

# IFRS9 Planning and Stress Testing– Beyond Accounting



FEATURED ARTICLE

## EXECUTIVE SUMMARY

The countdown for IFRS9 launch on January 1<sup>st</sup>, 2018 is fast approaching. The new standards for provisioning represent a drastic shift in bank accounting and credit risk management. Loan portfolios will not be subject to credit loss recognition based accounting any more. Instead, loans in the banking book will generally follow mark-to-market accounting principles. Bank earnings will reflect expected losses calculated based on credit quality changes and forward looking macro-economic views. Loans that have merely undergone a significant credit deterioration will be marked down. IFRS9, if implemented properly, will drive more accurate economic valuations of loan portfolios and promote earlier recognition of credit losses avoiding the delays observed during the credit crisis. As it happens with trading businesses, mark-to-market discipline will create higher P&L volatility of loan portfolios as provisions become more sensitive to the economic cycle. The increased volatility of banking books will need to be understood, measured and communicated to investors. Pricing and product design decisions will be altered. The new requirement for stage 2 classification will drive multiple bank criteria and significant variation in implementation. Moreover, IFRS9 will bring profound changes in the way banks conduct scenario, financial and capital planning. The objective of this document is to outline bank challenges beyond accounting implementation and provide a framework for response to facilitate a smooth transition into IFRS9.

### IFRS9 Key Implications – What is new?

- Mark-to-market discipline applied to banking book
- Increased earnings volatility and some degree of pro-cyclicality
- Accelerated credit losses during periods of stress
- Increased rigor and governance required in scenario planning
- Forward looking mindset
- Adjustments required in product design, pricing and credit risk management
- Further integration of credit, financial and capital planning processes
- New investor transparency needs

### IFRS9 Planning Recommendations – A Response Strategy

This document presents a set of recommendations to facilitate adequate planning and transition into IFRS9:

1. Conduct pro-forma IFRS9 impact analysis at bank, business line and portfolios levels
2. Upgrade governance of scenario planning and create new economic forecasting processes that control for biased estimates
3. Incorporate IFRS9 impact into capital plans and ICAAP including adoption of new accounting standards for credit losses under baseline and adverse stress scenarios
4. Explain IFRS9 impact to credit originating business units so they can make informed adjustments to product design and pricing strategies
5. Transform credit risk management practices to focus on stage 2 prevention, migration and management activities
6. Re-engineer credit and financial planning infrastructure and related models and analytics



## INTRODUCTION

The IFRS9 standard is a **complex rule** with significant implications for **bank accounting, risk management and capital planning**. Its implementation has been delayed due to difficulties in trying to achieve three goals: (1) simplicity (2) smoothing capital impacts of first implementation and (3) appropriate level of credit losses recognised earlier in the credit cycle. The third goal has driven the IASB review of the standard: banks accounted **too little** impairment losses during the early years of the crisis and very often also **too late**. The scope of IFRS9 includes standards for 1. Exposure classification and measurement; 2. Impairment calculation and, 3. Hedge accounting.

Starting in 2018, banks will have to **disclose IFRS9 impacts** and communicate related quantitative and qualitative information to investors. There is a proposal from the EBA on a common template to disclose institution's own funds, capital and leverage ratios with and without the application of IFRS9<sup>1</sup>. Future disclosures will get a lot of attention from the market, market authorities and supervisors such as the ECB which has a thematic review ongoing on IFRS9 bank impacts. Another proposal is currently being discussed by the European authorities on how to phase-in the capital impact in several years<sup>2</sup>. The EBA has recently issued guidance on credit risk and accounting sound practices for expected credit losses.

Our analysis focuses on the **impact of the new impairment calculation methods and their implications in bank financial planning processes**. In this context, A&M has developed a framework for response which contemplates IFRS9 governance, methodology and infrastructure considerations for accounting and financial / capital planning. In addition, related management applications in areas such as capital management, pricing, product design and credit risk management are assessed.

## IFRS9 PRO-FORMA IMPACT ANALYSIS

IFRS9 will have a significant impact. It will not only **increase provision levels** post adoption but more importantly will drive **higher P&L volatility**, particularly in periods of stress.

A&M estimates a required **increase in provisions** of approximately **7%** for top European banks with a **CET1 impact of 45bps**. EBA recently issued its second IFRS9 impact assessment with similar results (see Exhibit 1): 13% average increase in provisions for a sample of small and large European banks with an average 45bps impact in CET1 ratio. The main driver of impact is the lifetime provisioning feature of IFRS9 for stage 2 exposures. IFRS9 impacts are quite modest due to benign credit conditions, stable economic projections and historically low write-offs across the vast majority of jurisdictions.

Exhibit 1 – Starting Point IFRS9 Impact in Provisions and CET1

	A&M <sup>3</sup> Increase in Provisions IFRS9	EBA Increase in Provisions IFRS9 <sup>4</sup>	A&M Impact on CET1 Bps	EBA Impact on CET1 Bps
Median	8%	8%	22	50
Avg All banks	7%	13%	45	45
Weighted Avg	9%	15%	39	42
75th percentile	9%	18%	75	75

IFRS9 provision impact **varies widely across countries** due to starting point impairment rates and stage 2 contribution. It can be observed that Spain suffers the highest increase among all countries (17%), followed by Ireland, France and Belgium. Our estimated weighted average impact is 39 bps in CET1, arising mainly from retail credit exposures followed by non-financial corporates. In terms of CET1 impact by country, Ireland tops the list with an impact of 144 bps, followed by Hungary (125 bps), Spain (100 bps) and Italy (84 bps). Exposure split shows Ireland, Spain, Italy and Hungary with the highest stage 2 contributions.

Furthermore, IFRS9 will bring higher P&L volatility due to more rapid recognition of losses or provision releases. During periods of stress, migrations to stage 2 and full incorporation of forward looking downturn scenarios will drive acceleration in impairments driving increased P&L and capital volatility.

A&M analysis of pro-forma stress test impacts under IFRS9 format shows **front-loading** of losses in year 1 of planning horizon compared to more balanced impacts of prior stress tests. Top European banks are expected to have an average impact during year 1 of 191 bps due to credit losses in a stress test (39bps from transition of IAS39-IFRS9, 79bps from implementation of forward looking scenarios and 73 bps from year 1 scenario impact). This result would add 60bps of impact in year 1 compared to last EBA stress test exercise

<sup>1</sup> Consultation paper on Guidelines on uniform disclosures under article 473a of CRR, July 2017.

<sup>2</sup> Proposal for a Regulation of the European Parliament and of the Council amending Regulation EU No 575/2013 with regards to the transitional period for mitigating the impact on own funds of the introduction of IFRS 9.

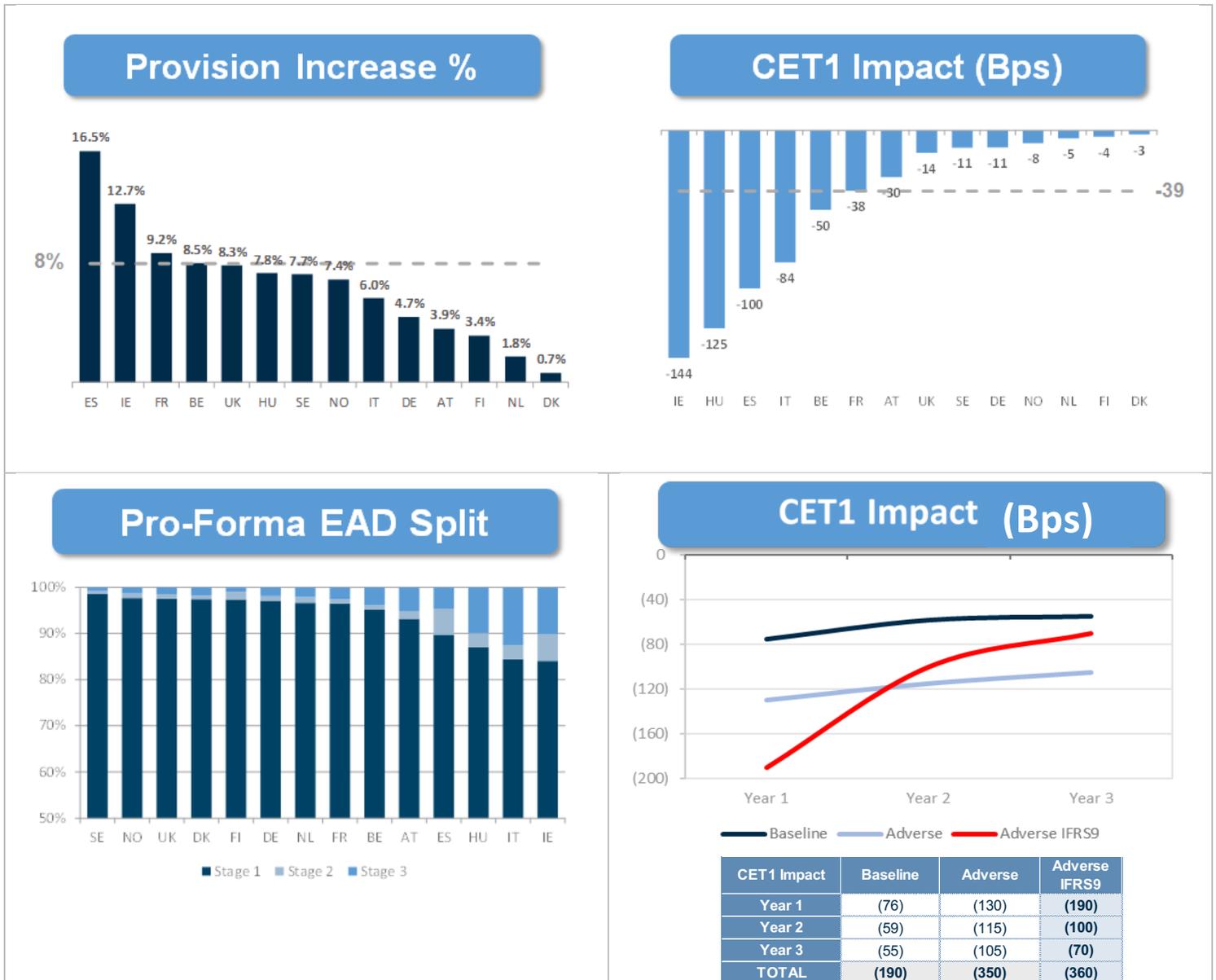
<sup>3</sup> A&M model uses simplified assumptions and leverages EBA 2016 stress test disclosures across banks and asset classes.

<sup>4</sup> For EBA data, the median and 75<sup>th</sup> percentile results refer to the upper limit of a range selected from the survey

conducted in 2016. As a result, the increased sensitivity of provisions to the economic cycle creates important implications for capital planning going forward.

It is the impact through stress testing and the regulators' response to additional capital drawdowns that will determine whether IFRS9 has a significant impact on bank's appetite to lend to the real economy and whether IFRS 9 is in practice significantly pro-cyclical requiring banks to hold 'excess' capital at the bottom of the economic cycle.

Exhibit 2 – Starting Point IFRS9 Impact in Provisions and CET1 by Country / CET1 Stress Test Impacts



# IFRS9 PLANNING – BANK’S RESPONSE

IFRS9 brings multiple **challenges to bank planning** that go well beyond the adoption of the new accounting standards and that require a comprehensive bank response.

Multiple questions are currently being debated by the sector including the following:

- How should we **budget and plan** for provisions using IFRS9 standards? Can we **simplify** IFRS9 accounting assumptions when performing financial forecasting exercises? Can we assume **perfect foresight** when projecting provisions under IFRS9 or should we contemplate **multiple scenarios** probability weighted?
- How **governance** should be changed when forecasting IFRS9 provisions? How can we prepare for future supervisory stress tests and capital planning exercises?
- What **impact** should we expect from IFRS9? What **portfolios** are **more exposed to economic cycles** and therefore can be drivers of future P&L volatility? How can we **anticipate and manage** provisions **volatility**?
- How should the **business adapt** to IFRS9? Should **pricing** or **product design** be modified? How credit risk **management practices** should be adapted?
- Will IFRS9 model dependencies introduce new “**black box**” risks? How can **transparency** be built for internal and external reporting purposes?
- Would IFRS9 bring new risks for financial **restatements** due to model uncertainty? What type of **controls** should be introduced to management for model risk and economic scenario biases?

To respond to the above challenges A&M has created a framework for response with **10 actionable recommendations** along **4 key attributes**: 1. Clear planning methodology, 2. Sound governance and controls, 3. Planning infrastructure and 4. Management applications.

- Clear Planning Methodology 
 ● Sound Governance and Controls 
 ● Planning Infrastructure 
 ● Management Applications

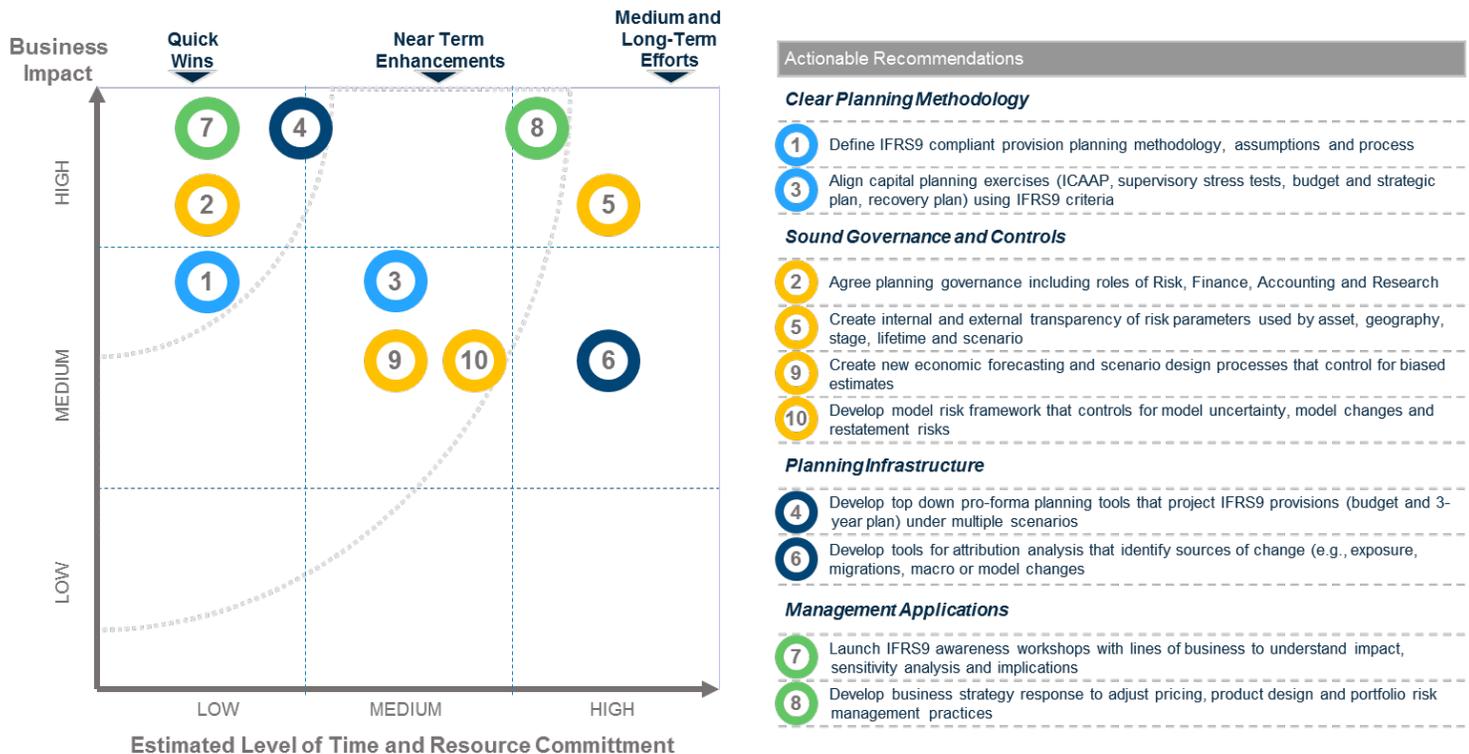
IFRS9 CHALLENGES	BANK’S RESPONSE
1. <b>Increased Complexity</b> – Stage 2 criteria, unbiased scenarios, forward looking model driven risk parameters create organizational and calculation complexity	<span style="color: blue; font-weight: bold;">1</span> Define IFRS9 compliant provision planning methodology, assumptions and process
	<span style="color: orange; font-weight: bold;">2</span> Agree planning governance including roles of Risk, Finance, Accounting and Research
2. <b>Increased Volatility</b> – P&L and capital volatility increases as provisions become pro-cyclical and impairments accelerate in periods of stress	<span style="color: blue; font-weight: bold;">3</span> Align capital planning exercises (ICAAP, supervisory stress tests, budget and strategic plan, recovery plan) using IFRS9 criteria
	<span style="color: blue; font-weight: bold;">4</span> Develop top down pro-forma planning tools that project IFRS9 provisions (budget and 3-year plan) under multiple scenarios
3. <b>Transparency Needs</b> – Sources of provision change would need to be clearly identified and communicated internally and to investors to avoid risks of “black box”	<span style="color: orange; font-weight: bold;">5</span> Create internal and external transparency of risk parameters used by asset, geography, stage, lifetime and scenario
	<span style="color: blue; font-weight: bold;">6</span> Develop tools for attribution analysis that identify sources of change (e.g., exposure, migrations, macro or model changes)
4. <b>Business integration</b> – IFRS9 implications need to be understood by business lines so adjustment in management decisions can be made	<span style="color: green; font-weight: bold;">7</span> Launch IFRS9 awareness workshops with lines of business to understand impact, sensitivity analysis and implications
	<span style="color: green; font-weight: bold;">8</span> Develop business strategy response to adjust pricing, product design and portfolio risk management practices
5. <b>Internal Controls</b> – IFRS9 creates additional model and biased estimation risks that need to be monitored by sound internal control environment	<span style="color: orange; font-weight: bold;">9</span> Create new economic forecasting and scenario design processes that control for biased estimates
	<span style="color: orange; font-weight: bold;">10</span> Develop model risk framework that controls for model uncertainty, model changes and restatement risks

# NEXT STEPS – implementation roadmap

In this document we discuss IFRS9 challenges to financial and capital planning processes and 10 actions that can provide a comprehensive bank response. Banks have focused so far on transforming accounting methods, processes and tools to ensure timely adoption of IFRS9 by January 2018. It is also now time for banks to integrate IFRS9 new accounting standards into management decision making processes. Each bank will need to adjust their governance, methodologies, infrastructure and controls based on their level of progress and complexities.

Below we provide a framework for banks to prioritize our 10 actionable recommendations based on their expected business impact and the level of effort associated to implementation.

Exhibit 3 – IFRS9 Planning Implementation Roadmap



In conclusion, IFRS9 will create important challenges to the banking industry. It will not only add P&L volatility but it will bring increased complexity and model risks to credit provisioning. Banks will need to adjust their governance, methodologies, infrastructure and controls to integrate IFRS standards in management decision making processes.

In the next section of the document, we provide A&M's further details on how to execute A&M's 10 actionable recommendations organized along the four key attributes identified.

## Actionable Recommendation:

## CLEAR PLANNING METHODOLOGY



Define IFRS9 compliant provision planning methodology, assumptions and process

### IFRS9 implications for Planning

IFRS9 impairment methodology brings **incremental complexity** due to new staging criteria, incorporation of forward looking scenarios and new models for point-in-time and lifetime risk parameters

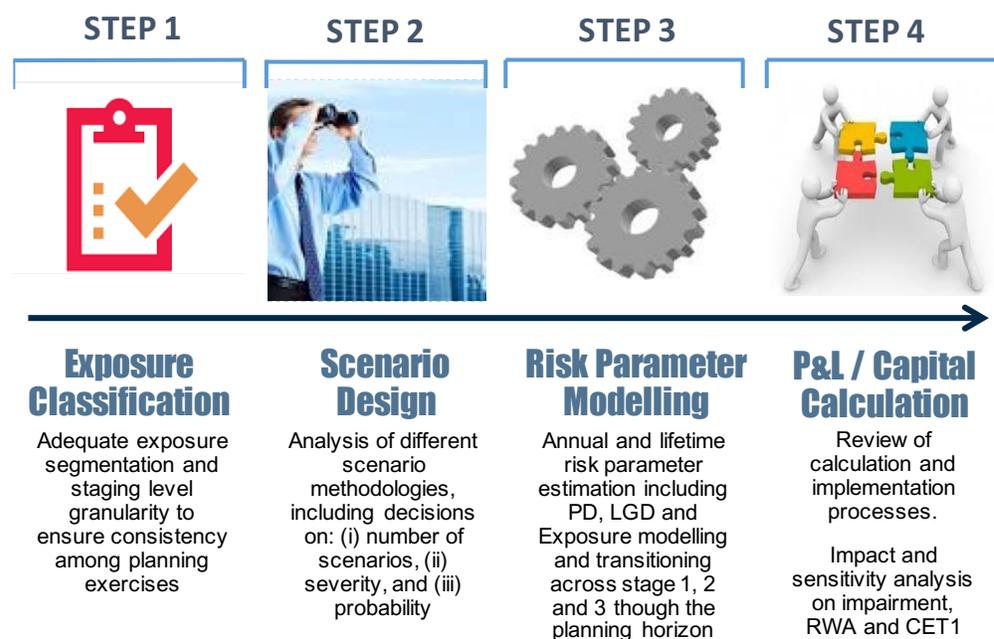
### Response Strategy

Planning and stress testing methodology needs to be defined **balancing trade-offs between accounting conceptual accuracy and computational efforts**. Key methodology areas to define are:

1. Exposure classification
2. Scenarios
3. Risk parameter modeling
4. Impairment & capital calculation

A&M has developed a structured **four-step approach** (see Exhibit 4) to assist banks' decision making on how to adjust financial planning methodologies under IFRS9. We are of the view that if IFRS9 accounting criteria is literally implemented within the financial planning world, unnecessary burden might be created. Below we provide a structured approach that highlights key decision points and A&M view.

Exhibit 4 – IFRS9 Planning Methodology: Four Steps to Ensure Smooth Transition



### STEP 1: Exposure classification

IFRS9 creates **new staging of credit exposures**: Stage 1 (performing), Stage 2 which identifies exposures experiencing a significant increase in credit risk using both qualitative and quantitative criteria and Stage 3 (non-performing). Stage 2 exposures are required to estimate expected credit losses using lifetime risk parameters. A&M analysis shows that the **size and provision coverage of Stage 2** exposures are the most significant factors driving P&L and capital impacts under IFRS9. **Segmentation** criteria is also important to determine at what **level of granularity** exposures should be planned for. Key decision points for exposure planning are as follows:

#### Key Decision Points

1. Stage 2 criteria used for accounting purposes is granular (performed at the borrower level), uses multiple quantitative indicators<sup>5</sup> and EWS<sup>6</sup> and combines qualitative factors. What criteria should be used when planning for Stage 2? Should the application of thresholds be considered and if so should absolute or relative changes be contemplated?

#### A&M View

When staging 2 exposures along the **planning horizon** (3-5 years) banks should define **simplifying assumptions** that overweight objective criteria (e.g., EBA defined threshold for the Stress Test 2017 of PD increase of 200% for all exposures)

Use of **expert judgement** should be allowed when planning particularly for those portfolios where Stage 2 relationships to economic cycle are hard to derive (e.g. forbore strategies employed by banks to increase borrower recovery capacity)

<sup>5</sup> Examples include negative own funds, continued losses, delays in payments, imbalanced situation, rating downgrade, past due liabilities with public sector or employees, clients with exposures already in non-performing, forbore exposures with more than 30 days past due

<sup>6</sup> Sharp decrease in business performance metrics, insufficient cash-flows to service the debt, declaration of insolvency of any kind, significant pending litigations, operations granted at an insufficient price to cover costs, issued debt marketed below par, excessive CDS spreads compared to peers, underperformance against peers, underperformance in stress testing scenarios

**Actionable Recommendation:**

**CLEAR PLANNING METHODOLOGY**



Define IFRS9 compliant provision planning methodology, assumptions and process

2. Exposure segmentation used for accounting purposes is granular and mostly performed at the borrower level. What segmentation should be used when planning and forecasting provisions under IFRS9?

Planning for IFRS9 provisions should be not be done at the borrower level. Banks should select IFRS9 **buckets** that properly segregate for asset class, geography, stage 2 criteria and riskiness (risk rating / score). **Top-down planning** should be performed using segmentation criteria that allows for risk discrimination and that balance operational burden of bottom up approaches.

**Mapping** of segmentation criteria used for supervisory stress testing (e.g. EBA and PRA segmentation) vs. internal risk management / capital planning vs. regulatory capital purposes should be developed **to facilitate coordination** of exercises.

3. IFRS9 impairments are calculated using static point in time exposures. Should dynamic vs. static exposure projections be used when planning under IFRS9?

EBA uses **static balance sheet projections** (constant exposure) for its stress tests. In addition, 2018 EBA ST IFRS9 compliant does not allow for cures between stages 3 and 1. For internal purposes, banks should use **dynamic approaches** that capture new entries, prepayments and amortizations to fully reflect credit risk profile. Banks should quantify the impact of using varying approaches.

**STEP 2: Scenario Design**

IFRS9 incorporates **forward looking, unbiased and probability weighted** macro information as an input to forecast provisions. The increased importance and rigor required in bank scenario generation processes is justified for their direct impact in P&L, something that has not occurred in the past. Decisions around the number, severity, probability and path of scenarios used for IFRS9 accounting vs. planning will drive **process complexity**. Key decision points for IFRS9 scenario design are as follows:

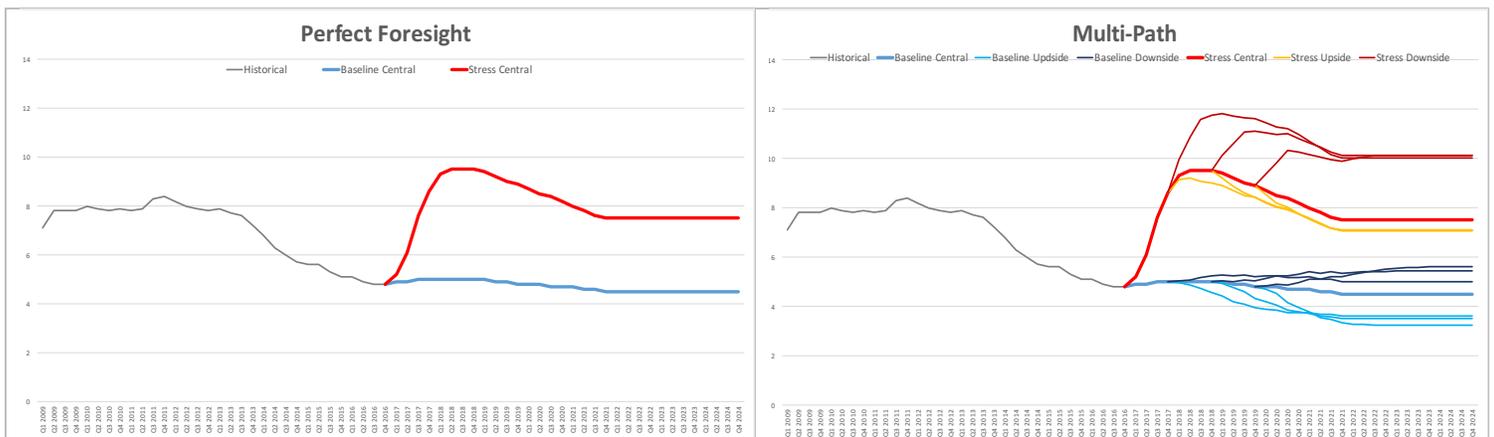
**Key Decision Points**

1. The number of scenarios to develop a probability weighted forward looking view is a key feature of IFRS9. Most banks use 3 to 5 baseline/up/down scenarios to develop provision needs across asset classes. Few banks are using Monte-Carlo simulation using a large set of scenarios. How many scenarios should be used when projecting provisions for planning?

**A&M View**

There are two options: (1) **Perfect foresight**: perform planning using one central scenario or single path for each point-in-time in every generated scenario (2) **Multi-path**: using several expectations or paths for each point-in-time in every generated scenario with different probability of occurrence to each one (see Exhibit 5). While option 2 is consistent with IFRS9's required use of a range of scenarios, the level of complexity added does not compensate for the increased level of precision (capturing non-linear effects). The EBA has adopted option 1 in its ST 18 while the PRA ST 17 is using option 2 for a full IFRS9 forecast of the UK retail credit card portfolio using 14 scenarios. We recommend the use of perfect foresight for planning purposes. An intermediate solution could be multi-path for year 1 budget and perfect foresight for the rest.

**Exhibit 5 – Illustration of Perfect Foresight vs. Multi-path Scenarios for UK Unemployment used in PRA ST 17**





Define IFRS9 compliant provision planning methodology, assumptions and process

**Key Decision Points (cont.)**

2. IFRS requires the use of a range of scenarios. The number of scenarios is not important but also the severity and probability weightings of scenarios. Banks use already a large set of scenarios for planning purposes with varying severity and probability of occurrence (ICAAP, recovery & resolution plans, reverse stress tests) and now IFRS9 provisions will be added to the library. How banks should assign severity or probability weightings to scenarios?

3. Scenario extension is required to develop lifetime risk parameters with long maturities. As a result, forecast horizons might need to be extended for IFRS9 implementation and planning purposes. How scenario extension should be implemented for financial planning under IFRS9?

**A&M View (cont.)**

In our view, scenario construction under IFRS9 is subject to the risk of **biased estimates and inconsistent implementation** across the industry. Banks should develop a library of scenarios that can be leveraged for internal planning, IFRS9 and supervisory stress tests. Models to assign probability weightings should be developed, tested and reconciled for the multiple management uses. In case multi-path option is adopted, central baseline and stress scenarios with different degree of severity should be built (no more than 4-5) with additional upside and downside branches of scenarios. Recommendation 9 discusses how to control for biases when creating scenarios.

**Extension of scenarios** can be done extending the forecast horizon of scenarios and models or assuming simplifying extension assumptions such as reversion to mean or constant behavior from a certain point in time onwards. We would advocate for simplification in this area.

**STEP 3: Risk Parameter Modeling**

The next steps for IFRS9 planning is the **application of scenarios into risk parameter estimates** for PD and LGD point-in-time and lifetime as well as **cure rates and transition flows** across stages during the planning horizon. Those calculations allow to determine the new impairment losses and the provision release across stages. In this regard, the new EBA 2018 ST methodology can be used as a reference point for planning IFRS9 provisions. The main feature of the EBA ST 2018 is precisely the introduction of IFRS9, which is expected to create an acceleration effect of credit impairments in year 1 thus increasing CET1 depletion in year 1 vs. prior exercises. Banks will be required to clearly distinguish all risk parameters, including PDs and LGDs that should be generated per segment (12 months and lifetime) to fully estimate **all potential transitions and impairment flows** across stages, and ultimately calculate loss impairments (see Exhibit 6).

**Exhibit 6 – EBA Stress Test 2018 proposed methodology to incorporate IFRS9**

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**Starting Point IFRS9**

Stage 1

Stage 2

Stage 3

Exposure (t)	Total	Exp S1 [t]	+ Exp S2 [t]	+ Exp S3 [t]
Provision Stock (t)	Total	Prov Stock S1 [t] *	+ Prov Stock S2 [t] *	+ Prov Stock S3 [t] *

\* Note: Scenario impact fully reflected per starting point S2 and S3 Exp

**PD – Point in time**

Stage 1	Stage 2
Baseline	Adverse

**PD – Lifetime**

Stage 1	Stage 2
Baseline	Adverse
Life-time	PD <sub>LT</sub>
1	PD[t+1]
2	PD[t+1]+PD[t+2]
3	PD[t+1]+PD[t+2]+PD[t+3]
...	-

**LGD – Point in time**

Stage 1	Stage 2
Baseline	Adverse

**LGD – Lifetime**

Stage 1	Stage 2
Baseline	Adverse
Life-time	LGD <sub>LT</sub>
1	LGD <sup>LT</sup> [t+1]
2	LGD <sup>LT</sup> [t+2]
3	LGD <sup>LT</sup> [t+3]
...	-

**Cure Rate (PC)**

**Flow Transition Probabilities (%)**

	S1 <sub>t+1</sub>	S2 <sub>t+1</sub>	S3 <sub>t+1</sub>
S1 <sub>t</sub>	$1 - \frac{PD_{12m}^{1-2}[t+1]}{PD_{12m}^{1-3}[t+1]}$	$PD_{12m}^{1-2}[t+1]$ [3↓]	$PD_{12m}^{1-3}[t+1]$ [1↓]
S2 <sub>t</sub>	$PC_{12m}^{2-1}[t+1]$	$1 - \frac{PC_{12m}^{2-1}[t+1]}{PD_{12m}^{2-3}[t+1]}$ [4↓]	$PD_{12m}^{2-3}[t+1]$ [2↓]
S3 <sub>t</sub>	-	-	1 [5↓]

↓ Impairment Losses

New S3 from S1	[1↓]	Exp S1[t] * PD <sub>12m}^{1-3}[t+1] * LGD<sub>LT}^{1-3}[t+1]</sub></sub>	[1↑] α * Prov Stock S1[t]
New S3 from S2	[2↓]	Exp S2[t] * PD <sub>12m}^{2-3}[t+1] * LGD<sub>LT}^{2-3}[t+1]</sub></sub>	
New S2 from S1	[3↓]	Exp S1[t] * PD <sub>12m}^{1-2}[t+1] * PD<sub>LT}^{1-2}[t+1] * LGD<sub>LT}^{1-2}[t+1]</sub></sub></sub>	[2↑] χ * Prov Stock S1[t]
Existing S2	[4↓]	Exp S2[t] * PD <sub>LT}^{2-3}[t+1] * PD<sub>LT}^{2-3}[t+1] - ProvStock S2[t] [3↑] if &lt; 0 Release from S2</sub></sub>	
Existing S3	[5↓]	Max [0; Exp S3[t] * LGD <sub>LT}^{3-3}[t+1] - ProvStock S3[t]</sub>	

↑ Provision Release

t+1

**Forecast IFRS9**

Stage 1

Stage 2

Stage 3

Exposure (t+1)	Total	Exp S1 [t+1]	+ Exp S2 [t+1]	+ Exp S3 [t+1]
Provision Stock (t+1)	Total	Prov Stock S1[t] - [1↑] - [2↑] + [3↑]	+ Prov Stock S2 [t] + [3↓] + [4↓] - [2↓] - [3↑]	+ Prov Stock S3 [t] + [1↓] + [2↓] + [5↓]

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## Actionable Recommendation:

### CLEAR PLANNING METHODOLOGY



Define IFRS9 compliant provision planning methodology, assumptions and process

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Key decision points for IFRS9 risk parameter modeling methodology are as follows:

#### Key Decision Points

#### A&M View

1. Banks are implementing modeling approaches to develop IFRS9 compliant risk parameters, primarily point-in-time and lifetime PDs and LGDs across stages 1, 2 and 3. Key decision points involve modeling technique selection (regression, macro-conditioned transition matrices, simulation, etc.) and modeling granularity (by borrower, rating level, LTV band, etc.). What modeling approach should be used for IFRS9 planning purposes?

IFRS9 PD and LGD models are being developed leveraging stress testing techniques and internal advanced models used for regulatory capital. Adaptations are being made to incorporate term structure for PDs and LGDs needed for lifetime risk parameters and Stage 2 transition models and risk parameters. Cure rates are also being modelled to understand recoveries from S3 and S2 to performing. **Banks will need to use new IFRS9 models for not only accounting but also financial / capital planning purposes.** The level of granularity when planning can be reduced using appropriate aggregations of exposures on the basis of shared credit characteristics. Except for some of the cure restrictions used, the EBA methodology for IFRS9 impairment forecasts provides an adequate technical reference for internal planning.

Banks need to use effective interest rate assumptions to discount loss projections over loan lifetime.

Banks should search for **synergies among macro-based models** used for stress testing, IFRS9 and regulatory capital. **Ongoing model validation and controls** will be critical to ensure credible implementation.

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#### Step 4: P&L / Capital Calculation

The **impairment** calculation and the **associated capital impact** assessment are the last step of the planning process. The application of the macro-driven risk parameters weighted by scenario probability to existing exposures across stages 1, 2 and 3 produces the new need for impairments or provision releases. The capital impact of changing provision levels should take into account retained earnings, expected loss excess / surplus deductions and DTA impacts. Key decision points for IFRS9 P&L and capital calculation impact are as follows:

#### Key Decision Points

#### A&M View

1. P&L impact of new provision needs and releases will be calculated using the bottom-up approach described above. How P&L impacts from IFRS9 should be calculated for planning purposes?

P&L impacts can be calculated using the EBA methodology for IFRS9 impairment forecasts providing for flexibility to include cures and dynamic balance sheet assumptions (new origination, prepayment and amortization). Changes in P&L sources from **IFRS9 should differentiate changes** in business volume, macro-economic assumptions driving risk parameter estimates and model changes.

2. Capital impact of changing provision levels should include the following drivers: impact on retained earnings, Impact on excess/deficit of EL vs. provisions capital deduction<sup>7</sup> and temporary and permanent DTA impacts. T0 IFRS9 impact net of taxes will flow through capital and be subject to transitional arrangements over the course of 5 years. Finally, RWA projections will also be tied to macro-economic scenarios used. How capital impacts from IFRS9 should be calculated for planning purposes?

Capital impact from IFRS9 should include the aggregate impact of retained earnings, changes in capital deductions and RWA changes. Banks should manage the fully loaded CET1 impacts for internal capital planning purposes. **Sensitivity analysis** to drivers of CET1 impact should be conducted. It is expected as mentioned above that IFRS9 will create **higher capital depletion in the early years** of planning / forecast exercises, particularly when considering stress scenarios.

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<sup>7</sup> Under the IRB approach, any shortfall between total eligible provisions and regulatory EL is fully deducted, without considering tax effects, from CET1 capital; whereas any excess is added to Tier 2 capital, up to a limit of 0.6% of credit RWAs calculated, Under the Standardised approach, banks are permitted to include general provisions in Tier 2 capital up to a limit of 1.25% of credit RWA.

**IFRS9 implications for Planning**

Increased P&L volatility from IFRS9 adoption can be anticipated through consistent and coherent planning exercises that serve multiple purposes but that if aligned to each other will provide visibility of provisions behavior under a wide range of forward looking scenarios.

**Response Strategy**

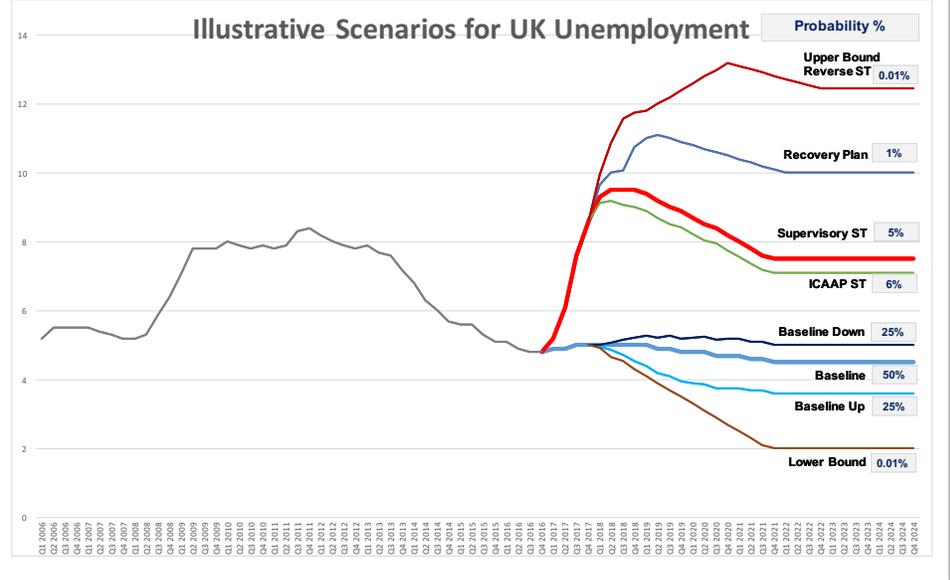
**Financial and capital planning exercises should be aligned** through:

1. Consistently generated scenarios
2. Consistent modeling
3. Process alignment
4. Integrated governance

**Exhibit 7 – Consistently Generated Scenarios**

The first step to ensure planning exercise alignment is to develop a consistently generated set of scenarios with probability weightings depending on the intended severity of each exercise:

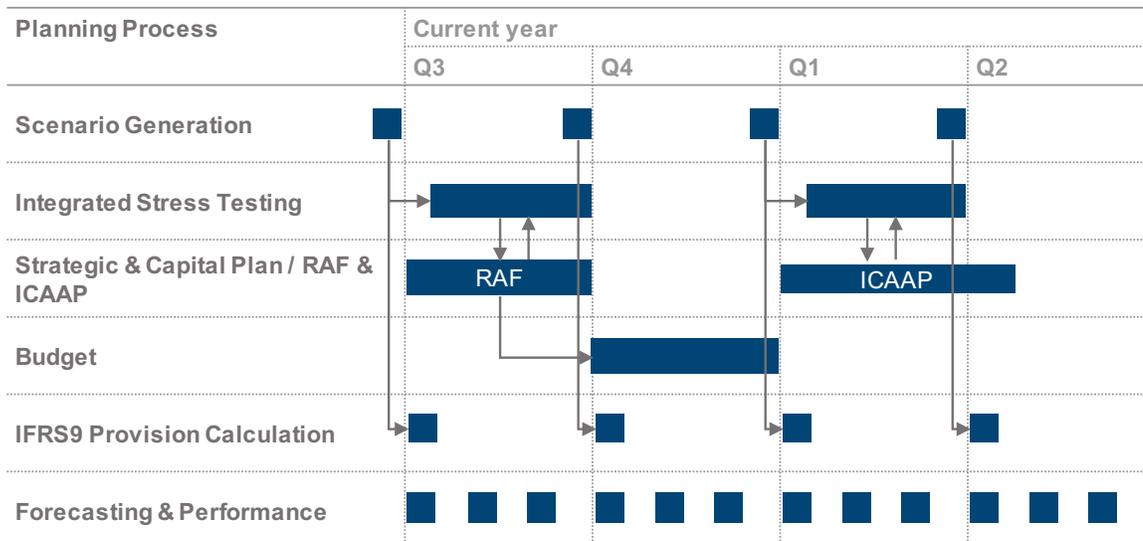
- The baseline (50% probability), baseline-down (25%) and baseline-up (25%) can be used for IFRS9 provisions forecast
- Baseline scenario is used to derive 1-year budget and 3-year strategic plan
- Downside scenarios are generated for multiple purposes with probability weightings consistently calculated
  - Internal capital planning or ICAAP
  - Supervisory stress tests
  - Recovery plan
  - Reverse stress tests
- Banks can reconcile differences between stress tests due to methodology constraints (e.g., EBA criteria vs. internal)



The second step to ensure planning alignment is the use of consistent modeling techniques across the various exercises. There are some banks that have developed IFRS9 models that are different from those used in stress tests. Those banks will face challenges to understand and reconcile multiple credit provision forecasts.

In addition, an annual calendar of the Bank’s planning processes allows for integration of the linkages and alignment of the timing between each process (see Exhibit 8). Lastly integrated governance across planning process should ensure proper senior management challenge of planning output, relevant discussions to reconcile different results and alignment to the RAF approved by the Board.

**Exhibit 8 – Illustrative Alignment of Planning Process and Calendar**



**Actionable Recommendation:**

**SOUND GOVERNANCE AND CONTROLS**

- 2 Agree planning governance including roles of Risk, Finance, Accounting and Research

**IFRS9 implications for Planning**

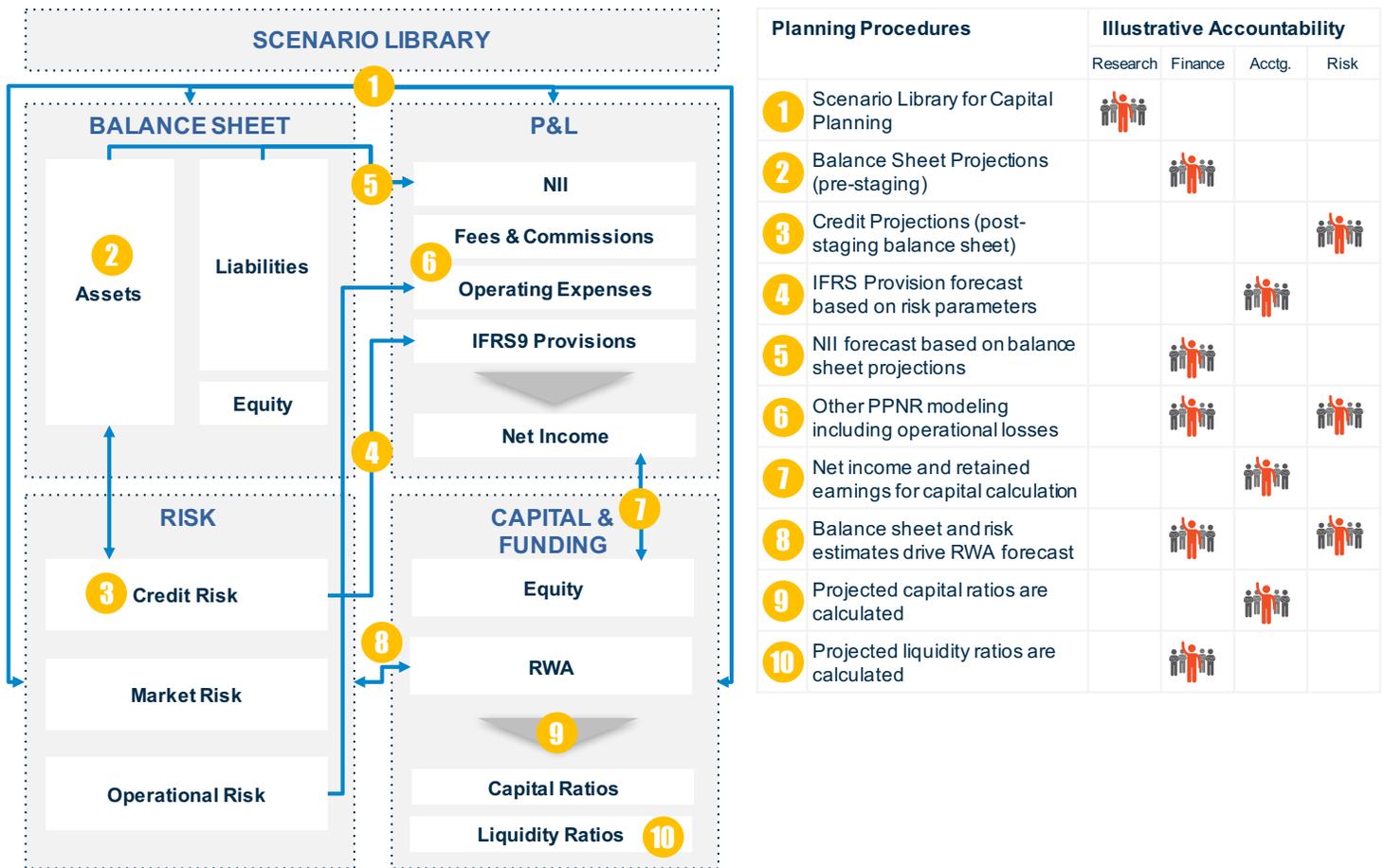
IFRS9 adds complexity to financial planning and stress testing processes as banks are required to project provisions using risk-based model estimates of future macro-economic conditions. IFRS9 estimates need to be consistent with other financial forecasts such as business volumes, NII, fees, expense, RWA and capital projections which are also linked to economic scenarios

**Response Strategy**

Risk, Finance, Accounting and Research are required to revise the **planning governance framework** to clearly delineate roles and responsibilities and foster adequate coordination, alignment, synergies and control

Financial planning processes are today complex and require of an **integrated modeling approach** to forecast balance sheet, P&L and capital. IFRS9 incorporates forward looking estimates of impairments under multiple economic scenarios with need to be reflected in capital plans and risk appetite statements. **Proper links** need to be considered when projecting IFRS9 credit expected losses, balance sheet, P&L, RWA and capital using an integrated that promotes accountability and collaboration (see Exhibit 9). Increased complexity needs to be managed through **clear governance protocols** that respect segregation but also benefit from synergies in modeling and forecasting approaches. Processes supporting scenario generation, risk parameters used for RWA and IFRS9 projections and PPNR<sup>8</sup> forecasting all need to be integrated to exploit synergies and properly understand impacts in capital planning.

**Exhibit 9 – Governance for 10 Steps to Financial Planning under IFRS9**



<sup>8</sup> Under IFRS9, stage 1 and 2 exposures accrue interest on a gross basis while stage 3 loans only accrue net interest revenue adjusted by expected credit losses to reflect increased risks of collection.



**Actionable Recommendation:**

**SOUND GOVERNANCE AND CONTROLS**

5

Create internal and external transparency of risk parameters used by asset, geography, stage, lifetime and scenario

**IFRS9 implications for Planning**

IFRS9 risk-based models run the risk of becoming a “black box”. Given implications of new standards in accounting and financial / capital planning, Risk units should create mechanisms to provide transparency particularly in the area of risk parameters used as part of IFRS9 provision estimation.

**Response Strategy**

Risk functions should **publish internally risk parameters** used by asset, geography, stage, lifetime and scenario across the relevant risk dimensions of each portfolio. This is intended to facilitate financial and capital planning activities performed by other functions. In addition, summarized **disclosures** of risk parameters used and key assumptions should be provided to investors.

The publication of risk parameters by Risk can create **transparency** in financial and capital planning processes. It will allow capital management and finance areas to **understand and anticipate** potential sources of P&L volatility due to IFRS9 adoption. It can also serve the purpose of **financial disclosure to investors**. In order to be effective, the publication of risk parameters should have the following attributes:

1. Granularity of risk parameters published to be commensurate with the risk characteristics of each portfolio (see Exhibit 10) incorporating key risk drivers such as LTV, rating, lifetime, product type, etc.
2. Scope of risk parameters should include PD, LGD and cure rates across stages so financial and capital planning areas can generate top down provision estimates and forecasts as well as challenge and reconcile bottom up accounting provision levels
3. Timing of publication should be aligned to accounting, planning and forecasting processes and consider publication of parameters pre-closing based on economic scenarios produced in advance

**Exhibit 10 – Illustrative IFRS9 Risk Parameter Table**

Retail Mortgages															
Baseline															
Portfolio	Exposure			Provisions			PD			LGD			Cure Rate		
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	S3 to S1	S2 to S1	S3 to S2
LTV Band															
<50%															
>=50%, <70%															
>=70%, <80%															
>=80%, <90%															
>=90%, <100%															
>=100%, <110%															
>=110%, <120%															
>=120%, <130%															
>=130%															
TOTAL															
Corporates															
Baseline															
Portfolio	Exposure			Provisions			PD			LGD			Cure Rate		
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	S3 to S1	S2 to S1	S3 to S2
Internal Rating															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
TOTAL															



## Actionable Recommendation:

# SOUND GOVERNANCE AND CONTROLS



Create new economic forecasting and scenario design processes that control for biased estimates

### IFRS9 implications for Planning

### Response Strategy

IFRS9 will bring new model and biased estimation risks particularly those related to the generation and forecasting of economic scenarios. IFRS9 requires production of periodic forward looking economic forecasts that are unbiased, transparent and supported by sound governance.

Banks should **review** current and target economic **forecasting processes** for both IFRS9 business as usual and stress testing purposes to meet increased requirements and expectations with a particular focus on controlling for biased scenarios

Banks have traditionally generated economic scenarios for financial planning and stress testing purposes. With IFRS9 provisioning, economic scenario forecasting will have a **direct impact on accounting**. The use of data sources, models and expert judgement when forecasting scenarios can create undesired biases in financial records. Banks will have to **identify, assess and mitigate potential biases** of IFRS9 provisions (see Exhibit 11).

### Exhibit 11 – Economic Scenario Biases and Mitigation Strategies

Bias type	Bias Description	Mitigation Strategies
1. <u>Variable selection bias</u>	Use of limited set of macro variables	<ul style="list-style-type: none"> <li>Comprehensive set of variables across portfolios</li> <li>Consistent methodology to extend variables</li> <li>Analysis of interconnections across variables</li> </ul>
2. <u>Anchoring bias</u>	Scenario design over-relies on certain values, trends or data sources	<ul style="list-style-type: none"> <li>Multiple sources of variables</li> <li>Through the cycle source data</li> <li>Workshops with business experts / senior executives</li> </ul>
3. <u>Model bias</u>	Use of models based on inaccurate relationships / narrow model driver selection	<ul style="list-style-type: none"> <li>Model risk management governance and controls</li> <li>Model validation, back-testing and benchmarking</li> </ul>
4. <u>Probability bias</u>	Over or under confidence in scenario severity / Over or under estimation of probability selection (optimism or conservatism bias)	<ul style="list-style-type: none"> <li>Coherence of probability across planning exercises</li> <li>Probability measurement challenge and assurance</li> <li>Probability adjustment using business judgement</li> </ul>
5. <u>Opinion bias</u>	Influenced by limited set of views or behaviors in group discussions / Irrational group behavior	<ul style="list-style-type: none"> <li>Objective workshop facilitation</li> <li>Formalized governance and process including CFO/CRO approval</li> </ul>
6. <u>Results bias</u>	Bias towards specific level of provisions / Influence of senior executives with results bias / Focus on results outcome early in the process	<ul style="list-style-type: none"> <li>Pro-forma impact assessment tools</li> <li>Prioritization of qualitative and quantitative conclusions</li> <li>Peer benchmarking</li> </ul>

One important decision banks face in this area relates to the use of third party vendors vs. internal research units for economic scenario generation. There are some pros and cons of each option and banks should balance bias risks with internal control and governance:

	Option 1 – In House Scenario Generation	Option 2 – Outsource to Third Party Vendor
<u>Biases</u>	Subject to probability, opinion and results bias	Less prone to biases due to independent and objective expertise of third party
<u>Control</u>	More control and expertise maintained within the Bank	Subject to anchoring bias of one source and requires of governance / risk management of outsourcing arrangement and customization to reflect bank's risk profile

## Actionable Recommendation:

# ○ SOUND GOVERNANCE AND CONTROLS

10

Develop model risk framework that controls for model uncertainty, model changes and restatement risks

### IFRS9 implications for Planning

IFRS9 brings increased model estimation risks to the financial books. The ECL approach entails highly sophisticated models and requires of granular and good quality data. The required use of business judgment also poses challenges to the consistent adoption of IFRS9 across the industry. Changes in models over time can create disruption in financial planning processes.

### Response Strategy

Banks should develop **model risk framework** that controls for IFRS9 model uncertainty, model changes and restatement risks

**Model uncertainty** should be measured, accounted for through model buffers and budgeted for planning purposes

IFRS9 will bring the need for **new internal controls** particularly in the area of model risk management. A-IRB banks that have developed good governance over internal models generally 100% owned by Risk. IFRS9 will require joined ownership and controls by Risk and Finance (as IFRS 9 is an accounting requirement that will be audited). Furthermore, changes in scenario / risk parameter estimation models will drive uncertainty and potential risks for financial restatements. The nature of model changes will be **closely monitored** as they could represent the need for financial restatement if inaccurate or misleading representations were made (see Exhibit 12).

### Exhibit 12 – Type of IFRS9 Model Change and Related Model Uncertainty

Model Change	Description	Model Uncertainty
1. <u>Parameter Recalibration</u>	PD, LGD and cure models will have to be recalibrated over time as new credit experience data is incorporated. Model parameters are updated based on bank's assigned confidence levels, without the need to change model variables used.	L
2. <u>Re-segmentation</u>	New portfolio segments are used to estimate provisions (e.g., more granular segments or new segments due to portfolio acquisitions). Although no other structural model changes are made (variables or input data), model parameters are updated and could materially vary for specific portfolios	M
3. <u>Re-development</u>	Structural changes are made to the model due to weak model performance results (e.g. broken bank's assigned confidence levels, material findings from internal validation, etc.). New variables are incorporated which bring stronger relationships between macro data and credit parameters.	M H
4. <u>Model error</u>	Structural changes are made due to model conceptual design or implementation errors (e.g., incorrect calculations performed, input data quality issues or lack of conceptual soundness). New variables and input data are incorporated.	H
5. <u>Expert Judgement Adjustment</u>	Due to management decision and based on business expertise, model has been overwritten by including expert judgement information. Management believes IFRS9 model is not conservative enough.	M

L – Low Model Risk, M – Medium Model Risk and H – High Model Risk

An IFRS9 model risk management framework should contain the following 3 components:

1. IFRS9 model inventory - a comprehensive model inventory **by risk parameter and asset class** with information of **model materiality** (e.g., contribution of the model to total provisions). This becomes the basis to assess intrinsic model risk to each model and provides a basis to prioritize an overlay of model controls/buffers.
2. Model risk assessment - analysis of individual model purpose, model owner, materiality, sensitivity analysis, risks, mitigation actions, validation results / conclusions and remediation actions plans in place including considerations of buffers. This process allows to **evaluate intrinsic and residual risk** for each individual IFRS9 model
3. Model risk buffers - based on a) **sensitivity analysis** of provision levels, b) **back-testing** and **benchmarking** performed as part of periodic model performance monitoring (e.g., level of under-prediction), measures of model uncertainty or buffers can be developed for those models that have a medium or high residual risk and c) **formalized workflow management** with defined roles and tracking of buffers and model overrides to ensure traceability and auditability.

## Actionable Recommendation:

# PLANNING INFRASTRUCTURE

4

Develop top down pro-forma planning tools that project IFRS9 provisions (budget and 3-year plan) under multiple scenarios

### IFRS9 implications for Planning

It is expected that banks will be subject to increased P&L volatility from IFRS9 adoption as economic cycle changes will be recognized faster than under IAS39. Such uncertainty should be anticipated by financial and capital planning processes.

### Response Strategy

Banks should **develop pro-forma analysis toolkits** within existing financial capital planning processes that anticipate IFRS9 impacts across all planning exercises (strategic plan, budget, ICAAP, internal stress tests, EBA ST, etc.).

Pro-forma IFRS9 planning tools should include functionality that integrates **scenario libraries with exposures and risk parameter data, transition and impairment flows, P&L and capital impacts and results dashboard** (see Exhibit 13). This functionality should be integrated in existing financial planning systems and supporting data management infrastructure, which will be subject to more frequent loss forecasts.

### Exhibit 13 – A&M IFRS9 Pro-forma Tool Functionality

1

#### Exposure and Risk Parameter Database



- Exposure data by country, asset class, stage and scenario through planning horizon
- Risk Parameters (PD / LGD / cure) by country, asset class, lifetime, stage and scenario
- Transition flows from stages within periods
- Provisions calculation through planning horizon and methodology
- Gross impairment flows calculation aligned to EBA ST 2018
- Option to use static vs. dynamic balance sheet: (new entries, prepayments and cures)
- Allows for internal and COREP/FINREP segmentation through use of mapping table

2

#### Navigation menu



- Scope selection by bank, country and RWA approach
- Balance sheet approach selection (Static; Real Dynamic with origination, prepayment and cure; Real Static with cures allowed)
- Segmentation criteria selection (internal vs. FINREP/COREP)
- Access to results (IFRS9 Calculator, Summary of Results by Asset Class & Geography, Attribution Summary, Sensitivity Analysis and Benchmarking)
- Access to data dictionary

3

#### Transition & impairment Flows



- Summary of results by asset class, geography, scenario and planning years
- Transition and gross impairment flows by scenario including transition options based on balance sheet restriction selection (Stage 1, Stage 2, Stage 3 and Cures)
- End of year results by scenario and flow bucket

4

#### P&L and CET1 Impact



- Summary of results by asset class, geography, scenario and planning years
- Impact on P&L by year and scenario
- Impact on CET1 (bps) by year and scenario
- CET1 Impact split in: additional provisions of which performing and non-performing
- Option to include adjustments to regulatory capital (total capital and Tier 2 capita)

5

#### Results Dashboard



- Summary of results for EAD, provisions and coverage ratios
- 3-Year provision increase by asset class and geography
- 3-Year Impact on CET1 by asset class and geography
- Split of results by stages (1, 2 and 3)
- Summary of impairment impacts on P&L and CET1 by asset classes and country
- Attribution analysis by source of impact (T0, exposure increase, migrations, macro scenario and risk model changes)
- Sensitivity analysis – Impact in CET1, impairments and stock of provisions to changes in exposure and risk parameters by asset class (PD, LGD and cure)

**Actionable Recommendation:**

6

Develop tools for attribution analysis that identify sources of change (e.g., exposure, migrations, macro or model changes)

**IFRS9 implications for Planning**

**Response Strategy**

The complexity and increased volatility derived from IFRS9 adoption drives the need for increased transparency. Sources of provision change need to be clearly identified and communicated internally and to investors to avoid risks of “black box”.

Banks should develop **attribution methodology** and **analytical tools** to explain sources of provision change period to period. In addition, sources of expected change should be budgeted in planning process and deviations from plan should be evaluated. **Investor disclosures** that explain provision changes overtime should be developed.

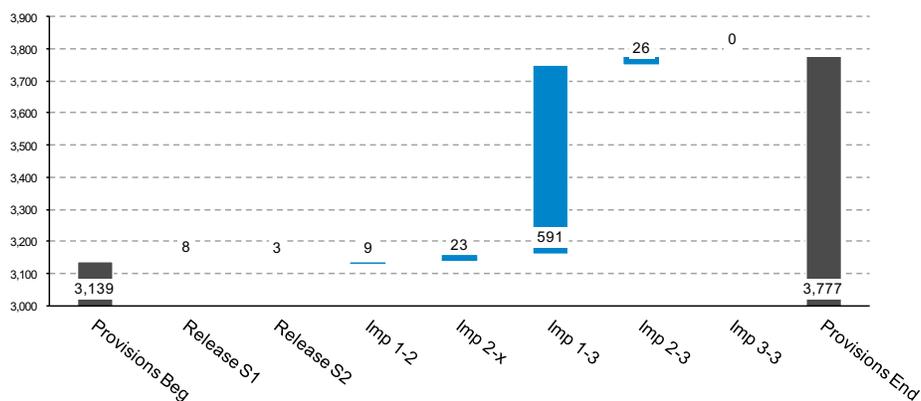
Sources of change of provisions over time can be explained through three primary sources (see Exhibit 14):

1. Business volume changes due to new originations, prepayments or amortizations. Provisions are built for new S1 originations and released for prepayment and amortized balances.
2. Macro-driven credit migration and risk parameters changes
  - a. Based on forward looking scenarios credit migration flows from S1 to S2/S3 or from S2 to S3 generate new impairment flows
  - b. Cure rates from S3 to S2 or S1 or from S2 to S1 generate provision release
  - c. Changes in risk parameters (PDs or LGDs) from improving or worsening macro will generate release or increase on provisions, respectively
3. Changes in model assumptions
  - a. Model calibration due to updating of data series
  - b. Changes in segmentation
  - c. Structural changes in modeling approach

**Exhibit 14 – IFRS9 Attribution Analysis Framework and Illustration**

Provision		Stage 1	Stage 2	Stage 3
1. <b>Business Volume</b>	- New originations	↑		
	- Prepayments	↓	↓	↓
	- Amortizations	↓	↓	
2. <b>Macro Scenario</b>	- Credit migration		↑	↑
	- Cure		↓	↓
	- PD / LGD Changes	↑↓	↑↓	↑↓
3. <b>Model Changes</b>		↑↓	↑↓	↑↓

↑ New Impairments    ↓ Provision Release



## MANAGEMENT APPLICATIONS

### Actionable Recommendation:

- 7 Launch IFRS9 awareness workshops with lines of business to understand impact, sensitivity analysis and implications
- 8 Develop business strategy response to adjust pricing, product design and portfolio risk management practices

#### IFRS9 implications for Planning

IFRS9 sets new standards for P&L measurement. Lines of business need to understand impact, sources of change and sensitivity to underlying assumptions to determine provisions under the new standards. ROE of products with greater expected lifetime (mortgages or commercial real estate) or higher risk (consumer finance) might be challenged. As a result, lines of business should readjust their pricing, product design, portfolio management and capital planning strategies to reflect the impact of IFRS9.

#### Response Strategy

Finance and Risk units should launch **business workshops** prior to IFRS9 adoption with the objective of promoting understanding, evaluating pro-forma impact and developing response strategies as appropriate.

**Business strategies** that reflect IFRS9 standards should be developed in the following 3 areas of management applications:

1. Capital Planning
2. Portfolio Risk Management
3. Pricing and product design

**Business strategies** should include the following three main management applications:

#### MANAGEMENT APPLICATION 1: Capital Planning

Lines of business need to adjust their capital plans in light of IFRS9 standards. The businesses most exposed to the economic cycle or volatile economies will be subject to increased P&L volatility. As a result, it is critical for business CFOs to **anticipate** estimated IFRS9 impacts and **adjust financial and capital plans / buffers** accordingly:

- Businesses should develop **top-down pro-forma analysis** to determine total impacts on P&L and capital across different scenarios asset class and stages, with detailed views of impacts by year of the planning horizon and scenarios.
- Businesses should **management dashboards** broken down in 3 sections: P&L (flow), Risk (stock and parameters) and scenario analysis to track IFRS9 impact, deviations from plan, forward trends and peer benchmarking.
- Businesses should develop **sensitivity impact analysis** on provisions and capital due to movements in exposures and risk parameters broken down by asset class, segments and geographies
- Businesses should update their **strategic plans, ICAAPs and risk appetite** to reflect IFRS9 impacts, newly defined Stage 2 exposures and potential refocus on target clients and products
- Business should reflect IFRS9 **accounting and tax strategies**, policies and procedures that will force earlier recognition of troublesome loans into capital plans

Exhibit 15 – Illustrative IFRS9 Management Dashboard

Group - #Q	Amount	Status vs projected	QoQ Change	Change vs IAS39	Forward Trend	Peers
P&L / Capital (Flow)	New provisions flow (000€)	⊕			↗	4Q
	Impact Fully Loaded (CET1 bps)					
	Impact Phase-in (CET1 bps)					
	EL – Provisions (+ excess / - deficit in 000€)	⊕			↗	
Risk (Stock)	Stage 1 gross amount	⊕				
	o Coverage					
	o PD					
	o LGD					
	Stage 2 gross amount	⊕			↗	4Q
o Coverage						
o PD						
o LGD						
Average interest rate	⊕				↗	2Q
Scenario Analysis	EL in adverse scenario	⊕			↗	4Q
	o Probability weight					
	EL in baseline scenario	⊕			↗	2Q
o Probability weight						
EL in benign scenario						
o Probability weight						

## MANAGEMENT APPLICATIONS

### Actionable Recommendation:

- 7 Launch IFRS9 awareness workshops with lines of business to understand impact, sensitivity analysis and implications
- 8 Develop business strategy response to adjust pricing, product design and portfolio risk management practices

### MANAGEMENT APPLICATION 2: Portfolio Risk Management

Under IFRS9, loan businesses will be kept on **preventing migration of exposures** to stage 2 or **promoting aggressive cures** for stage 2 loans<sup>9</sup>. New portfolio risk management strategies will be developed in light of IFRS9 provisioning criteria:

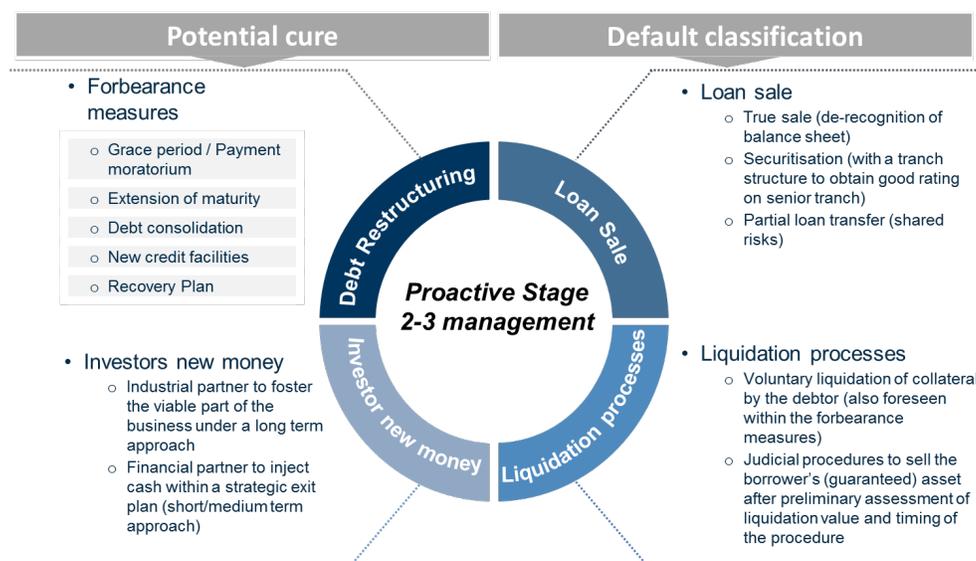
Stage 2 prevention strategies (non-exhaustive list).

- Validate / Redefine **portfolio mix and risk appetite** considering:
  - a. Steer commercial focus to sectors that are more resilient through the economic cycle.
  - b. Stress cost opportunity for the origination of longer term products or uncollateralized exposures
- Evaluate with greater care **higher risk clients** to limit their potential migration to stage 2.
- Implement **management dashboards** to 1) closely monitor watch lists and Early Warning Signals (EWS), 2) anticipate stage 2 migration and 3) implement remediation actions.
- Device loan origination policies & structures (particularly relevant for leveraged transactions) that trigger company **actions and contingency plans** if certain pre-defined credit deteriorating scenarios are met.
- Create **new formal loan classification criteria** for loans with high risk of stage 2 migration (e.g., stage 1.5) to apply risk management including higher provision levels that reduce cliff effect if transition to stage 2 materializes.

Stage 2 cure strategies.

- Accelerate granting process of forbearance measures that **promote sustainable debt levels** and debtor capacity of repayment.
- Automate **forbearance flag tools** and MIS to promote reductions of time to cure.
- Create **more efficient timelines** of restructuring process and **accelerate triggers of recovery / contingency actions** for stage 2 exposures.
- **Promote solutions** that involve real **corporate viability** through potential injection of fresh money.
- Implement clear, well designed and effective **hand-over policies** among management units including **workflow management tools** to support overall recovery strategy.

Exhibit 16 – Proactive Stage 2-3 Management



<sup>9</sup> Focus on stage 2 and 3 management is also a focus of the ECB as evidenced by NPL guidance forcing banks to self-impose aggressive but achievable deleveraging objectives, boosting monitoring and governance of NPAs as well as Leveraged Transactions Guidance which requires stronger analysis in origination, stress testing, improved governance, and Early Warning Systems for high leverage loans

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## MANAGEMENT APPLICATIONS

### Actionable Recommendation:

7

Launch IFRS9 awareness workshops with lines of business to understand impact, sensitivity analysis and implications

8

Develop business strategy response to adjust pricing, product design and portfolio risk management practices

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### MANAGEMENT APPLICATION 3: Pricing and Product Design

Portfolio IFRS9-provisioning can be significantly affected by two credit drivers: (1) **maturity**, as lifetime calculation of expected losses will specially affect long-term-maturity portfolios such as mortgages, and (2) **riskiness**, as riskier portfolios such as unsecured loans will contain higher proportion of stage 2 and thus higher provision levels. Consequently, IFRS9 provision levels and impacts will substantially vary among banks as per portfolio composition and business model structure.

As provisions increases due to IFRS9 implementation, **adjustments on certain products or clients should be analyzed to ensure cost of credit is correctly capture and profitability (ROE) remains above expected thresholds**. Some examples of adjustments on new origination are: change in pricing models to either increase price or to shorten maturity, early redemption incentives, etc. A more material adjustment could be a partial or full swift in portfolio mix, where banks reduce or even run-off high risk loan categories that will likely be covered by other less regulated competitors.

IFRS9 new requirements and its impacts need to be therefore **correctly explained to business units** to ensure all related units make informed adjustments to product design and pricing strategies. The **commercial incentive structure** must be updated accordingly, where risk-adjusted profitability measures will be modified to ensure accountability for credit deterioration and new lifetime loss estimates.

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#### Selected documentation

BIS Guidance on credit risk and accounting for expected credit losses (December 2015)

BIS Regulatory treatment of accounting provisions – interim approach and transitional arrangements (March 2017)

EBA report on results from the second EBA impact assessment of IFRS9 (July 2017)

EBA Guidelines on credit institutions' credit risk management practices and accounting for expected losses (May 2017)

ECB Guidance to banks on non-performing loans (March 2017)

ECB Guidance to banks on leveraged transactions (May 2017)

ESRB Financial Stability Implications for IFRS9 (July 2017)

Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 575/2013 as regards the transitional period for mitigating the impact on own funds of the introduction of IFRS 9 and the large exposures treatment of certain public sector exposures denominated in non-domestic currencies of Member States (May 2017)

## Glossary of Terms

### Acronym

A&M  
Avg  
BIS  
Bps  
CDS  
CET1  
CFO  
CRO  
CRR  
DTA  
EAD  
EBA  
EBITDA  
ECB  
ECL  
EU  
EWI  
EWS  
IAS  
IASB  
ICAAP  
IFRS9  
IRB  
LGD  
LTV  
NII  
NPA  
NPL  
OCI  
OPEX  
P&L  
PD  
PIT  
PPNR  
PRA  
RAF  
ROE  
RWA  
S1, S2 and S3  
ST  
T0  
TTC

### Definition

Alvarez & Marsal  
Average  
Bank for International Settlements  
Basic points  
Credit Default Swap  
Common Equity Tier 1  
Chief Financial Officer  
Chief Risk Officer  
Capital Requirements Regulation  
Deferred Tax Assets  
Exposure at Default  
European Banking Authority  
Earnings Before Interest, Taxes, Depreciation and Amortization  
European Central Bank  
Expected Credit Loss  
European Union  
Early Warning Indicators  
Early Warning System  
International Accounting Standards  
International Accounting Standards Board  
Internal Capital Adequacy Assessment Process  
International Financial Reporting Standard 9  
Internal Rating Based  
Loss Given Default  
Loan to Value  
Net Interest Income  
Non-Performing Assets  
Non-Performing Loans  
Other Comprehensive Income  
Operational Expenditure  
Profit and Loss  
Probability of default  
Point in Time  
Pre-Provision Net Revenue  
Prudential Regulation Authority  
Risk Appetite Framework  
Return on Equity  
Risk-Weighted Assets  
Stage 1, Stage2 and Stage 3  
Stress Test  
T0 Starting point  
Through the Cycle

## **A&M FAS**

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