The Development of Expected-Loss Methods of Accounting for Credit Losses: A Review with Analysis of Comment Letters

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SYNOPSIS

After the financial crisis of the late 2000s, concern about delayed credit-loss recognition under the incurred-loss method prompted the FASB and the IASB to develop expected-loss methods. We review the development of these methods, including through comment-letter analysis. Initially, the FASB recommended immediate full recognition of expected losses, including at day one, and the IASB recommended spreading the recognition of initially-expected losses across time. After unsuccessful attempts to converge based on proposals that partly reflected initial recommendations of each board, the boards eventually adopted different methods. We report that U.S. respondents largely opposed the FASB's final method, which required day-one recognition of all expected losses, and that non-U.S. respondents largely supported the IASB's final method, which required day-one recognition of 12-month expected losses. Day-one loss was controversial and impeded convergence. Our comment-letter analysis suggests that a day-one-loss-free more forward-looking incurred-loss method might provide a route to a more converged solution.

Keywords: financial instruments; credit losses; impairment; expected loss; incurred loss.

JEL Classifications: G21; M41.

I. INTRODUCTION

Under the incurred-loss method of accounting for credit-loss impairment, credit losses are only recognized if there is evidence that a loss event has occurred. After the financial and banking crisis of the late 2000s, concern about delayed recognition of credit losses under the incurred-loss method prompted the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) to develop expected-loss methods. Between 2009 and 2013, five exposure documents were issued by the FASB and/or the IASB: an initial IASB exposure draft (ED) (IASB 2009); an initial FASB ED (FASB 2010); a joint FASB/IASB supplementary document issued as part of eventually unsuccessful attempts to reach a compromise converged solution (FASB/IASB 2011); a second FASB ED (FASB 2012), which led to a FASB Accounting Standards Update (FASB 2016); a second IASB ED (IASB 2013), which led to elements of an IASB Accounting Standard (IASB 2014). The changes made by the new methods were substantial, with the FASB's method being described by the American Bankers Association (ABA) as 'the most sweeping change to bank accounting ever'.[1] The new methods themselves and the failure to achieve a converged FASB/IASB solution were controversial.

In this paper, we review the development of the FASB and IASB expected-loss methods of accounting for credit losses. We do so by reference to the five exposure documents and related materials, standard-setters' board-meeting papers, recordings of board meetings, and our analysis of comment-letter responses to key recommendations in the exposure documents.

In developing their expected-loss methods, the FASB and the IASB readily accepted that the information set to be used to support recognition of credit losses should become less restricted and more forward-looking than under the pre-existing incurred-loss method. In particular, the information set would be expanded to include reasonable and supportable forecasts of future credit-loss-relevant events and conditions. However, the preferred methods of the FASB and the IASB were different. The first FASB

[1] See: https://www.aba.com/advocacy/our-issues/cecl-implementation-challenges .

ED (FASB 2010) included an allowance-adequacy-focused recommendation that all full-contractual-life expected credit losses should be recognized immediately. This implied that, for a financial asset originated on market terms, a loss and a loss allowance should be immediately established (at 'day one') for all credit losses expected on the asset as of the date of its initial recognition. In contrast, the first IASB ED (IASB 2009) recommended that the effective interest rate for a financial asset should take account of all expected cash flows as of the date of initial recognition, after deducting all expected future credit losses on the asset. Accrual of interest at this lower integrated effective interest rate (IEIR) would then result in recognition of initially-expected credit losses being spread over the asset's life rather than being delayed until the occurrence of a loss event as under incurred loss. In FASB/IASB (2011) and subsequent deliberations, the standard-setters sought a compromise converged solution that would partly meet both the FASB's allowance-adequacy preference and the IASB's IEIR-based spreading preference. Their deliberations eventually generated the following proposed method: from initial recognition of a financial asset, the loss allowance at each date, including at day one, comprises 12-month expected credit losses; for assets for which credit risk increases significantly after initial recognition, it comprises lifetime expected credit losses. However, the standard-setters could not agree on this method. The IASB accepted it as a practical expedient for its preferred spreading method, recommending it in IASB (2013) and including it in IASB (2014). The FASB recommended in FASB (2012) and included in FASB (2016) the Current Expected Credit Loss (CECL) method under which an entity would establish, including at day one, a loss and a loss allowance for all full-contractual-life expected credit losses.

Table 1 lists the recommendations from the five exposure documents for which we analyze comment-letter responses and summarizes the main results of the analysis of responses. In responses to IASB (2009), non-U.S. respondents largely supported spreading across time the recognition of initially-expected credit losses but largely opposed the operationally-complex IEIR-based method of achieving this. Responses to the joint FASB/IASB (2011) indicate that, relative to non-U.S. respondents, U.S.

respondents were less supportive of a spreading-focused element of a compromise method and more supportive of an allowance-adequacy-focused element. However, U.S. respondents were largely unsupportive of the full-contractual-life loss allowances recommended in FASB (2010) and FASB (2012). In responses to FASB (2012), U.S. respondents were more supportive of some form of incurred-loss method, with many advocating a modified more forward-looking version. In responses to IASB (2013), non-U.S. respondents largely supported the IASB's 12-month loss allowance with transfer to lifetime loss after significant increase in credit risk, despite widespread negative views about day-one loss

The issue of day-one recognition of credit losses on assets originated on market terms caused difficulty in the development of the expected-loss methods. Day-one loss double-counts initially-expected losses within the net book value at the date of initial recognition. We report that it was influential in driving comment-letter opposition to the final recommendations of both standard-setters. It was opposed in dissenting or alternative views by standard-setters' board members. It was cited in criticism of CECL in the U.S. Congress. Disagreement on day-one loss was influential in impeding FASB/IASB convergence on accounting for credit losses. We suggest that future research and standard-setting activity on accounting for credit losses might consider whether satisfactory timeliness in loss recognition might be achieved through a day-one-loss-free modified incurred-loss method that would use an information set for loss recognition, similar to that used by expected-loss methods, that is less restricted and more forward-looking than that used by the pre-existing incurred-loss method. Our comment-letter evidence suggests that such a method might provide a route to future FASB/IASB convergence on accounting for credit losses.

This paper contributes to the accounting literature by informing future research and standard-setting deliberations on accounting for credit losses. First, we provide a collective overview, with the aid of simplified numerical examples, of the principal recommendations made by the FASB and/or the IASB during the development of their expected-loss methods. Within this, we describe a conceptual flaw with day-one loss. Second, our comment-letter analysis is informative both with regard to whether respondents

supported standard-setters' recommendations and with regard to grounds that were influential in generating opposition to recommendations. Third, like Holder, Karim, Lin and Woods (2013) but unlike most studies of the content of comment letters, our comment-letter analysis examines responses to FASB and IASB exposure documents on a common topic of interest.[2] This provides evidence on impediments to and prospects for FASB/IASB convergence on accounting for credit losses. Our collective consideration of responses to FASB (2012) and IASB (2013) provides evidence of a possible route to future FASB/IASB convergence through a day-one-loss-free more-forward-looking incurred-loss method.

The remainder of the paper is organized as follows. Section II provides background to the development of the expected-loss methods. Section III and Appendix A describe our methodology and information sources. Section IV describes and comments on exposure documents and related issues and reports our comment-letter analysis. Section V describes events relating to FASB (2016) after its issue. Section VI considers how day-one loss might have been avoided. Section VII concludes. Appendix B gives simplified numerical examples of the application to a portfolio of fixed-rate loans of four methods of accounting for initially-expected credit losses referred to in the paper.[3]

II. BACKGROUND TO THE DEVELOPMENT OF THE EXPECTED-LOSS METHODS

Accounting for credit losses applies to loans and other financial assets measured at amortized cost and to some financial assets measured at fair value. It is a material issue for banks, for which 60 to 70 percent of total assets typically comprise loans that are predominantly measured at amortized cost (Hashim, Li, and O'Hanlon 2016). At the time of the financial and banking crisis of the late 2000s,

[2] Prior studies of comment-letter content include Yen, Hirst and Hopkins (2007), who analyze responses to the FASB's 1996 ED on comprehensive income, Hodder and Hopkins (2014), who analyze responses to the recommendation in FASB (2010) that most financial instruments should be measured at fair value, Anantharaman (2015), who analyzes responses to FASB EDs on business combinations, and Holder, Karim, Lin and Woods (2013), who analyze responses to FASB and IASB EDs on the common topic of contingencies.

[3] The examples depict the evolution over time of the loan account and, for each method, the loss-allowance account and the amortized-cost net book value (ACNBV). They are based on a common assumed fact pattern for contractual cash flows and initially-expected shortfalls in the collection of contractual cash flows and they assume that initial expectations are realized. Total losses recognized over the life of the loans are the same for all methods but timing of recognition differs across methods.

International Financial Reporting Standards (IFRS) and U.S. GAAP accounted for credit losses by the incurred-loss method under which losses could only be recognized based on evidence that a restrictively defined loss event had occurred. The FASB Codification prior to FASB (2016) stated that, under its incurred-loss method, a credit loss is recognized when it is probable that a loss has been incurred based on past events and conditions and that 'it is inappropriate to consider possible or expected future trends that may lead to additional losses' (FASB Codification, paragraph 310-10-35-4). The IASB's IAS 39 (IASB 2003, paragraph 59) stated that, under its incurred-loss method, a loss is recognized 'if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.' Losses expected as a result of future events, no matter how likely, were not recognized. Examples of loss events under the IAS 39 incurred-loss method include: a borrower's financial difficulty or default; it becoming probable that a borrower would enter bankruptcy; 'a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets.' Our Appendix B includes an example of the recognition across time of initially-expected credit losses under an incurred-loss method.

At the time of the financial and banking crisis of the late 2000s, accounting for credit losses in the U.S. and under IFRS reflected recent re-affirmations of the evidence requirements of the incurred-loss method.[4] Although such re-affirmations might have reduced credit-loss-related earnings management, of which there is much evidence in the literature,[5] they might also have reduced the timeliness of loss recognition. Evidence of lack of timeliness under incurred loss before the crisis is reported by Balla and

[4] In the U.S., the SEC and the U.S. federal banking agencies issued in 2001 guidance aimed at ensuring that loss allowances would be appropriately supported by evidence (SAB 102 and FFIEC (2001)). Camfferman (2015) notes that the SEC saw this as a re-affirmation of the existing incurred-loss principle in U.S. GAAP. SAB 102 is available at: https://www.sec.gov/interps/account/sab102.htm. The 2003 revision of IAS 39 (IASB 2003, paragraph 59) had added the words 'Losses expected as a result of future events, no matter how likely, are not recognised.'

[5] Evidence of credit-loss-related earnings management is provided by Collins, Shackelford, and Wahlen (1995), Lobo and Yang (2001), Kanagaretnam, Lobo, and Mathieu (2003), Shrieves and Dahl (2003), Hasan and Wall (2004), Kanagaretnam, Lobo, and Yang (2004), Liu and Ryan (2006), Anandarajan, Hasan, and McCarthy (2007), Perez, Salas-Fumas, and Saurina (2008), Fonseca and Gonzalez (2008), Huizinga and Laeven (2012) and Bouvatier, Lepetit, and Strobel (2014).

Rose (2015) and Beck and Narayanamoorthy (2013), under U.S. GAAP, and by Gebhardt and Novotny-Farkas (2011) and Marton and Runesson (2017), under IFRS. Consistent with evidence in those papers, the crisis of the late 2000s prompted concern that the restrictive evidence requirements of incurred loss had delayed the recognition of predictable credit losses before the crisis. This concern was reflected in encouragement to standard-setters to explore more forward-looking methods that would make fuller use of credit-loss-relevant expectations to give earlier recognition of losses (BCBS 2009; Dugan 2009; Financial Crisis Advisory Group 2009; Financial Stability Board 2009). This included encouragement to explore methods based on the concept of expected loss, which was already established in prudential regulation in relation to measurement of banks' regulatory capital.[6] Partly in response to such encouragement, the IASB and the FASB sought methods that would give earlier loss recognition.

III. METHODOLOGY AND INFORMATION SOURCES

Our review of the development of expected-loss methods of accounting for credit losses is structured around five exposure documents: the initial IASB ED (IASB 2009); the initial FASB ED (FASB 2010); the joint FASB/IASB supplementary document (FASB/IASB 2011); the second FASB ED (FASB 2012); the second IASB ED (IASB 2013). For each document, we summarize and comment on key issues related to the document and its key recommendations. We do so by reference to the document and related materials, standard-setters' meeting papers and recordings of IASB and joint FASB/IASB meetings.[7] Also, for each document, we analyze comment-letter responses to one or more of its key recommendations.

Table 1 summarizes the recommendations for which we analyze responses. Appendix A gives full details of the collection of comment letters, our categorization of respondents by location and by type and our coding of responses. As described in Appendix A, we collect comment letters from the FASB and

[6] See, for example BCBS (2006, paragraph 43).
[7] We obtained meeting papers from the FASB and IASB web sites and recordings of IASB meetings and joint FASB/IASB meetings from the IASB web site. The web sites are https://www.ifrs.org/ and https://www.fasb.org/home.

IASB web sites. As also described in Appendix A, we categorize respondents by location as: non-U.S. respondents, assumed to be actual or potential IASB constituents; U.S. respondents, assumed to be FASB constituents; other respondents, which comprise organizations such as international accounting firms and international regulatory organizations. 'Other respondents' are not used in tabulated tests, but some are used in untabulated tests. As also described in Appendix A, we also categorize respondents by type as preparers or non-preparers. We do so in light of the fact that practicability of implementation was a major issue in the development of the methods. Many U.S. preparer respondents are Community Banks or Credit Unions (denoted CB&CU). Because of the distinctive features of these preparers, we subdivide U.S. preparers into preparers-non-CB&CU and preparers-CB&CU. Table 2 summarizes numbers of respondents by non-U.S./U.S./other and by type. As also described in Appendix A, we code responses to recommendations as 'for' (which includes partial support), 'against' or 'neutral/missing'. Also, we record whether some specific factors regarding the recommendation are cited positively or negatively in the comment letters; we refer to these factors as 'grounds' on which the respondent could view the recommendation positively or negatively. The grounds recorded are as follows: practicability; usefulness; objectivity; day-one loss; other conceptual issues (conceptual issues other than day-one loss); economic consequences; regulatory capital; allowance adequacy; allowance overstatement; cliff effect.

For each recommendation for which we analyze responses, we report results for constituents of the board or boards that issued the exposure document containing the recommendation: non-U.S. respondents for IASB EDs (IASB 2009; IASB 2013); U.S. respondents for FASB EDs (FASB 2010; FASB 2012); non-U.S. respondents and U.S. respondents, separately, for the joint FASB/IASB (2011). We also report results for each type of respondent and for aggregations thereof. Our main analysis of comment-letter responses comprises, for each recommendation, the following two elements.

1. We report the percentages of respondents that give the following responses in respect of the recommendation: 'for'; 'against'; 'neutral/missing'.

2. We examine whether grounds on which respondents viewed a recommendation negatively were important in determining that they would oppose the recommendation. We do so by estimating logistic regression model (1):

$$against\_recommendation_r = b_0 + \sum_{n=1}^{n=g} b_n ground_{n,r} + e_r . \quad (1)$$

In model (1): $against\_recommendation_r$ is equal to 1 if respondent r is against the recommendation and 0 otherwise; $ground_{n,r}$ is equal to 1 if ground n, which is one of the g grounds in the model, is cited negatively by respondent r and 0 otherwise. We interpret a positive and significant coefficient on $ground_{n,r}$ as indicating that respondents' negative views on ground n are important in determining that they would oppose the recommendation.[8] We take steps to avoid problems arising from variables with few zero or non-zero cases. First, we estimate the models using Firth's logistic regression method, which is suitable for small data sets (Firth 1993).[9] Second, we do not estimate a model where there are few observations or in the one case where almost all respondents are against the recommendation. Third, we exclude grounds cited negatively by fewer than three percent of respondents.[10] For each recommendation, for each ground cited negatively by more than 50 percent of any type of respondent, we report the percentages that cited the ground negatively.[11]

IV. EXPOSURE DOCUMENTS: KEY ISSUES AND COMMENT-LETTER RESPONSES

Each of the first five subsections of this section deals with one of the five exposure documents. Each summarizes and comments on key issues related to the document and its key recommendations, and

[8] In presenting regression results, we refer to such cases as indicating that negative views on ground n are significantly associated with opposition to the recommendation.
[9] We estimate logistic regression models using the 'firthlogit' procedure in Stata (Joseph Coveney, 2008. 'FIRTHLOGIT: Stata module to calculate bias reduction in logistic regression,' Statistical Software Components S456948, Boston College Department of Economics, revised 25 July 2015).
[10] In robustness tests, we apply cut-offs of five percent and ten percent.
[11] In all such cases, the percentage of positive cites is seven percent or less and is not reported.

reports our analysis of comment-letter responses to recommendations. The final subsection reports additional tests. Algebraic representation and numerical examples are for a portfolio of fixed-rate loans.

IASB (2009)

In common with the other four exposure documents that we consider, IASB (2009) recommended that the recognition of credit losses should use a less restricted more forward-looking information set than that used by the pre-existing incurred-loss method (IASB 2009, paragraph IN8). Subsequent exposure documents described a less restricted more forward-looking information set as comprising a broader set of information relating to past events, current conditions and reasonable and supportable forecasts of future credit-loss-relevant events and conditions. See, for example, IASB/FASB (2011, paragraph IN11) and FASB (2012, page 1 and paragraph 825-15-25-3).[12]

The principal recommendation of IASB (2009) was that the effective interest rate of a financial asset should take into account all expected cash flows as of the date of initial recognition, after deducting estimates of expected credit losses as of that date (IASB 2009, paragraphs 3-5). Interest would then be accrued at this integrated effective interest rate (IEIR). The effects of changes in expectations after initial recognition would be recognized when they occur.

We now describe the IEIR method for dealing with initially-expected credit losses. A standard representation of the fair-value transaction price at origination date (o) of a portfolio of fixed-rate loans, v_o, is as the present value of future contractual cash flows (taking into account transaction costs, etc.), denoted c_{o+s}, over the term to maturity (m) discounted at the contractual-cash-flow-based effective interest rate, hereinafter termed the contractual effective interest rate (CEIR) and denoted *ceir*:

[12] Examples of events that might be included in a more forward-looking information set are given by the American Bankers Association (ABA) in describing in a comment letter on FASB (2012) (letter 39A) its proposed Banking Industry Model (BIM). The ABA describes forward-looking loss events as events and conditions that, individually or with other events, generally precede and can reasonably be expected to cause what have traditionally been viewed as loss events. Examples quoted include the emergence of information about the financial difficulty of a borrower's customer, regulatory actions with national, local or industry-specific impact, and the emergence of adverse economic or environmental conditions that may affect a borrower.

$$v_o = \sum_{s=1}^{s=m} \frac{c_{o+s}}{(1+ceir)^s} \ . \qquad (2)$$

In (2), v_o is known, as this is the amount loaned (the transaction price).[13] Also, c_{o+s} is known based on the loan contracts. Then one can solve for the CEIR. In IASB (2009), the lender must estimate in some manner the initially-expected shortfalls in the collection of contractual cash flows over the term to maturity, denoted $E_o[d_{o+s}]$. These initially-expected cash shortfalls can then be subtracted from the numerator. The resultant equation, which links the transaction price to initially-expected credit losses written in terms of initially-expected cash shortfalls, can then be solved for the credit-loss-inclusive IEIR, denoted *ieir*:

$$v_o = \sum_{s=1}^{s=m} \frac{c_{o+s} - E_o[d_{o+s}]}{(1+ieir)^s} \ . \qquad (3)$$

Because v_o is the same in equation (3) and equation (2) and the numerator is smaller in equation (3) than in equation (2) for at least some future years (o+s), the IEIR must be lower than the CEIR. The difference between interest at the CEIR and the lower amount of interest revenue that is recognized based on the IEIR is credited to a loss-allowance account against which losses are charged off. The net interest revenue of each accounting period is reported as gross interest revenue, at the effective rate based on expected cash flows before deducting initially-expected credit losses, less the portion of initially-expected losses allocated to that period. Accrual of interest at the lower credit-loss-inclusive IEIR rather than at the CEIR is consistent with recognition of initially-expected credit losses being spread over asset life. This spreading addresses to some extent the problem arising under incurred loss that, because recognition of initially-expected credit losses must await a loss event, credit-premium-inclusive interest might be recognized before associated initially-expected losses are recognized (IASB 2009, paragraph BC11).

Appendix B includes an example of the recognition over asset life of initially-expected credit losses under the IEIR method. In this example, the CEIR is ten percent and the IEIR is 7.94 percent. Table

[13] Our algebraic exposition could be generalized to include purchased loans, in which case v_o would be the purchase price.

B.2 shows that the net income recognized on the loans in each year, comprising contractual interest, the allocation of initially-expected losses and the unwind of the discount on the previously recognized loss allowance, is always 7.94 percent of the opening amortized-cost net book value (ACNBV) of the loans.[14] Figure B.1 in Appendix B shows that, relative to incurred loss, the IEIR-based spreading method is likely to accelerate loss recognition early in the portfolio's life but to delay it later.

As the question of whether recognition of initially-expected losses should be spread across time was a significant source of FASB/IASB disagreement, we analyze views on both the general issue of spreading and the IEIR method.[15] We analyze non-U.S. responses to the following recommendations:

- **Recommendation 1:** Spreading the recognition of initially-expected credit losses over the life of assets;
- **Recommendation 2:** Spreading the recognition of initially-expected credit losses over the life of assets using an integrated effective interest rate (IEIR) that includes initially-expected credit losses.

Table 3 Panel A reports widespread support among non-U.S. respondents overall for spreading the recognition of initially-expected credit losses over the life of assets: 66 percent are for it and 14 percent are against it. There is a similar split among preparers and non-preparers. From the regression results, negative views on the usefulness ground (among non-preparers), the objectivity ground (among all respondents and preparers), the other-conceptual-issues ground (among all respondents, preparers and non-preparers) and the allowance-adequacy ground (among preparers) are significantly associated with the relatively minor opposition to the recommendation.

In contrast, Table 3 Panel B reports widespread opposition to the IEIR-based spreading method: 62 percent are against it and 34 percent are for it. Opposition to the recommendation is substantially more widespread among preparers (77 percent) than among non-preparers (44 percent). From the regression

[14] In order to harmonize the presentation of all methods considered, our IEIR example includes within 'loss' the amounts of initially-expected losses allocated to each year.

[15] Questions posed in IASB (2009) had the effect of inviting comment not only on the IEIR-based method but also on the general issue of the spreading of the recognition of initially-expected credit losses over the life of assets.

results, negative views on the grounds of practicability and usefulness (among all respondents and preparers) and other conceptual issues (among all respondents, preparers and non-preparers) are significantly associated with opposition to the recommendation. Practicability (overall 80 percent negative) and usefulness (overall 41 percent negative) are each cited negatively by more than 50 percent of one or more type of respondent.

FASB (2010)

FASB (2010) addressed various financial-instrument issues.[16] For credit losses, it recommended removal of the pre-existing 'probable' threshold for loss recognition. It had a stronger allowance-adequacy focus than IASB (2009). It recommended that an entity should recognize a credit loss immediately for all contractual amounts due for originated financial assets that it does not expect to collect (FASB 2010, paragraph 51). This implies that, at origination of a financial asset on market terms that take account of initially-expected credit losses, a loss and related allowance are immediately established (at 'day one') for all credit losses expected on the asset over its life. If losses are measured by discounted-cash-flow (DCF), where the discount rate is the CEIR, the post-day-one-loss ACNBV of a portfolio of loans at origination date (o) (day one) is:

$$\begin{aligned} acnbv_o &= \sum_{s=1}^{s=m} \frac{c_{o+s} - E_o[d_{o+s}]}{(1+ceir)^s} \\ &= v_0 - \sum_{s=1}^{s=m} \frac{E_o[d_{o+s}]}{(1+ceir)^s}, \end{aligned} \tag{4}$$

where *acnbv* denotes ACNBV and the other terms are as previously defined.[17] The day-one loss is $\sum_{s=1}^{s=m} \{E_o[d_{o+s}]/(1+ceir)^s\}$. Expression (4) represents in two ways a conceptual flaw in the day-one

[16] Among other things, it recommended that most financial instruments would be measured at fair value. Fair value of assets previously measured at amortized cost would be reported as amortized cost net book value plus/minus fair-value adjustments.
[17] The FASB recommendations considered in this paper do not require credit-loss impairment to be measured using DCF. However, they require that, if credit-loss impairment is measured using DCF, the discount rate must be the CEIR.

recognition of initially-expected credit losses on loans originated at fair value: the first line states that a net-of-credit-loss numerator from (3) is discounted at a gross-of-credit-loss discount rate from (2); the second line states that the post-day-one-loss ACNBV at time 0 is less than the fair-value transaction price. Substitution of (3) into the second line of (4) represents the conceptual flaw in another way:

$$acnbv_o = \sum_{s=1}^{s=m} \frac{c_{o+s} - E_o[d_{o+s}]}{(1+ieir)^s} - \sum_{s=1}^{s=m} \frac{E_o[d_{o+s}]}{(1+ceir)^s} \quad . \tag{5}$$

In this representation, the initially-expected credit losses are double-counted within the ACNBV at day one: they are deducted once within the fair-value transaction price and again through the day-one loss.[18]

Appendix B includes an example of the day-one recognition of all initially-expected lifetime losses. Note 5 to Table B.1 in Appendix B illustrates the double-counting of initially-expected losses at time 0 that is depicted in (5). Table B.2 shows that, after the day-one loss of Currency Units (CU) 5.80 reduces the time 0 ACNBV from CU100.00 to CU94.20, yearly net income on the loans, comprising contractual interest less unwind of discount on the allowance, is constant at the CEIR of ten percent of opening ACNBV. Appendix B Figure B.1 shows that loss recognition is earlier under FASB (2010) than IASB (2009). Although day-one recognition of all expected losses might be seen as beneficial in preventing any conceptually-flawed recognition of credit-premium-inclusive interest before associated initially-expected losses are recognized, it might also be seen as recognizing 'too much too soon'.

We analyze U.S. responses to the following recommendation:

Recommendation 3: Recognition at each reporting date of an allowance for all full-contractual-life expected credit losses.

Table 4 reports widespread opposition among U.S. respondents overall to recognition of an allowance for all full-contractual-life expected credit losses: 74 percent are against it and five percent are for it. It reports particularly widespread opposition among preparers-CB&CU (82 percent against). It also

[18] As total credit losses recognized over the whole life of a portfolio of loans must be the same under any accounting method, any alleged over-provision for losses at day one because of double-counting at day one must be reversed subsequently.

reports substantial but less widespread opposition among preparers-non-CB&CU (49 percent against). From the regression results, negative views on the grounds of practicability (among all respondents, preparers-all, preparers-non-CB&CU and preparers-CB&CU), objectivity (among non-preparers), day-one loss (among all respondents, preparers-all, preparers-non-CB&CU and non-preparers) and other conceptual issues (among preparers-non-CB&CU and non-preparers) are significantly associated with opposition to the recommendation. Practicability (overall 66 percent negative) is cited negatively by more than 50 percent of one or more type of respondent.

FASB/IASB (2011) and the Subsequent Three-Bucket Deliberations

After exposure of their different initial recommendations, the FASB and the IASB issued a joint supplementary document (FASB/IASB 2011). This was aimed at achieving a compromise converged solution that would partly satisfy both the FASB's allowance-adequacy objective and the IASB's IEIR-based spreading objective (FASB/IASB 2011, paragraphs IN3-IN13).[19] The operationally challenging IEIR method was dropped from consideration. As in FASB (2010), the 'probable' threshold was removed. It was recommended that the information set for determining expected credit losses should include 'reasonable and supportable forecasts of future events and economic conditions' (FASB/IASB 2011, paragraph IN11). Similar wording was used in subsequent FASB and IASB EDs and standards.

The key recommendations in the joint FASB/IASB (2011) were that:

- assets would be allocated to a good book or a bad book;
- for the good book, the loss allowance at each reporting date would be the higher of (i) a time-proportional allowance (TPA)[20] and (ii) a 'minimum allowance balance, or floor', including at

[19]In the Norwalk agreement of September 2002, the FASB and the IASB had committed to developing high-quality compatible accounting standards. See: https://www.fasb.org/resources/ccurl/443/883/memorandum.pdf. For a 2008 summary of convergence topics in this initiative, see: https://www.fasb.org/intl/MOU_09-11-08.pdf . These included Financial Instruments.
[20] The TPA would be equal to all credit losses expected for the remaining portfolio life either (i) multiplied by the portfolio's age as a proportion of its expected life or (ii) accumulated by an annuity method. The TPA would relate both to initially-expected losses and to losses expected as a result of later changes in estimates (FASB/IASB 2011, paragraph BC 46).

day one, to cover losses expected within a foreseeable future period of no less than 12 months (FFPA);

- for the bad book, all expected losses would be recognized at each reporting date.[21]

The good-book/bad-book distinction, allowing partial provisioning for the good book, is an IASB-preferred feature. For the good book, FASB/IASB (2011, paragraph IN12) saw the TPA, which is a simplified spreading method, as addressing the IASB (2009) objective to reflect the relationship between pricing and expected losses described in our equation (3). It saw the FFPA as addressing the FASB (2010) allowance-adequacy objective. Responses of FASB and IASB constituents to these recommendations are relevant to understanding impediments to convergence on accounting for credit losses.

We analyze non-U.S. responses and U.S. responses to the following recommendations:

Recommendation 4: A good-book/bad-book distinction;

Recommendation 5: For financial assets in the good book, an allowance comprising time-proportional expected credit losses (TPA);

Recommendation 6: For financial assets in the good book, an allowance comprising credit losses expected to occur within the foreseeable future period (FFPA).[22]

Table 5 Panels A, B and C report results for recommendations 4, 5 and 6, respectively, for non-U.S. respondents. Panel A reports widespread support among non-U.S. respondents overall for a good-book/bad-book distinction (86 percent for and 10 percent against). It reports similarly widespread support among both types of respondent. From the regression results, negative views on the practicability ground (among all respondents, preparers and non-preparers) and the other-conceptual-issues ground (among all respondents and preparers) are significantly associated with the minor opposition to the recommendation.

[21] Another possible route to compromise between the FASB- preferred day-one recognition of initially-expected lifetime losses and the IASB-preferred IEIR-based spreading of their recognition over the whole life of an asset would be to spread recognition over a number of years early in the asset's life. Such a method was not recommended in FASB/IASB (2011) or subsequently.

[22] Although FASB/IASB (2011) recommended TPA and FFPA as elements of a 'higher-of' method, respondents commonly expressed preference for or against TPA and/or FFPA in themselves. We treat TPA and FFPA as individual recommendations.

Panel B reports widespread support among non-U.S. respondents overall for the TPA (76 percent for and 19 percent against), with similar levels of support among both types of respondent. From the regression results, negative views on the practicability ground (among all respondents, preparers and non-preparers) and the other-conceptual-issues ground (among all respondents and preparers) are significantly associated with the minor opposition to the recommendation. Panel C reports higher opposition to the FFPA than support for it among non-U.S. respondents overall (44 percent for and 52 percent against), with a similar split among preparers and non-preparers. From the regression results, negative views on the practicability, day-one-loss and other-conceptual-issues grounds are significantly associated with opposition to the recommendation among all respondents, preparers and non-preparers, with objectivity also significant for preparers.

Table 5 Panels D, E and F report results for recommendations 4, 5 and 6, respectively, for U.S. respondents. Panel D reports that the level of support for a good-book/bad-book distinction is lower among U.S. respondents overall (49 percent for and 43 percent against) than among non-U.S. respondents. A relatively even split of opinion is observed among types of respondent other than the small number of preparers-CB&CU. Due to small numbers of observations, regression models for U.S. preparers-CB&CU and U.S. non-preparers are not estimated separately for the FASB/IASB (2011) recommendations. From the regression models that we estimate for U.S. respondents for the good-book/bad-book recommendation, negative views on the practicability ground are significantly associated with opposition to the recommendation among all respondents, preparers-all and preparers-non-CB&CU.[23] Panel E reports that support for the TPA is substantially lower among U.S. respondents overall (26 percent for and 64 percent against) than among non-U.S. respondents. A similar split is observed among all types of respondent. From the regression models, negative views on the practicability and other-conceptual-issues grounds are

[23] The coefficient on objectivity is negative and significant at the 10 percent level for all respondents. This is one of two cases where a significant negative coefficient is reported in this paper. We do not comment further on these cases.

significantly associated with opposition to the recommendation among all respondents, preparers-all and preparers-non-CB&CU. Panel F reports a more favorable view of the FFPA among U.S. respondents overall (56 percent for and 35 percent against) than among non-U.S. respondents. There is a similar split among the 49 preparers-non-CB&CU, but there are majorities against among the small numbers of preparers-CB&CU and non-preparers. From the regression results, negative views on the practicability ground are significantly associated with opposition to the recommendation among all respondents, preparers-all and preparers-non-CB&CU.

Overall, preferences of FASB and IASB constituents were consistent with those of their standard-setters. In particular, relative to non-U.S. respondents, U.S. respondents were less supportive of the spreading-focused TPA element of the method and more supportive of the allowance-adequacy-focused FFPA element. This difference between constituents' relative preferences for allowance-adequacy-focused and spreading-focused elements indicates an impediment to convergence on accounting for credit losses.

Joint FASB/IASB deliberations subsequent to feedback on FASB/IASB (2011) considered a so-called three-bucket approach. The deliberations eventually produced the following proposal:[24]

- at initial recognition, financial assets are placed in bucket 1, for which the loss allowance at each date including at day one comprises 12-month expected losses;
- assets with a more-than-insignificant decrease in credit quality after initial recognition move to a lifetime-loss-allowance bucket: bucket 2 (evaluated by group) or bucket 3 (evaluated individually).

Deliberations on the three-bucket method indicate that differences between pre-existing practices impeded convergence. A FASB/IASB meeting in July 2011 discussed the proposed 12-month allowance, including at day one, for non-credit-deteriorated assets.[25] An IASB member and a FASB member opposed

[24] See a paper for an IASB/FASB Meeting on July 15-19, 2012 - Agenda References 5A (IASB) and 166 (FASB) for agenda item Financial Instruments: Impairment. Available at: https://www.ifrs.org/projects/completed-projects/2014/financial-instruments-impairment/#meetings.

[25] A recording of this meeting was accessed at: http://archive.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognitio/Impairment/Pages/Board-discussion-and-papers-stage-6.aspx (last accessed March 10, 2021).

it from opposite directions. The IASB member saw it as excessive: a day-one loss allowance on an asset originated on market terms is acceptable for bank regulation but not for accounting. The FASB member saw it as insufficient: it would not increase the inadequate loss allowances in the U.S. An IASB meeting in October 2012 referred to U.S. bank regulators' concern that a three-bucket method that would increase loss allowances outside the U.S. might reduce them in the U.S.[26] The following pre-existing-practice impediments to convergence were noted in IASB (2014, paragraph BC5.116): (i) pre-existing practice on loss allowances was different in the U.S. and elsewhere; (ii) historically, interaction between prudential regulation and loss allowances was relatively strong in the U.S.; (iii) U.S. financial-statements users place a relatively high weight on allowance adequacy. FASB (2016, paragraph BC129) made similar points.

In Summer 2012, the FASB discontinued its collaboration with the IASB on the three-bucket method. It then embarked on the exploration of an expected-loss model that would reflect all credit risk. This exploration led to the method subsequently recommended in FASB (2012).[27] The IASB carried the three-bucket method forward into IASB (2013).

FASB (2012)

FASB (2012) recommended the Current Expected Credit Loss (CECL) model.[28] Similar to FASB (2010), this required recognition, including at day one, of all losses expected to occur over the full contractual life of financial assets.[29] We analyze U.S. responses to the following recommendation:

> **Recommendation 7:** Recognition at each reporting date of an allowance for all full-contractual-life expected credit losses.

[26] A recording of this meeting is available at: http://media.ifrs.org/AP4Impairment18102012.mp3.
[27] FASB (2012, paragraph BC11) cited the claim that the three-bucket method's criterion for transfer from a 12-month-expected-loss bucket to a lifetime-expected-loss bucket would reintroduce an incurred-loss recognition trigger for lifetime losses.
[28] The FASB (2010) recommendation that most financial instruments would be measured at fair value had been dropped. The term 'CECL' is not used in FASB (2012) but the method exposed in FASB (2012) is referred to as CECL in FASB (2016).
[29] FASB (2012) recommended that, for a purchased financial asset assessed by the acquirer to be purchased-credit-impaired, no day-one loss would be recognized. At the date of purchase, the cost basis is increased by the amount of an allowance for contractual cash flows not expected to be collected. The allowance is then subtracted from the grossed-up amount. Day-one loss can still arise on purchased assets if they are not assessed to be purchased-credit-impaired.

Results reported in Table 6 indicate that, despite evidence of a relatively strong allowance-adequacy preference among U.S. respondents to FASB/IASB (2011), there was widespread opposition among U.S. respondents to the FASB (2012) allowance for all full-contractual-life expected credit losses. 85 percent are against it and 12 percent are for it. There are large majorities against among preparers-non-CB&CU and preparers-CB&CU, with less opposition among non-preparers. Because only one of the 165 preparers-CB&CU is not against the recommendation, we do not estimate a separate regression model for preparers-CB&CU. Negative views on the grounds of practicability (among all respondents, preparers-all and preparers-non-CB&CU), usefulness (among all respondents and non-preparers), objectivity (among preparers-all), day-one loss (among all respondents, preparers-all and non-preparers), other conceptual issues (among non-preparers) and regulatory capital (among all respondents and preparers-all) are significantly associated with opposition to the recommendation.[30] A relatively large number of grounds are cited negatively by more than 50 percent of one or more type of respondent: practicability (overall 84 percent negative), objectivity (overall 53 percent negative), day-one loss (overall 47 percent negative) and regulatory capital (overall 33 percent negative).

We examine what the 85 percent of U.S. respondents to FASB (2012) who were against recognition of an allowance for all full-contractual-life expected credit losses might have preferred instead. We consider two candidates: an incurred-loss method and a three-bucket or similar method. We treat as supportive of incurred loss those responses that supported the existing incurred-loss method or a modified version. Table 7 reports that, of the 85 percent of respondents that were against recommendation 7, 57 percent supported some form of incurred-loss method and eight percent supported the three-bucket method, with a small number favorably mentioning both. Preferences are similar across all types of respondent. Of responses supportive of incurred loss, 40 percent indicated support for a modified incurred-

[30] The coefficient on overstatement is negative and significant at the five percent level for non-preparers. This is one of two cases where a significant negative coefficient is reported in this paper. We do not comment further on these cases

loss method, typically with less restrictive more forward-looking evidence requirements.[31] The percentage of U.S. respondents to FASB (2012) that were against recognition of an allowance for all full-contractual-life expected losses and supportive of some form of incurred-loss method is 48 percent (= 57 percent times 85 percent). This substantially exceeds the 12 percent that were for CECL's full-contractual-life allowance.

Overall, among U.S. respondents to FASB (2012), there was substantial opposition to recognition of an allowance for all full-contractual-life expected losses. Reference to Table 4 suggests that opposition strengthened between FASB (2010) and FASB (2012).[32] Responses to FASB (2012) indicate substantially more support for some form of incurred-loss method than for the recommended method.

The main recommendations of FASB (2012) were carried forward into the FASB's Accounting Standards Update on credit losses (FASB 2016). The effective dates of FASB (2016) were originally: fiscal years beginning after December 15, 2019 for public business entities that are SEC filers; fiscal years beginning after December 15, 2020 for public business entities that are not SEC filers and for all other entities. The inclusion within FASB (2016) of the CECL method, largely as proposed, after such widespread comment-letter opposition suggests that factors other than the weight of opinion in comment letters were influential in the evolution of that method.

The conceptual problem with day-one recognition of expected losses gave rise to the following statement in a dissenting opinion from two FASB members in FASB (2016):

> Messrs. Kroeker and Smith believe that requiring an initial loss at an amount equal to expected credit losses contradicts the concept of neutrality that is fundamental to the FASB's own Conceptual Framework. They are unaware of any other area of financial reporting for which a loss and a related valuation allowance are immediately established to reduce the value of a recognized asset that is purchased or originated on market terms. Messrs. Kroeker and Smith agree that in the unusual circumstance in which a financial asset is purchased at a price that exceeds fair value or is originated

[31] Within responses supportive of a modified incurred-loss method, we include those that supported the Banking Industry Model (BIM) proposed by the American Bankers Association (ABA). In its comment letter on FASB/IASB (2011) (letter number 143), the ABA argued that 'the fundamental principles inherent in the incurred loss model are sound'. In describing its BIM in its comment letter on FASB (2012) (letter number 39A), the ABA argued that credit-loss impairment should continue to be based on loss events that have occurred but that the definition of loss events should be expanded to include 'forward-looking loss events'. 46 percent of responses that we treat as supportive of a modified incurred-loss method supported the BIM.

[32] Between the issue of the FASB (2012) ED and FASB (2016), the FASB attempted to address concerns about the practicability of CECL. However, a FASB roundtable meeting on February 4, 2016 showed that Community Banks still had serious concerns about the forecasting requirements of CECL. At that meeting, FASB representatives sought to allay those concerns.

> with an initial interest rate that is too low considering the degree of credit risk, an initial loss and measurement of the asset at an amount below the transaction price likely would be appropriate; in fact, they believe that would be the appropriate accounting under today's incurred loss model. This conceptual shortcoming in the Update may lead some readers to conclude that the Board had a specific prudential policy objective when it approved it. (FASB 2016, page 237)

IASB (2013)

IASB (2013) recommended a three-bucket method, with the three buckets now termed 'Stage 1', 'Stage 2' and 'Stage 3'. Stage 1 contains assets without significant increase in credit risk since initial recognition. For these assets, the loss allowance including at day one comprises 12-month expected credit losses, defined as lifetime expected losses from default events possible within 12 months after the reporting date weighted by the probability of occurrence of those events.[33] Assets for which there is a significant increase in credit risk move to a Stage for which lifetime expected losses are recognized: Stage 2, for assets without objective evidence of impairment, or Stage 3, for assets with objective evidence of impairment. The IASB acknowledged that the Stage-1 12-month allowance with its day-one loss would understate asset values at initial recognition (IASB 2013, paragraph BC66), but saw it as acceptable on the basis that it was an expedient for the IEIR method (IASB 2013, pages 7-8). Appendix B includes a simplified example of the recognition of initially-expected credit losses under the IASB (2013) method. This example treats default events and significant increases in credit risk as a single class of event termed 'forward-looking loss events', which are identified by reference to the less restricted more forward-looking information set. In this example, relative to incurred loss, the more forward-looking information set brings loss events forward by one year and the 12-month allowance brings recognition forward by one more year.

IASB deliberations on IASB (2013) included expressions of concern about the 12-month day-one loss, prompting the following comment from the IASB Chair at a December 2012 IASB meeting:[34]

[33] IASB (2013) recommended that, for a purchased financial asset with objective evidence of impairment, no day-one loss would be recognized. A pre-existing IEIR-type method that had been required for such assets by IASB (2003) was retained in IASB (2013). Day-one loss can still arise on purchased assets if they are not classified as purchased-credit-impaired.

[34] A recording of the meeting is available at: http://media.ifrs.org/2012/IASBMeetings/December/ImpairmentAR5141212.mp3

> […] I do recollect that the whole board had a severe hiccup about this 12-month day-one loss. We didn't like it because it is conceptually flawed, and we know that, but we were willing to […] take that, first of all because we were in the process of reaching some kind of convergence with the FASB. Well, that moment has unfortunately passed, but we were where we were and it was not very simple to come up with a simple and better solution for this issue […] There are conceptual issues. Fortunately, quantitatively our conceptual flaw is a lot smaller than […] the current FASB proposal […]. (Verbal comment)

This comment indicates that the IASB's initial acceptance of a conceptually-flawed 12-month day-one loss was in part motivated by the hope that this might facilitate FASB/IASB convergence. Conceptual concern about day-one loss was expressed in an alternative view from an IASB member:

> […] the loss allowance at an amount equal to 12-month expected credit losses is contradictory to the IASB's own *Conceptual Framework*, given that the result is not neutral and it fails to faithfully represent the transaction. In no other area of financial reporting is an allowance immediately established to reduce the value of an asset that is purchased or originated on market terms. (IASB 2013, paragraph AV2)

The following comment by the IASB chair indicates a fundamental FASB/IASB disagreement regarding the acceptable amount of day-one loss, which impeded convergence on accounting for credit losses:

> In developing this standard, the IASB did consider whether to require banks to recognise full lifetime losses from day one. We rejected this approach for several reasons. First, accounting standards are designed to reflect economic reality as closely as possible. Banks do not suffer losses on the very first day a loan has been made, so recording a full lifetime loss immediately is counter-intuitive. Moreover, in bad economic times, when earnings are already depressed, banks would have an incentive to cut back on new lending in order to avoid having to recognise large day one losses. Just when you need it most, the economy would probably be starved of credit. Second, future losses are notoriously difficult to predict, so any model based on expected losses many years later would be subjective. (Hoogervorst 2018)

We analyze non-U.S. responses to the following recommendations:

Recommendation 8: Recognition of an allowance for 12-month expected credit losses for assets for which credit risk has not increased significantly since initial recognition.

Recommendation 9: Recognition of an allowance for lifetime expected credit losses for assets for which credit risk has increased significantly since initial recognition.

Table 8 Panel A reports widespread support among non-U.S. respondents overall for the 12-month Stage-1 allowance. 72 percent are for it and 23 percent are against it, with a similar split among preparers and

non-preparers. From the regression results, negative views on the grounds of practicability (among all respondents and preparers), usefulness and day-one loss (among all respondents), allowance adequacy (among non-preparers) and allowance overstatement (among all respondents and preparers) are significantly associated with the minor opposition to the recommendation. Day-one loss (overall 51 percent negative) is cited negatively by more than 50 percent of respondents. The surprising combination in comment letters of widespread support for the 12-month allowance and widespread negative views on its day-one-loss feature was also noted by an IASB member at a September 2013 FASB/IASB meeting.[35]

Table 8 Panel B reports that support for recognition of lifetime loss after significant increase in credit risk is very similar to that for the 12-month Stage-1 allowance. From the regression results, negative views on the practicability and other-conceptual-issues grounds (among all respondents, preparers and non-preparers) and on the allowance-adequacy ground (among all respondents and non-preparers) are significantly associated with the minor opposition to the recommendation.

Overall, non-U.S. respondents largely supported the 12-month allowance with transfer to lifetime loss after significant increase in credit risk, despite widespread negative views about the day-one-loss requirement. Comparison of Table 5 Panel C with Table 8 Panel A suggests that non-U.S. respondents' support for recognition of foreseeable-future-period good-book losses, through the FFPA or the 12-month allowance, strengthened between FASB/IASB (2011) and IASB (2013). The three-stage method was carried forward into IASB (2014), effective for annual periods beginning on or after January 1, 2018.

Untabulated Robustness Tests and Additional Tests

We test if regression-based inferences about grounds are robust to the use of five percent or ten percent cut-offs for the percentage of negatives instead of a three percent cut-off. Our principal inferences are not affected by the results from these tests.

[35] A recording of this meeting is available at: http://media.ifrs.org/2013/IASB/September/Impairment_AR5_Session1.mp3.

We investigate the possibility that inferences for the FASB-only EDs and the IASB-only EDs might differ under a more exclusive definition of the standard-setters' respective constituents. For IASB (2009) and FASB (2010) and for FASB (2012) and IASB (2013), we repeat our tests excluding for each ED all respondents that also comment on the approximately contemporaneous ED of the other standard-setter. These untabulated tests give results that are similar to those that we report.

We report evidence that U.S. respondents' opposition to the full-contractual-life allowance strengthened between FASB (2010) and FASB (2012) and that non-U.S. respondents' support for a foreseeable-future-period or 12-month allowance strengthened between FASB/IASB (2011) and IASB (2013). We test whether these inferences are robust to comparison of responses from respondents that responded, in each case, to both exposure documents. The inferences are robust to these comparisons.

Our comment-letter data set includes seven international accounting firms, which are not categorized as non-U.S. or U.S. and are categorized as 'other respondents'. These are not included in our tabulated tests. Here, we summarize the patterns of responses of these respondents. For IASB (2009), the pattern of responses is similar to that of non-U.S. respondents overall: most favor spreading but most oppose the IEIR method of achieving this. For FASB (2010) and FASB (2012), responses are similar to those of U.S. respondents overall: most oppose a full-contractual-life loss allowance. For FASB/IASB (2011), responses resemble those of non-U.S. respondents: the TPA is more favorably viewed than the FFPA. For IASB (2013), similar to non-U.S. respondents overall, most support the key recommendations.

V. SUBSEQUENT EVENTS RELATING TO FASB (2016)

Controversy regarding the FASB's CECL method continued in years after FASB (2016) was issued. On December 11, 2018, a U.S. House of Representatives hearing assessed the impact of CECL on

U.S. financial institutions and the U.S. economy.[36] A Representative and witnesses expressed concern about the logic of CECL's requirement for recognition of full-contractual-life expected losses, including at day one, and its possible adverse effects on incentives to lend. Witnesses commented on the operational complexity of CECL. There were calls from a Representative and a witness to delay CECL so that its likely impact could be assessed. There were calls from a Representative and a witness to abandon CECL for all or some entities. In mid-2019, related bills about CECL were introduced in the U.S. Senate and House of Representatives.[37] These would delay implementation of CECL and require quantitative study of its effects on the availability of credit, on U.S. financial institutions and on the U.S. economy. In November 2019, FASB (2019) delayed the effective date of CECL for all entities other than large SEC filers to fiscal years beginning after December 15, 2022.[38] On January 15, 2020, proceedings of a U.S. House of Representatives hearing on oversight of standard-setters were dominated by questioning of the FASB Chair about CECL.[39] Several Representatives expressed concern about the likely damaging effects of increased CECL loss allowances on consumers' access to credit and about the cost to banks of implementing CECL. One Representative criticized 'up-front' recognition of losses. Representatives expressed surprise that the FASB had not studied more fully the likely effects of CECL before issuing FASB (2016). These events are consistent with the comment-letter opposition to the FASB (2012) lifetime loss allowance that we report. In March 2020, the *Coronavirus Aid, Relief, and Economic Security Act* gave all U.S. banks a time-limited opt-out from implementation of CECL.

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[36] Hearing before the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Financial Services of the U.S. House of Representatives on the subject of 'Assessing the Impact of FASB's Current Expected Credit Loss (CECL) Accounting Standard on Financial institutions and the Economy', December 11, 2018. A written record of the hearing is available at: https://www.hsdl.org/?view&did=821840.

[37] On May 21, 2019, the *Continued Encouragement for Consumer Lending Act* bill was introduced in the U.S. Senate. On June 10, 2019, the related *CECL Consumer Impact and Study Bill of 2019* was introduced in the U.S. House of Representatives. The Senate bill is available at: https://www.congress.gov/116/bills/s1564/BILLS-116s1564is.pdf .
The House of Representatives bill is available at https://congress.gov/bill/116th-congress/house-bill/3182/text .

[38] FASB (2018) had previously delayed the effective date for entities other than public business entities to December 15, 2021.

[39] Hearing of the Subcommittee on Investor Protection, Entrepreneurship, and Capital Markets of the U.S. House of Representatives Committee on Financial Services on the subject of 'Overseeing the Standard Setters: An Examination of the Financial Accounting Standards Board and the Public Company Accounting Oversight Board', January 15, 2020. A recording of the hearing is available at: https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=406020 .

VI. COULD THE STANDARD-SETTERS HAVE AVOIDED DAY-ONE LOSS?

Day-one recognition of expected credit losses on assets originated on market terms was adopted within the FASB's CECL method because the FASB followed an expected-loss path that would require an allowance for all expected credit losses at every reporting date. It initially entered the IASB's recommendations because, having initially followed an IEIR-based expected-loss path, the IASB accepted a limited amount of day-one loss within a method that would serve as an expedient for the IEIR-based method and might provide a basis for FASB/IASB convergence. After the failure to achieve convergence, the IASB retained a limited amount of day-one loss within an expedient for the IEIR-based method.

As described in earlier sections, the issue of day-one recognition of credit losses on assets originated on market terms is controversial. Day-one loss is conceptually-flawed in that it double-counts initially-expected losses within the net book value of assets at the date of initial recognition. We report that it was influential in driving comment-letter opposition to the final recommendations of both standard-setters. It was opposed on fundamental conceptual grounds by members of the standard-setting boards. It was cited in criticism of CECL in the U.S. Congress. Disagreement on day-one loss was influential in impeding a converged solution on accounting for credit losses.

Arguments in favor of day-one recognition of credit losses include the following, which are referred to in FASB (2016, paragraphs BC39-BC43): (i) methods that recognize initially-expected losses across time rather than at day one might make incorrect assumptions about the time at which initially-expected credit losses will arise, and might thereby delay the recognition of such losses; (ii) methods that do not recognize all expected losses at day one require identification of a recognition trigger, which introduces complexity and subjectivity; (iii) methods that do not recognize all expected losses at day one may contribute to procyclicality through subsequent large increases in loss allowances. Other arguments include: (i) origination of a loan creates exposure to losses, which should be recognized immediately; (ii)

establishment of loss allowances at day one helps achieve appropriate provisioning for bad loans originated in favorable economic times when loans are growing rapidly.[40] IASB (2013) saw day-one recognition of 12-month expected losses as part of an expedient for the IEIR method. Pucci and Skærbæk (2020, page 13) quote an argument from an IASB staff member that recognition of day-one losses, limited to 12 months, can be justified because of likely imprecision in the pricing of initially-expected credit losses. These arguments see day-one loss on assets originated on market terms as a practically-expedient means of compensating for possible under-recognition of expected losses in transaction prices or in loss allowances, or of avoiding complexity or subjectivity or cliff edges, or of approximating outcomes from a conceptually supportable method. They do not provide a conceptual basis for it.

The lack of a conceptual basis for day-one loss and the controversy surrounding it suggest that day-one loss might ideally have been avoided. The standard-setters could have followed a day-one-loss-free path to making the accounting for credit losses more timely by highlighting from the outset that all methods of accounting for credit losses, including incurred loss, require some use of credit-loss-relevant expectations.[41] Based on this, it could be argued that the problem with the incurred-loss method before the financial crisis might not have been the concept of incurred loss itself but restrictions on the extent to which credit-loss-relevant expectations could be included in the information set used to determine whether credit losses had been incurred. Expressed in that way, the problem could be addressed through a modified more forward-looking incurred-loss method as follows: (i) financial assets originated on market terms are

[40] The letter from Carlson Capital, L.P. in response to FASB (2010) (letter number 1296) refers to both of these arguments.

[41] See the examples of loss events under the IASB (2003) incurred-loss method that we list in Section II. Also, at a FASB/IASB meeting in July 2013, a FASB member referred to what he saw as the unhelpful distinction between 'incurred' and 'expected':

> I think we have miscommunicated significantly through this whole process about expected versus incurred losses. I think we could all agree that an incurred loss is realized when you don't collect the cash and you have given up collecting on the cash, and we don't wait to recognize losses to that charge-off point. So almost everything in any model we do is an expectation, and the question is going to be what are the events or the information that triggers us to recognize that expectation. And I think we don't serve well the communication about this at all to put an incurred versus expected. We need to define what it is that are either the loss events that cause us to measure some sort of expectation or the information set. (Verbal comment)

A recording of this meeting was accessed at: http://archive.ifrs.org/Meetings/Pages/IASBJuly2013.aspx (last accessed March 10, 2021).

recognized at transaction price, with no day-one loss; (ii) a less restricted more forward-looking information set than that used by the pre-existing incurred-loss method, similar to that used by the expected-loss methods outlined in Section III, is then used in determining whether initially-expected credit losses and credit losses arising from changes relative to initial expectations have been incurred. Such a method would give earlier recognition of credit losses than the pre-existing incurred-loss method without requiring day-one loss. Lowering the loss-recognition hurdle would address to some extent the problem arising under the pre-existing incurred-loss method that recognition of credit-premium-inclusive interest can pre-date recognition of associated initially-expected losses.

Our comment-letter analysis suggests that such a route might have been preferable to a day-one-loss-inclusive expected-loss route for the purpose of seeking a satisfactory converged improvement in the timeliness of accounting for credit losses. We report that FASB constituents were more supportive of some form of incurred-loss method than of CECL, with many advocating a more forward-looking version of incurred loss. We also report that, although IASB constituents largely supported the three-stage method adopted in IASB (2014), many expressed negative views about the day-one-loss feature of the 12-month allowance. In relation to this, we note that removing the 12-month allowance, with its unpopular day-one-loss feature, from that method would leave a method that has some similarity with a more forward-looking incurred-loss method. Financial assets originated on market terms would be recognized at transaction price, with no day-one loss; credit losses would be recognized on the occurrence of events, in the form of default events or significant increases in credit risk, identified by reference to an information set that is less restricted and more forward-looking than that used by the pre-existing incurred-loss method.[42]

[42] See also our earlier reference to FASB (2012, paragraph BC11), which cited the claim that the criteria for recognition of lifetime loss in the three-bucket/three-stage (12-month/lifetime loss) method would reintroduce an incurred-loss recognition trigger. See also our examples in Appendix B. In these admittedly simplified examples, the pattern of loss recognition under 12-month/lifetime loss is the same as under incurred loss except that, relative to incurred loss: (i) the use of the more forward-looking information set brings loss events forward by one year; (ii) the allowance for loss events possible in the next 12 months brings loss recognition forward by one more year. In these examples, removal of the 12-month allowance would leave a method in which the pattern of loss recognition is the same as under incurred loss except that the use of the more forward-looking information set brings loss events and associated loss recognition forward by one year.

VII. CONCLUSION

After the financial and banking crisis of the late 2000s, the FASB and the IASB addressed concerns that the incurred-loss method did not provide timely recognition of credit losses. They went on to develop expected-loss methods. We review the development of those methods, including through analysis of responses to five exposure documents issued by the FASB and/or the IASB from 2009 to 2013.

The two standard-setters readily accepted that the information set to be used to support recognition of credit losses should become less restricted and more forward-looking than under the pre-existing incurred-loss method. However, they could not agree a converged solution. Due in part to historically stronger interaction between prudential regulation and loss allowances in the U.S than elsewhere, the FASB adopted a stronger loss-allowance-adequacy focus than the IASB. It eventually recommended in its final ED (FASB 2012) and included in a 2016 Accounting Standards Update (FASB 2016) the CECL method under which an entity would establish, including at day one, a loss and a loss allowance for all full-contractual-life expected credit losses. The IASB preferred that initially-expected credit losses should be reflected in the effective rate at which interest is accrued, with their recognition thereby being spread over asset life. It eventually recommended in its final ED (IASB 2013) and included in a 2014 Accounting Standard (IASB 2014) a method which had been proposed as a compromise route to FASB/IASB convergence but which the FASB could not accept: from initial recognition of a financial asset, the loss allowance at each date, including at day one, comprises 12-month expected losses; for assets for which credit risk increases significantly after initial recognition, it comprises lifetime expected losses.

Our comment-letter analysis indicates that, relative to IASB constituents, FASB constituents attached more importance to allowance adequacy and were less supportive of spreading the recognition of credit losses across time. However, FASB constituents largely opposed recommendations for a full-contractual-life loss allowance, mainly due to concerns about practicability and day-one loss. Their

responses to FASB (2012) were more supportive of some form of incurred-loss method than of the CECL full-contractual-life loss allowance, with many advocating a more forward-looking version of incurred loss. IASB constituents largely supported the IASB's 12-month loss allowance with transfer to lifetime loss after significant increase in credit risk, despite widespread negative views about day-one loss.

The issue of day-one recognition of credit losses on assets originated on market terms caused difficulty in the development of the expected-loss methods. This treatment double-counts initially-expected losses within the net book value at the date of initial recognition. We report that it was influential in driving comment-letter opposition to the standard-setters' final recommendations. It was opposed in dissenting or alternative views by standard-setters' board members. It was cited in criticism of CECL in the U.S. Congress. Disagreement on day-one loss was influential in impeding FASB/IASB convergence on accounting for credit losses. We suggest that future research and standard-setting activity on accounting for credit losses might consider whether satisfactory timeliness in loss recognition might be achieved, without day-one loss, through a modified incurred-loss method that would use a less restricted more forward-looking information set for loss recognition than was permitted by the pre-existing incurred-loss method. Our comment-letter evidence suggests that such a method might provide a route to a future more converged solution to accounting for credit losses.

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APPENDIX A

Comment-Letter Analysis: Collection of Comment Letters and Data Preparation

Collection of Comment Letters

For the five exposure documents for which we analyze comment-letter responses, we obtain comment letters from the standard-setters' web sites.[43] We exclude letters without a stated affiliation. Where different parts of the same organization submitted separate letters for the same exposure document, we merge letters into a single letter for the purpose of our analysis. For FASB (2010), which dealt with a number of financial-instrument issues, our initial data set includes 2,971 letters. Most of these do not refer to credit-loss impairment and appear to have been written as part of a coordinated campaign against the recommendation in FASB (2010) that most financial assets should be measured at fair value.[44] For FASB (2010), we analyze only those letters that commented on credit-loss-impairment recommendations.

Categorization of Respondents by Non-U.S./U.S./Other

We categorize respondents by location as follows: (i) non-U.S. respondents, assumed to be actual or potential IASB constituents; (ii) U.S. respondents, assumed to be FASB constituents; (iii) other respondents. The categorization of 'non-U.S. respondents' and 'U.S. respondents' is by reference to the geographical source of the comment letter except for financial-statement-preparer organizations, where it is by reference to whether the highest-level financial statements are prepared under U.S. GAAP (U.S.) or

[43] The letters written in response to the exposure documents are available at the following web sites:

- IASB (2009). Available at: https://www.ifrs.org/projects/completed-projects/2014/financial-instruments-impairment/ed-amortised-cost-and-impairment/#view-the-comment-letters
- FASB (2010). Available at: http://www.fasb.org/jsp/FASB/CommentLetter_C/CommentLetterPage&cid=1218220137090&project_id=1810-100
- FASB/IASB (2011). Available at: http://www.fasb.org/jsp/FASB/CommentLetter_C/CommentLetterPage&cid=1218220137090&project_id=2011-150
- FASB (2012). Available at: http://www.fasb.org/jsp/FASB/CommentLetter_C/CommentLetterPage&cid=1218220137090&project_id=2012-260
- IASB (2013). Available at: https://www.ifrs.org/projects/completed-projects/2014/financial-instruments-impairment/ed-expected-credit-losses/#view-the-comment-letters

[44] This coordinated campaign was also noted by Hodder and Hopkins (2014).

another regime (non-U.S.). 'Other respondents' comprise international accounting firms, international associations, international bank-regulatory organizations and other international regulatory organizations. Responses from 'other respondents' are not used in tabulated tests, but some are used in untabulated tests.

Categorization of Respondents by Preparer/Non-preparer/Etc.

We also categorize respondents by type as preparers of financial statements or as non-preparers. Because a large proportion of U.S. preparer respondents are Community Banks or Credit Unions (denoted CB&CU), we subdivide U.S. preparers into two types: preparers-non-CB&CU and preparers-CB&CU. Non-U.S preparers and U.S preparers-non-CB&CU comprise financial-firm preparers of financial statements, mainly banks and insurance companies, non-financial-firm preparers of financial statements, and relevant representative bodies. Non-U.S. non-preparers and U.S. non-preparers comprise users of financial statements, including investors and analysts, accounting firms and professional accounting bodies and associations, accounting regulators, accounting standard-setters and other accounting or auditing regulatory bodies, financial regulatory bodies, and relevant representative bodies.

Coding of Responses

For each recommendation, we code responses as 'for' (which includes partial support), 'against' and 'neutral/missing'. We record whether some specific factors regarding the recommendation are cited positively or negatively in the comment letter; we refer to these factors as 'grounds' on which the respondent could view the recommendation positively or negatively. The grounds recorded are as follows, where any shorthand term used in the paper is given in parentheses: practicability; usefulness; objectivity, including limitation on earnings management and on reliance on judgement (objectivity); conceptual soundness/representation of economic substance and related matters with respect to the recognition of day-one loss (day-one loss); conceptual soundness/representation of economic substance other than in

relation to day-one loss (other conceptual issues); economic consequences; effect on regulatory capital (regulatory capital); allowance adequacy; allowance overstatement; potential to cause sudden large increases in loss allowances (cliff effect). A 'for' response to a recommendation can be coded as 'negative' on some grounds and 'positive' on other grounds; the same holds for 'against' and 'neutral/missing' responses.

The process for coding comment-letter responses was as follows. First, responses for each of the five exposure documents were coded by one of the three authors of this paper (the first coder). For each exposure document, responses ('for', 'against', 'neutral/missing') and grounds for responses were coded for recommendations for which we report results and for some additional significant recommendations and issues. The basis for the coding of each letter was documented by reference to passages of text in a copy of the letter stored within Atlas.ti, a software package that facilitates the management and analysis of textual data. Second, for each exposure document, a test of inter-coder agreement based on the Kappa statistic (Cohen 1960; Giner and Arce 2012) was conducted. For this, one of the other two authors (the second coder) independently coded responses ('for', 'against', 'neutral/missing') for a sample of 25 letters for all recommendations and other issues that we coded.[45] There were no significant differences between the two coders for any of the recommendations for which we report results. Third, by selective reference to sections of text in the annotated letters stored in Atlas.ti, a third author reviewed the reasonableness and consistency of the coding of responses and the coding of the grounds for responses for that exposure document. Fourth, a senior Accounting academic, who is not an author of this paper and who is an expert on accounting for financial instruments, reviewed collectively by reference to the annotated letters stored in Atlas.ti the overall reasonableness and consistency of the coding of responses and the coding of grounds for responses for all five exposure documents.

[45] This exercise did not encompass grounds for responses.

APPENDIX B

Examples of the Application of Four Methods of Accounting for Credit Losses

This appendix provides simplified numerical examples of the recognition of initially-expected credit losses for a portfolio of newly-originated fixed-rate loans. The examples describe the evolution over time of the loan account and, under four methods, the allowance account and the amortized-cost net book value (ACNBV) if initial expectations are realized. Changes from initial expectations are not considered. All examples use the same fact pattern for contractual cash flows and initially-expected shortfalls in collection. Total losses recognized over the life of the loans are the same under all methods but timing differs.

The Four Methods for which we Provide Numerical Examples

- ***Incurred loss***. This method is intended to represent the pre-existing incurred-loss method. Credit losses are recognized on the occurrence of loss events as defined under that method.
- ***Expected loss: Integrated effective interest rate (IEIR) (IASB 2009).*** Loss recognition is based on an information set that is less restricted and more forward-looking than that used to support loss recognition under the pre-existing incurred-loss method.[46] Initially-expected (as of the origination date) shortfalls in collection are deducted from contractual cash flows in order to calculate the credit-loss-inclusive integrated effective interest rate (IEIR). If shortfalls are expected, the IEIR is lower than the contractual effective interest rate (CEIR). Yearly interest is accrued at the IEIR and therefore comprises contractual interest less an allocation of a portion of any initially-expected losses. The allocated expected losses are credited to an allowance account against which shortfalls are charged off.
- ***Expected loss: Lifetime loss (FASB 2010, 2012).*** A method of this sort was included in FASB (2016). Loss recognition is based on the less restricted more forward-looking information set. All lifetime expected losses are recognized immediately, including at day one.

[46] See the subsection of the text that deals with IASB (2009). This information set would include past events, current conditions, and reasonable and supportable forecasts of future credit-loss-relevant events and conditions.

- ***Expected loss: 12-month/lifetime loss (IASB 2013).*** A method of this sort was included in IASB (2014). It is sometimes termed a 'three-bucket' or 'three-stage' method. Loss recognition is based on the less restricted more forward-looking information set. Newly originated loans are placed in a non-credit-deteriorated stage for which the loss allowance including at day one comprises 12-month expected losses, defined as the present value of lifetime cash shortfalls from default events possible in the next 12 months weighted by the probability of occurrence of those events. Loans that subsequently suffer a significant increase in credit risk are then transferred to a stage for which lifetime losses are recognized.

Assumed Fact Pattern and Assumptions Made in Applying the Methods

Our example is based on a portfolio of six-year fixed-rate loans totaling Currency Units (CU) 100.00 originated at year 0 (day one). The loans are originated on market terms such that their fair value is equal to the amount loaned (transaction price) of CU100.00. The loan contracts require repayments totaling CU22.96 per year in years 1 to 6. There are no fees or other costs. The CEIR is therefore ten percent. As of year 0, some as-yet-unidentified shortfalls in collection are expected. Streams of shortfalls are expected to be as follows: from year 3 (5% of yearly contractual payments); from year 4 (an additional 4%); from year 5 (an additional 3%); in year 6 (an additional 2%). Because shortfalls are expected, the IEIR (7.94 percent) is lower than the CEIR. Shortfalls are charged off at the dates when the amounts are due to be received.[47] It is assumed that initial expectations of shortfalls are realized. The initially-expected shortfalls are recognized as credit losses as follows under each of the four methods considered, where the year at which a stream of shortfalls is expected to start is denoted year sf, the preceding year is denoted year sf-1, etc.:

- ***Incurred loss.*** It is assumed that the loss from each stream of shortfalls is recognized at year sf-1 on the occurrence of an incurred-loss loss event related to that stream of shortfalls. Losses are measured as the present value of the streams of shortfalls, where the discount rate is the CEIR.

[47] This is a simplifying assumption. The date of charge-off has no effect on the pattern of loss recognition.

- ***Integrated effective interest rate (IEIR) (IASB 2009).*** Each year's allocation of initially-expected losses is equal to the opening balance on the loan account times the excess of the CEIR over the IEIR.
- ***Lifetime loss (FASB 2010, 2012).*** Losses from all expected shortfalls are recognized at year 0 (day one). Losses are measured as the present value of shortfalls, where the discount rate is the CEIR.
- ***12-month/lifetime loss (IASB 2013).*** This example makes the simplifying assumption that what IASB (2013) terms default events and significant increases in credit risk are a single class of event termed 'forward-looking loss events', which are identified by reference to the less restricted more forward-looking information set. It is assumed that the loss from each stream of shortfalls is recognized within a lifetime loss allowance at year sf-2 on the occurrence of a forward-looking loss event, which is deemed to occur one year earlier than the corresponding incurred-loss loss event (i.e., at year sf-2 rather than at year sf-1). Because this method recognizes, in probability-weighted terms within a 12-month allowance, losses from loss events possible in the next 12 months and initial expectations are realized, shortfalls recognized as losses within the lifetime allowance at year sf-2 are initially recognized one year earlier at year sf-3. Therefore, shortfalls recognized as losses at year sf-1 under incurred loss are initially recognized as losses two years earlier at year sf-3 under this method. Losses are measured as the present value of the streams of shortfalls, where the discount rate is the CEIR.

Table B.1 summarizes the fact pattern and the timing of recognition of initially-expected losses under each method. Table B.2 presents: (i) Panel A - the evolution of the loan account, which is the same under all methods; (ii) Panel B – for each method, the evolution of the allowance account and the ACNBV, and the net income recognized in each year (equal to interest less loss) as a percentage of the opening ACNBV;[48] (iii) Panel C - a summary of losses under the four methods. Figure B.1 depicts the recognition over time of losses under the four methods. Total losses recognized are the same under all methods.

[48] Because loss allowances are initially established at present value, part of the total losses is recognized through the subsequent unwind of the discount within the allowance account. Various methods have been proposed for reporting the unwind of the discount. These include: (i) deducting it from interest revenue; (ii) adding it to credit losses, as in our examples.

TABLE B.1
Contractual Cash Flows, Initially-Expected Shortfalls in Collection, Initially-Expected Cash Flows and the Recognition of Initially-Expected Losses Under the Four Methods

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Contractual cash flows (CEIR: 10.00%) (Note 1)	-100.00	22.96	22.96	22.96	22.96	22.96	22.96
Initially-expected shortfalls in collection:							
From year 3 (5.00% of 22.96)				1.15	1.15	1.15	1.15
From year 4 (4.00% of 22.96)					0.92	0.92	0.92
From year 5 (3.00% of 22.96)						0.69	0.69
In year 6 (2.00% of 22.96)							0.45
Totals (= charge-offs) [Total shortfalls = 9.19]				1.15	2.07	2.76	3.21
Initially-expected cash flows: contractual cash flows less initially-expected shortfalls in collection (IEIR: 7.94%) (Note 2)	-100.00	22.96	22.96	21.81	20.89	20.20	19.75
Recognition of initially-expected losses:							
Incurred loss (Note 3)			3.64	2.28	1.20	0.42	
IEIR (IASB 2009) (Note 4)		2.06	1.80	1.50	1.18	0.82	0.43
Lifetime loss (FASB 2010; 2012) (Note 5)	5.80						
12-month/lifetime loss (IASB 2013) (Note 6)	3.01	1.89	0.99	0.35			

1. The contractual cash flows comprise the origination of loans totaling CU100.00 at year 0 and yearly repayments totaling CU22.96 per year from year 1 to year 6. The contractual effective interest rate (CEIR) is 10.00%.
2. The integrated effective interest rate (IEIR) of 7.94% is calculated from the initially-expected cash flows.
3. It is assumed that, under the incurred-loss method, each loss is equal to the present value of the stream of shortfalls starting one year later, discounted at the CEIR of 10.00%. The amounts recognized are as follows:
   $3.64 = 1.15/1.10 + 1.15/1.10^2 + 1.15/1.10^3 + 1.15/1.10^4$
   $2.28 = 0.92/1.10 + 0.92/1.10^2 + 0.92/1.10^3$
   $1.20 = 0.69/1.10 + 0.69/1.10^2$
   $0.42 = 0.45/1.10$.
4. Under IEIR, each year's allocation of initially-expected losses is equal to the opening balance on the loan account times (CEIR – IEIR). (CEIR – IEIR) = 10.00% - 7.94% = 2.06%. The amounts recognized are as follows: 2.06 = 100.00*2.06%; 1.80 = 87.04*2.06%; 1.50 = 72.78*2.06%; 1.18 = 57.10*2.06%; 0.82 = 39.85*2.06%; 0.43 = 20.87*2.06%.
5. Under the lifetime loss method, initially-expected lifetime losses are all recognized at year 0 (day one). The amount recognized is the present value of the expected total shortfalls discounted at the CEIR of 10.00%:
   $5.80 = 1.15/1.10^3 + 2.07/1.10^4 + 2.76/1.10^5 + 3.21/1.10^6$.
   This gives a post-day-one-loss amortized-cost net book value (ACNBV) of 100.00 – 5.80 = 94.20. This is equal to the present value of the expected cash flows net of initially-expected shortfalls, discounted at the CEIR of 10.00%:
   $94.20 = 22.96/1.10 + 22.96/1.10^2 + 21.81/1.10^3 + 20.89/1.10^4 + 20.20/1.10^5 + 19.75/1.10^6$.
   This amount is also equal to the present value of the expected cash flows (after deducting initially-expected shortfalls), discounted at the IEIR of 7.94%, less the initially-expected shortfalls, discounted at the CEIR of 10.00%. This illustrates what some see as this method's double-counting of initially-expected shortfalls within the ACNBV on initial recognition (see equation (5)):
   $94.20 = 22.96/1.0794 + 22.96/1.0794^2 + (22.96-1.15)/1.0794^3 + (22/96-2.07)/1.0794^4$
   $+ (22.96-2.76)/1.0794^5 + (22.96-3.21)/1.0794^6 - (1.15/1.10^3 + 2.07/1.10^4 + 2.76/1.10^5 + 3.21/1.10^6)$.
6. It is assumed that, under 12-month/lifetime loss method, each loss is equal to the present value of the stream of shortfalls starting three years later, discounted at the CEIR of 10.00%. Relative to incurred loss: (i) the more forward-looking information set brings loss events forward by one year; (ii) the allowance for loss events possible in the next 12 months brings loss recognition forward by one more year. Therefore, relative to incurred loss, loss recognition is brought forward by two years in total. The amounts recognized are as follows:
   $3.01 = 1.15/1.10^3 + 1.15/1.10^4 + 1.15/1.10^5 + 1.15/1.10^6$
   $1.89 = 0.92/1.10^3 + 0.92/1.10^4 + 0.92/1.10^5$
   $0.99 = 0.69/1.10^3 + 0.69/1.10^4$
   $0.35 = 0.45/1.10^3$.

TABLE B.2
Evolution of the Loan Account, the Allowance Accounts and the Amortized Cost Net Book Values

Panel A: Loan Account – Common to All Methods

Year	B/F	Interest	Cash	C-off	C/F
0			100.00		100.00
1	100.00	10.00	-22.96		87.04
2	87.04	8.70	-22.96		72.78
3	72.78	7.28	-21.81	-1.15	57.10
4	57.10	5.71	-20.89	-2.07	39.85
5	39.85	3.98	-20.20	-2.76	20.87
6	20.87	2.09	-19.75	-3.21	0.00

Panel B: Allowance Accounts, Net Book Values, Income and Income as a Percentage of Net Book Value Under the Four Methods

	Allowance Accounts					Amortized Cost Net Book Values (ACNBVs)						
Year	B/F	Discount Unwind	Addition	C-off	C/F	B/F	Interest	Loss	Cash	C/F	NI	%
Method: Incurred loss												
0					0.00	0.00	0.00	0.00	100.00	100.00	0.00	
1	0.00				0.00	100.00	10.00	0.00	-22.96	87.04	10.00	10.00%
2	0.00		-3.64		-3.64	87.04	8.70	-3.64	-22.96	69.14	5.06	5.81%
3	-3.64	-0.36	-2.28	1.15	-5.13	69.14	7.28	-2.64	-21.81	51.97	4.64	6.71%
4	-5.13	-0.51	-1.20	2.07	-4.77	51.97	5.71	-1.71	-20.89	35.08	4.00	7.70%
5	-4.77	-0.49	-0.42	2.76	-2.92	35.08	3.98	-0.91	-20.20	17.95	3.07	8.75%
6	-2.92	-0.29		3.21	0.00	17.95	2.09	-0.29	-19.75	0.00	1.80	10.00%
Method: IEIR (IASB 2009) (Note 2)												
0					0.00	0.00	0.00	0.00	100.00	100.00	0.00	
1	0.00	0.00	-2.06		-2.06	100.00	10.00	-2.06	-22.96	84.98	7.94	7.94%
2	-2.06	-0.16	-1.80		-4.02	84.98	8.70	-1.96	-22.96	68.76	6.74	7.94%
3	-4.02	-0.33	-1.50	1.15	-4.70	68.76	7.28	-1.83	-21.81	52.40	5.45	7.94%
4	-4.70	-0.37	-1.18	2.07	-4.18	52.40	5.71	-1.55	-20.89	35.67	4.16	7.94%
5	-4.18	-0.34	-0.82	2.76	-2.58	35.67	3.98	-1.16	-20.20	18.29	2.82	7.94%
6	-2.58	-0.20	-0.43	3.21	0.00	18.29	2.09	-0.63	-19.75	0.00	1.46	7.94%
Method: Lifetime loss (FASB 2010; 2012)												
0			-5.80		-5.80	0.00	0.00	-5.80	100.00	94.20	-5.80	
1	-5.80	-0.58			-6.38	94.20	10.00	-0.58	-22.96	80.66	9.42	10.00%
2	-6.38	-0.64			-7.02	80.66	8.70	-0.64	-22.96	65.76	8.06	10.00%
3	-7.02	-0.70		1.15	-6.57	65.76	7.28	-0.70	-21.81	50.53	6.58	10.00%
4	-6.57	-0.66		2.07	-5.16	50.53	5.71	-0.66	-20.89	34.69	5.05	10.00%
5	-5.16	-0.52		2.76	-2.92	34.69	3.98	-0.52	-20.20	17.95	3.46	10.00%
6	-2.92	-0.29		3.21	0.00	17.95	2.09	-0.29	-19.75	0.00	1.80	10.00%
Method: 12-month/lifetime loss (IASB 2013)												
0			-3.01		-3.01	0.00	0.00	-3.01	100.00	96.99	-3.01	
1	-3.01	-0.30	-1.89		-5.20	96.99	10.00	-2.19	-22.96	81.84	7.81	8.05%
2	-5.20	-0.51	-0.99		-6.70	81.84	8.70	-1.50	-22.96	66.08	7.20	8.79%
3	-6.70	-0.67	-0.35	1.15	-6.57	66.08	7.28	-1.02	-21.81	50.53	6.26	9.48%
4	-6.57	-0.66		2.07	-5.16	50.53	5.71	-0.66	-20.89	34.69	5.05	10.00%
5	-5.16	-0.52		2.76	-2.92	34.69	3.98	-0.52	-20.20	17.95	3.46	10.00%
6	-2.92	-0.29		3.21	0.00	17.95	2.09	-0.29	-19.75	0.00	1.80	10.00%

Panel C: Summary of Recognition of Losses Including Unwind of Discount: Yearly (from Panel B) and Cumulative

	Incurred loss		IEIR (IASB 2009)		Lifetime loss (FASB 2010, 2012)		12M/lifetime (IASB 2013)	
Year	**In year**	**Cumulative**	**In year**	**Cumulative**	**In year**	**Cumulative**	**In year**	**Cumulative**
0	0.00	0.00	0.00	0.00	5.80	5.80	3.01	3.01
1	0.00	0.00	2.06	2.06	0.58	6.38	2.19	5.20
2	3.64	3.64	1.96	4.02	0.64	7.02	1.50	6.70
3	2.64	6.28	1.83	5.85	0.70	7.72	1.02	7.72
4	1.71	7.99	1.55	7.40	0.66	8.38	0.66	8.38
5	0.91	8.90	1.16	8.56	0.52	8.90	0.52	8.90
6	0.29	9.19	0.63	9.19	0.29	9.19	0.29	9.19

1. Panel A gives the evolution of the loan account based on the contractual interest, the expected cash flows net of initially-expected shortfalls, and the expected charge-offs as given in Table B.1. The loan account is the same under all methods. Panel B gives the evolution of the allowance account and the amortized-cost net book value (ACNBV) under each of the four methods. For each method, the ACNBV is the sum of the loan account and the allowance account under that method. Panel B also gives, for each method, the net income recognized on the loans in each year and the net income as a percentage of opening ACNBV for each year. Panel C summarizes the losses recognized in each year under each method, as given in Panel B, and the cumulative total of each set of losses. The year-6 cumulative total is the same under all methods. Cumulative losses under the four methods are depicted in Figure B.1. The columns in Panels A and B are as follows:

B/F	Balance brought forward. (Opening balance.)
Interest	Contractual interest revenue at the contractual effective interest rate (CEIR) of 10 percent, debited to the loan account. See also note 2.
Cash	Cash debited (on origination of loans) or credited (on repayments) to the loan account. These are the expected cash flows net of initially-expected shortfalls as given in Table B.1. The same amounts appear in the loan account and the ACNBV summaries.
C-off	Charge offs as given in Table B.1. Shortfalls are charged off at the dates when the amounts are due to be received. Within each year, the amount credited to the loan account is equal to the amount debited to the allowance account, and does not appear in the ACNBV summaries.
C/F	Balance carried forward. (Closing balance.)
Discount Unwind	The unwind of the discount that was applied on initial recognition/allocation of initially-expected losses at present value. Under all methods, this is calculated by reference to the opening balance on the allowance account. It is calculated at the CEIR of 10 percent under the incurred-loss method, the lifetime loss method and the 12-month/lifetime loss method. It is calculated at the IEIR of 7.94 percent under the IEIR method. See also note 2.
Addition	Additions to the allowance account in respect of the initial recognition/allocation of initially-expected losses. The calculation of these amounts is given in Table B.1. See also Note 2.
Loss	The sum of 'Discount Unwind' and 'Addition '.
NI	The net income recognized on the loans in the year. This is equal to 'Interest' less 'Loss'.
%	Net income (NI) expressed as a percentage of the opening ACNBV of the year.

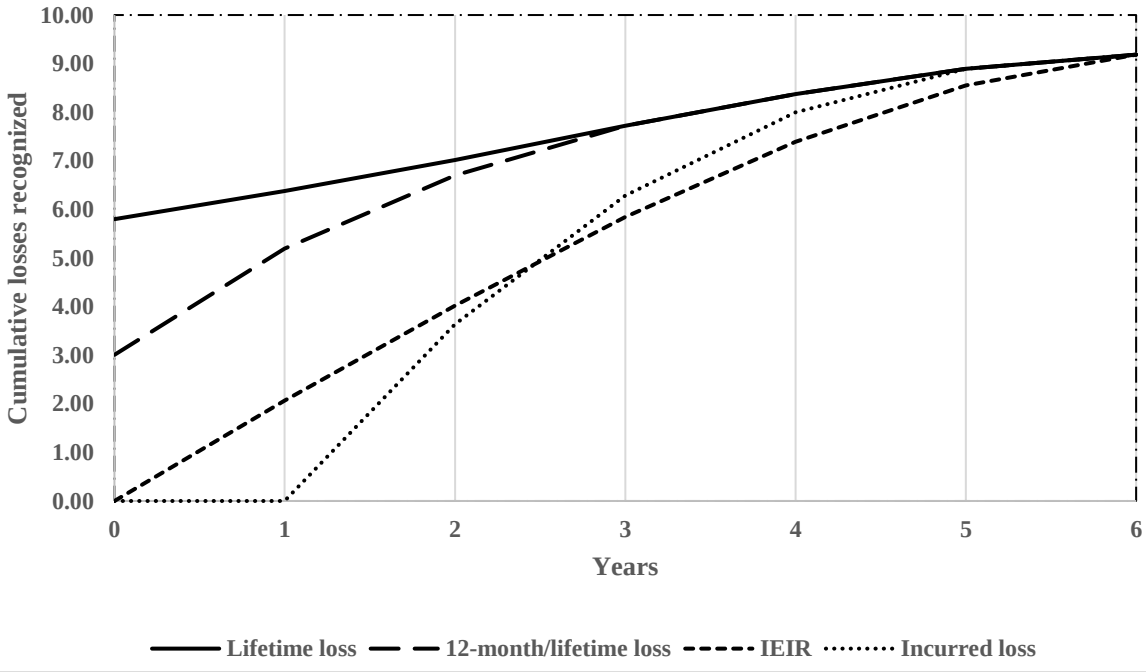
2. Under the IEIR method recommended in IASB (2009), the initially-expected shortfalls relative to contractual cash flows receivable that are recognized over the life of the loans are not reported simply as 'losses' but as allocations of portions of initially-expected shortfalls that are deducted within yearly net interest revenue. However, in order to harmonize presentation across methods, we include the allocations of the initially-expected shortfalls within 'loss' in our IEIR example. IASB (2009, paragraphs 15 and B22) requires that the amounts of initially-expected shortfalls that are allocated as deductions within yearly net interest revenue should be accumulated within an allowance account, as is done in this example. The yearly accrual of interest (net of the allocation of initially-expected shortfalls) at the IEIR times the opening ACNBV necessitates the unwind of a discount within the allowance account. This is demonstrated as follows:

   IEIR * Opening ACNBV = IEIR * (Opening Cost- Opening Allowance)
   = (CEIR * Opening Cost) - ((CEIR-IEIR) * Opening Cost) - (IEIR * Opening Allowance).

   These three elements of the IEIR-based net interest are, respectively:

   - the contractual interest at the CEIR;
   - *less:* the excess of CEIR-based interest over IEIR-based interest; this is the allocation of initially-expected shortfalls within net interest, included within 'Addition' and 'Loss' in our IEIR example;
   - *less:* the unwind of the discount (at the IEIR) on the opening balance of the allowance account.

Figure B.1
Cumulative Losses Recognized From Year 0 to Year 6



Lifetime loss denotes the lifetime loss method (FASB 2010; FASB 2012); **12-month/lifetime loss** denotes the 12-month/lifetime loss method (IASB 2013); **IEIR** denotes the integrated-effective-interest-rate (IEIR) method (IASB 2009); **Incurred loss** denotes the incurred-loss method. Losses are inclusive of the unwind of discounts.

Notable features of the relative timing of loss recognition under our assumptions are as follows.[49]

- The non-IEIR methods are ranked as follows regarding early recognition of initially-expected losses: lifetime loss; 12-month/lifetime loss; incurred loss. Relative to incurred loss, the IEIR method accelerates recognition of initially-expected losses in early years but delays it in later years.
- The pattern of loss recognition under 12-month/lifetime loss is the same as under incurred loss except that loss recognition is two years earlier under 12-month/lifetime loss. Relative to incurred loss: (i) the more forward-looking information set brings loss events forward by one year; (ii) the allowance for loss events possible in the next 12 months brings loss recognition forward by one more year.

[49] A different fact pattern in which shortfalls arise later than in this example gives a similar relative timing of loss recognition.

TABLE 1

Recommendations for Which Responses Are Analyzed

Source of Recommendation: Exposure Document	Recommendation	Results Reported in	Main Results of Analysis of Responses
IASB (2009) (Initial IASB exposure draft)	1. Spreading the recognition of initially-expected credit losses over the life of assets. 2. Spreading the recognition of initially-expected credit losses over the life of assets using an integrated effective interest rate (IEIR) that includes initially-expected credit losses.	Table 3 *(Non-U.S. respondents)*	Spreading of recognition of initially-expected losses was largely supported. The IEIR method of spreading was largely opposed, including on the practicability ground.
FASB (2010) (Initial FASB exposure draft)	3. Recognition at each reporting date of an allowance for all full-contractual-life expected credit losses.	Table 4 *(U.S. respondents)*	The allowance for all full-contractual-life expected losses was largely opposed, mainly on the grounds of practicability and day-one loss.
FASB/IASB (2011) (Joint FASB/IASB supplementary document - aimed at achieving FASB/IASB convergence on accounting for credit losses)	4. A good-book/bad-book distinction. 5. For financial assets in the good book, an allowance comprising time-proportional expected credit losses (TPA). 6. For financial assets in the good book, an allowance comprising credit losses expected to occur within the foreseeable future period (FFPA).	Table 5 *(Non-U.S. respondents and U.S. respondents, reported separately)*	Relative to non-U.S. respondents, U.S. respondents were less supportive of the spreading-focused TPA element of the method and more supportive of the allowance-adequacy-focused FFPA element.
FASB (2012) (Final FASB exposure draft, leading to Accounting Standards Update 2016-13 (FASB 2016))	7. Recognition at each reporting date of an allowance for all full-contractual-life expected credit losses.	Table 6 and 7 *(U.S. respondents)*	The allowance for all full-contractual-life expected losses was largely opposed, including on the grounds of practicability and day-one loss. There was more support for some form of incurred-loss method (pre-existing or a modified version).
IASB (2013) (Final IASB exposure draft, leading to elements of IFRS 9 (IASB 2014))	8. Recognition of an allowance for 12-month expected credit losses for assets for which credit risk has not increased significantly since initial recognition. 9. Recognition of an allowance for lifetime expected credit losses for assets for which credit risk has increased significantly since initial recognition.	Table 8 *(Non-U.S. respondents)*	The 12-month allowance for non-credit-deteriorated assets and the lifetime allowance for assets for which credit risk has increased significantly since initial recognition were largely supported. This was despite widespread negative views about the day-one-loss feature of the 12-month allowance.

TABLE 2
Summary of Respondents by non-U.S./U.S./Other and by Type of Respondent

Exposure Document	Non-U.S. Respondents			U.S. Respondents			Other Respondents			Total		
	Preparers	**Non-preparers**	**Total**	**Preparers**	**Non-preparers**	**Total**	**Preparers**	**Non-preparers**	**Total**	**Preparers**	**Non-preparers**	**Total**
IASB (2009)	**82**	**66**	**148**	13	5	18	6	16	22	101	87	188
FASB (2010)	25	22	47	**582**	**42**	**624**	2	14	16	609	78	687
- non-CB&CU				**94**	**42**	136						
- CB&CU				**488**	0	**488**						
FASB/IASB (2011)	**66**	**45**	**111**	**55**	**17**	**72**	5	15	20	126	77	203
- non-CB&CU				**49**	**17**	66						
- CB&CU				**6**	0	**6**						
FASB (2012)	11	3	14	**263**	**42**	**305**	4	12	16	278	57	335
- non-CB&CU				**98**	**42**	140						
- CB&CU				**165**	0	**165**						
IASB (2013)	**73**	**57**	**130**	20	3	23	4	18	22	97	78	175

In the main results tables, we report results for respondents assumed to be constituents or potential constituents of the board or boards that issued the relevant exposure document: non-U.S. respondents for recommendations in IASB EDs (IASB 2009; IASB 2013); U.S. respondents for recommendations in FASB EDs (FASB 2010; FASB 2012); non-U.S. respondents and U.S. respondents for recommendations in FASB/IASB (2011). Responses from 'other respondents' are not used in our tabulated tests, but some are used in an untabulated analysis. The numbers of respondents for which we report results in our main results tables are printed in bold type.

For FASB (2010), our initial data set includes 2,971 letters. Most of these do not refer to credit-loss impairment and relate to the recommendation in FASB (2010) that most financial assets should be recognized at fair value. For FASB (2010), we analyze only those letters that commented on the credit-loss-impairment recommendations.

CB&CU denotes U.S. preparer respondents that are Community Banks or Credit Unions. U.S. preparers are split into two types: preparers-non-CB&CU and preparers-CB&CU. There were no CB&CU respondents to IASB (2009) or IASB (2013).

TABLE 3
IASB (2009)

Panel A: Recommendation 1. Spreading the Recognition of Initially-Expected Credit Losses Over the Life of Assets (Non-U.S. Respondents)

	All	Preparers	Non-preparers
Numbers of responses analyzed	148	82	66
Percentages of Responses			
For	66%	66%	65%
Against	14%	15%	14%
Neutral/missing	20%	19%	21%
Logistic Regression Results			
Constant	-3.65***	-4.88***	-3.02***
	(-6.51)	(-3.44)	(-4.64)
Practicability	1.44	0.36	0.64
	(1.37)	(0.26)	(0.43)
Usefulness	2.41	-1.46	4.11**
	(1.49)	(-0.77)	(2.34)
Objectivity	2.92***	6.92***	2.06
	(2.66)	(2.80)	(1.24)
Other conceptual issues	5.86***	6.49***	4.63***
	(3.70)	(3.09)	(2.74)
Allowance adequacy	1.86	4.29**	1.00
	(1.51)	(2.37)	(0.43)
Wald Chi-square	*33.23***	*16.53***	*12.86***

Panel B: Recommendation 2. Spreading the Recognition of Initially-Expected Credit Losses Over the Life of Assets Using an Integrated Effective Interest Rate (IEIR) that Includes Initially-Expected Credit Losses. (Non-U.S. Respondents)

	All	Preparers	Non-preparers
Numbers of responses analyzed	148	82	66
Percentages of Responses			
For	34%	21%	50%
Against	62%	77%	44%
Neutral/missing	4%	2%	6%
Logistic Regression Results			
Constant	-2.21***	-1.62*	-2.34***
	(-3.30)	(-1.83)	(-2.74)
Practicability	2.00***	2.12**	1.28
	(2.73)	(2.18)	(1.31)
Usefulness	1.50**	1.51*	1.61
	(2.37)	(1.75)	(1.38)
Objectivity	-0.51	-0.52	-0.69
	(-0.80)	(-0.66)	(-0.59)
Other conceptual issues	4.25***	2.80*	4.28***
	(2.94)	(1.85)	(2.81)
Economic consequences	0.92	0.10	1.56
	(0.88)	(0.06)	(1.24)
Allowance adequacy	1.30	0.76	-1.55
	(0.79)	(0.46)	(-0.66)
Wald Chi-square	*26.01***	*13.94***	*13.75***
Grounds with High Negatives			
Practicability	80%	85%	74%
Usefulness	41%	52%	27%

The logistic regression results are from estimation of model (1): $against\_recommendation_r = b_0 + \sum_{n=1}^{n=g} b_n ground_{n,r} + e_r$,

where: a*gainst_recommendation*$_r$ is equal to 1 if respondent r is against the recommendation and 0 otherwise; $ground_{n,r}$ is equal to 1 if ground n, which is one of the g grounds in the model, is cited negatively by respondent r and 0 otherwise. Z-statistics are in parentheses. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively. The grounds included in each regression model are those cited negatively by three percent or more of the relevant type of respondent. Under 'Grounds with High Negatives', we report for each ground cited negatively by more than 50 percent of any type of respondent the percentages of respondents that cited the ground negatively. There were no such cases for recommendation 1.

TABLE 4
FASB (2010)
Recommendation 3. Recognition at Each Reporting Date of an Allowance for All Full-Contractual-Life Expected Credit Losses (U.S. Respondents)

	All	Preparers-all	Preparers-non-CB&CU	Preparers-CB&CU	Non-preparers
Numbers of responses analyzed	624	582	94	488	42
Percentages of Responses					
For	5%	4%	17%	1%	21%
Against	74%	77%	49%	82%	33%
Neutral/missing	21%	19%	34%	17%	46%
Logistic Regression Results					
Constant	-1.85***	-2.04***	-2.09***	-2.16***	-1.84***
	(-8.50)	(-7.82)	(-4.62)	(-6.31)	(-3.63)
Practicability	5.98***	6.17***	3.31***	6.63***	
	(13.25)	(13.02)	(3.90)	(11.34)	
Objectivity			2.05		2.91*
			(1.61)		(1.69)
Day-one loss	4.98***	5.02***	4.82***		4.01**
	(5.78)	(5.73)	(5.14)		(2.54)
Other conceptual issues			4.07**		4.04***
			(2.21)		(2.56)
Economic consequences			-0.69		
			(-0.37)		
Wald Chi-square	*193.13***	*182.62***	*37.01***	*128.57***	*13.30***
Grounds with High Negatives					
Practicability	66%	70%	13%	81%	2%

The logistic regression results are from estimation of model (1): $against\_recommendation_r = b_0 + \sum_{n=1}^{n=g} b_n ground_{n,r} + e_r$,

where: a*gainst_recommendation*$_r$ is equal to 1 if respondent r is against the recommendation and 0 otherwise; $ground_{n,r}$ is equal to 1 if ground n, which is one of the g grounds in the model, is cited negatively by respondent r and 0 otherwise. Z-statistics are in parentheses. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively. The grounds included in each regression model are those cited negatively by three percent or more of the relevant type of respondent. CB&CU denotes U.S. preparer respondents that are Community Banks or Credit Unions. Under 'Grounds with High Negatives', we report for each ground cited negatively by more than 50 percent of any type of respondent the percentages of respondents that cited the ground negatively.

TABLE 5
FASB/IASB (2011)

Panel A: Recommendation 4. A Good-Book/Bad-Book Distinction (Non-U.S. Respondents)

	All	Preparers	Non-preparers
Numbers of responses analyzed	111	66	45
Percentages of Responses			
For	86%	82%	93%
Against	10%	12%	7%
Neutral/missing	4%	6%	0%
Logistic Regression Results			
Constant	-3.35***	-2.87***	-4.03***
	(-5.31)	(-4.36)	(-2.83)
Practicability	4.50***	4.75***	3.90**
	(3.92)	(2.80)	(2.15)
Usefulness	0.53	-2.74	1.68
	(0.25)	(-0.88)	(0.78)
Objectivity	-3.75	-0.16	-1.33
	(-1.38)	(-0.09)	(-0.75)
Other conceptual issues	5.28***	4.82***	2.47
	(3.41)	(2.92)	(1.31)
Wald Chi-square	*21.47***	*15.61***	*7.39*

Panel B: Recommendation 5. For Financial Assets in the Good Book, an Allowance Comprising Time-Proportional Expected Credit Losses (TPA) (Non-U.S. Respondents)

	All	Preparers	Non-preparers
Number of responses analyzed	111	66	45
Percentages of Responses			
For	76%	71%	82%
Against	19%	20%	18%
Neutral/missing	5%	9%	0%
Logistic Regression Results			
Constant	-3.47***	-3.37***	-3.05***
	(-5.39)	(-4.10)	(-3.63)
Practicability	3.00***	2.56**	2.84***
	(3.89)	(2.44)	(2.74)
Usefulness	0.64	0.55	1.40
	(0.59)	(0.41)	(0.89)
Objectivity	0.75	0.53	1.13
	(0.66)	(0.39)	(0.62)
Other conceptual issues	5.87***	5.77***	2.72
	(3.66)	(3.42)	(1.17)
Allowance adequacy	1.53	1.90	1.25
	(1.02)	(1.08)	(0.72)
Wald Chi-square	*24.72***	*16.28***	*10.62**

TABLE 5
FASB/IASB (2011)

Panel C: Recommendation 6. For Financial Assets in the Good Book, an Allowance Comprising Credit Losses Expected to Occur Within the Foreseeable Future Period (FFPA) (Non-U.S. Respondents)

	All	Preparers	Non-preparers
Number of responses analyzed	111	66	45
Percentages of Responses			
For	44%	44%	44%
Against	52%	50%	56%
Neutral/missing	4%	6%	0%
Logistic Regression Results			
Constant	-1.50***	-1.78***	-1.03**
	(-3.99)	(-3.50)	(-1.98)
Practicability	1.80***	1.69*	1.98**
	(2.60)	(1.69)	(2.03)
Usefulness	-0.01	0.47	-1.55
	(-0.01)	(0.61)	(-1.04)
Objectivity	1.33	1.69*	1.60
	(1.52)	(1.68)	(0.83)
Day-one loss	2.67***	3.00**	1.85**
	(4.67)	(3.57)	(2.56)
Other conceptual issues	2.74***	2.60***	2.98*
	(3.44)	(2.94)	(1.86)
Economic consequences	-2.36		-0.93
	(-0.84)		(-0.27)
Allowance overstatement	-0.62	-2.10	0.79
	(-0.57)	(-1.45)	(0.48)
Wald Chi-square	*30.40***	*18.94***	*11.35*

TABLE 5
FASB/IASB (2011)

Panel D: Recommendation 4. A Good-Book/Bad-Book Distinction (U.S. Respondents)

	All	Preparers-all	Preparers-non-CB&CU	Preparers-CB&CU	Non-preparers
Number of responses analyzed	72	55	49	6	17
Percentages of Responses					
For	49%	45%	47%	33%	59%
Against	43%	44%	41%	67%	41%
Neutral/missing	8%	11%	12%	0%	0%
Logistic Regression Results					
Constant	-0.90**	-1.06**	-1.25***	NA	NA
	(-2.48)	(-2.54)	(-2.67)		
Practicability	3.12***	3.14***	3.06***	NA	NA
	(3.39)	(3.19)	(3.10)		
Usefulness	0.47	0.93	1.05	NA	NA
	(0.64)	(1.08)	(1.20)		
Objectivity	-1.90*	-1.42	-1.40	NA	NA
	(-1.86)	(-1.29)	(-1.26)		
Other conceptual issues	0.65	0.24	0.37	NA	NA
	(0.88)	(0.26)	(0.40)		
Allowance adequacy	0.33			NA	NA
	(0.27)				
Wald Chi-square	*12.51***	*11.60***	*10.77***	*NA*	*NA*

TABLE 5
FASB/IASB (2011)

Panel E: Recommendation 5. For Financial Assets in the Good Book, an Allowance Comprising Time-Proportional Expected Credit Losses (TPA) (U.S. Respondents)

	All	Preparers-all	Preparers-non-CB&CU	Preparers-CB&CU	Non-preparers
Number of responses analyzed	72	55	49	6	17
Percentages of Responses					
For	26%	22%	24%	0%	41%
Against	64%	67%	65%	83%	53%
Neutral/missing	10%	11%	11%	17%	6%
Logistic Regression Results					
Constant	-0.97**	-0.86*	-1.18*	NA	NA
	(-2.23)	(-1.69)	(-1.97)		
Practicability	1.74***	1.87***	2.06**	NA	NA
	(2.86)	(2.60)	(2.52)		
Usefulness	0.78	0.47	-0.19	NA	NA
	(0.93)	(0.52)	(-0.18)		
Objectivity	-0.15	-0.30	0.24	NA	NA
	(-0.11)	(-0.19)	(0.17)		
Other conceptual issues	3.11**	2.76*	3.45**	NA	NA
	(2.07)	(1.76)	(1.99)		
Economic consequences	1.68	0.71	0.47	NA	NA
	(0.94)	(0.35)	(0.23)		
Allowance adequacy	0.89	1.21	1.75	NA	NA
	(0.98)	(1.02)	(1.39)		
Wald Chi-square	*14.31***	*10.12*	*9.37*	*NA*	*NA*

TABLE 5
FASB/IASB (2011)

Panel F: Recommendation 6. For Financial Assets in the Good Book, an Allowance Comprising Credit Losses Expected to Occur Within the Foreseeable Future Period (FFPA) (U.S. Respondents)

	All	Preparers-all	Preparers-non-CB&CU	Preparers-CB&CU	Non-preparers
	Total	Total	Total	Total	Total
Number of responses analyzed	72	55	49	6	17
Percentages of Responses					
For	56%	60%	63%	33%	41%
Against	35%	29%	27%	50%	53%
Neutral/missing	9%	11%	10%	17%	6%
Logistic Regression Results					
Constant	-1.38***	-1.47***	-1.80***	NA	NA
	(-3.76)	(-3.57)	(-3.60)		
Practicability	3.26**	3.27**	3.81**	NA	NA
	(2.20)	(2.33)	(2.38)		
Usefulness	-0.27	0.18	0.68	NA	NA
	(-0.28)	(0.18)	(0.65)		
Objectivity	-0.87	-0.87	-0.59	NA	NA
	(-0.50)	(-0.47)	(0.70)		
Day-one loss	1.39	0.84	-0.30	NA	NA
	(1.49)	(0.78)	(-0.18)		
Other conceptual issues	0.16			NA	NA
	(0.06)				
Economic consequences	2.05	2.37	1.88	NA	NA
	(0.94)	(0.93)	(0.74)		
Allowance adequacy	1.46	0.46	0.78	NA	NA
	(1.16)	(0.27)	(0.44)		
Allowance overstatement	2.25			NA	NA
	(0.66)				
Wald Chi-square	*15.90***	*9.32*	*9.91*	*NA*	*NA*

The logistic regression results are from estimation of model (1): $against\_recommendation_r = b_0 + \sum_{n=1}^{n=g} b_n ground_{n,r} + e_r$,

where: a*gainst_recommendation*$_r$ is equal to 1 if respondent r is against the recommendation and 0 otherwise; *ground*$_{n,r}$ is equal to 1 if ground n, which is one of the g grounds in the model, is cited negatively by respondent r and 0 otherwise. Z-statistics are in parentheses. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively. The grounds included in each regression model are those cited negatively by three percent or more of the relevant type of respondent. CB&CU denotes U.S. preparer respondents that are Community Banks or Credit Unions. Because of the small numbers of observations, the model is not estimated for U.S. preparers-CB&CU and U.S. non-preparers. For each ground cited negatively by more than 50 percent of any type of respondent, we report the percentages of respondents that cited the ground negatively. There were no such cases for recommendations 4, 5 or 6

TABLE 6
FASB (2012)

Recommendation 7. Recognition at Each Reporting Date of an Allowance for All Full-Contractual-Life Expected Credit Losses (U.S. Respondents)

	All	Preparers-all	Preparers-non-CB&CU	Preparers-CB&CU	Non-preparers
Number of responses analyzed	305	263	98	165	42
Percentages of Responses					
For	12%	8%	20%	0%	38%
Against	85%	90%	73%	99%	57%
Neutral/missing	3%	2%	7%	1%	5%
Logistic Regression Results					
Constant	-1.40***	-1.30**	-1.70**	NA	-2.64*
	(-3.12)	(-2.38)	(-2.46)		(-1.89)
Practicability	1.85***	2.23***	2.13***	NA	1.92
	(3.90)	(3.81)	(2.79)		(1.28)
Usefulness	1.22**	0.54	0.82	NA	3.19**
	(2.14)	(0.80)	(1.06)		(1.98)
Objectivity	0.57	1.36*	0.42	NA	-0.33
	(1.15)	(1.91)	(0.51)		(-0.30)
Day-one loss	1.89***	1.42**	1.12	NA	4.00**
	(3.34)	(2.18)	(1.48)		(1.99)
Other conceptual issues	0.89	-0.95	0.16	NA	9.09***
	(0.97)	(-0.86)	(0.13)		(2.63)
Economic consequences	0.94	0.58	-0.57	NA	2.36
	(1.02)	(0.57)	(-0.39)		(1.36)
Regulatory capital	3.14***	3.82**	1.47	NA	
	(3.32)	(2.54)	(0.74)		
Allowance adequacy	1.90	1.07	1.34	NA	
	(1.08)	(0.63)	(0.56)		
Allowance overstatement	-0.28	0.64	1.96	NA	-7.30**
	(-0.30)	(0.40)	(0.80)		(-2.51)
Wald Chi-square	*44.34***	*30.88***	*17.24***	*NA*	*10.85*
Grounds with High Negatives					
Practicability	84%	84%	82%	86%	79%
Objectivity	53%	55%	39%	64%	45%
Day-one loss	47%	50%	42%	55%	29%
Regulatory capital	33%	38%	9%	55%	2%

The logistic regression results are from estimation of model (1): $against\_recommendation_r = b_0 + \sum_{n=1}^{n=g} b_n ground_{n,r} + e_r$,

where: $against\_recommendation_r$ is equal to 1 if respondent r is against the recommendation and 0 otherwise; $ground_{n,r}$ is equal to 1 if ground n, which is one of the g grounds in the model, is cited negatively by respondent r and 0 otherwise. Z-statistics are in parentheses. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively. The grounds included in each regression model are those cited negatively by three percent or more of the relevant type of respondent. CB&CU denotes U.S. preparer respondents that are Community Banks or Credit Unions. Because only one CB&CU respondent is not against the recommendation, the model is not estimated for preparers-CB&CU. Under 'Grounds with High Negatives', we report for each ground cited negatively by more than 50 percent of any type of respondent the percentages of respondents that cited the ground negatively.

TABLE 7
FASB (2012)

Summary of Preferences for Three-Buckets and Incurred Loss for U.S. Respondents That Were Against Recommendation 7 (Recognition at Each Reporting Date of an Allowance for Full-Contractual-Life Expected Credit Losses)

	Total U.S. Respondents to FASB (2012) (see Table 6)	Respondents Against Recommendation 7 (see Table 6)		Percentages of Respondents Against Recommendation 7 That Are Supportive of:		
	N	As a Percentage of U.S. Respondents	N	Three Buckets or Similar	Incurred Loss (or Modified Incurred Loss)	Of Which Both are Mentioned Favorably by:
Preparers-non-CB&CU	98	73%	72	8%	64%	3%
Preparers-CB&CU	165	99%	164	9%	54%	5%
Preparers - all	263	90%	236	9%	57%	4%
Non-preparers	42	57%	24	0%	58%	0%
All U.S. respondents	305	85%	260	8%	57%	4%

CB&CU denotes U.S. preparer respondents that are Community Banks or Credit Unions.

TABLE 8
IASB (2013)

Panel A: Recommendation 8. Recognition of an Allowance for 12-Month Expected Credit Losses for Assets for which Credit Risk Has Not Increased Significantly Since Initial Recognition. (Non-U.S. Respondents)

	All	Preparers	Non-preparers
Number of responses analyzed	130	73	57
Percentages of Responses			
For	72%	74%	70%
Against	23%	21%	26%
Neutral/missing	5%	5%	4%
Logistic Regression Results			
Constant	-2.44 ***	-2.42 ***	-3.16 **
	(-4.50)	(-3.65)	(-2.20)
Practicability	1.78 ***	2.58 ***	0.02
	(2.68)	(2.99)	(0.01)
Usefulness	1.71 **	1.76	1.51
	(2.01)	(1.43)	(1.35)
Day-one loss	1.13 *	0.66	2.42
	(1.90)	(0.85)	(1.63)
Other conceptual issues	0.96	1.04	1.68
	(1.34)	(1.12)	(1.04)
Allowance adequacy	1.71		3.63 **
	(1.63)		(2.04)
Allowance overstatement	1.62 *	2.09 *	0.74
	(1.72)	(1.73)	(0.60)
Wald Chi-square	*17.05* ***	*13.30* **	*7.15*
Grounds with High Negatives			
Day-one loss	51%	48%	54%

Panel B: Recommendation 9. Recognition of an Allowance for Lifetime Expected Credit Losses for Assets for which Credit Risk Has Increased Significantly Since Initial Recognition (Non-U.S. Respondents)

	All	Preparers	Non-preparers
Number of responses analyzed	130	73	57
Percentages of Responses			
For	72%	71%	72%
Against	22%	22%	23%
Neutral/missing	6%	7%	5%
Logistic Regression Results			
Constant	-2.90 ***	-2.63 ***	-3.18 ***
	(-5.95)	(-4.73)	(-3.66)
Practicability	2.57 ***	2.28 ***	2.67 ***
	(3.95)	(2.79)	(2.73)
Usefulness	0.40	1.77	-1.82
	(0.39)	(1.09)	(-0.92)
Objectivity	0.66	-0.14	1.29
	(0.59)	(-0.06)	(0.97)
Other conceptual issues	2.95 ***	2.38 ***	3.74 ***
	(4.53)	(3.07)	(3.16)
Allowance adequacy	3.35 ***		3.68 ***
	(3.07)		(2.70)
Cliff effect	-1.36		1.53
	(-0.49)		(0.83)
Wald Chi-square	*28.92* ***	*15.86* ***	*13.12* **

The logistic regression results are from estimation of model (1): $against\_recommendation_r = b_0 + \sum_{n=1}^{n=g} b_n ground_{n,r} + e_r$,

where: a*gainst_recommendation*$_r$ is equal to 1 if respondent r is against the recommendation and 0 otherwise; $ground_{n,r}$ is equal to 1 if ground n, which is one of the g grounds in the model, is cited negatively by respondent r and 0 otherwise. Z-statistics are in parentheses. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively. The grounds included in each regression model are those cited negatively by three percent or more of the relevant type of respondent. Under 'Grounds with High Negatives', we report for each ground cited negatively by more than 50 percent of any type of respondent the percentages of respondents that cited the ground negatively. There were no such cases for recommendation 9.