WORLD BANK GROUP
Finance, Competitiveness & Innovation
Financial Sector Advisory Center (FinSAC)

Forward Looking Credit Losses – IFRS 9

Seminar for Senior Bank Supervisors from Emerging Economies
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Supervisory role in accounting from a prudential perspective

IFRS

"IFRS 9 will take effect in 2018. (…) proper implementation of IFRS 9 could be a huge challenge for auditors, market and prudential regulators. Yet IFRS 9 ***removes the excuses to avoid booking loan losses on a timely basis****. It gives auditors and regulators a* ***platform to support consistent application of the expected loss model around the world****. Expect to hear a lot of complaints, but stand resolute in your determination to do the right thing!"*

Hans Hoogervorst, IASB Chair. Lisbon, 24 June 2016, Living on borrowed time

EBA European Banking Authority

"The application of IFRS 9 also requires the use of judgement in the ECL assessment and measurement process which could potentially affect the consistent application of IFRS 9 across institutions and the comparability of credit institutions' financial statements. Therefore, the existence of ***supervisory guidance emphasizes the importance of high-quality, robust and consistent application of IFRS 9*** *and could help promoting consistent interpretations and practices."*

(Guidelines on credit risk management and accounting for ECLs, May 2017).

OUTLINE

1. Background
2. Main changes
3. Implementation challenges
4. Implication for supervisors
5. Bank of Spain ‘Alternative Solutions’

Weaknesses of IAS 39

Since 2008, several modification proposals have been considered concerning the legislation of financial instruments. The financial crisis has highlighted several weaknesses of the accounting, impairment and instrument hedging legislation

Weaknesses of IAS 39

1 Classification and measurement

There are several instrument classification categories and most of them are based on fair value

The main objective of this section is to reduce classification categories and to reduce the number of assets that should be assessed through market value when the asset is not relevant.
It aims at eliminating the "available for sale" category because of measurement difficulties and deterioration of the category.

2 Impairment

Calculating impairment through an incurred loss method does not allow a correct assessment of financial assets because of deferral and rigidity in the assessment (too little, too late)

The incurred loss criteria is inefficient when recognizing impairment of financial assets because the legislation mandates the deferral of impairment until there is evidence of impairment.
The value recognition criteria used in accounting differs from that used in risk management.

3 Hedge accounting

Hedge accounting does not reflect the effect on the risk management policies value of financial institutions

The current hedge model is complex and strict. The hedge accounting criteria does not include risk management policies of entities since it limits the criteria to consider that a financial instrument is covered.

Weaknesses of IAS 39

The financial instruments regulation has been modified several times in order to adapt accounting criteria to the mandate of the G-20, to expert considerations and to the convergence agreement with the FASB

Main milestones of the IFRS 9 project

2008

The G-20 mandated the IASB to include in its agenda the **modification of IAS 39**, specially concerning measurement and impairment of financial assets

2009

The **IASB** published an **Exposure Draft** that included an expected loss model.

2011

Joint proposal **of the IASB and FASB**

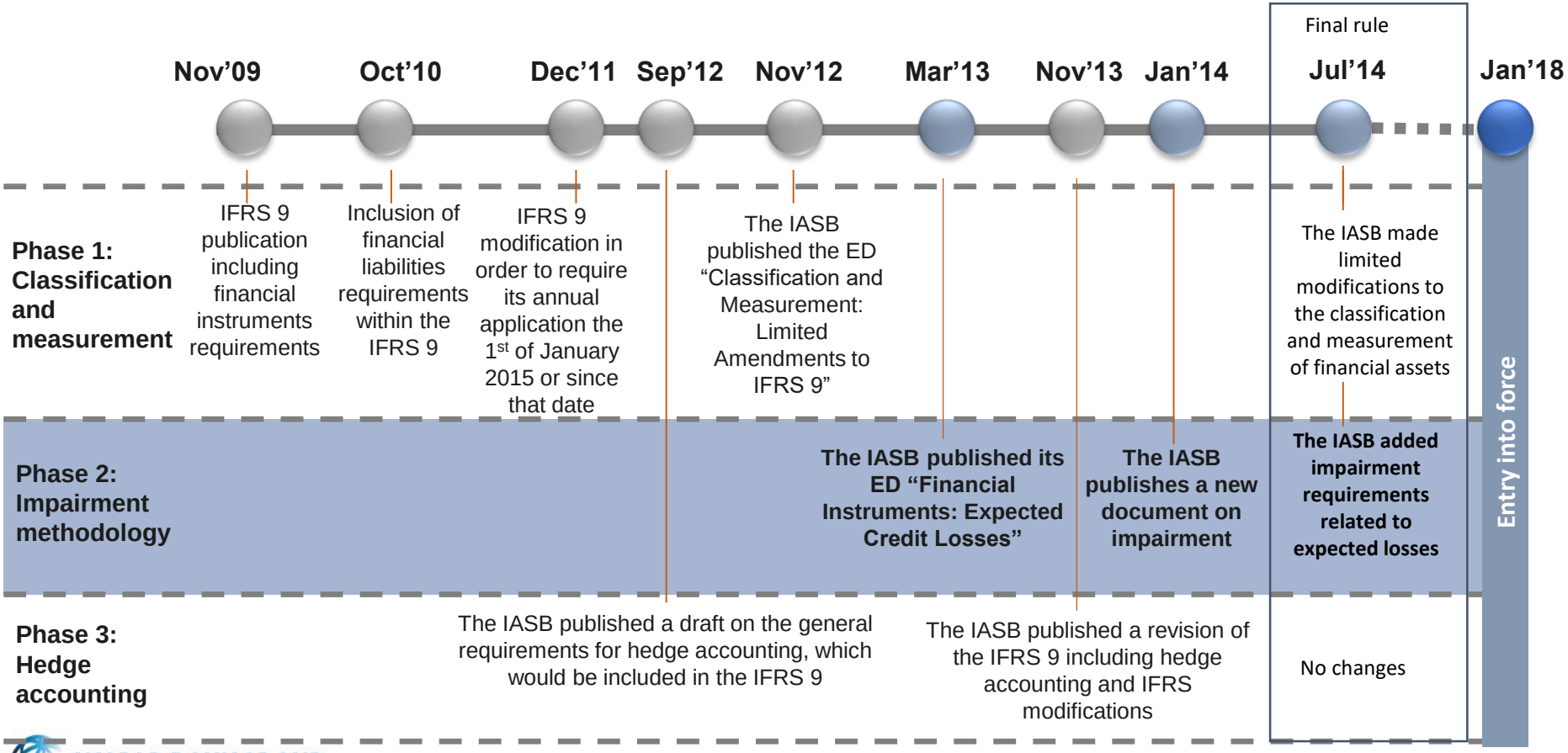
2013

The **IASB** published the **final rule** on financial assets. Some aspects concerning macro hedging are not included. It **entered into force** in **2018**

Timeline

The project was concluded in July 2014 and was developed in three phases (each phase specialized in one aspect of the regulation); its entry into force will take place in 2018, but entities may apply it in advance

Timeline



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Main changes

Classification and measurement

Classification in 3 classes:

- Amortized cost.
- Fair value through profit and loss (FVTPL).
- Fair value through other comprehensive income (FVTOCI).

Higher importance given to business model and cash flow

No significant changes
vs. IAS 39

Impairment methodology

- It proposes an **expected loss model** to measure credit allowances, in opposition to the previous incurred loss-based models.
- A phased-in adaptation is expected for the impairment and interest income recognition.

Relevant impacts
vs. IAS 39

Hedge accounting

It modifies micro hedging accounting aiming at:

- Creating a better link between accounting and risk management.
- Simplifying hedging accounting methods.

No significant changes
vs. IAS 39

Key element

When adapting IFRS 9, financial institutions focus their management efforts on the evolution of allowances calculation (impairment methodology) to internal models based on expected losses

A curiosity: decline in own creditworthiness

100% of profit from solvency deterioration!

Net income from financial instruments designated at fair value

	2009 US$m	2008 US$m	2007 US$m
Net income/(expense) arising from:			
– financial assets held to meet liabilities under insurance and investment contracts	3,793	(5,064)	2,056
– liabilities to customers under investment contracts	(1,329)	1,751	(940)
– HSBC's long-term debt issued and related derivatives	(6,247)	6,679	2,812
Change in own credit spread on long-term debt	(6,533)	6,570	3,055
Other changes in fair value[25]	286	109	(243)
– other instruments designated at fair value and related derivatives	252	486	155
Net income/(expense) from financial instruments designated at fair value	(3,531)	3,852	4,083
-	-	-	-
Profit for the year	6,694	6,498	20,455

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Measurement of financial instruments

1) Debt instruments (e.g. loans, debt securities)

- Assessment of Business model for managing financial assets and “SPPI test”
- FVPL: changes in valuation (no subject to impairment)
- FVOCI and Amortized cost: subject to impairment

2) Equity instruments and Derivatives

- FVPL: Changes in valuation (no subject to impairment)
- FVOCI: Irrevocable option at initial recognition for debt equity instruments
  - Changes in valuation (non subject to impairment)
  - No “recycling” to P&L (even in derecognition)

3) Financial liabilities: IAS 39 principles carry-forwarded to IFRS 9

Measurement of debt instruments

Cash-flow profile assessment at initial recognition

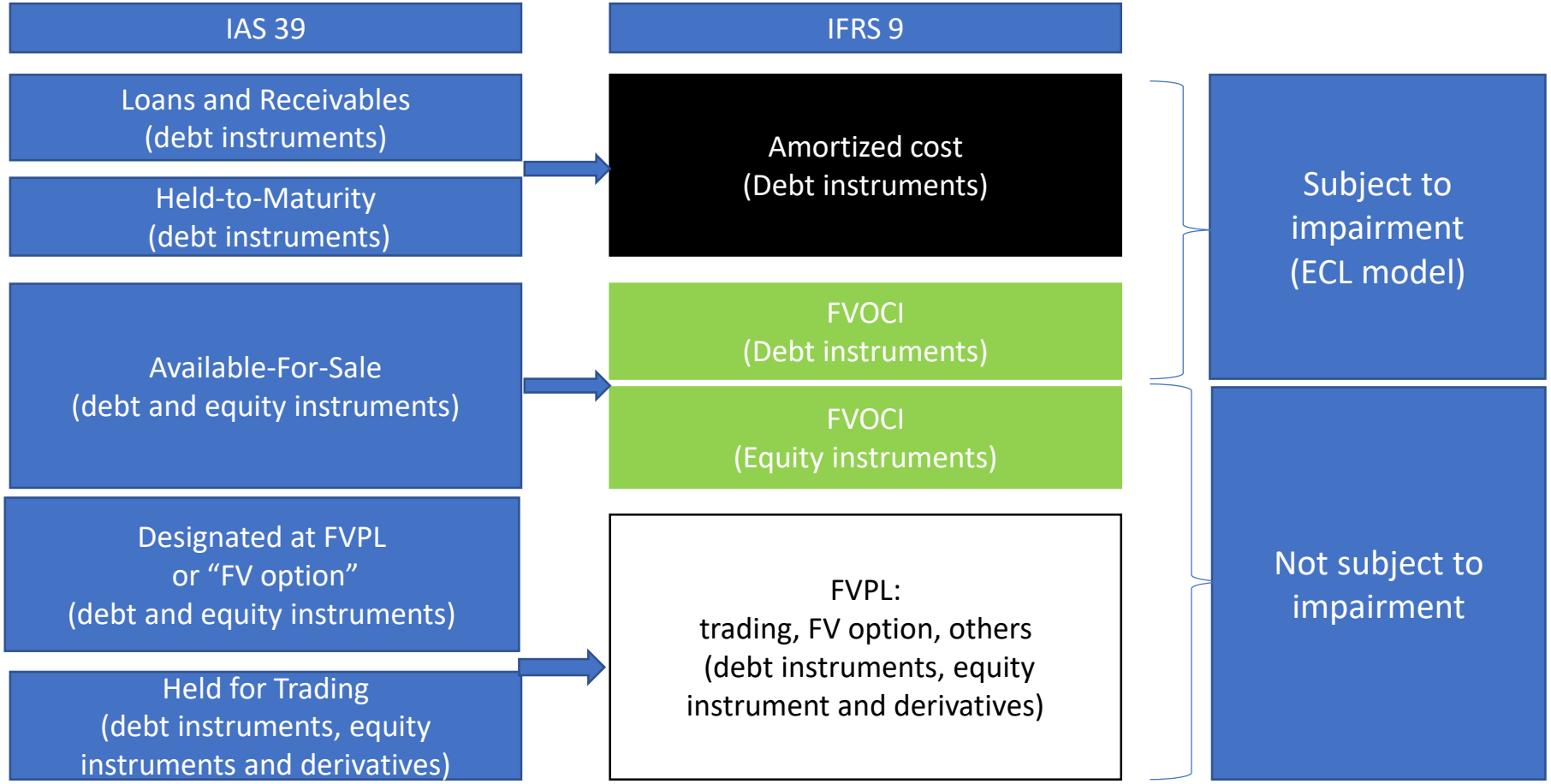
Business model assessment at reference date >> changes in measurement

Cash-flow profile \ Business model	Cash-flow collection	Cash-flow collection & sales	Other business models (eg trading)
Solely Payments of Principal and Interest (SPPI)	Amortized cost	FVOCI	**FVPL**
Other cash-flow profiles	**FVPL**		

+ FV irrevocable option at initial recognition in case of accounting asymmetries

Additionally, IFRS 9 requires the reclassification of if there is a change in the business model

Measurement of financial assets



ECL model. Staging

4) Classification for estimation of ECLs

"Stage 1"	"Stage 2"	"Stage 3"
Exposures without SICR since initial recognition	Exposures with SICR since initial recognition but not credit-impaired	Exposures Credit-impaired (objective evidence of impairment)
12 month ECL	Lifetime ECL	ECL
EIR x gross carrying amount	EIR x gross carrying amount	EIR x carrying amount

Stages

Before estimating and modelling parameters for allowance calculation, it is necessary to define the criterion that will enable portfolio segmentation in the buckets established by the different rules

1. Objective Evidence of Impairment in line of the default definition set by the BIS, which can be adjusted:

Objective Evidence of Impairment [1]

- Default in interest or principal payment,
- Significant financial difficulties, high probability of insolvency, or issuer insolvency,
- Concessions to the lender because of legal or economic reasons, that would have not been granted in other cases,
- The borrower has entered bankruptcy or any other financial reorganization situation…

BIS Default[2]

- Default greater than 90 days (objective default)
- The bank expects that the debtor wont pay all of its credit obligations to the banking group (subjective default)

2. Individual vs collective treatment

¿Is there OEI?	¿Significant?	Treatment
No	Yes	**Collective**
	No	
Yes	Yes	**Individual**
	No	**Collective**

The institution should asses impairment at the individual level. When it is not feasible (because of lack of information) or when there is no impairment evidence, a collective assessment should be carried out.
Determining the border between both approaches depends on:

- **Existence de OEI**
- **Treatment of the client** within risk management
- **Risk exposure** significance

(1) IAS 39, paragraph 59. (2) BIS II, paragraph 452.

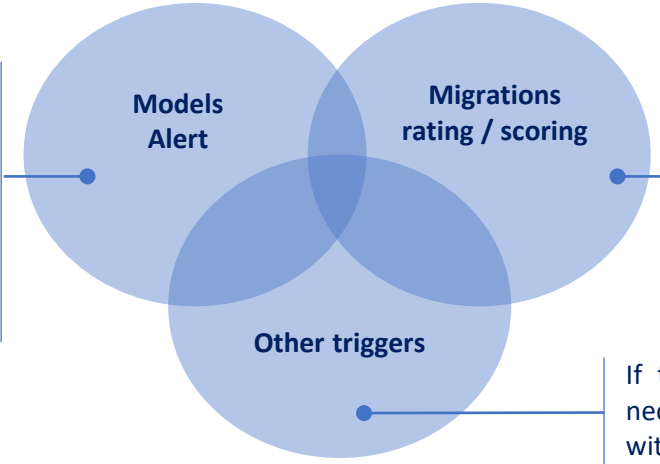
Significant increase in risk

The assessment of the significant increase in risk should determine the risk of default from initial recognition of the asset to the current date

How to control and quantify credit quality impairment of operations since origination date?

The entity must have processes to assess possible deterioration in credit quality (to determine the bucket 2 under IFRS 9 approach) considering , among others :

To have an **alert system** that allows combining statistical models and other expert criteria for early identification of impairment to establishing the transition of operations between stages.



The assessment of impairment from origination can be made **comparing the levels of rating and scoring available**.

If the above systems do not contain all the necessary information, this can be completed with the determination of other triggers (i.e., breach of less than 90 days).

Additionally, establish a cure period criteria to allow migration to preferential buckets once the reasons for the significant increase in risk have disappeared

Staging

Default and impairment (Stage 3)

Objective and subjective default

- Unlikeliness to pay indicators

  a) Low-quality refinancing (partial write off, insufficient payment schedule)
  b) Court claim by the bank
  c) Bankruptcy

- Alerts defined by the bank

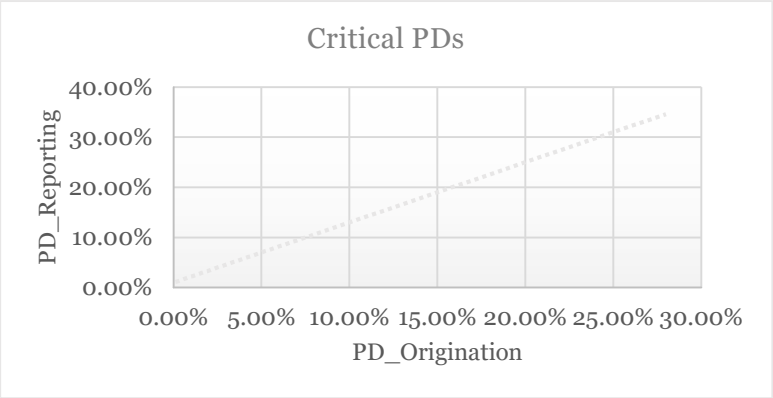
Subjetive Default | **Objective Default**

- Material amounts >90 days past due
- Pulling effect >20%
- Possibility 180-day term

Staging

Significant Increase kin Credit risk (Stage 2)

Quantitative indicators – SICR Thresholds (practical example)



$$PD_{actual} > 120\% * PD_{origination} + 1\%$$

Operation	PD origination	PD reporting	Difference (absolute)	Difference (absolute)	¿ISRC?
A	5%	6,5%	1,5%	30%	**NO**
B	2%	3,5%	1,5%	75%	**SÍ**
C	0,08%	0,14%	0,06%	75%	**NO**

1. Bigger sensitivity SICR to operations with low credit risk
2. Absolute threshold to make SICR in low-risk operations

Changes in PD shouldn't entail, per se, SICR

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Staging

Refinancing

After refinancing, credit risk enhancement cannot be asumed. Hence, the risk should be classified in Stage 2, if not Stage 3, until the cure period is achieved

Stage 3	• Already classified in Stage 3 • Grace period over X years • Partial write off • Inadequate payment Schedule	• Default from Stage 2: • If reclassified from Stage 3, back to Stage 3 if 30 days delinquent or new refinancing
Stage 2	• Prior operation not in Stage 3	1-year cure period in Stage 3: • No past due amounts • Client with no Operations 90 days past due
Stage 1	Refinance mark removed	2-year cure period in Stage 2 : No operations 30 dpd

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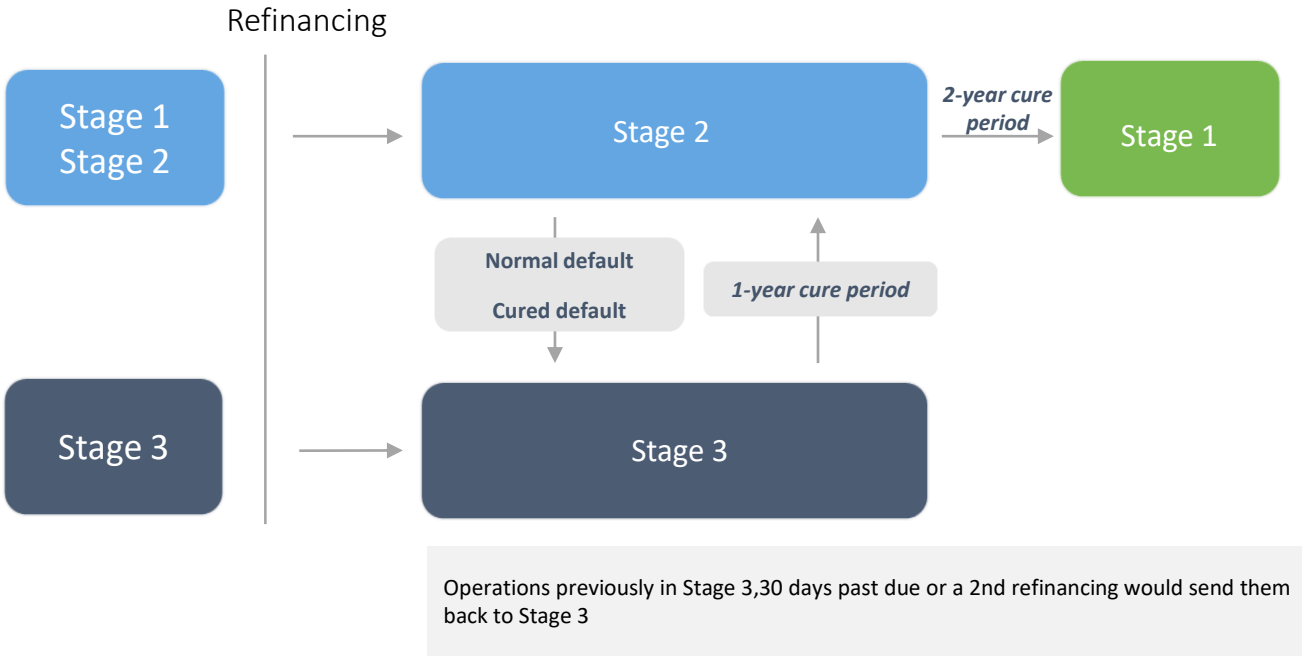
Staging
Refinancing (2)

Diagram of stage reclassifications



Staging

Refinancing (3)

With or without write off

IFRS9 refers to them as 'modifications' and admits derecognition when the modification is relevant :

Modification with no financial stress	Modification with financial stress *
➢ A new operation for all purposes ➢ New origination date ➢ New origination PD ➢ Classified in Stage 1	➢ Keep origination date and PD ➢ New PD time structure ➢ Classification depends on whether SCRI (between initial and modified contracts) ➢ Changes in gross amount to PL

Basel criterion A refinancing must **not entail the enhancement of the risk level** of the operation

*Possible exceptions to the general criterion

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Staging
Refinancing (3)

Modification Gains or Losses

IFRS 9 requires to differentiate the impact of a refinancing in the gross present value of expected cash flows (Modification Gain or Loss) and the present value of expected losses (Impairment Gain or Loss)

	Year	Beginning gross carrying amount A	Impairment (loss)/gain B	Modification (loss)/gain C	Interest revenue D Gross: A × 5%	Cash flows E	Ending gross carrying amount F = A + C + D – E	Loss allowance G	Ending amortised cost amount H = F – G
Bullet 5-year Loan	1	€1,000	(€20)		€50	€50	€1,000	€20	€980
Stage 2	2	€1,000	(€130)		€50	€50	€1,000	€150	€850
Refinancing	3	€1,000	€40	(€136)	€50	€50	€864	€110	€754
1-year cure	4	€864	€24		€43		€907	€86	€821
Stage 1	5	€907	€72		€45		€952	€14	€938
Loan repayment	6	€952	€14		€48	€1,000	€0	€0	€0

- Year 1: New five-year loan (bullet). Interest rate: 5%. Provision (12-month ECL): 20
- Year 2: SICR (transfer to Stage 2). Provision (LECL): 150
- Year 3: Forbearance measure (forgoes interest payments, extends the term 1 year)
  - **Step 1: Modification gain or loss: 136 (=1,000-864)**
  - **Step 2: New lifetime expected credit losses: 110 – reversal of 40 in P&L**
- Year 4: Continues in Stage 2
- Year 5: Transfer back to Stage 1
- Year 6: Repayment of the loan

La operación se reclasifica a Stage 1 al pasar dos años de cura, pero **¡sin pago alguno!**

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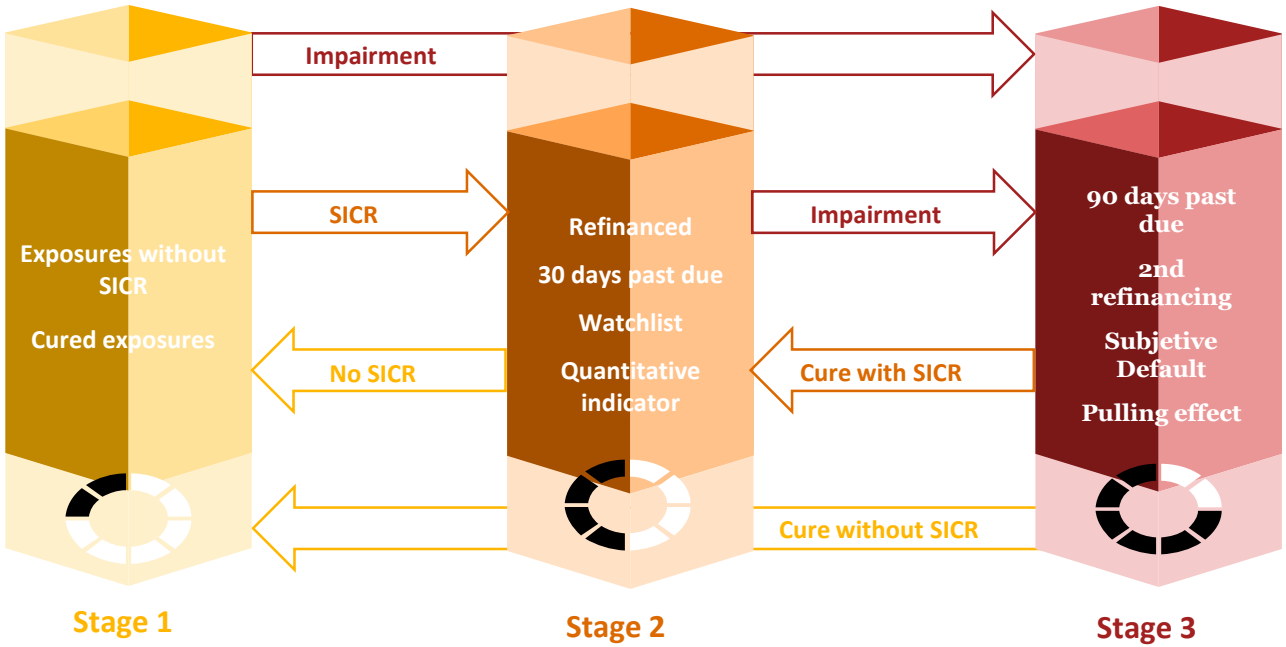
Source pwc

Staging
Summary



Source pwc

ECL model (2)

5) “Low credit risk” exception

- No SICR assessment for identified as such at the reference date

6) Financial assets Purchased or Originated Credit-Impaired (POCIs)

- Changes in Lifetime ECL since initial recognition
- Credit-adjusted EIR x carrying amount
- ECL at initial recognition neither gross carrying amount nor loss allowance

Hedge accounting

7) Options for the entities:

- IFRS 9 hedge accounting
- IFRS 9 hedge accounting + IAS 39 portfolio hedging of interest rate risk
- IAS 39 hedge accounting (including portfolio hedging of interest rate risk)

8) No “sunset clause”: pending finalization of the Project on “dynamic hedging” (Discussion Paper S2 2018)

9) IFRS 9 Hedges of credit risk with derivatives

- Hedged items exposures to credit risk (debt instruments, loan commitments, financial guarantees)
- FV to P&L: Revocable option at any moment for hedged items
- Non-subject to impairment

Impairment

IFRS 9 proposes an expected losses-based model where there are 3 phases within impairment since the initial recognition of the financial instrument[1]

Risk increase since initial recognition of the operation

1 Assets without significant increase in credit risk	2 Assets with significant increase in credit risk	3 Assets with objective impairment evidence
EL= PD_{12}*LGD*EAD	EL= $PD_{lifetime}$*LGD*EAD	EL= LGD*EAD
Effective interest on gross carrying amount	Effective interest on gross carrying amount	Effective interest on amortized cost

(1) It includes assets through amortized cost and FVTOCI, commercial debtors and financial leases and credit commitments and irrevocable financial guarantees not recognized through fair value in profit and loss

Comparison with IRB models

$$IRB = PD_{12M} * EAD * LGD$$

$$IFRS\ 9\ \ PE_{12\text{-}month} = PD_{12M} * EAD * LGD$$

$$IFRS\ 9\ \ PE_{\text{“Life time”}} = PD_{LT} * EAD * LGD$$

- Expected losses calculated by capital models (**IRB**) are the losses **expected over the next year.**

- Banks will use their internal capital models to build internal methodologies for accounting purposes—with sonme modifications.

Different "PDs"

$$\text{IRB} = \mathbf{PD_{12M}} * \text{EAD} * \text{LGD}$$

$$\text{IFRS 9 PE}_{\text{12 meses}} = \mathbf{PD_{12M}} * \text{EAD} * \text{LGD}$$

$$\text{IFRS 9 PE}_{\text{"Life time"}} = \mathbf{PD_{LT}} * \text{EAD} * \text{LGD}$$

IRB "PDs" cannot be applied as they are for accounting purposes:

- Capital **PDs are not "point in time" but** smoothed **"through the cycle"**
- Stage 2 **PDs** en stage 2 are for the entire life ofthe risk, vs. in the next 12 months for capital

Different LGDs

$$IRB = PD_{12M} * EAD * \mathbf{LGD_{DT}}$$

$$IFRS\ 9\ \ PE_{12\text{-}month} = PD_{12M} * EAD * \mathbf{LGD_{PIT}}$$

$$IFRS\ 9\ \ PE_{Lifetime} = PD_{LT} * EAD * \mathbf{LGD_{PIT}}$$

Capital LGD is in a stressed situation ("**downtourn**"), IFRS 9 is actual ("**point in time**")

Expected loss

General view

IFRS9 (5.5.17) requires an estimation, which should be

$$ECL_t = \sum_{t=1}^{M} \frac{EAD_t * PD_t * LGD_t}{(1 + TIE)^t}$$

- ✓ Unbiased estimation (not conservative)
- ✓ Over the life of the instrument
- ✓ Forward-looking: macro prediction
- ✓ Probability weighted

2 possible time horizons

Stage 1	Stage 2	Stage 3
12-month EL	Lifetime EL	Lifetime EL

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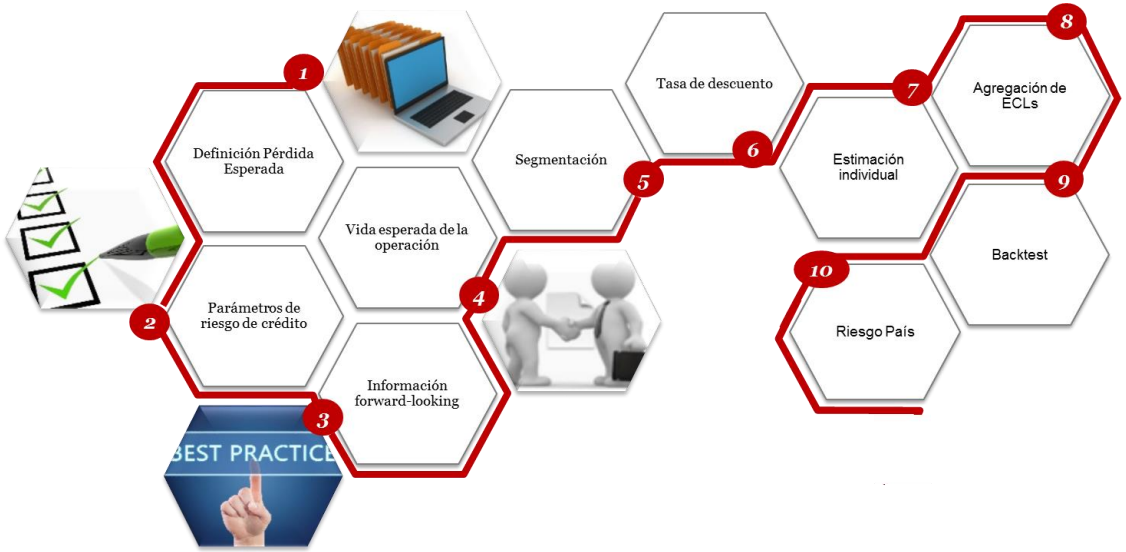
Expected loss

General view



Source pwc

Expected loss
Stage 1

Losses from next year defaults

$$ECL_{12-month} = PD_{12-month} * LGD * EAD$$

PD 12 meses	LGD	EAD
2%	35%	1.000 €

ECL
7 € (o,7%)

Not big changes from IAS 9

Consideration of forward-looking information

In12 months, changes to the economic conditions would not be material

Source pwc

Expected loss
Stage 2

Losses associated to future default events

$$ECL_T = \sum \frac{TS_{t-1} * EAD_t * PD_t * LGD_t}{(1 + TIE)^t}$$

TS: subsistence rate

ECL calculation requires that every parameter has a value in every moment of (future) time of the operation (even if prepaid)

Example	
Maturity	15 years
Time in books	10 years
Time to maturity	5 years

Año	1	2	3	4	5
PD condicional	23,46%	9,66%	8,14%	6,02%	4,86%
TS	100,00%	76,54%	66,88%	58,74%	52,72%
LGD	17,67%	14,39%	12,93%	14,77%	15,97%
EAD	100,00%	76,29%	54,56%	34,68%	16,54%
TIE	1,50%				
ECL	**4,08%**	**0,79%**	**0,37%**	**0,17%**	**0,06%**

ECL 12 meses	4,08%
ECL Lifetime	**5,47%**

12-month ECL is the loss associated to a defaukt event in the next year

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Source pwc

Expected loss
Stage 3

Losses associated to actual default events

$$ECL = LGD_{Best\ Estimate} * Exposure$$

PD	LGD BE	Exposición
100%	77%	800,00 €

ECL
616,00 €

In actual default PD is 100%, not altering the value of the expected loss

"Best Estimate" LGD will depend on the time in default, the value of the collateral, and the cure probability

Tiempo en Default	LGD BE
1 año	48%
2 años	66%
3 años	77%
4 años	86%
5 años	96%

Operations 3 years in default have an estimated LGD of %

Source pwc

Expected loss

Governance

Appropriate governance frameworks are essential

- Written formulation of every process
- Clearly defined tasks and responsibilities of every process:
  - Greater involvement of Risks
  - Committees (global, local), analysts, expert judgement

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Integration into management

Introduction

Criteria that are defined for the estimation of the IFRS9 provisions calculation will condition the affected processes. It is necessary to identify all the processes related to provisions, both in a management and a calculation perspective

Key aspects for an effective integration into management

Criteria

- **Objective evidence of impairment**: Definition of management default, pulling effect, technical materiality threshold,…
- **Significant increase in risk**
- **Individual / collective** analysis
- Incorporation of **quantitative** (forward looking) and **qualitative** (expert judgement) **information**…

Risk management processes

Having an impact on provisions calculation:

- Classification
- Scoring/rating
- Monitoring…

Impacted by the calculating provisions:

- Risk appetite
- Approval
- Pricing…

Input

Output

Provisions calculation processes

Estimation:

- Data and information
- Estimation of parameters, …

Calculation:

- Standards and criteria
- Calculation
- Analyst adjustment…

Integration into management

Main areas of impact

The implementation process of IFRS 9 does not end with the implementation of the new regulation for calculating provisions, but should be integrated into the governance management, the admission of operations, the monitoring of clients and portfolios to the recovery management

Governance

- Greater **coordination** between Risks and Finance, and **governance** for the approval of provisions
- Establishment of an internal **control system**, a **monitoring framework** and a **periodic report**
- **Continuous training** in best practices.

Admission (pricing)

- Revision of the **application criteria** to include IFRS metrics and forward looking component to adjust the scoring
- Consideration of costs associated with **available limits**.
- Strategy of **product mix** vs profitability considering IFRS9 with lifetime losses
- **Operations pricing** modified according to the new cost (IFRS9)

Monitoring

- Consistency between risk policies and provisions (forward-looking indicators, changes in PDs, stages…)
- Inclusion of the stages as a follow-up driver.
- **Review of early intervention strategies and refinancing operations**
- Creation of **new management alerts** by portfolio and client

Recoveries

- Consideration of the **LGD as driver** for recoveries.
- **Adjustment of the recovery strategies** incorporating new drivers and other information

Models

- **Periodic recalibration processes**.
- **Back testing of the provisions model**: Comparison of real losses vs. IFRS9 provisions.
- Identification of **leverages and drivers for optimization**
- Incorporation of IFRS 9 provisions in **stress test** (including adaptations for regulatory exercises).

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BCBS – Guidance on credit risk and accounting for ECLs

1

Board and management responsibilities

Ensuring appropriate **credit risk practices** and effective **internal controls**, to determine adequate allowances in accordance with the bank's policies and procedures, the applicable accounting framework and relevant supervisory guidance.

2

Sound ECL methodologies

Documented sound methodologies **for assessing and measuring credit risk** on all lending exposures. Expected credit losses should be **appropriately and timely** recognized.

3

Credit risk rating process and grouping

Credit risk rating process in place to appropriately **group lending exposures** on the basis of shared credit risk characteristics.

4

Adequacy of the allowance

Adequate **aggregate amount of allowances** (determined collectively or individually)

BCBS – Guidance on credit risk and accounting for ECLs (2)

5

ECL model validation

Appropriate **model validation** policies and procedures

6

Experienced credit judgement

Use of **experienced credit judgment**, especially in the consideration of reasonable and supportable forward-looking information.

7

Common data

Sound credit risk assessment and measurement process that provides it with a strong basis for **common systems, tools and data** to assess credit risk and to account for expected credit losses..

8

Disclosure

Public disclosures **promoting transparency and comparability** by providing timely, relevant and decision-useful information.

BCBS – Guidance on credit risk and accounting for ECLs (3)

9

Credit risk management assessment

Banking supervisors should periodically evaluate the **effectiveness** of a bank's credit risk practices.

10

ECL measurement assessment

Banking supervisors should be satisfied that the methods employed by a bank to determine accounting allowances lead to an **appropriate measurement of expected credit losses**.

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11

Capital adequacy assessment

Banking supervisors should **consider a bank's credit risk practices** when assessing a bank's capital adequacy.

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BCBS – Guidance… (4) – Appendix (IFRS 9 jurisdictions)

1

12-month ECL

Measure ECL for all lending exposures—0 allowance should be rare
Use the capital framework definition (90 days or unlikeliness to pay)
Closely monitor high-risk (more volatile) exposures

2

Significant increase in credit risk since initial recognition

In initial recognition the ECL is implicit in the pricing
Need for strong governance, systems and controls to ensure quality of data, analysis and experienced credit judgement
Identification of key drivers of credit risk. Ideally LEL to be recognized before becoming past due

3

Practical expedients

Information set may require significant upfront investments for high-quality implementation
Low credit risk exemption, to avoid assessment of significant increase in credit risk
30+ days past due should not be a primary indicator of transfer to LEL, but a backstop

Prudential policy considerations (FSI Insights No 5)

Maintain classification and provisioning frameworks as a prudential backstop

Regulatory frameworks relevant in the future?

Discretion for banks and auditors similar to IRB

Therefore, specify supervisory expectations for

- Forbearance, including entry and exit criteria
- Write-offs
- Keep prudential classification (monitoring purposes)
- Interest accrual on NPLs (ECB)
- Deduct provisioning shortfalls from CET1

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“Alternative solutions” for less complex banks/segments

Supervisors’ use of proportionate approaches within ECL accounting frameworks is foreseen by the Basel Committee

Consistent with the **BCPs**, **supervisors may adopt a proportionate approach** with regard to the standards imposed on banks and supervision. Proper proportionate approaches should not jeopardized the high-quality implementation of the ECL accounting framework; rather, they should enable banks to adopt sound allowance methodologies **commensurate with the size, complexity, structure, economic significance, risk profile** and all other relevant facts and circumstances of the bank

ECL provisions estimation

- Individual basis: discounted cash flows.
- Collective basis: internal models.

Alternative solutions to developing internal models offered in accounting circular (annex IX) (**business in Spain**).

Also, serve as **benchmark** for supervisory review

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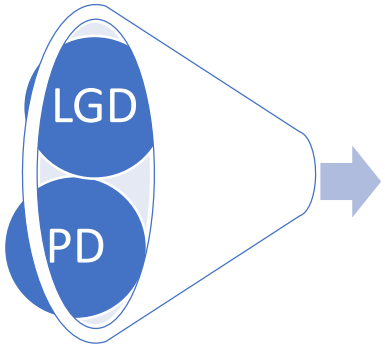
Source Banco de España

“Alternative solutions” for less complex banks/segments

Banks’ extensive regular and adhoc supervisory reporting & Central Credit Register

MACRO SCENARIOS



Alternative solutions offered in the accounting circular

inputs

- Loan tape
- Foreclosed assets inventory
- Sales of foreclosed assets
- Central Credit Register

- 3 Macroeconomic scenarios (**Economics, Statistics and Research** of Banco de España).

calibration

By **Financial Stability and Supervision Departments**:

*PD x LGD **

*Adjustment using forward looking info from scenarios (correlation of macro variables with PD/LGD)

output

-To be applied on the exposure not covered by collateral, for each segment:

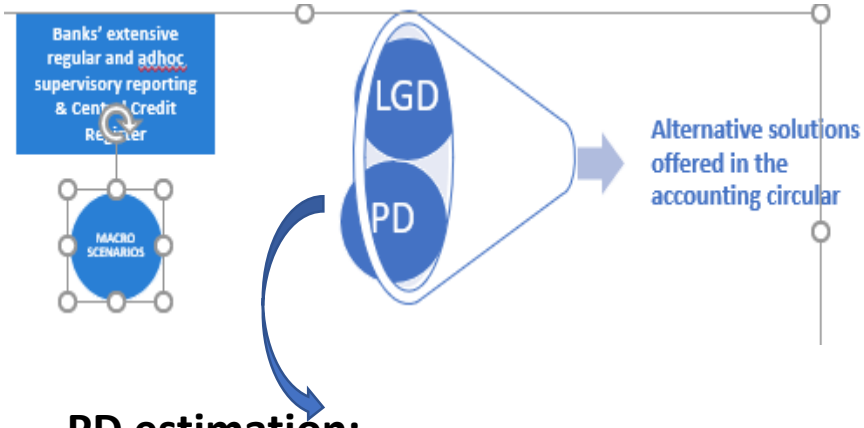
- % coverage in Stage 1 (12-month PD*LGD)
- % coverage in Stage 2 (lifetime PD*LGD)
- % coverage in Stage 3 (LGD)

-% discount on appraised value applied to different collaterals.

Source Banco de España

WORLD BANK GROUP
FINSAC | Financial Sector Advisory Centre

3 "ALTERNATIVE SOLUTIONS" FOR LESS COMPLEX BANKS/SEGMENTS



PD estimation:

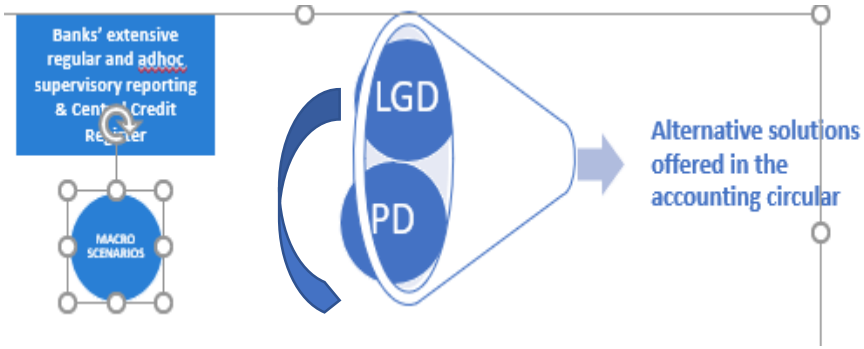
- **Stage 1 assets** >> 12-month PD:
  - ✓ Monthly monitoring of "non past due" transactions, using the CCR, to compute the amount of those that become NPL (>90d), during 12m

- **Stage 2 assets** >> Lifetime PD :
  - ✓ Monthly monitoring of transactions identified with significant increase in credit risk (past due amounts), to compute those that become NPL (>90d)
  - ✓ Tracking operations (4 – 6 years) until the PD turns "stable" (i.e. no significant new NPL after that date)

- **Stage 3 assets** >> PD = 1

Source Banco de España

3 "ALTERNATIVE SOLUTIONS" FOR LESS COMPLEX BANKS/SEGMENTS

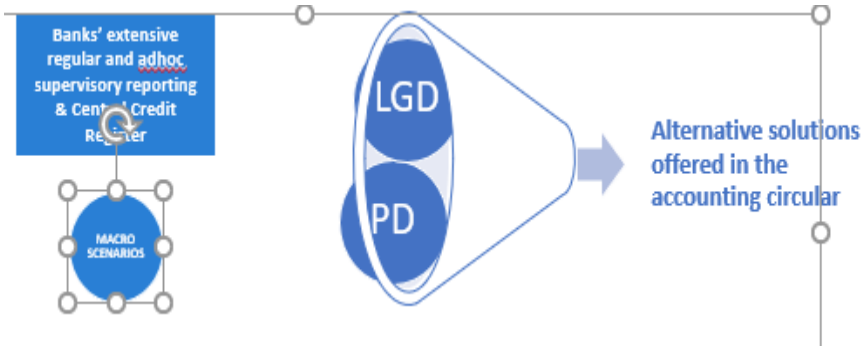


LGD estimation:

- **Collateralized exposures:**
  - estimation of recoverable amount of collateral (considering costs and changes in appraisal values until sale): estimated % of discounts on appraised value of different types of collaterals, using reported information on collateral appraised value, date of appraisals, price of sales and date of sales.
- **Non-collateralized part of exposure**:
  - LGD would be 100% when non-cure rate is 100%
  - Estimation of aggregate of "(non-)cure rates" or (non)-exit rates from NPL
  - Monthly monitoring of NPL transactions using the CCR to compute those that exit from NPL (or "cure")
  - …over two years or earlier if cure rates turns "stable" (i.e. no significant "cures" observed after that date)

Source Banco de España

3 "ALTERNATIVE SOLUTIONS" FOR LESS COMPLEX BANKS/SEGMENTS



- ✓ **For each segment:**
- **ECL 12 months, for Stage 1 (A).**
- **ECL lifetime, for Stages 2 (B) and 3 (C).**

- ✓ **% discounts on appraised value of different collaterals (D).**

A B

	Allowances and provisions for the amount not covered by effective collateral (%)	Standar exposures	Standar exposures under special monitoring
Credit risk segment	Non-financial corporations and sole proprietorships		
	Specialised financing		
	For the financing of real-estate construcción and property development, including land	*1,9*	*27,6*
	For financing the construction of civil works	*1,9*	*18,8*
	Other specialised financing	*0,5*	*7,5*
	Purposes other than specialised financing		
	Large corporations (a)	*0,5*	*7,5*
	SMEs	*0,9*	*12,7*
	Sole proprietorships	*1,1*	*11,6*
	Households (excluding *sole proprietorships*)		
	Housing purchases		
	For the purchase of the principal residence (amount not exceeding 80% of the colateral value) (b)	*0,6*	*13,0*

C

	Allowances and provisions for the amount not covered by effective collateral (%)	Age of past due amounts						
		Over 90 days, but not exceeding 6 months	Over 6 months but not exceeding 9 months	Over 9 months but not exceeding 1 year	Over 1 year but not exceeding 15 months	Over 15 months but not exceeding 18 months	Over 18 months but not exceeding 21 months	Over 21 months
Credit risk segment	Non-financial corporations and sole proprietorships							
	Specialised financing							
	For the financing of real-estate construcción and property development, including land	*60*	*70*	*80*	*85*	*90*	*100*	*100*
	For financing the construction of civil works	*55*	*65*	*70*	*75*	*85*	*90*	*100*
	Other specialised financing	*50*	*60*	*70*	*85*	*90*	*100*	*100*
	Purposes other than specialised financing							
	Large corporations (a)	*50*	*60*	*70*	*85*	*90*	*100*	*100*
	SMEs	*55*	*65*	*70*	*80*	*85*	*90*	*100*
	Sole proprietorships	*30*	*40*	*50*	*60*	*75*	*90*	*100*
	Households (excluding *sole proprietorships*)							
	Housing purchases	40	45	55	65	75	90	100
	For the purchase of the principal residence (amount not exceeding 80% of the colateral value) (b)	*40*	*45*	*55*	*65*	*75*	*90*	*100*

D

				% Discount on reference value
Type of collateral	Real estate collateral (first mortgage)	Completed buildings and parts thereof	Housing	30
			Offices, commercial premises and multi-purpose industrial buildings	40
			Other	45
		Urban land and regulated building land		40
		Other real estate		45
	Financial instruments pledged as security	Money deposits		0
		Other financial instruments with active market		10
		Other financial instruments with no active market		20
	Other collateral (e.g. second and subsequent real estate mortgages and collateral given in the form of movable property)			50

Source Banco de España

WORLD BANK GROUP
Finance, Competitiveness & Innovation
Financial Sector Advisory Center (FinSAC)

Thank you!

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