number of payments	4 Recapitalisation criteria
Options	• Loan no longer meets criteria for significant increase in credit risk.	• Loan has not met criteria for increase in credit risk for minimum number of months.	• Borrower has made a minimum number of payments.	• Meets requirements to have arrears recapitalised and set back to up to date status.
PwC conceptual suitability	• Not appropriate unless original transition was due to macro-economic factors • . • Could lead to increased provision volatility.	• Conceptually sound and reduces volatility in provisions. • More prudent than option 1 as it requires evidence of reduced credit risk.	• Conceptually sound and reduces volatility in provisions. • More prudent than option 1 as it requires evidence of reduced credit risk.	• Conceptually sound and reduces volatility in provisions. • Level of prudence depends on criteria applied.

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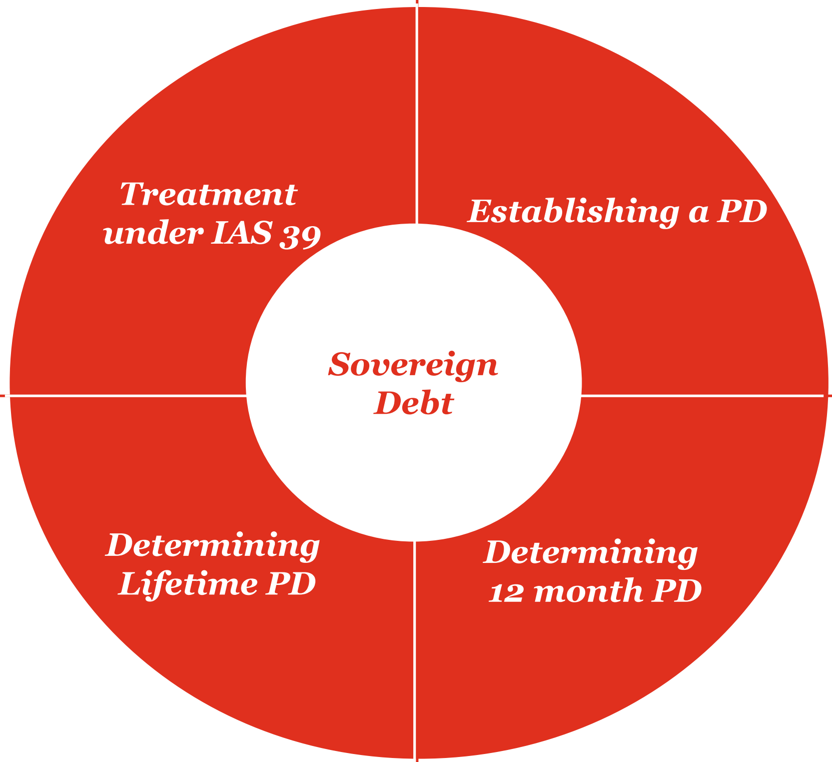
Challenges in our environment
- Providing for sovereign debt

Treatment under IAS 39

- Considered risk free
- Considered for general provision?

Establishing a PD

- Use of publicly available info vs internal
- Risk rated or not ?
- PD available or not ?



Determining Lifetime PD

- Facility duration
- Transition Matrix
- Extrapolation / Terminal PD

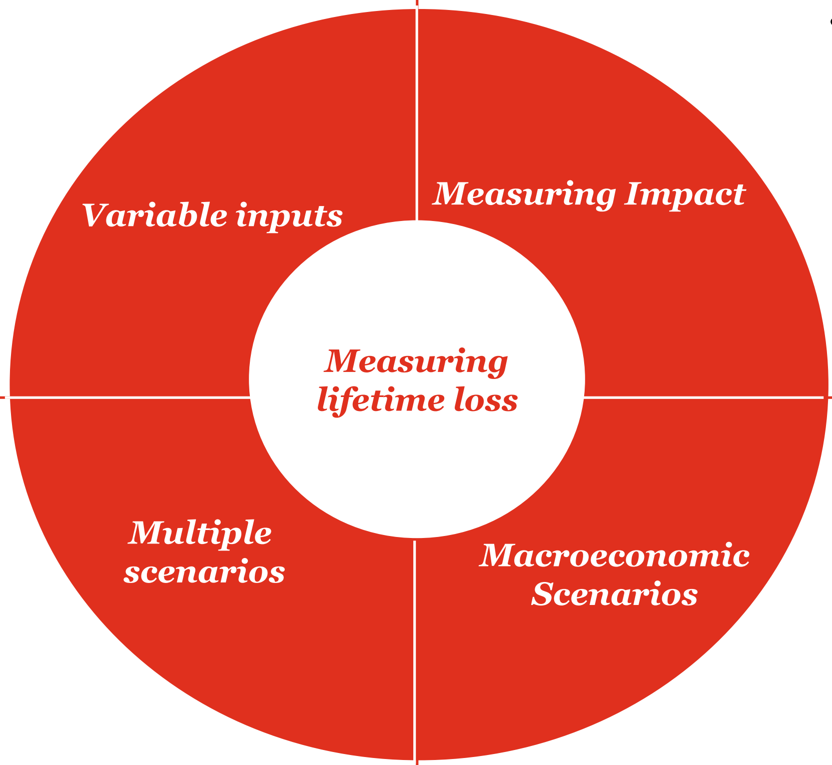
Determination of 12 month PD

- Interpretation of available PD

Challenges in our environment
- forecasting macroeconomic scenarios

Variable inputs:
- Source of key risk inputs
- Historical data
- Current & forecast data

Measuring impact
- Identifying relationships
- Quantifying impact



Multiple scenarios:
- Probability weighing scenarios

Macroeconomic scenarios:
- How many scenarios?

Challenges in our environment

- forecasting macroeconomic scenarios

Source of macroeconomic inputs

	1 Use internal expertise	2 Use internal model	3 Source external forecasts	4 Combine external and internal sources
Options	• Use internal judgement to forecast scenarios for a range of macroeconomic variables.	• Update current model to produce macroeconomic forecasts in line with IFRS 9 requirements (i.e. over lifetime of loans), with potential for judgement based overlays if necessary.	• Obtain external macroeconomic forecasts. For example, use Moody's economic forecast.	• Obtain external macroeconomic forecasts and use in conjunction with internal models
PwC conceptual suitability	• This approach allows scope for highly judgemental forecasts, potentially out of line with peers. • Easier to ensure internal consistency of projections used.	• Whilst the approach is highly dependent on quality of the model, a reputable external source could improve investor perception. • Easier to ensure consistency of projections.	• Whilst approach is sound it requires sufficient external data to provide a range of scenarios for each variable.	• Approach is sounds. Multiple sources of data will allow internal data to be compared with external data to check for soundness.

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Challenges in our environment
- forecasting macroeconomic scenarios

How is the impact quantified?

	1 Regression analysis	2 Expert judgement	3 Combination approach
Options	• Perform regression analysis on long term historical data • • This should be performed over a sufficiently long period such that it includes numerous economic cycles.	• Use expert judgement to estimate the relationships between economic variables and key risk inputs.	• Regression analysis is used to quantify the impact of macroeconomic variables. • This is combined with expert judgement to determine the overall adjustment to risk inputs.
PwC conceptual suitability	• This is a sound approach as it produces quantifiable estimates for the impact on key inputs by analysing a long period of historical data.	• Justification of impacts would need a robust, air-tight and fully responsive governance framework.	• This approach is conceptually the preferred option as it allows sound quantifiable estimates, as well as expert judgement overlays where required.

Challenges in our environment
- forecasting macroeconomic scenarios
Incorporating multiple scenarios

	1 Single provision	2 Single provision with overlay	3 Probability weighted provisions
Options	• ECL is calculated using single probability weighted economic scenario. • E.g. 3 scenarios are probability weighted into 1 single scenario which is then used to calculate single ECL.	• Run a single macroeconomic forecast through the model (Option 2) but then apply a top-down overlay informed by sensitivity analysis to reflect impact of alternate scenarios.	• ECL is calculated as the probability weighted average of the provision calculated for each economic scenario • . • E.g. for 3 scenarios, 3 ECLs calculated and probability weighted average taken.
PwC conceptual suitability	• Combining scenarios before calculating provisions runs the risk of underestimating the impact of low probability scenarios (e.g. due to the asymmetric nature of loses).	• Sound, so long as approach can reliably estimate the impact of stress scenarios. • Alternate scenarios can be difficult to factor in to transition test at the account level.	• This is the strongest approach conceptually as it provides for low probability, high impact scenarios.

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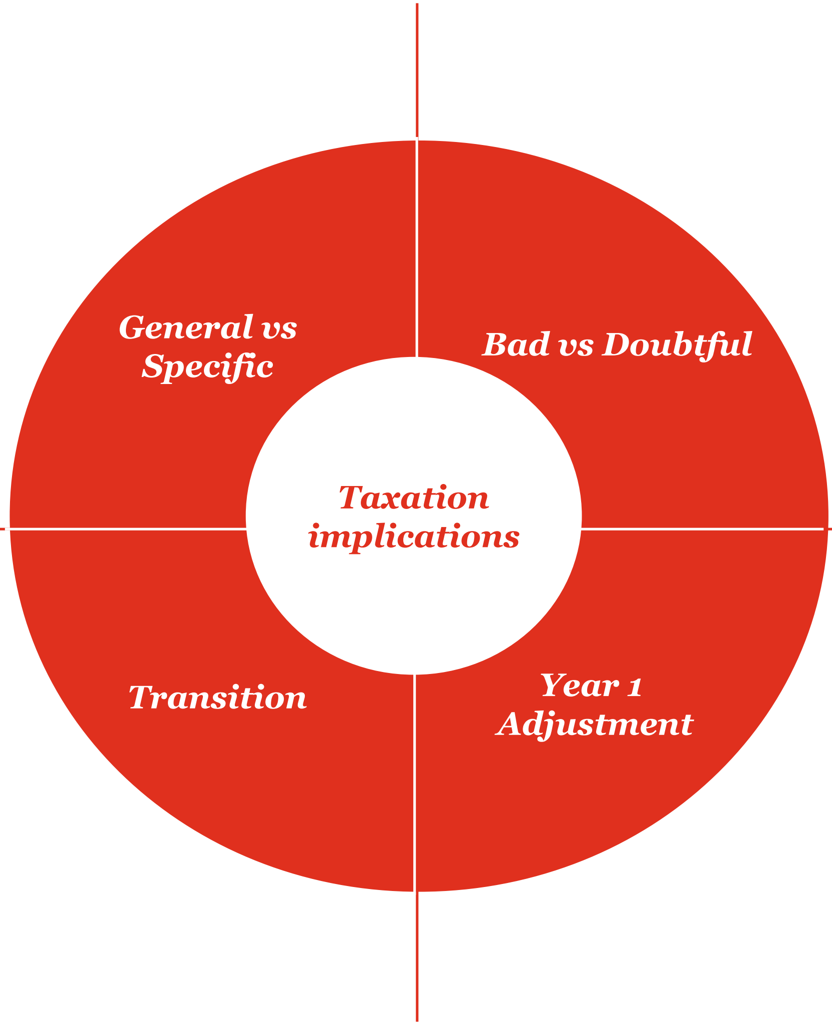
Challenges in our environment
- Taxation implications

General vs Specific
- Capital adequacy
- How is SICR defined?

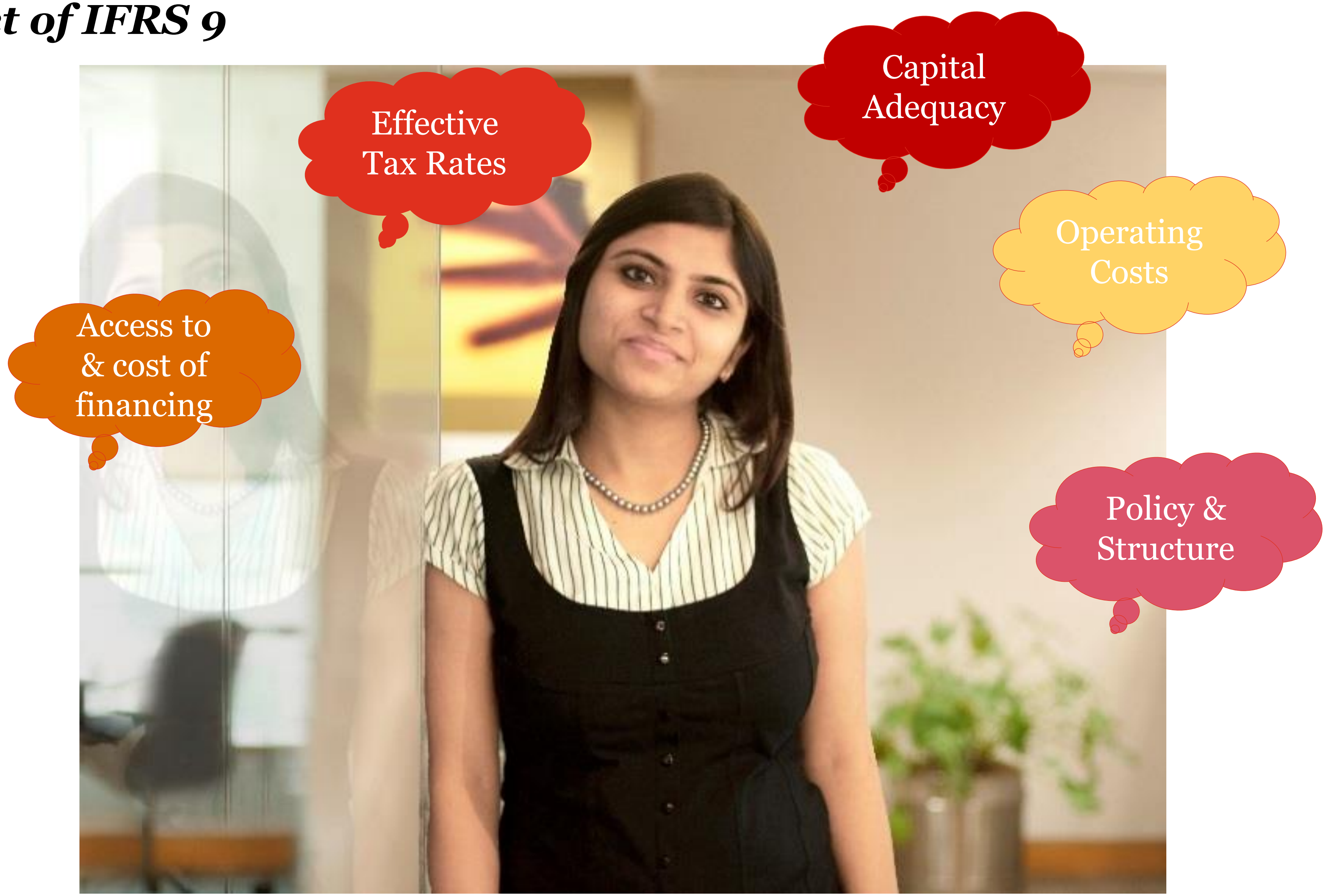
Bad vs Doubtful
- How is SICR defined?
- What evidence is available?



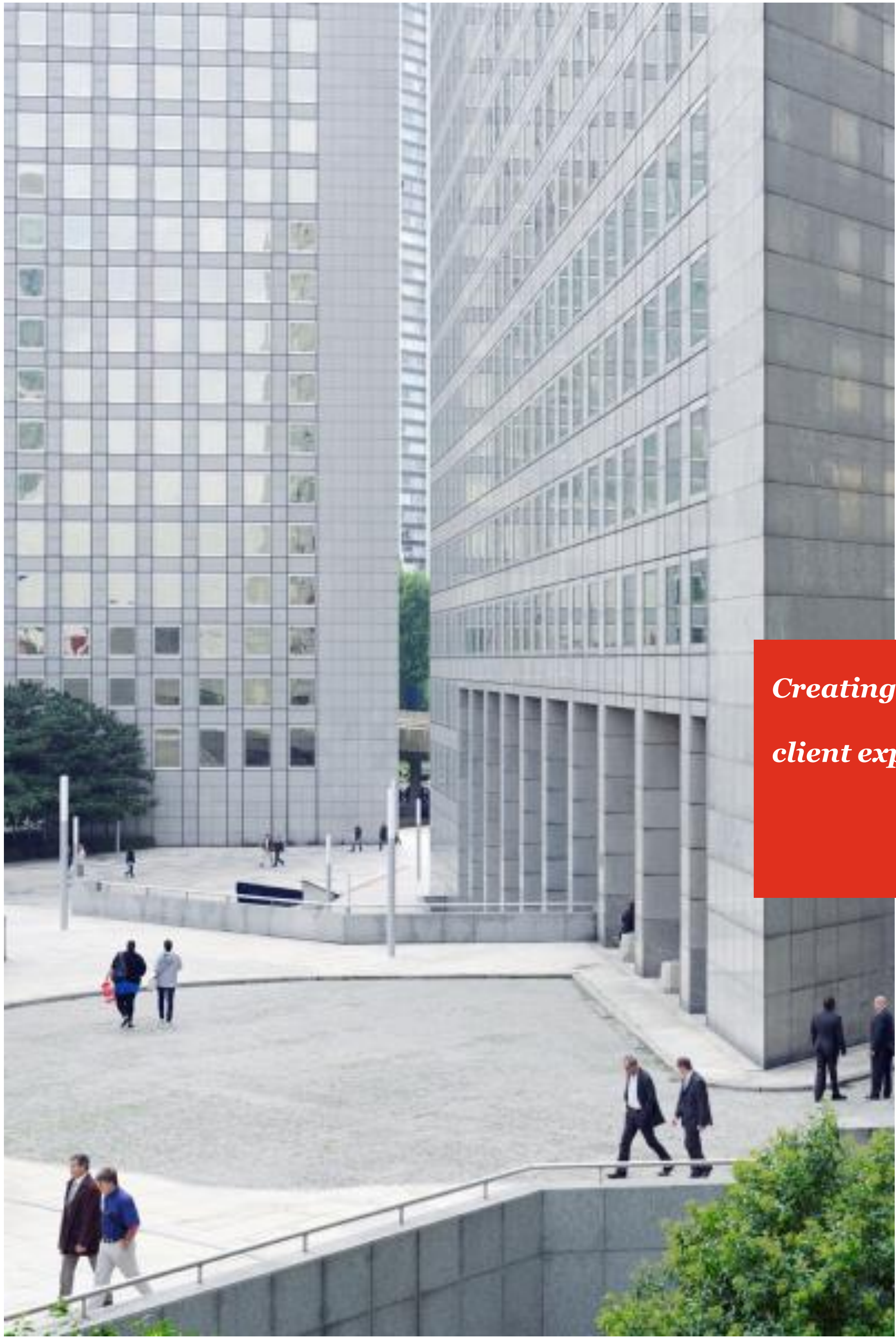
Transition
- Design of system
- What evidence is available?

Year 1 Adjustment
- UK precedent

Challenges in our environment
- Impact of IFRS 9



Questions ?



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