Request for Information: PiR IFRS 9 – Academic input

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EFRAG TEG Meeting, July 5, 2023

IASB Post Implementation Questions

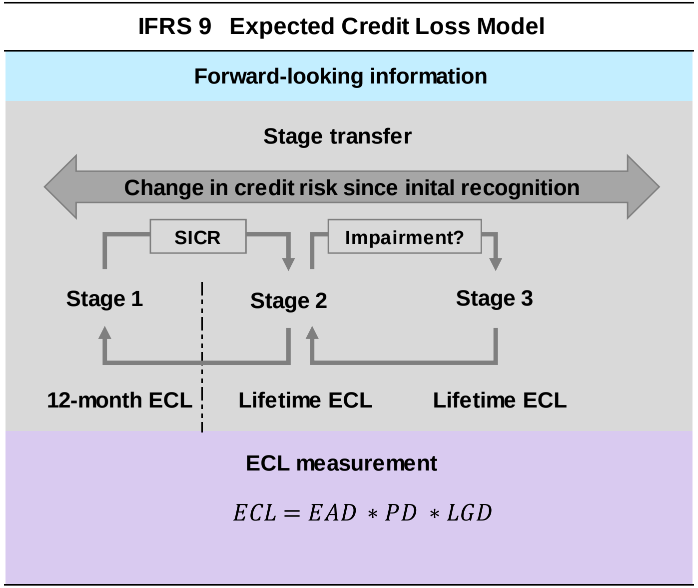
- Q1: Do the impairment requirements in IFRS 9 result in
  - More timely recognition of credit losses compared to IAS 39?
  - An entity providing useful information to users of financial statements about the effect of credit risk on the amount, timing and uncertainty of cash flows?
- Q3: Significant increase in credit risk (SICR)
  - Are there fundamental questions about the assessment of SICR?
  - Can the assessment of SICR be applied consistently?
- Q4: Measuring expected credit losses
  - Are there fundamental questions about the requirements for measuring ECL?
  - Can the measurement requirements be applied consistently?

General Information on IFRS 9

- Replaced the incurred loss model of IAS 39, criticised as **'too little, too late'**
  - i.e., impairment was booked only when there was objective evidence that an impairment had occurred
  - *Cannot consider future events unless close to certain*
- IFRS 9: Issued in July 2014; mandatory application since 1 January 2018
  - Updates in 3 areas:
    1. Classification and measurement
    2. **Impairment** ← Our focus
    3. Hedge accounting

IFRS 9 Impairment Model

- **IFRS 9:** Expected credit loss (ECL) model requires provisions for **future expected credit losses** on all loans from day 1 of recognition



Two important changes to address the IAS 39 ‘too little, too late’ criticism

1. **Increase in scope:** impairment is now booked for the entire loan portfolio (Stage 1 and Stage 2), not just for impaired loans (Stage 3)
2. **Change in ECL measurement:** incorporation of forward looking information

Ex-Ante Concerns & Expectations of IFRS 9

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Concerns

- Day 1 impairment recognition contradicting the IASB Conceptual Framework principles of neutrality and faithful representation (Hashim, Li, O'Hanlon, 2022)
- Increased Discretion:
  - Determination of 'SICR' (cliff effect)
  - Discretion increases as information becomes scarce
  - Increased risk of opportunistic provisioning behavior / earnings management (Cohen & Edwards, 2017)
- Increased procyclicality due to point-in-time PDs (Abad & Suarez, 2018)

Expectations

- Timelier loss recognition (Novotny-Farkas, 2016; Gebhardt, 2016)
- Reduced procyclicality of lending
- Reduced build-up of loss overhangs & less overstatement of regulatory capital (Novotny-Farkas, 2016)

Structure of discussion

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IFRS 9

- Timeliness (Q1)
- ECL Measurement (Q4)
- SICR (Q3)
- Real Effects ("the public good")

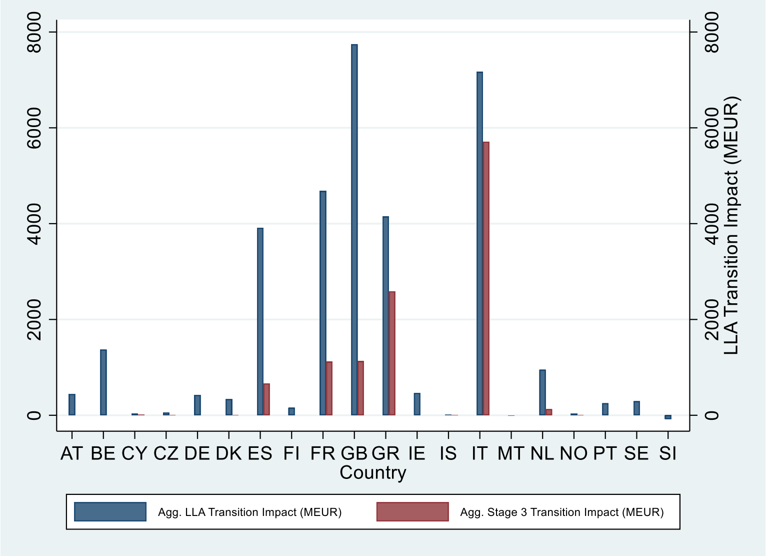
Discretion

Timeliness
The academic perspective

- Timeliness: the extent to which current loan loss provisions (LLPs) explicitly anticipate the deterioration in loan portfolios (Balakrishnan & Ertan, 2020)
- Timely recognition of losses have trade-offs for bank stability
  - Timely disclosures could discipline banks and provide incentives for banks to take corrective actions early
  - Disclosures of losses or exposures to troubled assets could also trigger a bank run, as could corrective actions that investors view as signs of weakness (Bischof, Laux, Leuz, 2021)
- Delayed credit loss recognition leads to
  - Reduced transparency hampering market discipline over risk taking (Bushman & Williams, 2012)
  - Greater financing frictions and capital inadequacy concerns during downturns, resulting in higher reductions in lending (e.g., Beatty & Liao, 2011; Bushman & Williams, 2015; Kim, 2022)

Timeliness
Transition Evidence

- Generally, day-one transition effects show (large) increases in loan loss allowances



Kalista & Novotny-Farkas, 2023

- Increases in Stage 1 & 2 expected
- In some countries large increase in Stage 3 – ex ante unexpected!
- Suggests reduced loss overhangs in impaired assets
- But resolving past loss overhang build-up does not necessarily translate into non-accumulation in the future…

Timeliness
Transition Evidence

- Increase in impairment on day 1 of IFRS 9 equity effects:

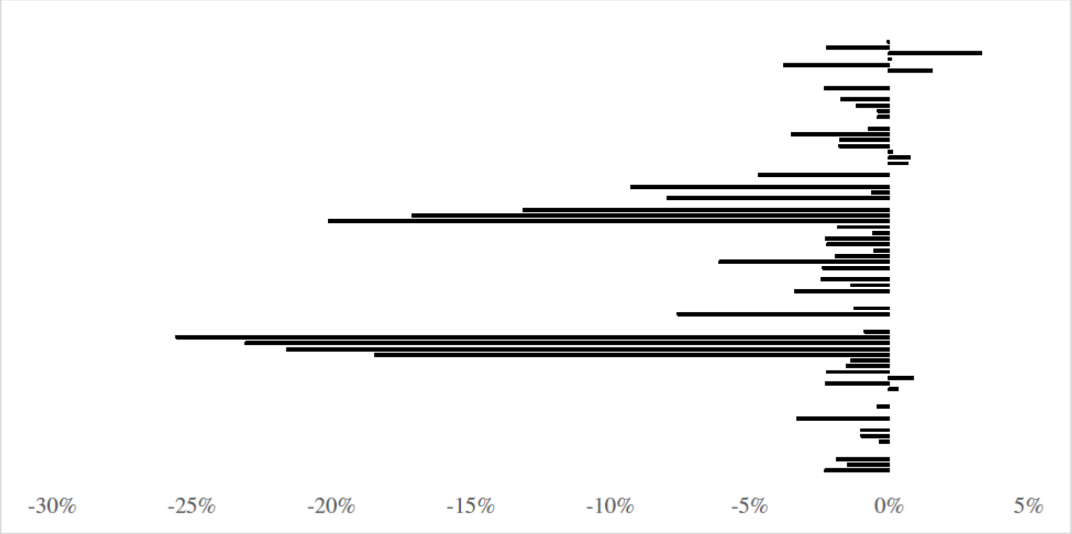


Figure 10: Impairment Effect on Equity per Institution (in %)

Löw, Schmidt, Thiel, 2019

Timeliness

Early evidence of increased timeliness/usefulness

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- Experimental study finds that allowing managers to incorporate forward-looking information results in (Gomaa, Kanagaretnam, Mestelman, Shehata, 2018)
  1. An increased amount of reserves carried
  2. An increased adequacy of reserves
  3. Robust results with respect to a range of different compensation schemes
- Empirical evidence: ECL provisions are more predictive of future bank risk
  - LLPs under IFRS 9 are **more risk-relevant** than incurred loss model LLPs but this difference appears to matter mainly when credit conditions deteriorate (Lopez-Espinosa, Ormazabal, Sakasai, 2021)
    - Source of increased informativeness: Stage 1 and Stage 2
    - No evidence of opportunistic use of discretion
  - Evidence that riskier banks experience a larger **increase in LLP timeliness** after IFRS 9 adoption. Additionally, the ECL recognition timeliness is stronger for banks who had less timely LLPs under IAS 39 (Kim, Ng, Wang, Wu, 2021)

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Timeliness

Accounting Procyclicality During Covid-19

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Figure X5: Panel A Time Fixed Effect and Total %Imp

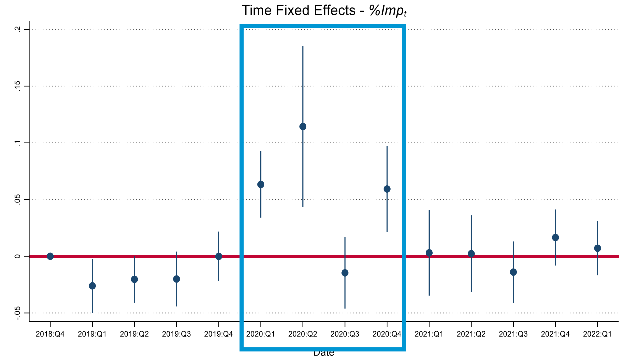
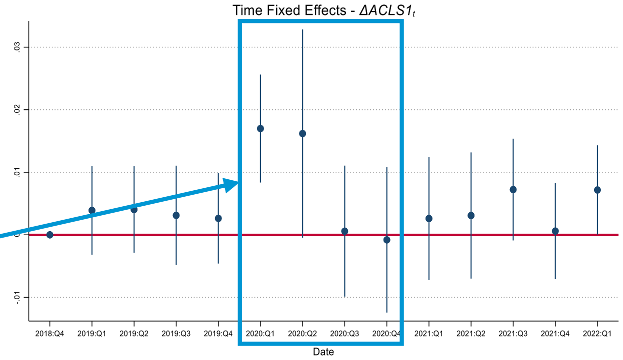


Figure X5: Panel B Time Fixed Effect and ΔACL Stage 1



Stages 1 and 2 primarily drive procyclical LLP behavior

Figure X5: Panel C Time Fixed Effect and ΔACL Stage 2

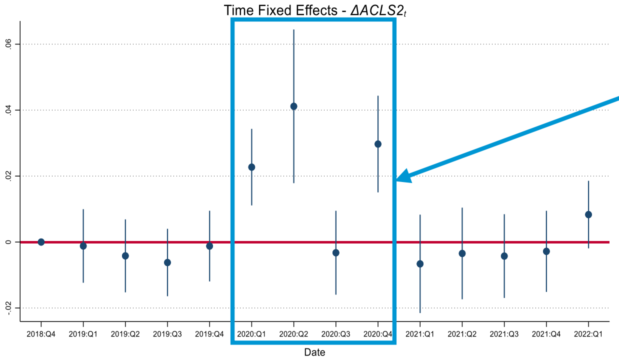
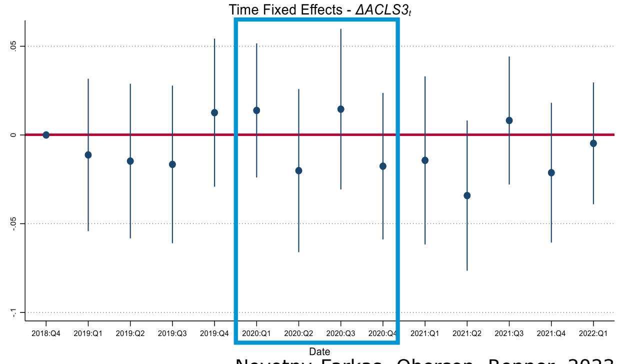


Figure X5: Panel D Time Fixed Effect and ΔACL Stage 3

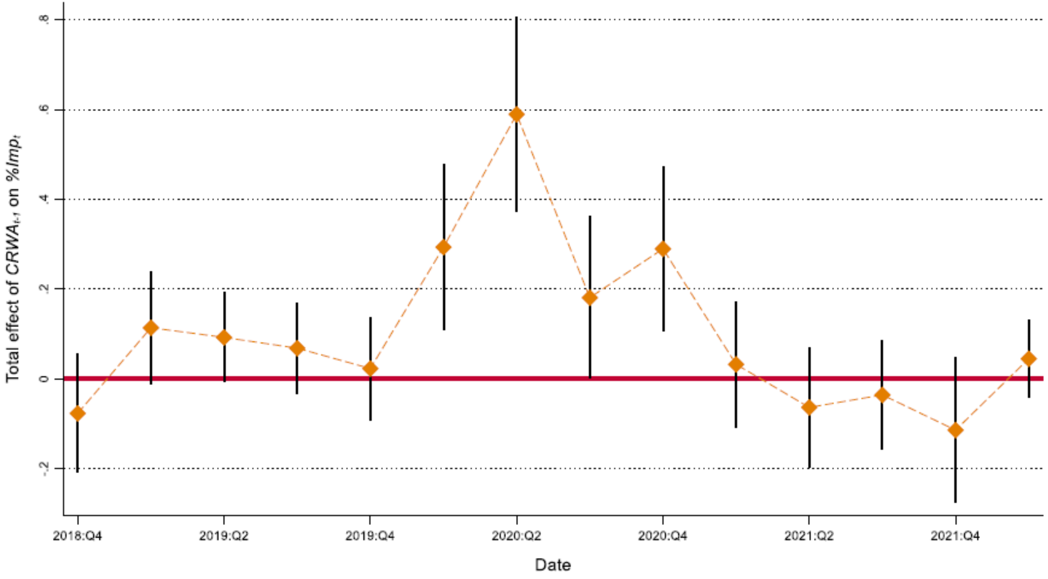


Stages 1 and 2 more sensitive to risk factors, but also income smoothing during good times in Stage 1, capital management during Covid-19 in Stage 2

Novotny-Farkas, Oberson, Renner, 2023

Timeliness
Accounting Procyclicality During Covid-19

The association between ECL impairments (%Imp) and credit risk-weighted assets (CRWA)



Novotny-Farkas, Oberson, Renner, 2023

- Sharp impact of credit risk-weighted assets on loan loss provisions during Covid-19, possibly attributable to the **point-in-time PD** estimates
- From an accounting standpoint, the start of an economic downturn is expected to trigger larger loan loss provisions under IFRS 9 than under IAS 39, and thus to reveal banks' vulnerabilities sooner

→ This is not an accounting problem (Hoogervorst, 2012)

Timeliness

Did IFRS 9 really cure the IAS 39 shortcomings?

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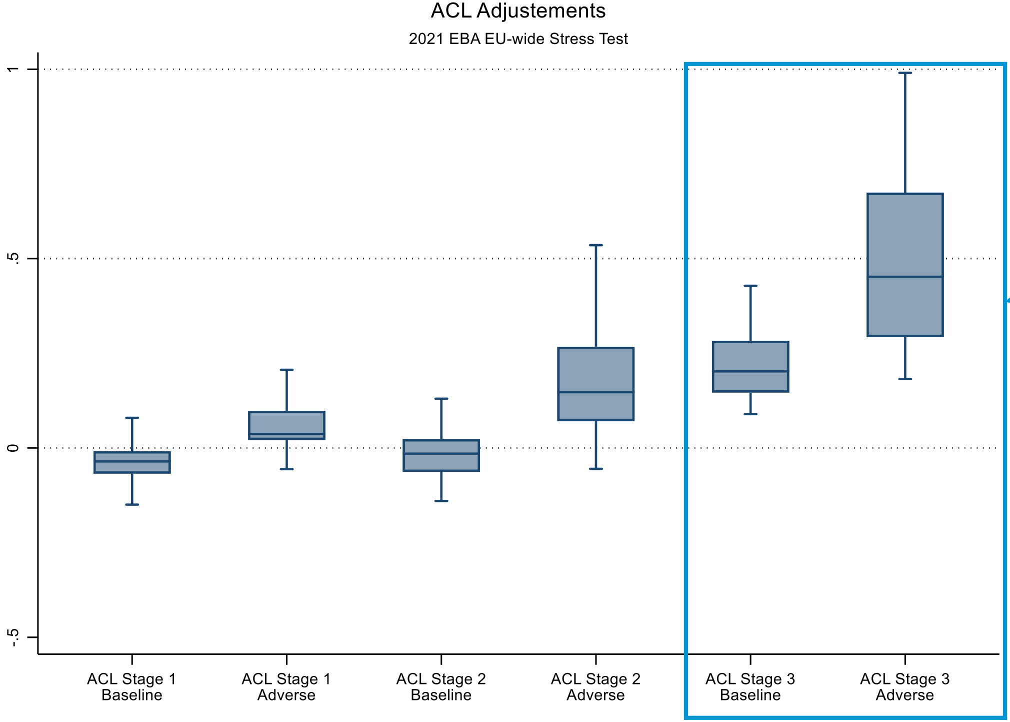
Forward-looking adjustments to the allowance for credit losses (ACL)



- EBA adjustments mainly come from shortfall in ACL for Stage 3
- Banks primarily understate Stage 3 ACL
- Understatement larger for large banks, with lower CET 1, and more Covid-19 exposure

Name	**ACL adjustments** (Scenario: Base EUR millions) (1)	percent increase in ACL (2)	percent of CET1 (3)
Banco Santander SA	€ 7 222.98	30%	10.82%
BBVA, SA	€ 6 129.29	44%	14.82%
BNP Paribas SA	€ 3 857.65	17%	4.40%
UniCredit SpA	€ 3 156.96	16%	6.40%
Intesa Sanpaolo SpA	€ 2 858.70	19%	5.84%
Société Générale SA	€ 2 613.38	21%	5.64%

Source: Novotny-Farkas, Oberson, Renner, 2023

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ECL Measurement

- Consistent measurement application challenges:
  - Forward-looking scenarios
  - Post model adjustments / management overlays
- **Forward-looking scenarios:** IFRS 9 requires forward-looking information in the form of probability-weighted forward-looking scenarios
  - Inherently discretionary
- **Post model adjustments:** adjustments to reduce or increase modelled ECL to consider information not (yet) fully reflected in the model
  - Inherently discretionary
  - Appeared as a result of the COVID-19 crisis – but don't seem to be going away

ECL Measurement
Forward Looking Scenarios

- Management has a large amount of discretion in determining *which* forward looking scenarios to include in their calculations and *how much weight* to put on each scenario

If in the following year, i.e., on 31 December 2023, obligor does not pay amount due --> DEFAULT

Stage 3 - Recognition of lifetime ECL

Scenario	**Probability [a]**	**EAD [b]**	**DR [c]**	**Expected net future cash flows [d]**	**Expected recovery time [e]**	**ECL [f]=[b]-[d]/(1+[c])^[e]**	**Probability-weighted ECL [g]=[a] x [f]**
Cure	20%	1,030,000	3.00%	900000	0.0	130,000	26,000
Restructure	40%	1,030,000	3.00%	800000	0.5	241,737	96,695
Liquidation	40%	1,030,000	3.00%	700000	1.0	350,388	140,155
						Lifetime ECL	**262849.9708**

ECL Measurement
Forward Looking Scenarios

- Example: Sale Scenario in Intesa SanPaolo 2018 Annual Report

Impairment

The application of the new impairment rules (expected credit losses) on the financial assets measured at amortised cost (on-balance sheet exposures) resulted in a negative impact of 4,137 million euro, as detailed below:

- additional value adjustments to on-balance sheet performing loans of 1,136 million euro attributable to (i) the allocation of part of the performing portfolio to Stage 2, based on the stage allocation criteria defined, with the consequent need to calculate the lifetime expected credit loss for the financial assets and (ii) the inclusion of forward-looking parameters resulting from future macroeconomic scenarios within the expected credit losses calculation. The first-time adoption impact was almost entirely due to the increase in adjustments to positions classified as stage 2, whose total provisions trebled;
- additional value adjustments to performing securities of 95 million euro, essentially attributable to the allocation of a portion of the portfolio to Stage 2, with the consequent need to calculate the lifetime expected credit loss for the financial assets;
- additional value adjustments to non-performing loans of 2,906 million euro, mainly due to the inclusion of forward-looking parameters, resulting from the consideration of future macroeconomic scenarios for all the NPL categories, within the expected credit losses calculation, and the inclusion of the sale scenario – envisaged by the company targets of reduction of the non-performing assets – for a part of the bad loans portfolio that has characteristics of disposability. The impact of the additional adjustments consisted of 2,063 million euro for bad loans and 843 million euro for positions classified as unlikely-to-pay loans and past due loans.

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ECL Measurement
Forward Looking Scenarios

- Vs. Intesa SanPaolo 2017 – NPL plan emphasized disposals only at a price in line with book value

In accordance with ECB instructions, in 2016 Intesa Sanpaolo initiated measures to keep the stock of NPLs in check. In March 2017, a three-year NPL Plan was approved, aimed at bringing the NPL ratios back down to pre-crisis levels, through a coordinated action plan structured for each of the business units involved. The plan takes a holistic approach by tackling all categories of NPLs and involves all business owners in the Group. The plan activates all the levers that can help achieve its stated objectives, while also providing suitable mechanisms for the coordination of efforts and the monitoring of outcomes delivered.

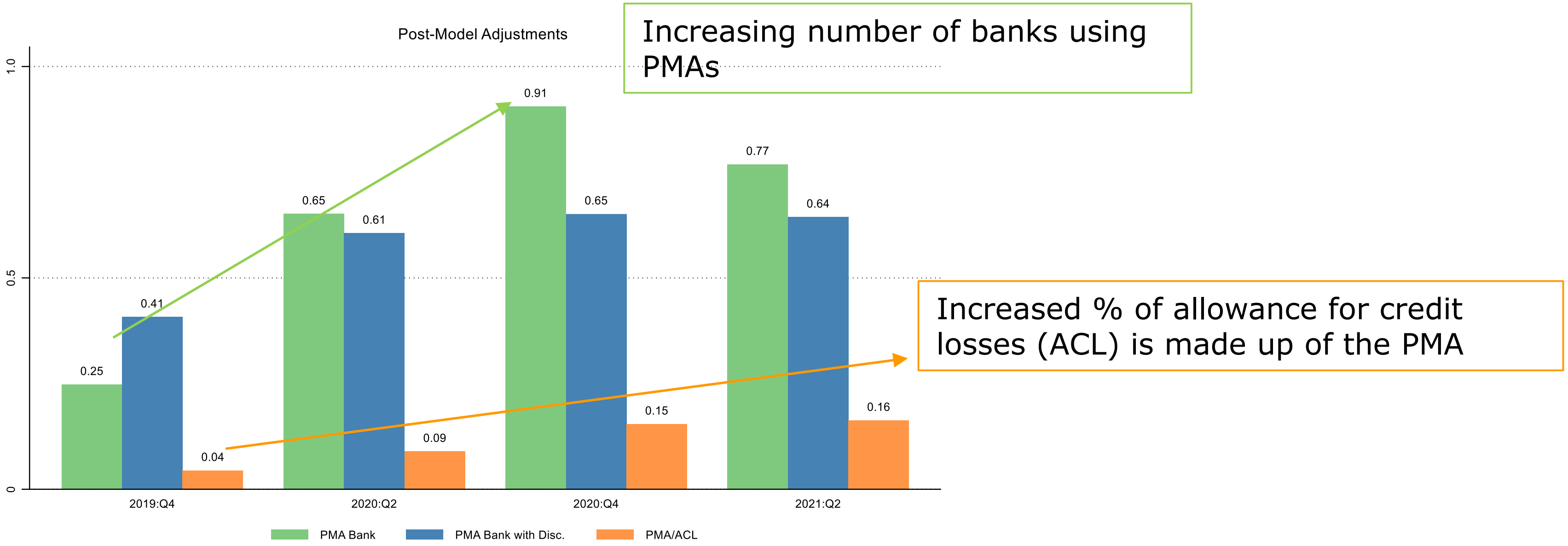
The 2018-2021 Business Plan's top priority is the effective management of NPLs and will be achieved, without a negative impact on value distribution to Shareholders, through the implementation of several initiatives:

- carve-out of a state-of-the-art loan recovery platform, to improve recovery rates and extend the scope of activities;
- readiness for future NPL disposals at a price in line with book value;
- "Pulse", a new way of managing retail early delinquency, and positioning as one of the leading operators in early delinquency recovery;
- scale-up of proactive credit portfolio management, aimed at significantly reducing the Group's Unlikely to Pay level and optimising its risk-return profile.

As a result of these initiatives, the risk profile will further improve in 2021, with best-in-class cost of risk and a very low NPL stock.

ECL Measurement
Post-model adjustments

- Banks are increasingly using PMAs to take into account 'novel' risks that are not easily captured by models



Source: Novotny-Farkas, Oberson, Renner, 2023
Sample: 122 banks from EBA Transparency Exercise

ECL Measurement

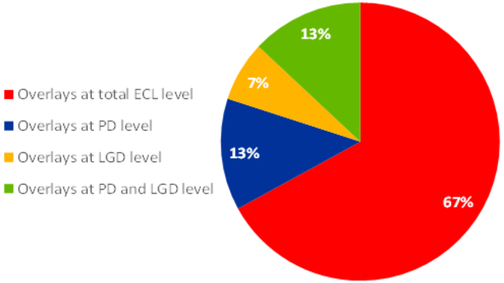
Post-model adjustments

- The ECB finds there are bad and good aspects of banks using PMAs
  - Overlays are a useful tool to address emerging risks, but only when they are **delivered with strong governance and transparency, are supported by evidence and are build on sound methodologies**.

Overlays are predominantly applied at an aggregated level that does not easily allow for risk differentiation

Level in provisioning process where overlays are applied

(percentages)

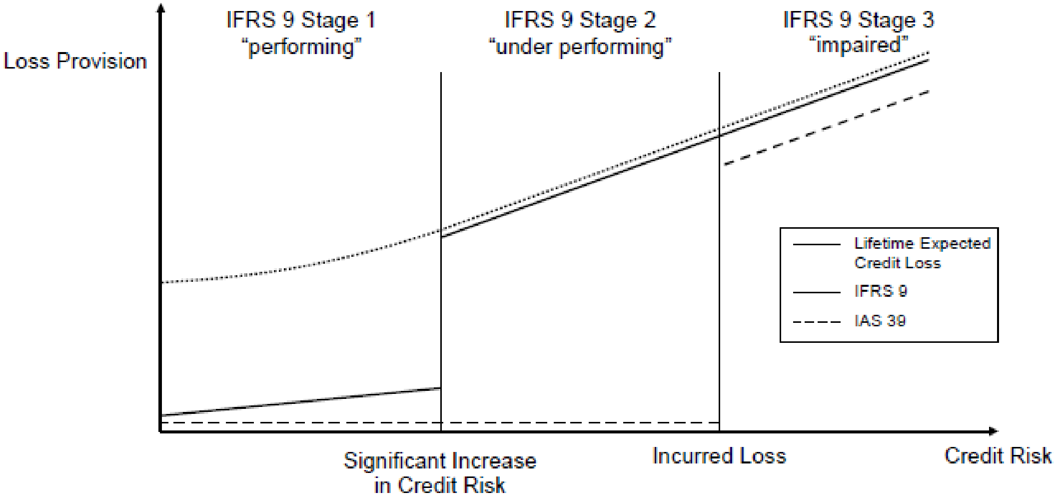


Based on ECB survey of 51 SI banks

- Banks using PMAs at the aggregate ECL level **do not reflect the risks driving ECL overlays** in their Stage 2 classifications (i.e., increased credit risk should lead to increased provisions in a stage, but disregard that increased credit risk also requires stage transfers).
- Find that banks using aggregate PMAs record lower provisions and have lower Stage 2 ratios
- Novotny-Farkas/Oberson/Renner (2023) find some evidence that PMA banks have higher ECL shortfalls in the EBA 2021 stress test

SICR

- Worries about the cliff effect of Stage 2

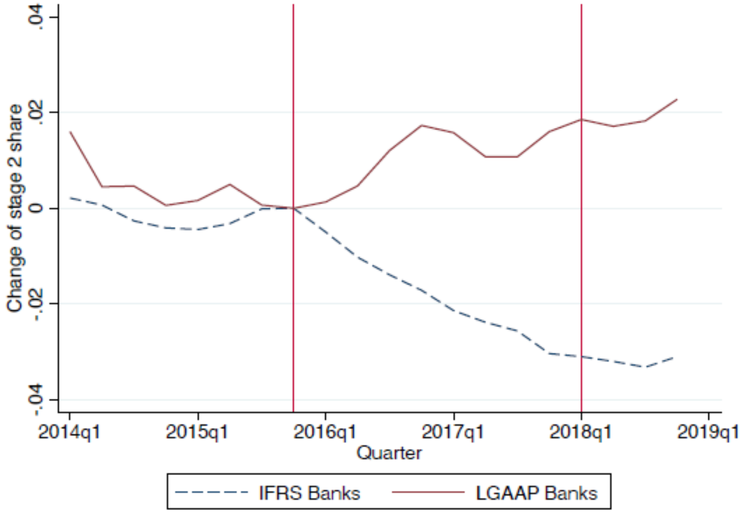


Bischof, Haselmann, Kohl, Schlueter, 2023

SICR

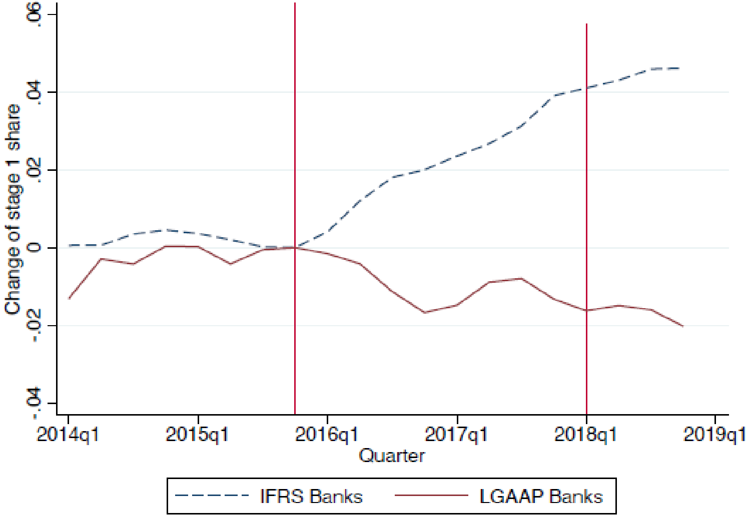
Delaying SICR

- In a study of German banks internal rating models under IFRS 9, Bischof et al. (2023) find that IFRS banks assign better internal ratings to the same borrowers compared to banks that don't use IFRS, suggesting that **banks are using their discretion to avoid the cliff of Stage 2.**



Decrease in Stage 2

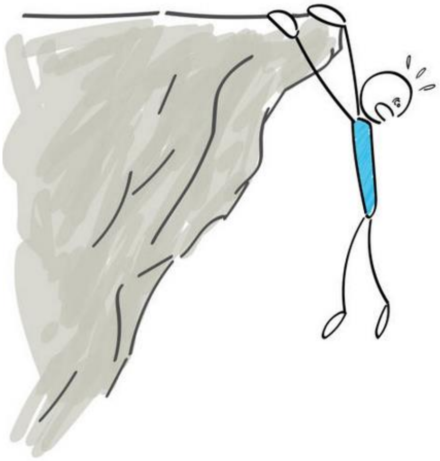
Increase n Stage 1



Bischof, Haselmann, Kohl, Schlueter, 2023

SICR
Delaying SICR

- Novotny-Farkas, Oberson & Renner (2023) find some evidence that banks with lower regulatory capital are more reluctant to increase their allowance for Stage 2 **(avoiding the cliff)**



SICR
Climate risk

Rabobank's woes herald a new phase in climate transition risk management

August 25, 2022

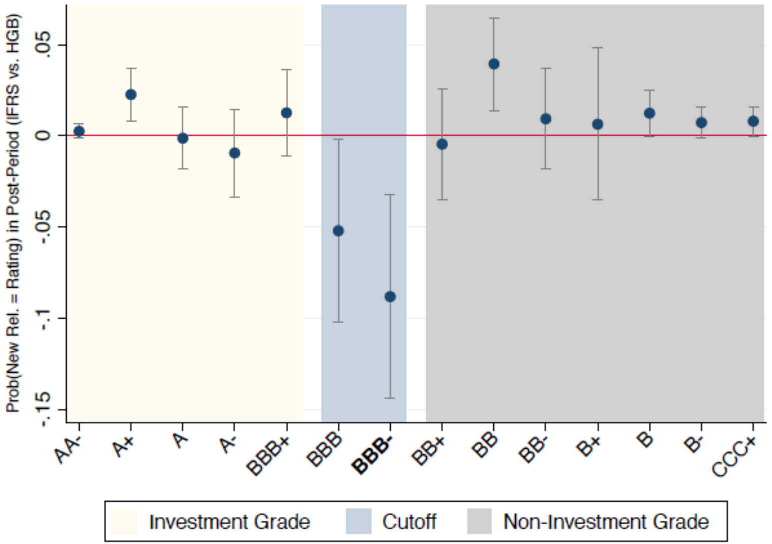
Rabobank is the new poster child for climate transition risk in the financial system. In response to the Dutch government's June announcement of a plan to slash nitrogen oxide emissions from the country's livestock sector, the lender downgraded the creditworthiness of its entire €10.3 billion dairy farm loan portfolio.

Why? Because the plan could undermine farming clients' business models and potentially drive many into bankruptcy. The Dutch government itself admitted that "there is not a future for all farmers within [this] approach."

The lender's decision comes with real financial consequences. By downgrading the agri-loans, Rabobank now has to calculate their lifetime expected credit losses. This figure in turn informs the amount of income it has to set aside to cover potential future defaults and missed repayments. On top of this, the firm took a €76 million charge to account for potential losses in the portfolio that its credit models might have missed. These measures all contribute to making agri-loans more onerous for Rabobank to originate and maintain. As a result, it may choose to cut back its exposures or raise costs accordingly.

Real Effects
Reduced lending to risky borrowers

- Reduced lending to borrowers at risk of being transferred to Stage 2



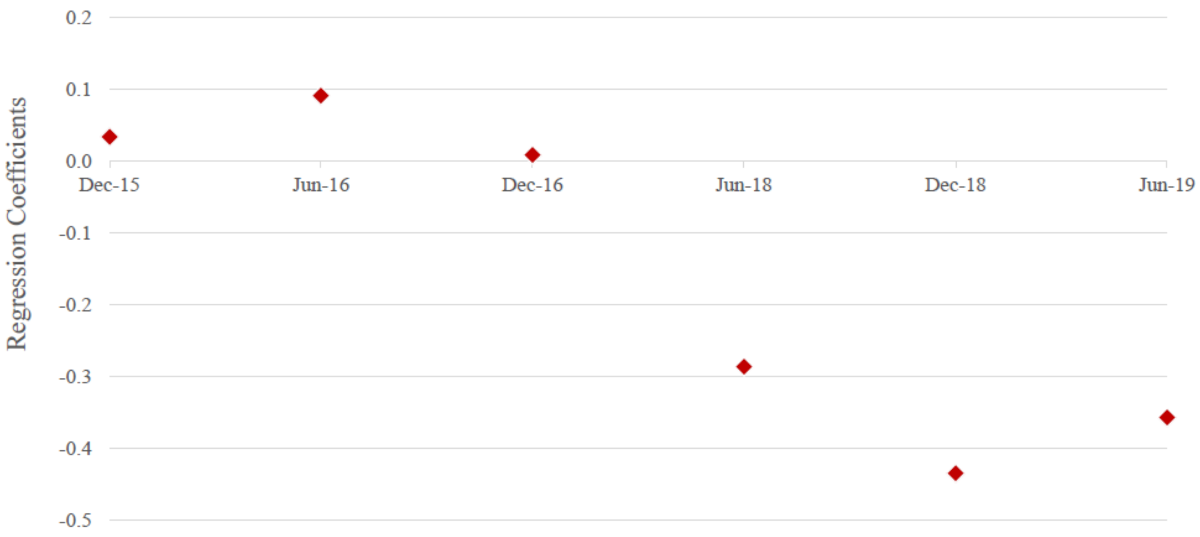
Bischof, Haselmann, Kohl, Schlueter, 2023

The likelihood that a borrower has a credit risk rating on the 'cutoff' decreases after IFRS 9 implementation

Real Effects
Reduced lending to risky borrowers

- Reduced lending to SMEs

Figure 1. Period-by-period analysis of the effect of the ECL transition on SME lending



Ertan 2019

Real Effects
Lending procyclicality during Covid-19

Dependent Variable: *Loan Growth%$_t$*		
Shortfall Scaled by:	Total Assets	CET1
	(3)	(4)
*ACLS1adj*Covid$_t$*	3.45	0.41
	(0.95)	(1.43)
*ACLS2adj*Covid$_t$*	-3.04	-0.11
	(-1.02)	(-0.57)
*ACLS3adj*Covid$_t$*	-7.15***	-0.36***
	(-3.88)	(-3.27)

Decrease in bank lending when shortfall comes from Stage 3

As expected, decrease in bank lending comes from Stage 1 (loan origination)

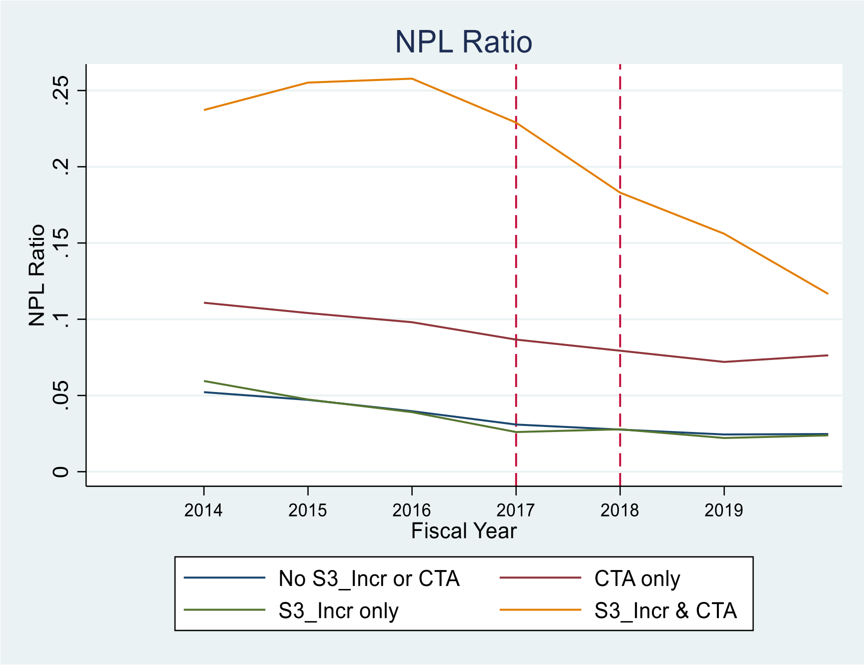
Table X2: Loan growth per stage

Dependent Variable:	*Loan Growth Stage 1$_t$*	*Loan Growth Stage 2$_t$*	*Loan Growth Stage 3$_t$*
	(1)	(2)	(3)
*ACLS3adjTA*Covid$_t$*	-0.10***	0.13	-0.05
	(-4.95)	(1.22)	(-1.38)

Novotny-Farkas, Oberson, Renner, 2023

Real Effects

Increased NPL sales in Europe



Kalista & Novotny-Farkas, 2023

- IFRS 9 transition options:
  - Day 1 impairment increase booked directly through retained earnings- no P/L effect
  - Day 1 impairment increase filtered into regulatory capital over 5 years
- Changed (reporting) incentives for entering the NPL market
- Decreased banks' NPL ratios, helping to resolve legacy NPL problem

Key Takeaways

- Evidence indicates that IFRS 9 ECL impairments are timelier than IAS 39 incurred loss impairments and provide useful information to investors
- „Natural" procyclicality of ECL impairments primarily in Stages 1 and 2
- However, also evidence for strategic use of discretion to avoid Stage 2 transfers, understate stage 3 ECLs to manage income and/or capital
- Increased reliance on PMAs / overlays during Covid-19, but also to cover "novel risks" (e.g., environmental risks, inflation) → good and bad PMAs
  - Greater diversity in ECL impairment recognition in the face of novel risks
  - Risk of delayed loss recognition under "umbrella overlays"
- IFRS 9 ECL application triggers some desired and (potentially) undesired real effects
- Increased focus of supervisors, auditors and banks necessary to ensure appropriate and consistent application of ECL model – Higher costs?

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