



At the Crossing between Risk and Accounting

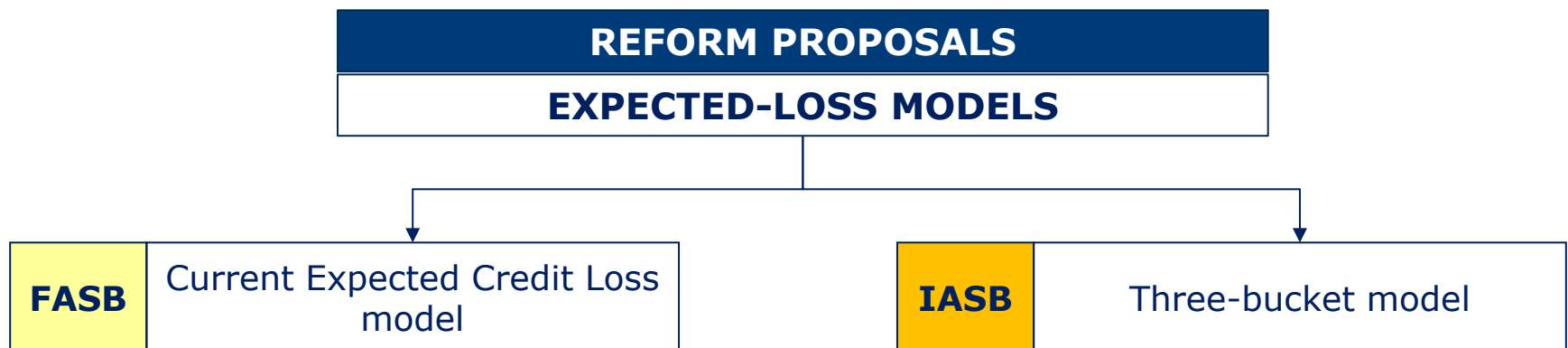
**Loan-loss Provisioning
with Expected Credit
Losses**

AGENDA

- 1** The role of loan-loss provisioning models during the Crisis
- 2** FASB's and IASB's proposals on loan-loss provisioning reform
- 3** Expected impacts on the industry
- 4** Getting ready: the CRIF model

The role of loan-loss provisioning models during the Crisis

- **Incurred-loss impairment models delayed the recognition of mounting credit losses** and led to overstating the value of financial assets for an extended period of time
- **Multiple impairment models for credit losses** across jurisdictions and asset classes
- This methodological complexity further **reduced the transparency and comparability of financial asset values**, while adding to the regulatory burden of institutions operating under different accounting systems
- **These two elements combined dragged down investor confidence**, thus exacerbating the crisis



FASB's and IASB's proposals on loan-loss provisioning reform

MAIN FEATURES

FASB (CECL)

- **a single model** replacing the five incurred-loss models for credit impairment currently in place for the financial assets within the scope of the proposal
- it would require an institution to impair financial assets based on **full expected credit losses**, defined as the *current estimate of all contractual cash flows not expected to be collected*
- it **removes the U.S. GAAP "probable" threshold** for credit loss recognition
- it embraces a **forward-looking approach**, as opposed to the backward-looking approach of the existing incurred-loss models

IASB (3-B)

- **a single model** it would be applied to all financial instruments that are currently subject to impairment accounting
- it would require an institution to impair financial assets based on either **12-month expected credit losses or on lifetime expected credit losses**
- it **removes the "objective evidence of impairment"** requisite for credit loss recognition
- it embraces a **forward-looking approach**, as opposed to the backward-looking approach of the existing incurred-loss models

FASB's and IASB's proposals on loan-loss provisioning reform

SCOPE	
FASB (CECL)	IASB (3-B)
<ul style="list-style-type: none"> ▪ debt instruments classified at amortized cost (AC) ▪ debt instruments classified at fair value with qualifying changes in fair value recognized in other comprehensive income (FV-OCI) ▪ loan commitments ▪ receivables that result from revenue transactions ▪ reinsurance receivables that result from insurance transactions ▪ lease receivables recognized by a lessor 	<p>SAME SCOPE AS IN CECL MODEL</p> <p>+ financial guarantees not accounted for at fair value through profit and loss</p> <p>- reinsurance receivables</p>

BOTH MODELS: scope defined by those financial instruments that primarily are held for the collection of contractual cash flows

FASB's and IASB's proposals on loan-loss provisioning reform

OBJECTIVE

FASB (CECL) & IASB (3-B)

- The objective of both the CECL and the Three-bucket models is to **provide guidance** on how an institution should recognize and measure expected credit losses, and accordingly define the relative allowance and provisions
- **This guidance does not translate into a specific model**, but only in a set of methodological principles (sometimes shared across models) upon which an Institution can build its own approach to estimating expected credit losses.

FASB's and IASB's proposals on loan-loss provisioning reform

LOSS RECOGNITION AND SUBSEQUENT ADJUSTMENTS

FASB (CECL)

Day 1

- The institution recognizes an allowance for expected credit losses equal to **estimate of all contractual cash flows** (i.e. over the entire contractual term) **not expected to be collected** from a financial asset (or group of financial assets) in the scope of the proposal
- The allowance is represented on the statement of financial position as a **contra-asset** paired with the amortized cost basis of the financial asset (or asset pool)

Day 2

- Adjustments to the allowance occurring between reporting dates would be recognized in the income statement as a **provision** for credit losses

FASB's and IASB's proposals on loan-loss provisioning reform

LOSS RECOGNITION AND SUBSEQUENT ADJUSTMENTS

IASB (3-B)

INVESTMENT GRADE

DAY 1

DAY 2

allowance set equal to **12-month expected credit losses**

NON-INVESTMENT GRADE

SIGNIFICANT DETERIORATION

DAY 2

allowance set equal to **lifetime expected credit losses**

DAY 1

allowance set equal to **12-month expected credit losses**

NON-SIGNIFICANT DETERIORATION

DAY 2

allowance remains equal to **12-month expected credit losses**

FASB's and IASB's proposals on loan-loss provisioning reform

INFORMATION SET

FASB (CECL) & IASB (3-B)

- Under both models, institutions would be allowed to use **all the internally and externally available information** deemed relevant for the estimate of expected credit losses
 - ✓ past events
 - ✓ historical loss experience with similar assets
 - ✓ current conditions (borrower / cycle)
 - ✓ reasonable and supportable forecasts (borrower / cycle)

FASB's and IASB's proposals on loan-loss provisioning reform

METHODOLOGICAL PRINCIPLES

FASB (CECL)

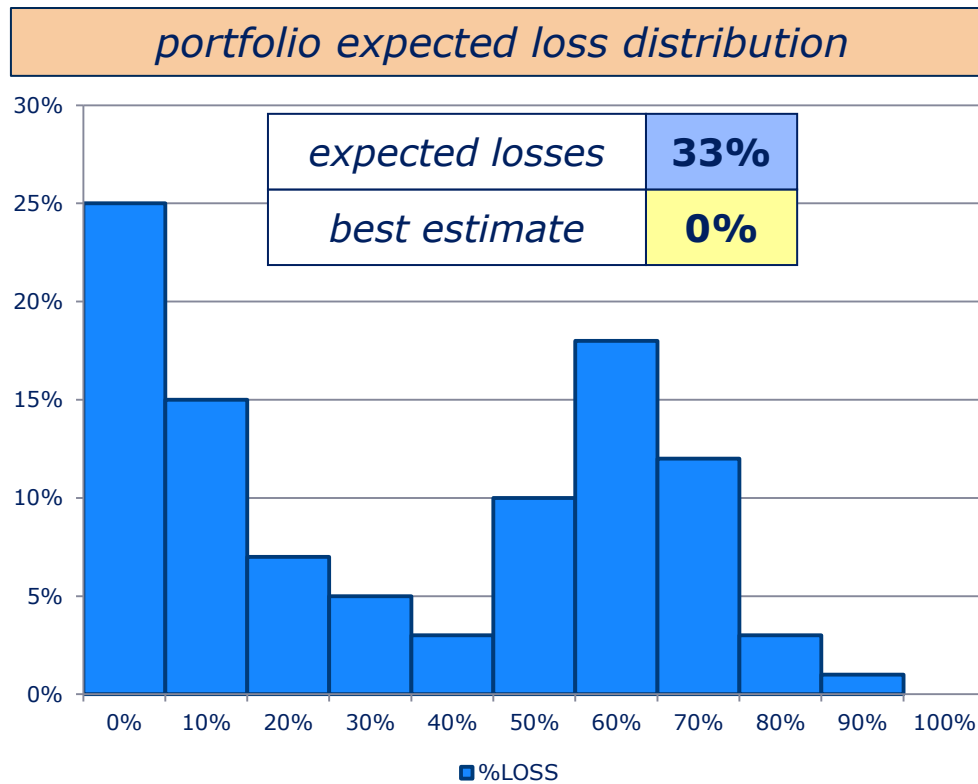
- Estimate must take into account the **time value of money**
 - when using Discounted Cash Flow methods, institutions must use the **effective interest rate**
- **No best-estimate methods** (as in incurred-loss models)
 - but it does not have to be a probability-weighted estimate
- Estimate must consider **collaterals and credit enhancements**
 - except for freestanding, separately exercisable contracts
- Estimate must consider prepayment expectations, the likelihood of funding on loan commitments, the method of weighting historical experience

IASB (3-B)

- Estimate must take into account the **time value of money**
 - institutions can choose a rate in the range **between the risk-free rate and the effective interest rate**
- **No best-estimate methods** (as in incurred-loss models)
 - it must be a probability-weighted estimate
- Estimate must consider **collaterals and credit enhancements**
 - freestanding, separately exercisable contracts could be considered when estimating expected losses
- Estimate must consider prepayment expectations, the likelihood of funding on loan commitments

FASB's and IASB's proposals on loan-loss provisioning reform

BEST ESTIMATE VS. EXPECTED LOSSES



FASB's and IASB's proposals on loan-loss provisioning reform

PURCHASED (AND ORIGINATED) CREDIT-IMPAIRED FINANCIAL ASSETS	
FASB (CECL)	IASB (3-B)
<i>Only purchased credit-impaired assets</i>	<i>Purchased and originated</i>
<ul style="list-style-type: none"> ▪ The proposal defines purchased credit-impaired financial assets as assets that have experienced a significant deterioration in credit quality since origination ▪ For this asset class, institutions must quantify the purchase discount associated with expected credit losses and use it to gross-up the cost basis of the asset ▪ Expected losses are thus: <ul style="list-style-type: none"> ▪ excluded from the computation of the effective interest rate ▪ always recognized in the corresponding allowance (from day one) 	<ul style="list-style-type: none"> ▪ The proposal defines purchased or originated credit-impaired financial assets as assets with objective evidence of impairment (third bucket) ▪ No gross-up ▪ Initial expected losses are thus included in the computation of the (credit-adjusted) effective interest rate ▪ Day 2 changes in expected credit losses are recognized directly in the income statement as a provision or reversal

FASB's and IASB's proposals on loan-loss provisioning reform

INTEREST INCOME RECOGNITION

FASB (CECL)

- Discounts on purchased credit-impaired financial assets that are NOT associated with expected credit losses must be recognized as interest income
- Institutions must cease their accrual of interest income when it is not probable that the entity will receive substantially all of the principal or substantially all of the interest

IASB (3-B)

- For purchased or originated credit-impaired financial assets:
 - the credit-adjusted effective interest rate is computed at initial recognition, then applied to the net carrying amount
- For all other financial assets:
 - effective interest rate is applied to the gross carrying amount

"PROBABLE LOSS" THRESHOLD STILL MATTERS

Expected Impacts on the Industry

EXPECTED IMPACTS ON THE INDUSTRY

Internal Organization

- Integration between Risk Management and Corporate Finance functions

Financial Statement Dynamics

- Cliff effect in provisions at the time of regime change
- Less financial statement volatility and procyclicality
- The CECL model more countercyclical than the Three-Bucket model

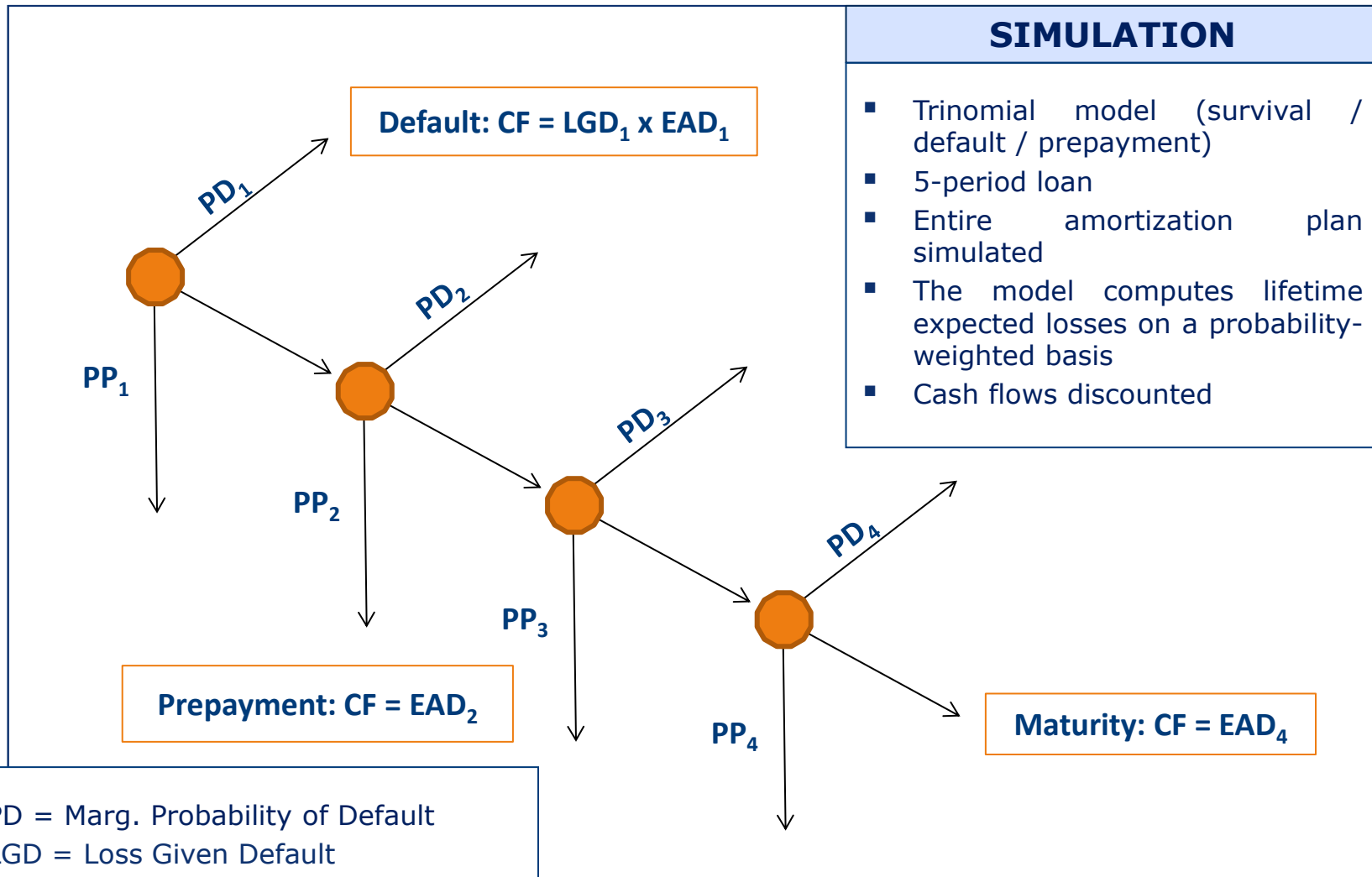
Compliance

- Investment in predictive models for loss forecasting pays off, simple techniques solely based on historical averages can be overly penalizing

Securitization Markets

- CECL model might be more likely to stimulate securitization markets as financial assets values would get closer to their fair value

Getting ready: the CRIF Model



Getting ready: the CRIF Model

AT THE CROSSING BETWEEN RISK AND ACCOUNTING

- **The model proposed** is a modified DCF model where the inclusion of traditional Basel II metrics **ensures compliance** with the new FASB and IASB regulations **and optimizes resources for provisioning**

METHODOLOGICAL REQUIREMENTS		MODEL INPUT
Time value of money	☑	IR for cash flow discounting
Probability-weighted estimate (no best estimate)	☑	Marginal PDs / PPs
Collaterals and credit enhancements	☑	LGD = f(LTV)
Prepayment expectations	☑	Marginal PPs
Likelihood of funding on loan commitments	☑	EAD = f(CCF)

Thanks for your attention

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 **CRIF** *DECISION
SOLUTIONS*
Together to the next level