

A wooden desk with a calculator, a notebook, a pen, and a pair of glasses. The calculator is a grey handheld device with a red 'CE/C' button and a red 'M±' button. The notebook is open, showing lined pages. A pair of glasses with thin frames is resting on the notebook. A pen is also on the notebook. A W-2 form is partially visible under the notebook.

# IFRS 9 Implementation Workshop

## A Practical approach to impairment

March 2018

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ICPAK



# Agenda

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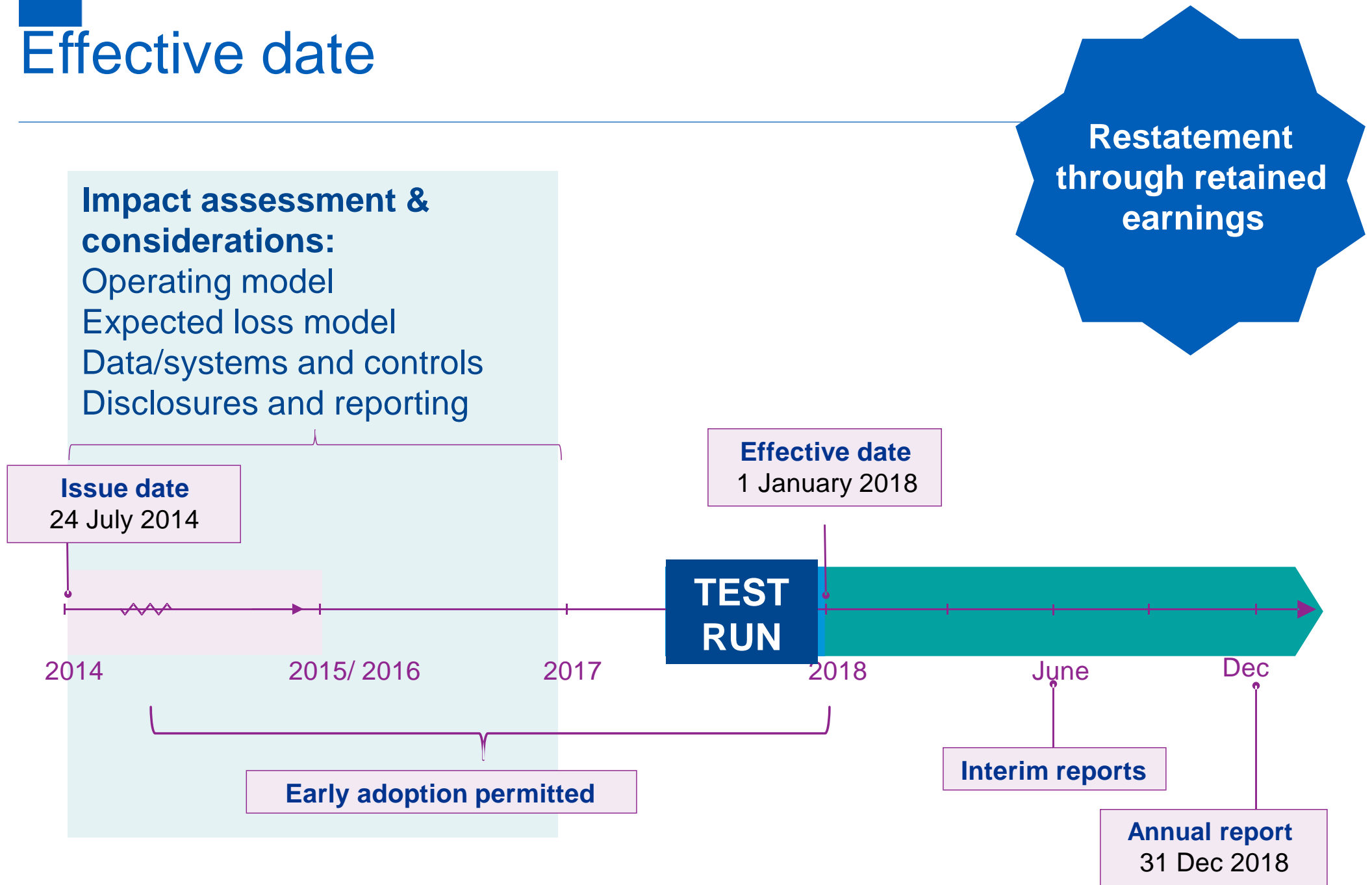
- Introduction and expectations
- Overview of IFRS 9
- Overview of Impairment
- Probabilities of Default considerations
- Loss Given Default considerations
- Exposure at Default and off balance sheet considerations
- Key IFRS 9 challenges and phased approach to implementation

# IFRS 9 Overview


















\*Accounting for macro hedging is being deliberated separately. Discussion Paper published April 2014  
(Dynamic risk management)




# Effective date



# IFRS 9 will replace IAS 39

Topic	IFRS 9	Impact	
		Financial sector 	Corporates 
Recognition and derecognition	IAS 39 model		
Classification and measurement	New model		 
Expected credit losses (Impairment)	New model		  
Hedge accounting	Amended model		  

Legend:

-  Low impact
-  Medium impact
-  High impact



# Overview of impairment



# Scope of the impairment requirements

The following table sets out instruments that are in and out of scope of IFRS 9's impairment requirements:

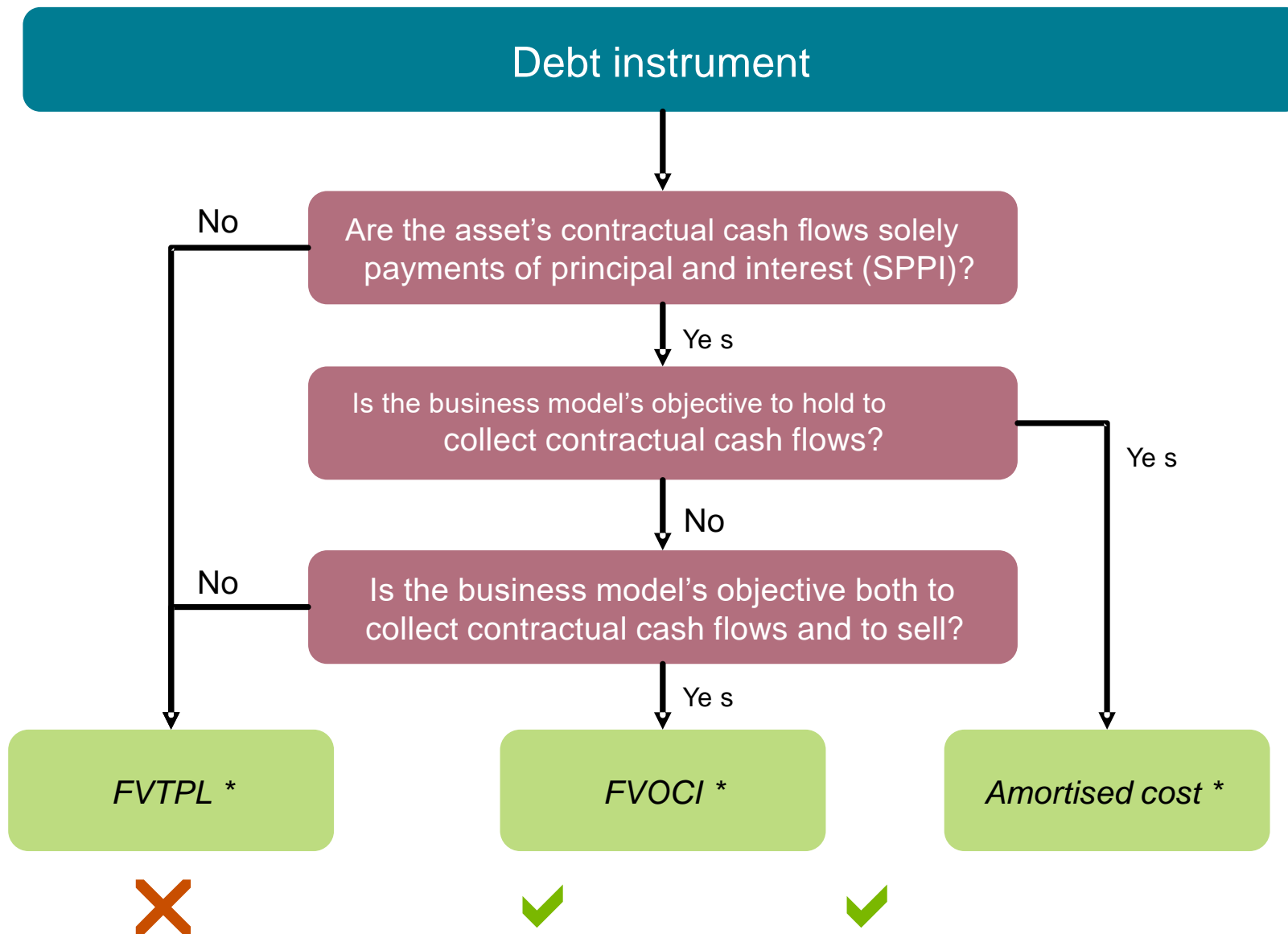
## In scope

- Financial assets measured at amortised cost or at FVOCI (this includes loans, trade receivables and debt securities)
- Loan commitments not at FVTPL
- Financial guarantee not at FVTPL

## Out of scope

- Equity investments
- Loan commitments at FVTPL
- Other financial instruments measured at FVTPL

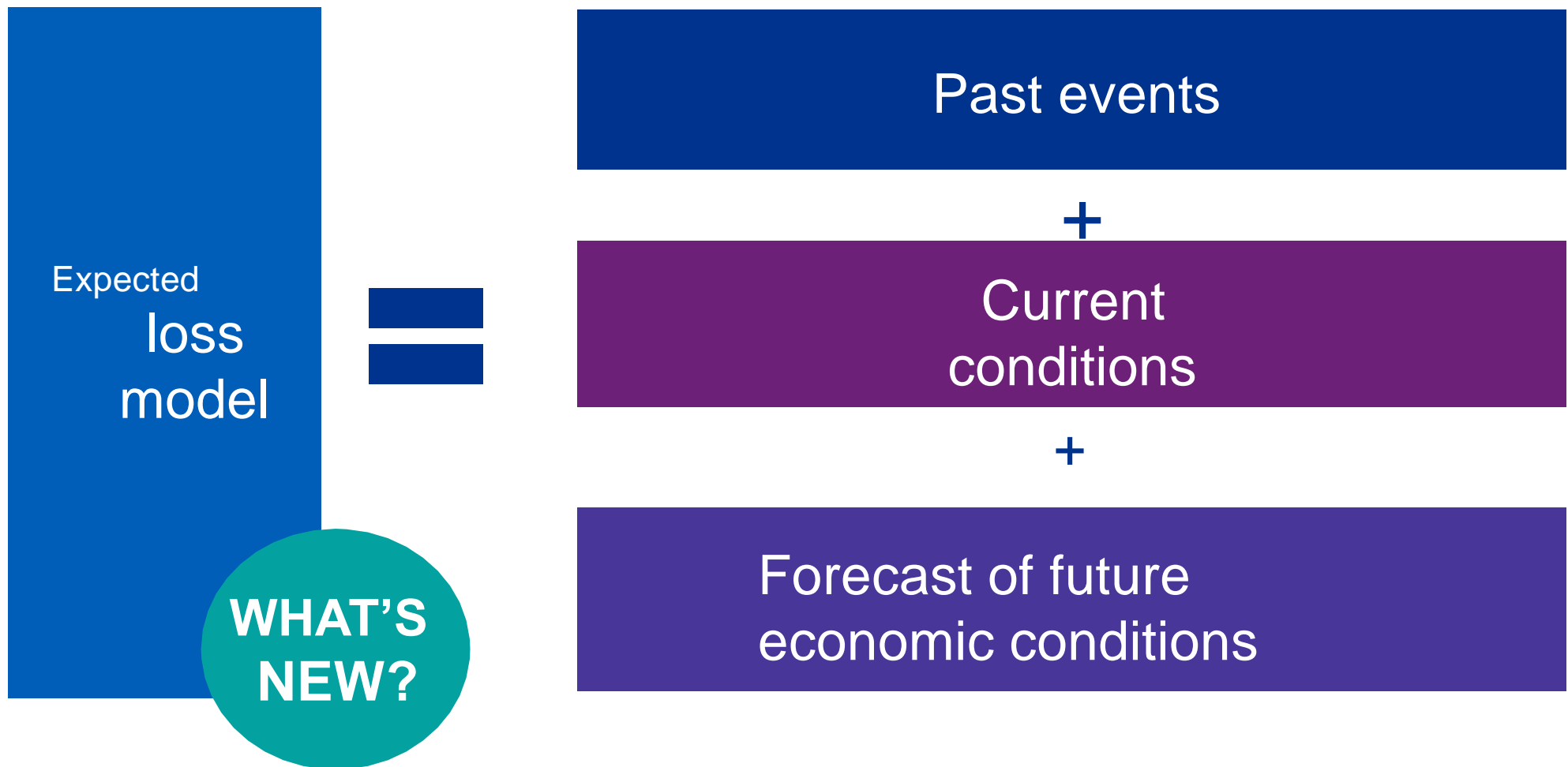
# Impairment





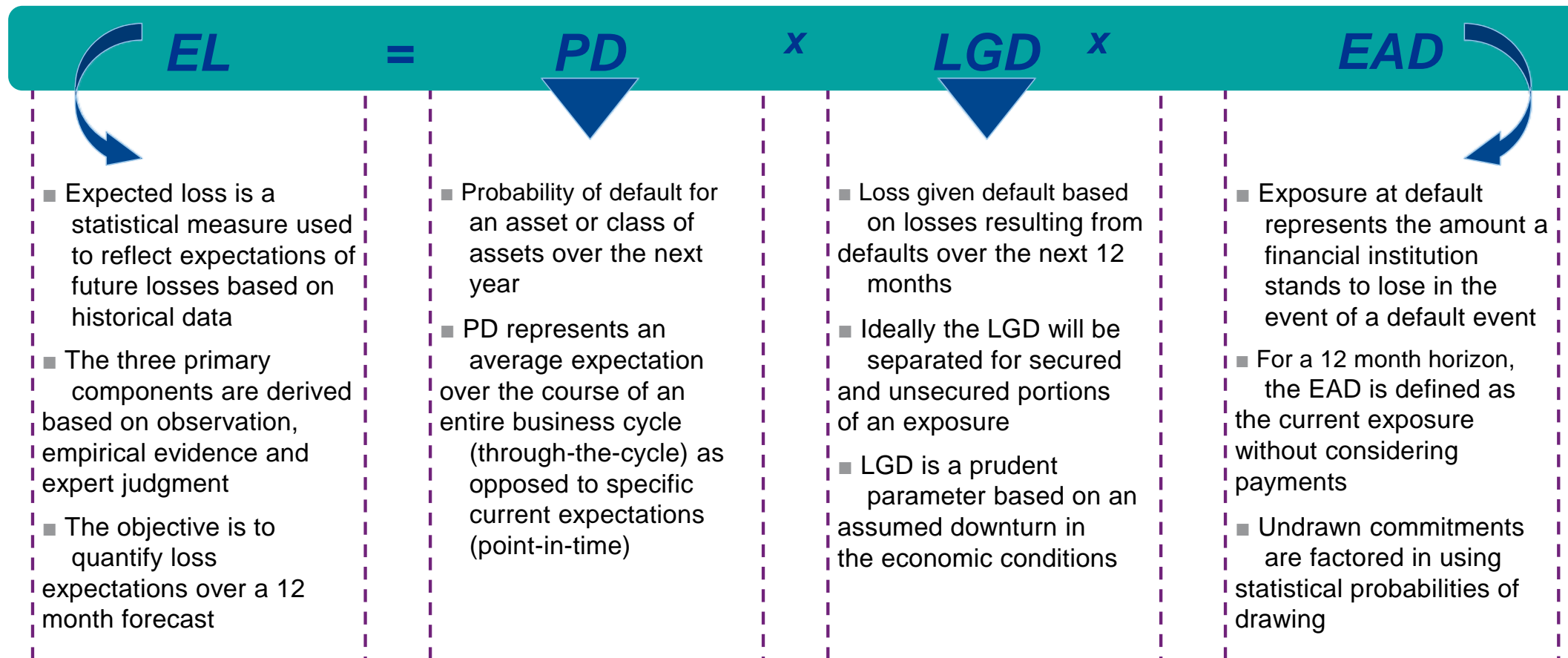
# Impairment – the new model

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# Impairment - high level overview

Existing Basel models are a starting point for implementation

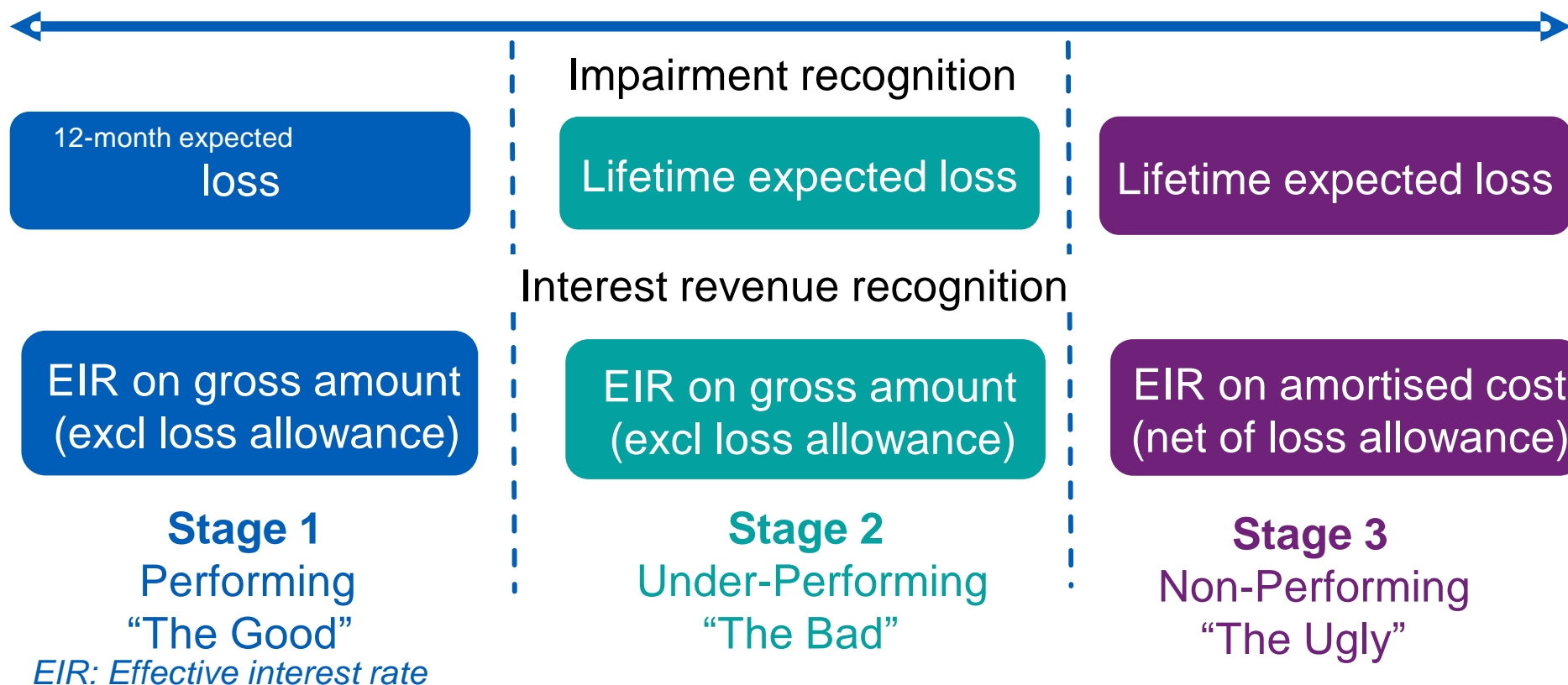


Changes to existing models are necessary to comply with lifetime expected credit loss (LECL) requirements

# IFRS 9 ECL – General model

Default  
not  
defined

Significant increase in credit risk (credit deterioration) since initial recognition



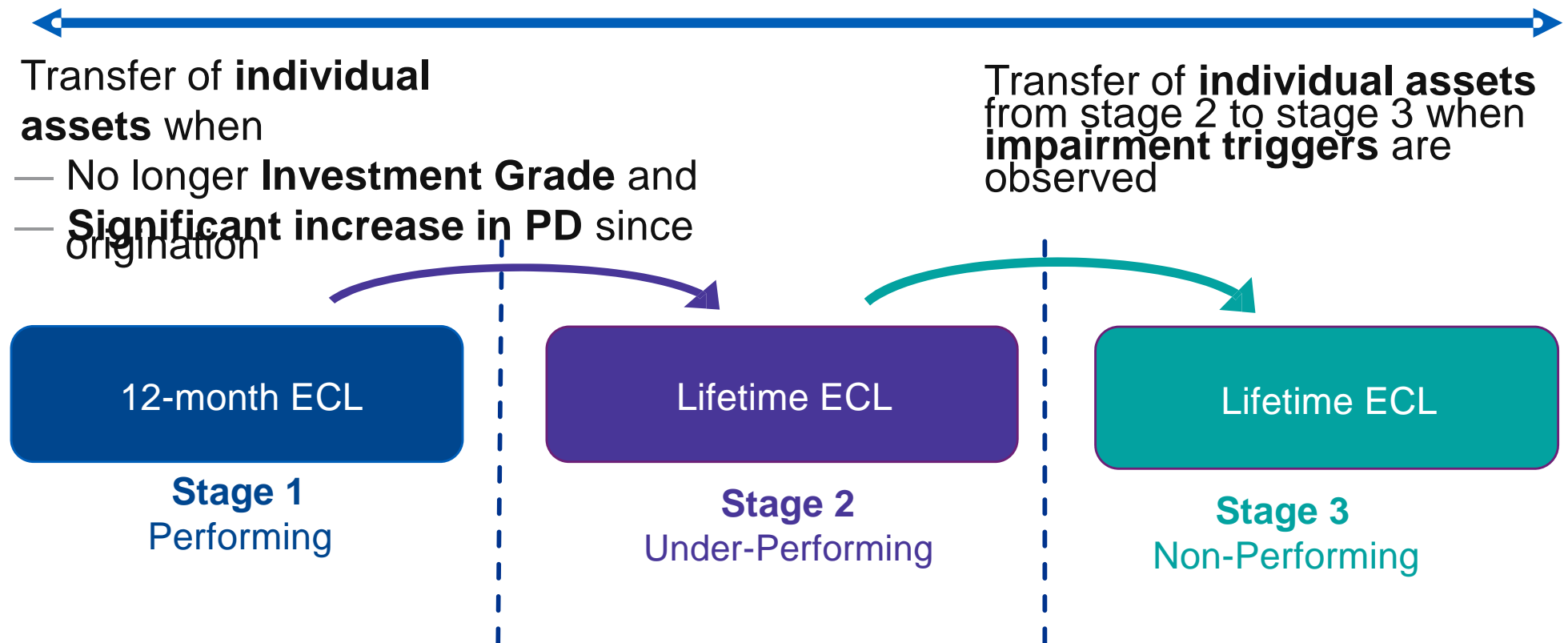
**12-month ECLs** are the portion of lifetime expected credit losses that represents losses resulting from default events that are possible within 12 months

**Lifetime ECLs** are the expected credit losses that result from all possible default events over the expected life of a financial instrument

# Impairment Model – General model (continued)

## Impairment recognition

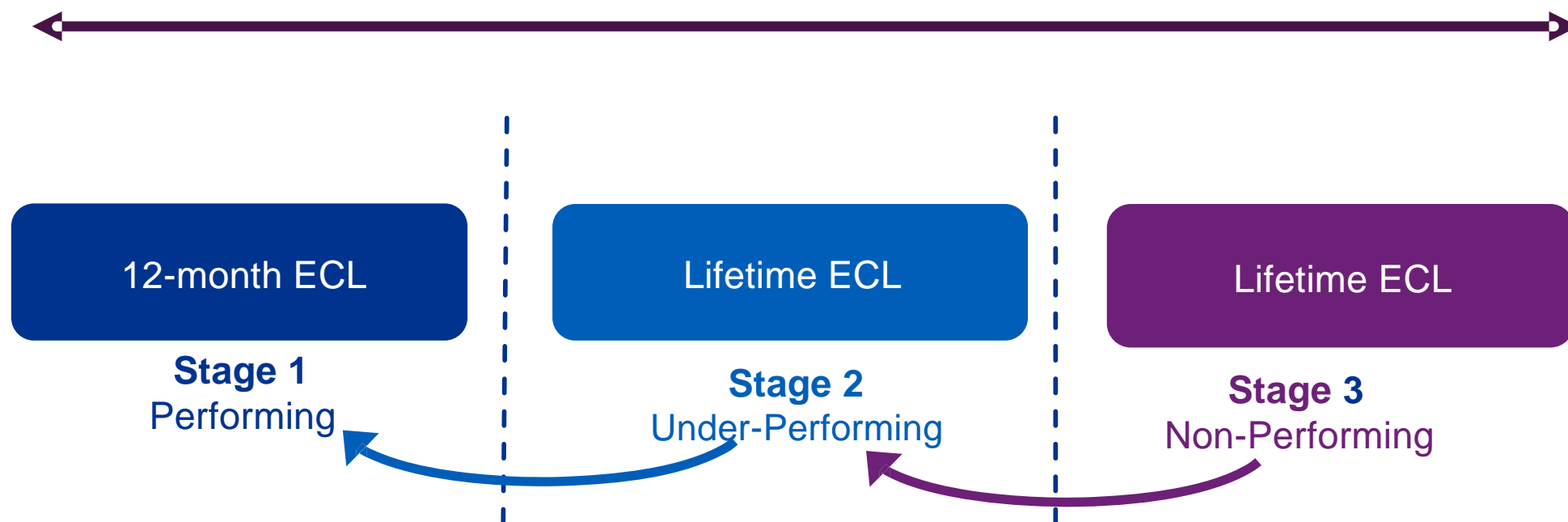
Credit quality deterioration since initial recognition



# Impairment Model – General model (continued)

## Impairment recognition

Credit quality deterioration since initial recognition



Transfer of **individual assets** back to stage 1 when criteria above are no longer met  
(**symmetric model**)

Transfer of **individual assets** back to stage 2 when asset has **recovered from default\***

# IAS 39 versus IFRS 9 comparison





# IAS 39 versus IFRS 9

## Comparison

IAS 39 versus IFRS 9		
Parameter	IAS 39 Incurred Loss Model <i>*Provisioning factors applied to respective arrears buckets or:</i>	IFRS 9 Expected Loss model
Expected Loss (EL) or Incurred Loss (IL)	<ul style="list-style-type: none"> <li>□ <math>IL = EAD \times PD \times LGD \times EP</math></li> </ul>	<ul style="list-style-type: none"> <li>□ <math>EL = EAD \times PD \times LGD</math></li> </ul>
Emergence Period (EP)	<ul style="list-style-type: none"> <li>□ EP attempts to strip out the incurred portion from expected loss.</li> </ul>	<ul style="list-style-type: none"> <li>□ Not applied</li> </ul>
Exposure At Default (EAD)	<ul style="list-style-type: none"> <li>□ Includes the assets carrying value at reporting date.</li> <li>□ No adjustment for future exposure.</li> </ul>	<ul style="list-style-type: none"> <li>□ Includes credit conversion factors (CCF's) for unutilised facilities.</li> </ul>
Probability of Default (PD)	<ul style="list-style-type: none"> <li>□ Point-In-Time (PIT) PD or a roll rate approach.</li> <li>□ Usually done using a 1 year outcome period and adjusting for incurred loss via the EP.</li> </ul>	<ul style="list-style-type: none"> <li>□ 12m PD (to estimate 12m EL for performing assets)</li> <li>□ Lifetime PD (to estimate lifetime EL for underperforming and default assets)</li> </ul>
Loss Given Default (LGD)	<ul style="list-style-type: none"> <li>□ Point-In-Time (PIT) LGD.</li> <li>□ It should reflect expectations in terms of recovery cash flows due to credit cycle effects.</li> </ul>	<ul style="list-style-type: none"> <li>□ Lifetime LGD should be considered through the life of the assets.</li> </ul>

# Practical example

## Example of IAS 39 vs IFRS 9

### Illustration – 5 year loan

The table below provides an overview of the PD and EAD assumptions:

	PD	EaD	EL
1Yr	2.5%	K1 000.00	K 7.50
2Yr	2.4%	K 800.00	K 5.85
3Yr	2.4%	K 600.00	K 4.28
4Yr	2.3%	K 400.00	K 2.79
5Yr	2.3%	K 200.00	K 1.36
<b>Total</b>			<b>K 21.78</b>

LGD is assumed to be 30% through out the life of the loan, and the emergence period is 3 months (i.e. 25% EP adjustment).

### Summary

The provision estimate under IFRS 9 is expected to be higher than the requirements under IAS 39. For this example, the main reasons for the higher loss allowance under IFRS 9 are due to:

- Incurred vs. expected loss estimate; and
- Lifetime EL for underperforming loans (bucket 2).

### Scenario 1: Performing

**Loan is up-to-date, and there is no indicators suggesting that the loan is under-performing**

- IAS 39 – classified as general provision – incurred but not expected
- As per the example above IAS39 provision is  $\text{Kes } 7.50 \times 25\% = \text{Kes } 1.88$
- IFRS 9 – classified as bucket 1: 12 month expected loss
- As per the example above IFRS 9 provision is  $\text{Kes } 7.50$

### Scenario 2: Under-performing

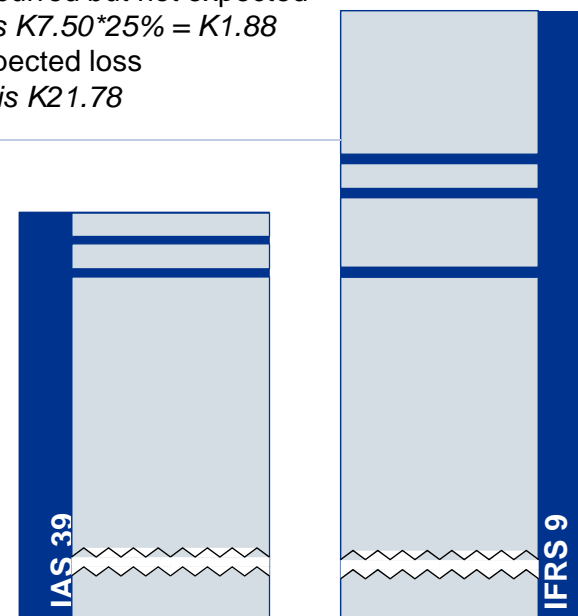
**Loan is not in arrears, but there is indicators suggesting the loans is under-performing**

- IAS 39 – classified as general provision – incurred but not expected
- As per the example above IAS39 provision is  $\text{K}7.50 \times 25\% = \text{K}1.88$
- IFRS 9 – classified as bucket 2: Life time expected loss
- As per the example above IFRS 9 provision is  $\text{K}21.78$

### Scenario 3: Under-performing

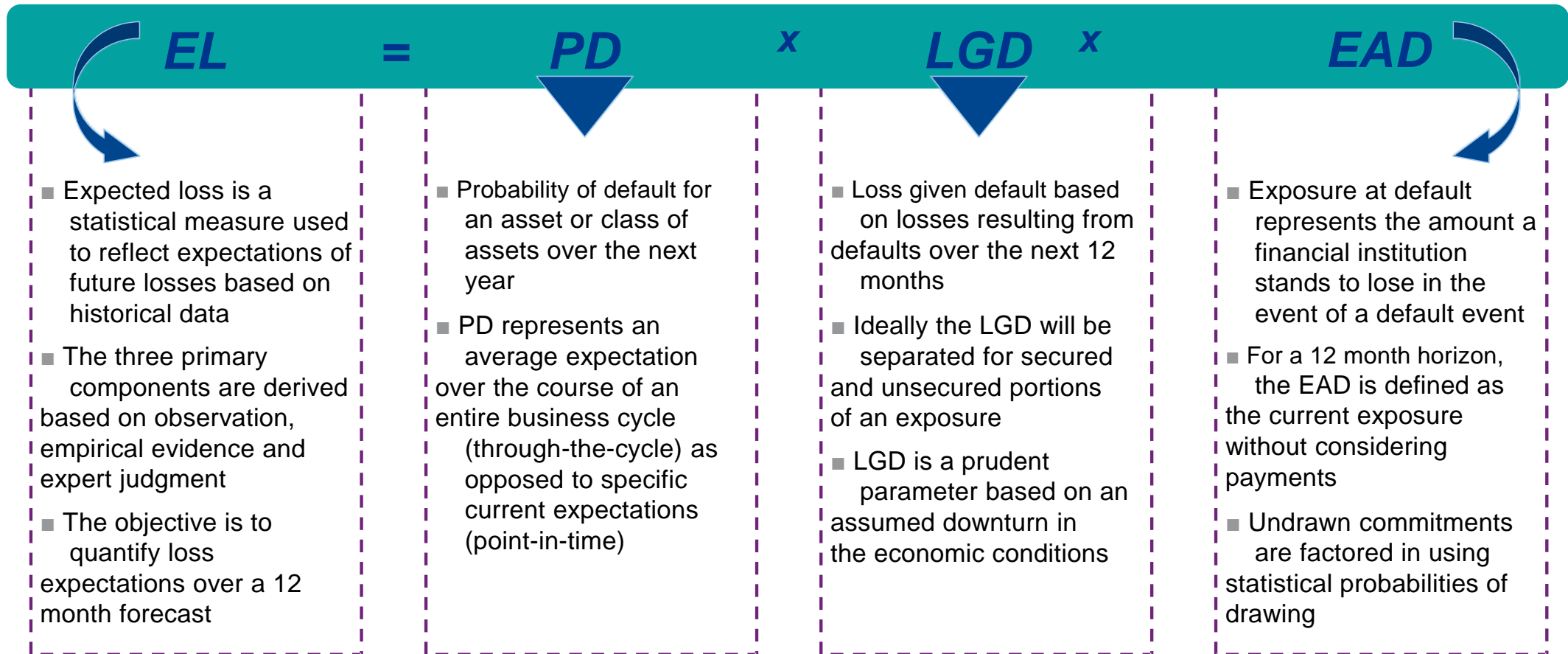
**Loan is in arrears (under performing ) but not in default**

- IAS 39 – classified as general provision – special mention
- As per the example above IAS39 provision is  $\text{K}7.50$
- IFRS 9 – classified as bucket 2: Life time expected loss
- As per the example above IFRS 9 provision is  $\text{K}21.78$



# Impairment - high level overview

Existing Basel models are a starting point for implementation



■ Changes to existing models are necessary to comply with lifetime expected credit loss (LECL) requirements

PD considerations



# Probability of default considerations

- Segmentation
- Definition of default – consistent, document rebuttal
- External rating agency vs Internal ratings Vs modelled PDs (investment securities)
- Time horizon – amount of data
- Count vs Value
- Average/ Sum Vs most recent Data Vs cure rate
- 12-month PD and Life-time PDs

# Probability of default- continued

12 month PDs based on the summation above					
Segment	Stage	Exits	Stage 1	Stage 2	Stage 3
CORPORATE	1	29.05%	62.75%	4.12%	4.08%
CORPORATE	2	43.03%	22.74%	14.47%	19.76%
CORPORATE	3	33.87%	9.64%	4.10%	52.38%
RETAIL	1	51.17%	43.47%	3.17%	2.19%
RETAIL	2	51.99%	14.48%	13.16%	20.37%
RETAIL	3	64.57%	11.89%	0.99%	22.55%
STAFF	1	50.25%	49.66%	0.04%	0.05%
STAFF	2	100.00%	0.00%	0.00%	0.00%
STAFF	3	100.00%	0.00%	0.00%	0.00%

Lifetime PD matrices based on markvoc chain - CORPORATE				
Year	Class	PD	Product	
1	1	4.08%	CORPORATE	
1	2	19.76%	CORPORATE	
1	3	100.00%	CORPORATE	
2	1	3.37%	CORPORATE	
2	2	3.79%	CORPORATE	
2	3	0.00%	CORPORATE	
3	1	2.27%	CORPORATE	
3	2	1.31%	CORPORATE	
3	3	0.00%	CORPORATE	
4	1	1.48%	CORPORATE	
4	2	0.71%	CORPORATE	
4	3	0.00%	CORPORATE	

Markov chain – the next state is only based on the current state and not previous history.



# Probability of default – Data requirements

Data Requirement	Fields
Loan Listing	Client Number
	Client Name
	Start Date
	Maturity Date
	Customer Classification
	Repayment Frequency
	Exposure
	Segment/ Portfolio
	Interest Rate

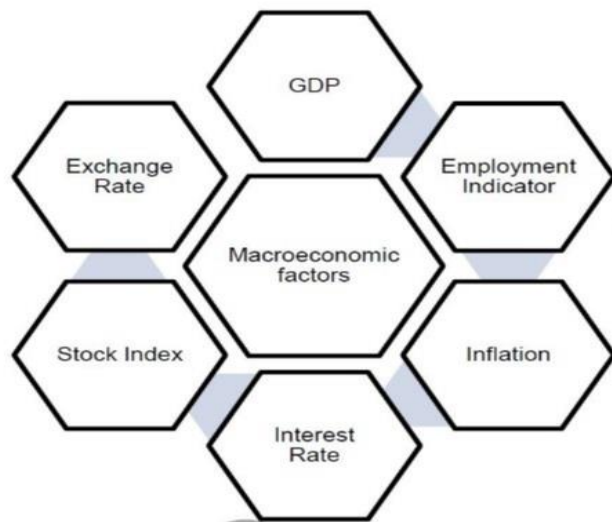
Forward  
looking  
information



# Incorporating FLI & macroeconomic factors (1/2)

1

Identify the relevant macroeconomic factors and obtain the historical figures



4

Maintain only variables with significant coefficients, which also have the sign expected under the working hypotheses

2

Assess how the Organisation's historical default rates have changed relative to the change in each of the relevant macroeconomic factors

Year	$\Delta PD$	$\Delta GDP$	$\Delta FX_{rate}$	$\Delta Interest_{rate}$
0	-	-	-	-
1	0.31%	1.70%	2.04%	2.94%
2	0.18%	1.40%	1.68%	2.42%
3	0.55%	3.70%	4.44%	6.39%
4	0.08%	0.50%	0.60%	0.86%
5	0.47%	1.10%	1.32%	1.90%

3

Estimate an empirical relationship between the portfolio PDs and macroeconomic variables through regression analysis

$$\begin{aligned}
 f(\Delta PD) &= (\beta_1 * \Delta GDP) + (\beta_2 * \Delta FX_{Rate}) + (\beta_3 * \Delta Interest_{Rate}) + \varepsilon_t
 \end{aligned}$$

# Incorporating FLI & macroeconomic factors (2/2)

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5

Forecast the statistically and economically significant macroeconomic factors for the relevant future time period e.g., 5yrs



6

Using the regression equation, compute the applicable changes in the baseline PDs / default rates based on the forecasted macroeconomic factors



7

Apply the computed adjustments to the baseline PD / Default rate structure to obtain the forecasted structure

LGD considerations



# Loss Given Default considerations

- Secured Vs Unsecured loans
- Data - collateral listings and collections/ recoveries data
- Data – system generated or off the system
- Collateral quality – type, recoverability
- Force sale value and Haircuts
- Discounting and years of discount
- LGD floor and proxy LGDs



## Loss Given Default – Data requirements

Data Requirement	Fields	Data Requirement	Fields
Collateral Listing	Client Number	Write-Offs	Client Number
	Client Name		Client Name
	Open Market Value		Write-Off Date
	Forced Sale Value		Amount Written off
	Collateral type	Recoveries	Client Number
	Charge Amount and Number		Client Name
	Currency and conversion rate		Recovery Date
			Amount Recovered
		Collections	Client Number
			Client Name
			Collection Date
			Amount Collected



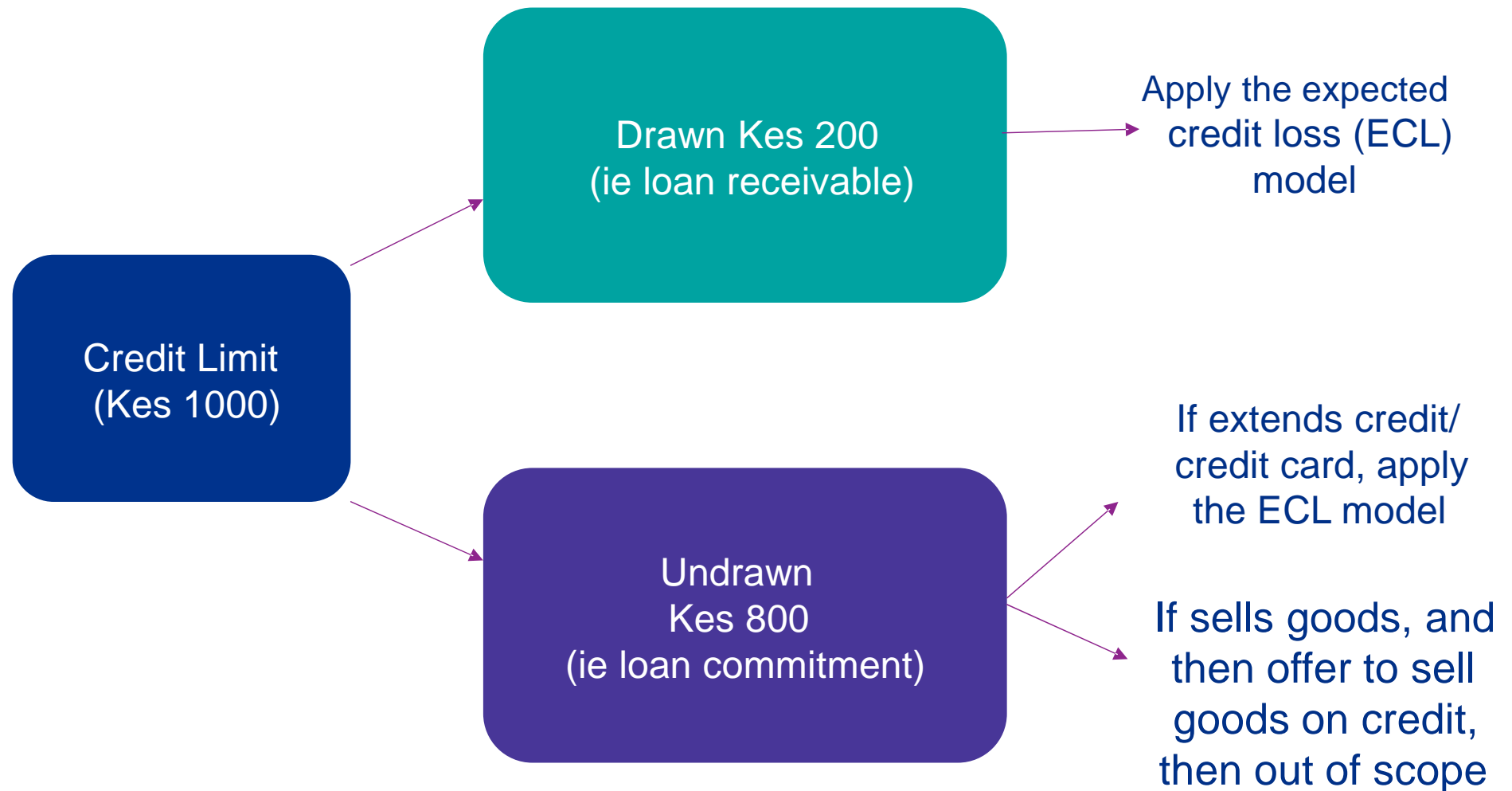
# EAD considerations



# Exposure at Default considerations

- Repayment structure and contractual term
- Prepayments
- Assumptions – revolving facilities
- CCF - un utilised facilities types
- CCD – un utilised facilities methodology

# Off-balance Sheet



# Loss Given Default – Data requirements

Data Requirement	Fields
Letter of Credit	Client Number
	Client Name
	LC Limit
	LC Amount
	Date Issued
	Expiry Date
Undisbursed Commitments/Overdrafts/Guarantees/ Credit cards*	Client Number
	Client Name
	UC Limit
	UC Amount

Key IFRS 9  
challenges and  
**phased**  
approach to  
implementation



# Key challenges

Determination of  
significant  
increase in  
credit risk

Systems and  
automation

Economic  
forward  
guidance

Data quality and  
limitations –  
undue cost and  
effort

Key regulator  
involvement

90 days past  
due rebuttable  
presumption of  
default

Delinquency  
plus vs  
behavioural  
score approach

Capital impact  
and income tax  
implications

Stress-testing

Technical know  
how

Key modelling  
parameters



# KPMG's view of a phased approach to IFRS 9



KPMG proposes a phased approach to address the challenges identified and in order to successfully implement IFRS 9.z

Phase	Phase I Review and Assessment	Phase II Detailed Analysis and Design
Description	<p><b>Review and Assess</b></p> <p>The purpose of this phase is to perform a gap analysis and a high-level quantitative impact assessment to assess the implications of IFRS 9 on the organisation's portfolios and businesses.</p> <p>The assessment would entail a review of current policies, processes, models, data and governance structures and consider these against the requirements of IFRS 9 to identify the areas most likely to be impacted.</p>	<p><b>Detailed Analysis and Design</b></p> <p>The purpose of this phase will be to undertake a deep-dive on impacted portfolios, assess the potential impact of IFRS 9 on the operating model, business impacts and identify possible solutions for implementation. In addition, the phase will include design of policies and development of technical views.</p>
Outcomes	<p>The outcome of this phase will allow your organisation to prioritise impacted areas and undertake a detailed analysis of the products and portfolios which will experience the most change as a result of the IFRS 9. This phase will produce a high level project roadmap and structure for IFRS 9. This phase would also identify IFRS 9 expected credit loss (ECL) modelling gaps, IFRS 9 disclosure gaps and governance around data used in credit modelling and financial reporting.</p>	<p>The output from this phase will comprise a detailed analysis of each portfolio and product, including credit models. We will also identify and document business requirements. This phase would also allow us to identify IFRS 9 governance around data used in credit modelling, classification and measurement as well as financial reporting. The high level implementation roadmap and structure will be refined based on the outputs of Phase 2.</p>

# KPMG's view of a phased approach to IFRS 9



Phase	Phase III Implementation	Phase IV Parallel run
Description	<p><b>Implementation</b></p> <p>This phase will document the detailed design of the future operating state (including related processes, policies, procedures, credit models), formal risk management as well as validate the business and technical requirements. It will entail putting the appropriate governance structures and data controls in place to ensure reliability of information used in preparing credit models and financial reporting. This detailed design will then be built, tested to ensure it is fit for purpose, and implemented.</p>	<p><b>Sustain</b></p> <p>The purpose of this phase will be to run IFRS 9 in parallel with IAS 39 for a minimum specified period of time to ensure that IFRS 9 will be operationally effective by the mandatory effective date and to ensure that policies and processes are documented for ongoing business as usual.</p>
Outcomes	<p>Implementation means that you will have successfully integrated a series of tools and processes which will allow your organisation to report financial instruments under the new IFRS 9 rules.</p>	<p>At the end of the parallel run your organisation will be reporting under IFRS 9. During this phase final adjustments will be identified before adoption of IFRS 9. The parallel run would also ensure that the Organisation can produce information on the changes as a result of adopting IFRS 9.</p>

# Questions





# Abbreviations

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**The following abbreviations have been used in this presentation:**

ECL	Expected credit losses
SIICR	Significant increase in credit risk
FVOCI	Fair value through other comprehensive income
FVTPL	Fair value through profit or loss
SPPI	Solely payments of principal and interest
EIR	Effective interest rate
PD	Probability of default
dpd	Days past due
EAD	Exposure at default
LGD	Loss given default
EP	Emergence period
POCI	Purchased or originated credit-impaired financial assets
IL	Incurred loss
FLI	Forward looking information

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END  
Thank You!

