IFRS Accounting

Staff paper

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Date	**February 2024**
Project	**Post-implementation Review of IFRS 9—Impairment**
Topic	**Literature review update**
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Purpose and structure

1. At its February 2023 meeting, the IASB discussed an overview of the academic literature relevant to the post-implementation review (PIR) of the impairment requirements in IFRS 9 *Financial Instruments*. This paper provides a summary of the additional academic literature relevant to the PIR, identified since the initial review.

2. Of the nine papers in this review:

   (a) three papers became publicly available after the February 2023 IASB meeting—they were identified through a search for papers in Social Science Research Network, Google Scholar, and other databases of academic studies; and

   (b) six papers were identified through academic engagement.

3. The summary of the academic literature is structured as follows:

   (a) key messages;

   (b) detailed research findings; and

   (c) question for the IASB.

4. This paper has one appendix: Appendix A—List of academic papers.

Key messages

5. The key messages from the review of academic papers examining the effects of applying the expected credit loss (ECL) model are:

   (a) *timeliness of ECL recognition*. Applying the ECL model in IFRS 9 improved the timeliness of recognition of credit losses compared to approaches based on the incurred loss model, including IAS 39 *Financial Instruments: Recognition and Measurement* and national Generally Accepted Accounting Principles (nGAAP). However, one study showed that the majority of credit losses are still recognised at the time of default of a financial instrument, which in the authors' view, demonstrates that the expected and forward-looking ECL model has not fully resolved the shortcomings of the incurred loss model. Another study also provided evidence of delayed recognition of lifetime ECL.

   (b) *application of judgement in measuring ECL and potential for earnings management*. Three academic papers found that the entities applied more varying approaches to determine credit losses, relative to the approaches used in the period before IFRS 9 implementation. In the authors' view, the increased diversity is primarily due to the high degree of management judgement or discretion involved in applying IFRS 9. In turn, two studies showed that application of judgement created opportunities for earnings management.

   (c) *post-model adjustments or management overlays (PMAs).* Empirical evidence on the use of PMAs showed that these types of adjustments are frequently used, especially during periods of economic turmoil. In the authors' view, this indicates that the ECL model cannot fully reflect expectations about credit losses in an environment of economic crisis.

   (d) *unintended consequences of the ECL model*. Some studies documented what authors perceived as unintended consequences from applying the ECL model, including increased credit monitoring of borrowers by banks and reduced lending to risky borrowers.

Detailed research findings

6. This section provides more detailed information about the academic research findings summarised in the key messages section of this paper.

Timeliness of ECL recognition

7. The academic literature examining the timeliness of recognising ECL by entities applying IFRS 9 is based on three empirical papers—one published paper and two working papers.

8. A study using 30 million quarterly loan observations from the European credit register (AmaCredit), covering the period from Q3 2018 to Q4 2022 found:

   (a) while the ex-ante recognition of ECL applying IFRS 9 was higher than that applying nGAAP which is based on the incurred loss model, most credit losses occurred at or shortly after a credit default event. In the authors' view, banks were unable to detect significant increases in credit risk (SICR) on timely basis, thus did not recognise lifetime ECL on timely basis. Consequently, many loans were considered as performing (ie stage 1) shortly ahead of a default, causing these loans to become credit-impaired (ie stage 3).[1]

   (b) banks with less capital headroom over their capital requirements delayed the recognition of ECL and recognised less ECL than other banks, even for similar loans to the same borrower, in the same period. Specifically, these banks were less likely to move loans to stage 2 which triggers recognition of lifetime ECL and, when they did, their allowances for credit losses were lower than the equivalent allowances for well-capitalised banks. In the authors' view, applying IFRS 9 may have fostered stronger divergence in accounting practices across banks, whereby less capitalised banks may use available discretion in applying IFRS 9 to reduce recognition of credit losses for capital management purposes.

[1] Behn, M. and Couaillier, C. (2023). 'Same same but different: Credit risk provisioning under IFRS 9', *European Central Bank: Working paper series*

(c) the recognition of ECL and the share of stage 2 loans increased over the course of the covid-19 pandemic, even without a significant increase in default rates. However, the implications for banks' capital ratios were modest, and even a doubling or tripling of the observed effects could have been manageable without procyclical adjustment actions on the side of banks.

9. Similar findings were reported by another study using a sample of 122 banks from 27 countries (all covered by the European Banking Authority (EBA)'s Transparency Exercise in the period from Q4 2018 to Q2 2022). Specifically, this study found:

(a) banks with lower regulatory capital were more reluctant to increase their ECL allowance for stage 2 loans. The authors' view was that banks may have avoided transfers to stage 2 and therefore delayed recognition of lifetime ECL.[2]

(b) banks with less capital understated their allowances for credit losses more during the covid-19 pandemic (2020), despite these banks being more exposed to industries affected by the pandemic.

(c) when using EBA's stress results as a benchmark for ECL allowance, the authors observed that the largest shortfall (the difference between actual allowance and the benchmark) was for stage 3 financial assets, suggesting that European banks primarily understated ECL for credit-impaired assets. [3]

10. In contrast, some researchers found that IFRS 9 adoption increased the timeliness of loan loss recognition (based on descriptive evidence on the change of the ratio of ECL allowance to non-performing loans over time) but had a negative effect on lending for small banks which recognised ECL on timely basis. The adoption of the ECL model had no impact on the lending by large banks, even during the covid-19 pandemic. This study used a sample of all listed Spanish banks (8 banks, 209 bank-quarter observations) from 2014-2020.[4]

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[2] Novotny-Farkas, Z., Oberson, R. and Renner, E. (2023). 'IFRS 9 under Stress: Loan Loss Provisioning during COVID-19'. *Working Paper*.

[3] The stress test entails a forward-looking independent assessment of allowance for credit losses.

[4] López-Espinosa, G. and Penalva, F. (2023). 'Evidence from the adoption of IFRS 9 and the impact of COVID-19 on lending and regulatory capital on Spanish Banks', *Journal of Accounting and Public Policy*, 42 (4), 107097.

Application of judgement and potential earnings management

11. Evidence on application of judgement in measuring ECL and potential for earnings management is based on four empirical working papers and one published experimental study.

12. One academic study using a sample of 123 banks from 32 European countries in the period 2014-2019, found that the dispersion of the coverage ratios (measured as the ratio of allowances for credit losses to impaired loans), increased post-implementation of IFRS 9. In the authors' view, the increased diversity in measuring ECL led to a reduced comparability of coverage ratios across banks post-implementation of IFRS 9.[5]

13. The study described in paragraph 9 of this paper also found that the approaches to recognise ECL applying IFRS 9 varied among banks mostly for loans in stages 1 and 2. More consistency in approaches was observed for determining ECL for stage 3 loans. The authors also found that an increase in earnings led to an increase in the credit loss allowance for loans in stage 1. In the authors' view, banks' ECL recognition was influenced by earnings smoothing motives.

14. Using an international sample of 157 IFRS reporting banks, in the period 2014-2021, researchers found that comparability of information about ECL decreased after the implementation of IFRS 9, relative to the pre-IFRS 9 period. In the authors' view, the decreased comparability resulted from the use of diverse approaches to recognise ECL applying IFRS 9.[6]

15. Evidence based on supervisory loan-level data on banks' internal rating models for a sample of German banks (81 applying IFRS and 470 applying local GAAP) in the period 2015-2018, showed that banks applying the ECL model in IFRS 9 assigned better internal credit ratings to the same borrowers compared to banks that did not apply IFRS 9. In the authors' view, banks opportunistically used the management judgement inherent in the ECL model. The authors identified borrowers in lending relationships

[5] Lejard, C., Paget-Blanc, E. and Casta, J.F. (2021). 'The effects of the adoption of IFRS 9 on the comparability and the predictive ability of banks' loan loss allowances'. *Working paper*

[6] Fontes, J.C., Panaretou, A. and Shakespeare, C. (2023). 'The effect of IFRS 9 on comparability'. *Working paper*.

with at least one IFRS adopter bank and one non-adopter bank. In this way, they compared the credit risk assessment within the same borrower.[7]

16. An experimental study with 72 bank managers examining how forward-looking information is incorporated in ECL, showed that managers were less likely to reverse any initial credit loss following decreases in credit risk in an environment of high defaults as compared to an environment of low defaults.[8]

Post-model adjustments or management overlays

17. The empirical working paper described in paragraph 9 of this paper also examined the use of PMAs. The findings were:

    (a) 91% of the banks in the sample recognised PMAs during the covid-19 pandemic in 2020, compared to 25% of the banks in 2019. For the banks that provided quantitative information on these adjustments, the average amount of PMAs was 15% of the total allowance for credit losses. In the authors' view, statistical models informing ECL cannot be applied effectively during economic crises.

    (b) even in banks where PMAs accounted for a substantial proportion of the allowance for credit losses, the benchmark allowance set by the EBA's stress results was not met.

Unintended consequences of the ECL model

18. Evidence on the unintended consequences of the ECL model is based on one empirical published paper and two empirical working papers. The findings were:

    (a) corporate borrowers relied more on public debt relative to bank debt post-implementation of IFRS 9 which, in the authors' view, was due to entities experiencing more costly bank monitoring (for example more debt covenants imposed) post-implementation of IFRS 9. The study used a sample of

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[7] Bischof, J., Haselmann, R., Kohl, F. and Schlueter, O. (2022). 'Limitations of implementing an expected credit loss model'. Working Paper..

[8] Du, N., Allini, A. and Maffei, M., (2022). 'How do bank managers forecast the future in the shadow of the past? An examination of expected credit losses under IFRS 9'. *Accounting and Business Research*, 53(6), 699-722.

corporates from 50 countries (34 countries applying IFRS 9 and 16 other countries) in the period 2014-2019.[9]

(b) the study described in paragraph 15 of this paper also found that banks reduced their lending to borrowers at the point in time when borrowers experienced the highest risk of rating downgrades.

(c) banks used the transition relief in IFRS 9 and the regulatory option to phase-in the transition adjustment into CET1 over five years in an opportunistic way. The transition relief in IFRS 9 for not restating comparative information allowed banks to recognise the transition adjustment in opening retained earnings or other components of equity. Banks, thus, used the benefit of this relief to recognise increased loan loss allowance for credit-impaired assets at transition date, and accordingly reduce the carrying amount of assets. Some of those banks reported higher sales of credit-impaired loans in subsequent periods, implying that banks might have recognised gains from those sales in the statement of profit or loss in periods after implementation of IFRS 9. These results were based on a sample of 115 banks that apply IFRS from 21 European countries in the period 2014-2021.[10]

Question for the IASB

Question for the IASB
1. Do the IASB members have any questions or comments on the updated review of academic literature summarised in this paper?

[9] Li, X., Ng, J. and Saffar, W. (2022). 'Accounting-Driven Bank Monitoring and Firms' Debt Structure: Evidence from IFRS 9 Adoption'. *Management Science*, 70(1),54-77

[10] Kalista, M. and Novotny-Farkas, Z. (2023). 'Have your cake and eat it: The effect of the IFRS 9 transition on non-performing loan sales'. *Working paper*.

Appendix A—List of academic papers

Bischof, J., Haselmann, R., Kohl, F. and Schlueter, O. (2022). ‘Limitations of implementing an expected credit loss model’, *Working Paper*.

Behn, M. and Couaillier, C. (2023). ‘Same same but different: Credit risk provisioning under IFRS 9’, *European Central Bank: Working paper series*.

Du, N., Allini, A. and Maffei, M. (2022). ‘How do bank managers forecast the future in the shadow of the past? An examination of expected credit losses under IFRS 9’, *Accounting and Business Research*, 53(6), 699-722.

Fontes, J.C., Panaretou, A. and Shakespeare, C. (2023). ‘The effect of IFRS 9 on comparability’, *Working paper*.

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López-Espinosa, G. and Penalva, F. (2023). ‘Evidence from the adoption of IFRS 9 and the impact of COVID-19 on lending and regulatory capital on Spanish Banks’, *Journal of Accounting and Public Policy*, 42 (4), 107097.

Novotny-Farkas, Z., Oberson, R. and Renner, E. (2023). ‘IFRS 9 under Stress: Loan Loss Provisioning during COVID-19’, *Working Paper*.