

Expected-Loss-Based Accounting for Impairment of Financial Instruments: The FASB and IASB Proposals 2009-2016

Noor Hashim
Weijia Li
John O'Hanlon*

Department of Accounting and Finance
Lancaster University Management School
Lancaster University
Lancaster LA1 4YX, UK

28 June, 2016

* Corresponding author

Correspondence Address: John O'Hanlon, Department of Accounting and Finance, Lancaster University Management School, Lancaster University, Lancaster LA1 4YX, UK. Telephone: 44 (0)1524 593631. Email: j.ohanlon@lancaster.ac.uk.

Expected-Loss-Based Accounting for Impairment of Financial Instruments: The FASB and IASB Proposals 2009-2016

ABSTRACT: The financial and banking crisis of the late 2000s prompted claims that the incurred-loss method for the recognition of credit-losses had caused undesirable delay in the recognition of credit-loss impairment. In the wake of the crisis, the U.S. Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) worked towards the development of expected-loss-based methods of accounting for credit-loss impairment. Their work included an ultimately unsuccessful attempt to develop a converged FASB/IASB standard on credit-loss impairment. The FASB and IASB eventually developed their own separate expected-loss models to be included, respectively, in a 2016 FASB standard and in the IASB's 2014 final version of IFRS 9 *Financial Instruments*. The failure to achieve convergence on an issue of such high profile and materiality has generated some controversy, and it is claimed that it will impose significant costs on the preparers and users of the financial statements of banks. This paper examines the various sets of expected-loss-based proposals issued separately or jointly since 2009 by the FASB and the IASB. It describes and compares key features of the different approaches eventually developed by the two standard setters, referring to issues that arose in arriving at practically workable solutions and to issues that may have impeded FASB/IASB convergence. It also provides information indicative of the possible effect of differences between the two approaches.

Keywords: financial instruments; impairment; expected-loss; loan losses; IFRS 9.

Expected-Loss-Based Accounting for Impairment of Financial Instruments: The FASB and IASB Proposals 2009-2016

1. Introduction

The incurred-loss model for the recognition of credit-loss-impairment, which is currently included in both U.S. GAAP and International Financial Reporting Standards (IFRS), requires that the recognition of a credit loss should be supported by objective evidence that a loss has been incurred.¹ The model has the attractive feature that it restricts the use of loss provisioning as an earnings-management device.² However, in the wake of the financial and banking crisis of the late 2000s, it was claimed that the incurred-loss model had resulted in undue delay in the recognition of predictable credit losses and that the consequent late recognition of such losses had exacerbated the crisis.³ The materiality of this issue can be gauged by the fact that loans typically comprise 60%-70% of banks' total assets. The crisis prompted calls for the U.S. Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) to develop a more forward-looking approach to measuring credit-loss impairment. The standards setters were also urged to achieve converged solutions in accounting for financial instruments, including with regard to credit-loss impairment (Financial Crisis Advisory Group, 2009, page 7).

At the time of the financial and banking crisis, the FASB and IASB had been working for some time towards greater convergence between their accounting standards. This commitment was formalized in the 2002 Norwalk Agreement, in which the two boards pledged to make their existing and future standards fully compatible with each other's, although the time since the agreement has seen considerable fluctuation in the prospects of achieving the level of convergence that was hoped for at the outset.⁴ In addressing concerns about the deficiencies of the incurred-loss approach to recognition of credit-loss impairment reflected in Financial Crisis Advisory Group (2009), the

FASB and the IASB each initially produced its own exposure draft with its own set of proposals for an expected-loss approach that would give more timely recognition of credit-loss impairment (IASB, 2009; FASB, 2010a). A rationale for the production of separate proposals and a statement of the intention to reconcile differences subsequently were given as follows by the IASB:⁵

The Board and the FASB are committed to working together to develop a comprehensive standard to improve the measurement and reporting of financial instruments. The Board has chosen to complete the project in three phases. However, the FASB believes that it will be important to its constituents to be able to comment on a proposed standard including classification, measurement, impairment and hedge accounting at the same time. It is not uncommon for the boards to deliberate separately on joint projects and then subsequently to reconcile any differences in their technical decisions. (IASB, 2009, paragraph IN13)

The FASB (2010a) exposure draft proposed that an entity should recognize credit impairment in net income 'when it does not expect to collect all contractual amounts due for originated financial asset(s) and all amounts originally expected to be collected upon acquisition for purchased financial asset(s)' (FASB, 2010a, paragraph 38). The key feature of the IASB (2009) proposals was the aim to reflect the relationship between the pricing of financial assets and expected credit losses by recognizing interest on a credit-adjusted yield basis, with changes to initial expectations of credit losses subsequently being recognized as gains or losses. The effect of the IASB (2009) proposal would have been that expectations of losses at the date of the entity's initial recognition of a financial instrument, either through origination or acquisition, would be recognized over time within credit-adjusted interest (i.e. as a reduction to interest), with subsequent changes in expectations being recognized as they occur.

Against the background of the FASB/IASB effort to achieve greater convergence and within their joint project on accounting for financial instruments, the two standard setters progressed from their initial exposure drafts to propose a converged approach to impairment. This was described in a joint Supplementary Document (FASB 2011; IASB 2011), which sought to reconcile within an

operationally practicable approach the different preferences of the standard setters reflected in IASB (2009) and FASB (2010a). However, convergence was not achieved. The FASB and the IASB then produced their own separate exposure drafts (FASB, 2012; IASB 2013a), and progressed to the issue of standards containing their own different credit-loss impairment approaches based on those exposure drafts. In 2014, the IASB published IFRS 9 *Financial Instruments* (IASB, 2014a) (hereinafter referred to as IFRS 9), effective for periods beginning on or after 1 January 2018, which includes an expected-loss impairment methodology. The FASB published in June 2016 an Accounting Standards Update with a different expected-loss impairment methodology, effective for different entities for fiscal years beginning after 15 December 2019 or 15 December 2020 (FASB, 2016). Key impairment provisions in the FASB standard are similar to those in FASB (2010a). Those in the IASB standard appear different from those in IASB (2009). However, the IASB sees these as a practically implementable adaptation of the IASB (2009) model, in which initial expected losses are recognized over time and which the IASB still views as the conceptually ideal model.

The failure of the standard setters to achieve convergence on the material and high-profile issue of credit-loss impairment has given rise to adverse comment from bankers and others with regard to its probable costs to preparers and users of financial statements. It was identified by the European Parliament as a matter to be investigated as part of its involvement in the process for endorsement into European Union law of IFRS 9.⁶ In light of the materiality of credit-loss impairment and the problems that lack of convergence may bring, it is possible that pressures for convergence in this area will subsequently re-emerge.

This paper examines the various sets of proposals and final standards for expected-loss methods of accounting for credit-loss impairment that have emanated separately or jointly from the FASB and the IASB since 2009. The remainder of the paper is organised as follows. Section 2

describes the proposals issued by the FASB and the IASB between 2009 and 2013. Section 3 describes key features of the final FASB and IASB approaches by reference both to each standard setter's final exposure draft and to their final standards. Section 4 provides evidence on possible relative impacts of the FASB and IASB approaches to impairment. Section 5 considers respective merits of the FASB and IASB approaches. Section 6 considers the prospects for future FASB/IASB convergence on credit-loss impairment. Section 7 concludes.

2. The Proposals of the FASB and/or IASB from 2009 to 2013

This section summarises key elements of each of the four sets of proposals for an expected-loss-based approach to credit-loss impairment produced by the FASB and/or the IASB from 2009 to 2013. These are: an initial IASB exposure draft (IASB, 2009); an initial FASB exposure draft (FASB, 2010a); a joint January 2011 FASB/IASB Supplementary Document (FASB, 2011; IASB, 2011); a set of proposals for a so-called three-bucket approach issued in mid-2011 based on feedback on FASB (2011) and IASB (2011). These four sets of proposals preceded the standard setters' development of their own separate standards through their final exposure drafts FASB (2012) and IASB (2013a) and in their final standards, which are a FASB standard published in June 2016 (FASB, 2016) and IFRS 9 published in July 2014 (IASB, 2014a). FASB (2012), IASB (2013a), FASB (2016) and IFRS 9 are considered in Section 3. Figure 1 summarises diagrammatically the ordering of all of the documents referred to here.

----- FIGURE 1 ABOUT HERE -----

2.1 IASB Exposure Draft ED/2009/12 Financial Instruments: Amortised Cost and Impairment, November 2009 (IASB, 2009)

This IASB (2009) exposure draft 'proposes requirements for how to include credit loss expectations in the amortized cost measurement of financial assets' (IASB, 2009, paragraph IN6). The key feature of the proposals in IASB (2009) is the aim to reflect the relationship between the pricing of financial assets and expected credit losses by recognizing interest on a credit-adjusted yield basis. Initial expectations of losses would be recognized over time within credit-adjusted interest (i.e. as a reduction within interest). Any subsequent changes in expected credit losses would then be recognized through the income statement when those changes in expectations occur. Any gain or loss to be recognized in response to such a change in expectations would be calculated by discounting the change in expected cash flows by an effective rate of return, calculated on initial recognition of the asset, which is based on projected cash flows net of expected credit losses as at the date of initial recognition (IASB, 2009, paragraph 5). This contrasts with the existing requirement under IAS 39 *Financial Instruments: Recognition and Measurement* (IASB, 1998, and subsequently amended), hereinafter referred to as IAS 39, that the effective interest rate for use in impairment calculations should be based on contractual cash flows.⁷ Net interest revenue for a period would be presented as gross interest revenue (calculated using the effective interest method before taking into account the allocation of the initial estimate of expected credit losses) minus the portion of initial expected credit losses allocated to the period (IASB, 2009, paragraph 13 (a), (b) and (c)). Although it was the intention of the IASB to treat initially-expected losses as part of (as a deduction within) interest revenue rather than as something to be 'matched' against interest, its proposed process might be characterised as leading to a 'matching' outcome.

The IASB (2009) expected-loss impairment model provides the conceptual underpinning for the approach which was eventually adopted in IFRS 9 and which the FASB found to be

unacceptable. In light of the central role of the IASB (2009) model in the events examined in this paper, we provide an illustration of how it would work. We do so through the numerical example provided in Table 1.⁸ As depicted in Table 1 Panel 1, a lender originates at time 0 a portfolio of 5-year loans totalling CU (currency units) 1,000. The contractual payoffs are interest receipts of CU 100 per year for 5 years and repayment of the principal of CU 1,000 after 5 years. The yield on the portfolio based on the contractual cash flows is 10%. Based on the contractual cash flows, the lender expects to recognize interest of CU 100 per year for years 1 to 5. However, the lender expects that its cash receipts from the portfolio of loans will differ from the contractual cash flows in that there will be a shortfall in the year-5 cash flow of CU 117.35: the lender expects to receive at year 5 CU 982.65 instead of CU 1,100 (= CU 1,000 + CU 100). The yield net of initially-expected credited losses is 8%. Table 1 Panel 2 shows how the lender will recognize interest revenue over the 5-year life of the portfolio of loans if initial expectations are realised. Interest revenue is recognized at the effective interest rate of 8%, equal to the yield based on net-of-initially-expected-loss cash flows. In this example, there is a build-up of a loss allowance over the 5-year life of the portfolio against which the losses are eventually charged off. Figure 2 Panel 1 represents graphically the expected recognition over time of initially expected losses. Table 1 Panel 3 shows the evolution of the loan and allowance accounts in the event that there is a downward revision at time 3 of CU 116.64 in the cash expected to be received at time 5, with no other divergence from initial expectations. Here, in the latter part of Panel 3, the allowance account is disaggregated into the part that relates to initial expectations and the part that relates to the impairment.⁹ Figure 2 Panel 2 depicts graphically the cumulative recognition of losses over time where there is a downward revision of the initially-expected cash receipts (upward revision of initial loss expectations).

----- TABLE 1 and FIGURE 2 ABOUT HERE -----

It is relevant at this point to note that the initial carrying value of the portfolio of loans of CU 1,000 can be written either as the present value of the contractual cash flows discounted at the contractual-cash-flow-based yield of 10% or as the present value of the net-of-expected-loss cash flows discounted at the net-of-expected-loss-based yield of 8%:

$$1,000 = \frac{100}{1.10} + \frac{100}{1.10^2} + \frac{100}{1.10^3} + \frac{100}{1.10^4} + \frac{1,100}{1.10^5}$$

$$1,000 = \frac{100}{1.08} + \frac{100}{1.08^2} + \frac{100}{1.08^3} + \frac{100}{1.08^4} + \frac{982.65}{1.08^5}.$$

If the net-of-expected-loss cash flows were discounted at the contractual-cash-flow-based yield of 10% at the time of origination of the portfolio of loans (time 0), the following value would result:

$$927.13 = \frac{100}{1.10} + \frac{100}{1.10^2} + \frac{100}{1.10^3} + \frac{100}{1.10^4} + \frac{982.65}{1.10^5}.$$

This is CU 72.87 less than the amount lent of CU 1,000. The recognition at time 0 of a loss allowance of CU 72.87 to give an amortized cost of CU 927.13 would be an example of full 'day-1' recognition of lifetime expected losses on the portfolio of loans, which some argue constitutes double counting of expected losses (in this representation, within both the numerator and denominator).¹⁰ Day-1 recognition of initially-expected losses would not have occurred under IASB (2009), where the recognition of such losses would have been spread across time. However, it is a feature of some subsequent sets of proposals by the FASB and the IASB.

Comments on this initial IASB (2009) exposure draft recognized that the proposed approach, with spreading of initially expected credit losses over the life of assets, reflected the economics of lending and loan losses.¹¹ However, many commentators noted difficulties with the proposed method. It was argued that users found the separate reporting of interest income and impairment charges informative, and that co-mingling of these items within an integrated effective interest rate would be much less informative. It was also argued that the proposed method posed

very significant operational challenges. These included the level of detail required on the predicted amount and timing of future cash flows, the need for continuous re-estimation of cash flows at each reporting date, and the need for costly integration of risk and accounting systems. Such challenges were subsequently widely recognized to be insurmountable.

2.2 *FASB Exposure Draft: Proposed Accounting Standards Update - Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities, 26 May 2010 (FASB, 2010a)*

The FASB (2010a) exposure draft dealt with all three elements of the Financial Instruments project: Classification and Measurement; Impairment; Hedge Accounting. As this paper considers the area of impairment, our discussion of FASB (2010a) is mainly limited to that element of the exposure draft. As with IASB (2009), the primary aim of the FASB was to replace the incurred-loss approach by an expected-loss approach. It was also intended to simplify the accounting for impairment by having a single impairment model for all financial assets.

The key proposal of FASB (2010a) with regard to credit-loss impairment was as follows:

An entity shall recognize in net income at the end of each financial reporting period the amount of credit impairment related to all contractual amounts due for originated financial asset(s) that the entity does not expect to collect and all amounts originally expected to be collected for purchased financial asset(s) that the entity does not expect to collect. (FASB, 2010a, paragraph 51)

Other proposals within FASB (2010a) included removal of the pre-existing 'probable' threshold for recognizing impairment and that impairment calculations should be based on economic conditions remaining unchanged for the remaining life of an asset. Where an effective interest rate was referred to for the purpose of measuring impairment, the FASB referred to a rate based on contractual cash flows (FASB, 2010a, paragraphs 62 and 66). This contrasted with the IASB (2009) proposal. One of the other proposals within this exposure draft was that loans should be recognized

at fair value on the balance sheet, with a reconciliation from amortized cost where amortized cost is relevant, for example where loans are held for collection.

The key difference between the IASB (2009) and FASB (2010a) proposals is that IASB (2009) aimed to recognize initial predicted losses over time as part of credit-adjusted interest revenue, whereas FASB (2010a) aimed to recognize immediately all predictable losses, to include all contractual cash flows not expected to be collected. Related to this is the difference with regard to the effective interest rate for use in impairment calculations. The IASB (2009) approach to credit-loss impairment could be characterised as giving greater weight to business-model considerations; the FASB (2010a) approach could be characterised as giving greater weight to reserve-adequacy (loss-allowance-adequacy) considerations. The difference evident in these initial sets of proposals is reflected in the difference between the eventual final positions of the IASB and the FASB.

Comments on this FASB exposure draft largely supported the expected-loss approach and the removal of the 'probable' threshold as a means of facilitating more timely recognition of losses.¹² A good summary of the contrasting views expressed with regard to full recognition of contractual cash flows not expected to be collected as opposed to gradual recognition of initially expected losses is provided in the following extract from the FASB's summary of comment letters:

[...] many opposed recognizing impairment "immediately" or in the first reporting period after loans are originated. In their view, the recognition of an impairment loss in the period after origination for a performing loan is "counterintuitive." These constituents prefer to recognize these losses by allocating them in a systematic and rational manner throughout the remaining effective or contractual life of the instrument.... Some preparers supported up-front recognition of lifetime credit losses. One preparer noted that "impairment losses should be recognized immediately. On the balance sheet, the allowance account for credit losses should always equal management's best estimate of the portion of the book balance of loans and securities that the entity will be unable to collect".

As reflected in the above quotation, some commentators referred to the fact that the immediate recognition of all predictable losses would have the counter-intuitive consequence of generating 'day-1 losses' which would not arise under IASB (2009). Commentators also expressed concern that the requirement to base impairment decisions on an assumption that economic conditions would remain unchanged for the remaining life of the assets could cause loss allowances to be too high (low) in bad (good) times. We noted that this exposure draft elicited strong opposition from bankers to the fair-value measurement of loans.¹³

2.3 Seeking Convergence. IASB Supplement to ED/2009/12 - Financial Instruments: Amortised Cost and Impairment (Financial Instruments - Impairment), January 2011; and FASB Supplementary Document: Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities - Impairment, January 2011. (FASB, 2011; IASB 2011.)

This Supplementary Document was published by both the IASB (2011) and the FASB (2011). It was presented as a Supplement to IASB (2009) and FASB (2010a), respectively. The two documents dealt identically with the timing of the recognition of losses.¹⁴ The documents sought to align the objectives of the IASB as reflected in IASB (2009) and those of the FASB as reflected in FASB (2010a) in producing a converged standard on expected-loss-based impairment.

It is instructive to consider the standard setters' description of the different starting positions from which they sought to achieve convergence, as described in the introductory section of the Supplementary Documents. The IASB's position was described as follows:

The IASB's primary objective in the exposure draft Financial Instruments: Amortised Cost and Impairment was to reflect initial expected credit losses as part of determining the effective interest rate, as the IASB believed that this was more reflective of the economic substance of lending transactions. It considered impairment as a part of the measurement of financial assets at amortised cost after their initial recognition. Therefore, the IASB did not believe it was appropriate to recognise all expected credit losses immediately. The IASB's original exposure draft did not look at the allowance for credit losses in isolation. The approach originally proposed by the IASB required an entity to estimate expected cash flows

over the life of instruments. The IASB proposed this approach because: (a) the amounts recognised in the financial statements would reflect the pricing of the asset (i.e., the interest rate charged, which considers expected credit losses) when an entity makes lending decisions. In contrast, under the current incurred-loss approach, interest revenue (and profitability more generally) is front-loaded because interest revenue ignores initially expected credit losses, which are recognised only later once there is objective evidence of impairment as the result of a loss event; (b) the proposed impairment approach generally would result in earlier recognition of credit losses than the incurred-loss impairment model in IAS 39 (i.e., avoid the systematic bias towards late recognition of credit losses). (IASB, 2011, paragraph IN5; FASB, 2011, paragraph IN5)

The FASB's position was described as follows:

The FASB's objective in its originally proposed approach was to ensure that the allowance balance was sufficient to cover all estimated credit losses for the remaining life of an instrument. Therefore, the approach originally proposed by the FASB would require an entity to estimate cash flows not expected to be collected over the life of the instruments and recognize a related amount immediately in the period of estimate. The FASB proposed this approach because the FASB believed it resolved the concern with respect to the current guidance on impairment that reserves tend to be at their lowest level when they are most needed at the beginning of a downward-trending economic cycle (the 'too little, too late' concern). By recognizing all credit losses immediately the allowance account would have a balance of estimated credit losses based on cash flows not expected to be collected for the remaining lifetime of the financial assets. This meant that the account would be sufficient to cover all such estimated credit losses regardless of the timing of those losses. [...] The FASB believed that an entity should recognise in net income credit impairment when it does not expect to collect all contractual amounts due for originated financial assets or all amounts originally expected to be collected for purchased financial assets. Furthermore, the FASB believed that it would be inappropriate to allocate an impairment loss over the life of a financial asset. In other words, if an entity expects not to collect all amounts, a loss exists and should be recognised immediately. (IASB, 2011, paragraphs IN6-7; FASB, 2011, paragraphs IN6-7)

The key element of the proposals in the Supplementary Document was a 'good-book/bad-book' approach with different treatments of the bad book and the good book. At each reporting date, an entity would recognize an impairment allowance that is the total of:

- for assets for which it is appropriate to recognize expected credit losses over a time period (good book), the higher of: (i) the time-proportional expected credit losses; and (ii) the credit losses expected to occur within the foreseeable future period (no less than twelve months); and

- for all other assets (bad book), the entire amount of expected credit losses. (IASB, 2011, paragraph 2; FASB, 2011, paragraph 2)

The 'good-book/bad-book' approach had features that partly satisfied the primary objectives of both the FASB and the IASB. For the good book, the time-proportional approach addressed the IASB's aim to reflect the relationship between the pricing of financial assets and expected credit losses, while the foreseeable-loss floor addressed the FASB's aim to recognize sufficient allowance to cover expected credit losses. It was also proposed that impairment should be based on all available information, to include supportable forecasts of future events and economic conditions. This was different from the initial FASB (2010a) position. The proposed method also moved away from the IASB (2009) integrated effective interest rate that incorporated expected credit losses: 'As part of the IASB-only redeliberations, the IASB decided to exclude expected credit losses when determining the effective interest rate, i.e. to use a non-integrated effective interest rate ('decoupled' effective interest rate)' (IASB, 2011, paragraph IN 17; FASB, 2011, paragraph IN 17).

Comments on the Supplementary Document reflected strong support for FASB/IASB convergence in the face of the differing objectives of the standard setters, although some commentators felt that timely improvement of standard(s) was more important than convergence.¹⁵ Some commented that the proposals were less conceptually sound in representing the economics of lending than the proposals in IASB (2009) but that they addressed the significant operational difficulties with that exposure draft. The 'good-book/bad-book' approach was seen by most financial institutions as consistent with risk-management procedures, although some highlighted the scope for earnings management provided by this approach. Some FASB constituents suggested that the FASB (2010a) proposals for immediate recognition of all predictable losses were too conservative,

and that the recognition of losses expected to occur within the forecastable future period was preferable.

There was significant comment on the time-proportional and foreseeable-future-loss elements of the proposed method of calculating impairment for the good book, with differences of opinion as to whether one or the other or both should be used. The former was seen as deriving from the IASB's objective and the latter was seen as deriving from the FASB's objective. Preferences appeared to vary depending on the location of the respondent (U.S. vs non-U.S.). Most commentators believed that the loss-allowance calculation based on the foreseeable future period would normally exceed that based on time-proportional expected losses, particularly if the forecastable future period were to exceed 12 months, and that the former would therefore dominate the latter in determining the magnitude of loss allowances.¹⁶ A U.K.-based commentator said that the foreseeable-future-loss provision for the good book appeared to derive from an inappropriate focus on a prudential-regulatory objective rather than a financial reporting objective.¹⁷ However, it was also noted that such a provision, although undesirable, might be justified on pragmatic grounds to help achieve convergence. Those who agreed with the FASB's objective of ensuring the sufficiency of the allowance to cover all predictable losses were supportive of the foreseeable-future-loss element of the proposed method.

2.4 A Further Attempt to Seek Convergence: The Three-Bucket Approach (2011)

In light of comments on FASB (2011) and IASB (2011), the FASB and the IASB continued to work together towards a converged approach to impairment. This included consideration of a so-called three-bucket approach, developed from the proposal in FASB (2011) and IASB (2011). Under this approach, loans would be classified in one of three categories (buckets):

- Bucket 1, to which all originated and purchased assets would be initially allocated, would contain assets evaluated 'that have NOT been affected by observable events which indicate a direct relationship to possible future defaults although they may have suffered changes in credit loss expectations as a result of macroeconomic events that are not particular to a (group of) loan(s)' (IASB/FASB, 2011, paragraph 8).
- Buckets 2 and 3, into which assets would be transferred from bucket 1 as appropriate, would contain assets which had suffered deterioration in credit quality:
 - Bucket 2 would contain 'assets that have been affected by the occurrence of observable events which indicate a direct relationship to possible future defaults, however the specific assets in danger of default have not yet been identified' (IASB/FASB, 2011, paragraph 9);
 - Bucket 3 would contain assets where 'information is available that specifically identifies that credit losses are expected to, or have occurred on individual assets' (IASB/FASB, 2011, paragraph 10).

For buckets 2 and 3, lifetime expected losses would be recognized. For bucket 1, there would be partial recognition of expected losses. A number of proposals were made for this, but the key intention was that the allowance should be at least equal to 12 months of expected credit losses. Early proposed alternatives included a time-proportional approach (IASB/FASB, 2011, paragraph 15), but a later IASB document did not refer to this and referred only to a '12 months expected loss allowance'. By the end of the three-bucket deliberations, the time-proportional idea that was central to IASB (2009) and featured importantly in IASB (2011) and FASB (2011) had been discarded in favour of proposed recognition of an allowance for 12-months of expected-losses.

The two standard setters failed to agree on the three-bucket approach, and then went their own separate ways with regard to accounting for credit-loss impairment. Our understanding of the key issue that impeded convergence is that:

- the FASB did not feel that it could proceed with an approach that required the application of two measurement objectives, one of which did not involve the immediate recognition of an allowance sufficient to cover all expected future losses;
- the IASB, in seeking to approximate its preferred representation of the economic substance of lending transactions in light of the fact that carrying values of assets at initial recognition reflect initial expected credit losses, wished to require that loss allowances at a point in time should reflect only a subset of expected future losses.

3. Key Features of the Final FASB (2016) and IASB (IFRS 9, 2014) Approaches

This section summarises the key features of the approaches to accounting for impairment arising from credit losses on financial assets in the FASB's 2016 standard and in IFRS 9. In the case of each of the FASB and the IASB, we first provide some details of the standard setter's progress from the three-bucket deliberations to its final exposure draft. We then describe key features of the impairment requirements of FASB (2016) and IFRS 9. In each case, key features are considered under the headings of 'Scope of the Impairment Model', 'Recognition and Measurement of Losses' and 'Other Issues', under the last of which we consider financial assets measured at fair value through other comprehensive income and purchased credit-impaired financial assets.

3.1 The FASB Approach to Accounting for Credit-Loss Impairment: Latest Exposure Draft and Accounting Standards Update. Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (FASB, 2016)

3.1.1 FASB Exposure Draft: Proposed Accounting Standards Update - Financial Instruments - Credit Losses, 20 December 2012 (FASB, 2012)

The FASB (2012) exposure draft was issued after the FASB had worked with the IASB on joint development of the three-bucket approach and the two standard setters had failed to achieve convergence on the basis of that approach. The FASB's objections to the three-bucket approach were summarised in the 2012 exposure draft as follows, where the reference to proposed amendments is to the amendments detailed in FASB (2012):

Like the proposed amendments, the three-bucket model would eliminate the probable initial recognition threshold and broaden the information set that an entity is required to consider in developing its credit loss estimate. However, unlike the FASB's proposed amendments, the three-bucket impairment model would utilize two different measurement objectives for the credit impairment allowance. For one subset of the portfolio an entity would recognize lifetime expected losses for the financial assets upon which a loss event is expected in the next 12 months (sometimes referred to as "12 months of expected losses"). For another subset of the portfolio, an entity would recognize all lifetime expected losses. An entity would apply certain criteria to decide which measurement objective should be followed for assets held as of the reporting date.

After spending a considerable amount of time and effort developing the three-bucket impairment model, the Board decided not to pursue an Exposure Draft on the three-bucket impairment model given the feedback that the Board had received on using two different measurement objectives. Specifically, U.S. stakeholders expressed concerns about the use of two very different measurement objectives and the ambiguity and operability of the principle for determining which measurement objective should apply to assets held in a given reporting period. Also, many stakeholders viewed the principle for determining which measurement objective should apply as reintroducing an incurred-loss recognition trigger into the model, which was a perceived weakness of existing U.S. GAAP that this project sought to address. Furthermore, users expressed concern about interpreting any model that utilizes two different measurement objectives to arrive at a single recognized allowance for credit losses on the balance sheet, which is a core concept in the three-bucket model. Therefore, the FASB decided to modify its proposal to include only one measurement approach, which is the current estimate of contractual cash flows not expected to be collected on financial assets held at the reporting date. The FASB's proposed model carries forward many decisions that were jointly deliberated and agreed upon with the IASB. (FASB, 2012, p. 4-5)

As can be seen from the above extract, the essential problem was that the FASB did not feel that it could proceed with an approach that required the application of two measurement objectives, one of which did not involve the immediate recognition of an allowance to cover all expected future losses on assets held at the reporting date. It was also noted that some stakeholders saw the three-bucket model as reintroducing an incurred-loss trigger. Some other related concerns included:

- potential for earnings management arising from choices about the timing of the transfers of loans from one measurement-objective category to another;
- a potential 'cliff' effect when moving from partial recognition of expected losses to full recognition and vice versa; and
- potential inconsistency in application that would impede comparability and transparency (FASB, 2012, paragraph BC11).

The key element of this FASB (2012) exposure draft was the proposal for a Current Expected Credit Loss (CECL) impairment model. This 'would require an entity to impair its existing financial assets on the basis of the current estimate of contractual cash flows not expected to be collected on financial assets held at the reporting date' (FASB, 2012, p. 2). This contrasted with the three-bucket-based approach, which the IASB carried forward into IFRS 9, where full recognition of future expected losses would only occur for assets that had suffered credit deterioration since initial recognition.

Comment on the FASB exposure draft tended to vary between investors and preparers.¹⁸ Investors and some other users had a strong preference for recognition of all expected losses, as opposed to recognition of only some expected losses. Here, loss-allowance adequacy was seen as important. Some commentators who supported the recognition of all expected losses expressed concern that two models (full recognition and partial recognition) could introduce undesirable

subjectivity into the accounting for impairment. There was a preference among some preparers for recognition of only some expected losses. Many preparers objected to the proposal 'because they believe it will result in (1) understating the net asset value of a financial asset measured at amortized cost on "Day 1" (by recognizing expected credit losses that are already reflected in the purchase price or transaction price at initial recognition) and (2) failing to "match" the timing of recognition of credit loss expense with the timing of recognition of compensation for expected credit losses (in the form of interest income)'.¹⁹ Also, some financial institutions were concerned about the potential impact of the CECL model on regulatory capital. Some strong views were expressed about the costs of lack of FASB/IASB convergence in such an important area. For example, in commenting on FASB (2012), a major ratings service stated that 'U.S. GAAP and IFRS convergence is imperative for financial instrument impairment accounting'. It added that 'Further complicating impairment analysis with two markedly different accounting objectives for measuring credit losses will create unnecessary reporting and market confusion, in our view....[W]e believe converging accounting standards is imperative, and greatly relevant to our credit analysis'.²⁰

FASB (2012) and substantial further deliberations led to a new FASB Accounting Standards Update *Financial Instruments – Credit Losses (Topic 326)* published in June 2016. This introduces a new Topic 326 - Credit Losses with Subtopics 326-20 (Financial Instruments – Credit Losses – Measured at Amortized Cost) and 326-30 (Financial Instruments – Credit Losses – Available for Sale Debt Securities). Also, it makes changes to some other Accounting Standards Codification Topics, including Topic 310 – Receivables.

3.1.2 FASB (2016): Scope of the Impairment Model

The Current Expected Credit Loss (CECL) model described in Subtopic 326-20 applies to financial assets measured at amortized cost, which include financing receivables, which are defined very similarly to loans, and held-to-maturity debt securities. It also applies to net investments in leases and off-balance-sheet credit exposures not accounted for as insurance (FASB, 2016, paragraph 326-20-15-2). Paragraph 326-20-15-3 lists a number of items to which it does not apply. These include: financial assets measured at fair value through net income; debt securities classified as available-for-sale, which are within the scope of the Available-for-Sale Credit Loss Model under the new FASB Codification Subtopic 326-30.

3.1.3 FASB (2016): Recognition and Measurement of Losses

The allowance for expected credit losses is 'a valuation account that is deducted from the amortized cost basis of the financial asset(s) to present the net amount expected to be collected on the financial asset' (FASB, 2016, paragraph 326-20-30-1). As in FASB (2010a), the 'probable' threshold for recognition of losses is removed. Expected credit losses of financial assets should be measured on a collective (pool) basis when similar risk characteristic(s) exist and on an individual basis when they do not (FASB, 2016, paragraph 326-20-30-2).

The allowance for credit losses may be determined using various methods. A discounted-cash-flow method based on projected future principal and interest cash flows may be used, but this is not a requirement. Other methods based on loss rates, roll rates, probability-of-default or aging schedules may be used instead. If a discounted-cash-flow method is used, cash flows should be discounted at the financial asset's effective interest rate. This is the contractual interest rate adjusted for costs, premium or discount, but not expected credit losses. When a discounted-cash-flow

method is used, the loss allowance should reflect the difference between the (gross) amortized cost and the present value of expected cash flows (FASB, 2016, paragraphs 326-20-30-3 and 326-20-30-4). When a method other than a discounted cash flow method is used, an entity should estimate expected credit losses over the contractual term of the financial asset (FASB, 2016, paragraph 326-20-30-6).

With regard to the information set to be used in estimating expected credit losses over the expected life of financial assets, 'an entity shall consider available information relevant to assessing the collectability of cash flows. This information may include internal information, external information or a combination of both relating to past events, current conditions, and reasonable and supportable forecasts' (FASB, 2016, paragraph 326-20-30-7). It is stated that historical credit-loss experience usually provides a basis for the assessment of expected credit losses, but that management should adjust this in light of their understanding of how current conditions and future conditions based on reasonable and supportable forecasts might differ from conditions in the period in which historical credit-loss experience was observed (FASB, 2016, paragraphs 326-20-30-8 and 326-20-30-9). Important points about the CECL model from conceptual and practical perspectives are made in the following extract:

Some entities may be able to develop reasonable and supportable forecasts over the contractual term of the financial asset or a group of financial assets. However, an entity is not required to develop forecasts over the contractual term of the financial asset or group of financial assets. Rather, for periods beyond which the entity is able to make or obtain reasonable and supportable forecasts of expected credit losses, an entity shall revert to historical loss information determined in accordance with paragraph 326-20-30-8 that is reflective of the contractual term of the financial asset or group of financial assets. An entity shall not adjust historical loss information for existing economic conditions or expectations of future economic conditions for periods that are beyond the reasonable and supportable period. An entity may revert to historical loss information at the input level or based on the entire estimate. An entity may revert to historical loss information immediately, on a straight-line basis, or using another rational and systematic basis. (FASB, 2016, paragraph 326-20-30-9)

Important points here are: (i) that the expected losses that are required to be recognized are for the contractual term of the financial asset(s); (ii) that the estimation of these expected losses does not require that forecasts be made over the entire contractual term and, to the extent that reasonable and supportable forecasts are not available, expected losses shall be based on historical loss information. There is no implication that expected losses should not be recognised for periods beyond the horizon for which reasonable and supportable forecasts are available.

The point about forecasting requirements was emphasized by FASB representatives in a meeting with representatives of U.S. Community Banks on 4 February 2016: expected losses should be based on historical loss experience supplemented by reasonable and supportable forecasts where such forecasts are available; for the part of the estimated life of assets for which reasonable and supportable forecasts are not available, historical loss experience should be used as the basis for estimation of expected losses. It was also emphasized at that meeting that the CECL standard would not require complex computer models, and that Community Banks would be able to leverage the methods and systems/processes that they were already using; however, their loss inputs would need to change because the methodology would transition from incurred-loss to expected-loss.

FASB (2016) removes the requirement of the initial FASB exposure draft (FASB, 2010a, paragraph 42) to assume that existing economic conditions would remain unchanged for the remaining life of the financial assets. This is consistent with the joint 2011 FASB/IASB Supplementary Document (FASB, 2011; IASB, 2011).

In the context of comparison with the IASB proposal, it is notable that the FASB has chosen not to characterise the requirement to estimate credit losses for the expected life of financial assets as a requirement to estimate lifetime expected credit losses. This is because the term 'lifetime' is

believed to be capable of being interpreted such as to imply requirements, including levels of precision, beyond those that are intended (FASB, 2016, paragraph BC46).²¹

3.1.4 FASB (2016): Other Issues

3.1.4.1 Financial Assets Measured at Fair Value Through Other Comprehensive Income

The current U.S. GAAP model (in FASB Codification Topic 320, now to be codified under the new Subtopic 326-30), requires that gains and losses on available-for-sale securities are recognized through other comprehensive income, except for other-than-temporary impairments which are recognized through earnings to the extent that the amortized cost exceeds fair value. Under FASB (2016), the current U.S. GAAP model that is used to recognize credit losses on available-for-sale debt securities is retained with some changes. These include the introduction of an allowance approach for recognizing credit losses, which would allow an entity to recognize reversals of credit losses in the period in which an improvement occurs.²²

3.1.4.2 Purchased-Credit-Impaired (PCI) Financial Assets

Purchased-credit-impaired (PCI) financial assets are defined by the FASB as acquired financial assets that have experienced a more than insignificant deterioration in credit quality since origination. The FASB now describes such assets as 'purchased financial assets with credit deterioration', but we will continue to use the term PCI in this paper. For such assets, FASB (2016) requires that the initial estimate of credit losses should be recognized as (1) an adjustment that increases the amortized cost basis of the asset and (2) an equal allowance for credit losses (FASB, 2016, paragraph 326-20-30-13 and Examples 13 and 14). This grossing up of the cost of PCI assets for the initial estimate of credit losses contrasts with current U.S. GAAP under which 'valuation

allowances shall reflect only those losses incurred by the investor after acquisition - that is, the present value of all cash flows expected at acquisition that ultimately are not to be received' (FASB Codification, 310-30-30-1). The FASB justified the move to a gross-up as follows:

The Board recognizes that there are different perspectives on whether a credit loss allowance for a purchased credit-impaired asset should be based on (a) changes in the amount of expected credit losses since acquisition or (b) the current (that is, absolute) amount of expected credit losses considering contractual cash flows not expected to be collected. The Board decided that the measurement objective of the allowance for credit losses should be the same for all financial assets and, therefore, chose the "absolute" approach. The Board believes that it is easier to understand the nature of the allowance by not creating a separate or distinct credit allowance measurement objective for purchased credit-impaired assets. (FASB, 2012, paragraph BC41)

The move reflects the FASB's wish to measure balance-sheet loss allowances by reference to expected cash flows relative to contractual cash flows, consistent with its general expected-loss impairment model, rather than relative to cash flows expected at initial recognition of the asset, which was the general approach favoured by the IASB in its initial 2009 exposure draft.

If a discounted-cash-flow method is used to determine expected credit losses on a PCI asset, interest income for the asset should be recognized by applying to the gross-of-allowance cost the rate (discount rate) that equates the present value of the purchaser's estimate of the asset's future cash flows with the purchase price of the asset. (See FASB, 2016, paragraph 326-20-30-14 and Example 14.) In this case, the subsequent changes in the DCF-based initial loss allowance arising from the unwinding of the discount can be presented as either a credit-loss expense or as an adjustment to (subtraction from) interest income (FASB, 2016, Example 14). If the latter approach is adopted, the overall effect is that PCI assets are initially accounted for at cost (equal to the gross-of-allowance cost less the allowance), and interest is then recognised over time at the initially-determined net-of-expected-credit-loss yield. We note that this approach is conceptually similar to the general approach for financial instruments proposed in IASB (2009).

3.2 The IASB Approach to Accounting for Credit-Loss Impairment: Latest Exposure Draft and IFRS 9 Financial Instruments (IASB, 2014a)

3.2.1 IASB Exposure Draft: ED/2013/3 Financial Instruments - Expected Credit Losses, March 2013 (IASB, 2013a)

The IASB (2013a) exposure draft was issued by the IASB after it had worked with the FASB on joint development of the three-bucket approach and the two standard setters had failed to achieve convergence on the basis of that approach. The exposure draft contained the following account from the IASB on the progress from the three-bucket approach:

In May 2011, the boards decided to develop a model that would reflect the general pattern of deterioration in the credit quality of financial instruments, the so-called 'three-bucket model'. In the three-bucket model, the amount of the expected credit losses recognised as a loss allowance or provision would depend on the level of deterioration in the credit quality of financial instruments since initial recognition.

In July 2012, the IASB and the FASB finished deliberating all the joint matters in the development of a general framework for the three-bucket model. However, in August 2012, in response to feedback received from interested parties in the U.S. about that model, the FASB began exploring an alternative expected credit loss model that: (a) did not use a dual-measurement approach; and (b) reflected all credit risk in the portfolio at each reporting date.

Following the FASB's announcement, the IASB conducted outreach to help it decide whether it should continue to develop the three-bucket model. Overall, the majority of participants in the IASB's outreach supported a model that distinguishes those financial instruments that have deteriorated in credit quality from those that have not. However, some noted that their support for the model was dependent on whether the benefits of the information provided outweighed the costs of determining when financial instruments have deteriorated in credit quality. Consequently, the IASB decided to propose the model in this Exposure Draft, which is similar to the three-bucket model. However the IASB clarified and simplified that model to address the views that it had received. (IASB, 2013a, paragraphs BC 11-13)

The essential feature of the proposals in this IASB exposure draft was the categorisation of assets for impairment purposes in a manner similar to the three-bucket approach. For financial instruments for which credit risk has not increased significantly since recognition, the allowance should be 12-month expected credit losses, equal to the portion of expected lifetime credit losses from default

events possible within next 12 months; for financial instruments for which credit risk has increased significantly since recognition, the allowance should equal lifetime expected credit losses (IASB, 2013a, paragraphs 4-5). In contrast to IASB (2009) and consistent with FASB (2011) and IASB (2011), the effective interest rate was not adjusted for initial expectations of credit losses (IASB, 2013a, Appendix A). An exception to this was the case of purchased or originated credit impaired financial assets for which it was proposed 'to carry forward the scope and requirements in paragraph AG5 of IAS 39, whereby an entity is required to include the initial expected credit losses in the estimated cash flows when calculating the effective interest rate for financial assets that have objective evidence of impairment on initial recognition' (IASB, 2013a, paragraph BC137).²³

Commentators were largely supportive of the proposals as a balance between faithful representation of economic substance with regard to credit losses and practicality.²⁴ The proposals were seen by some as less conceptually pure than the initial IASB (2009) proposals with regard to the measurement of the effective return on lending, but as a more easily operationalised and pragmatic approach to recognizing the economics of lending transactions. Commentators were largely supportive of the proposed split between assets that have and have not experienced credit deterioration. Although some commentators supported full recognition of all expected losses as proposed in FASB (2012), most did not. Arguments against full recognition of lifetime expected credit losses at initial recognition included that it did not reflect the economics of lending and that, although it might appear simpler to understand, the estimation of lifetime expected losses on performing assets would involve undesirable complexity and subjectivity. The proposals were seen as forward looking, without excessive front-loading of recognition of losses, although it was noted that the proposals would give rise to some 'day-1 losses'. There was some concern about 'earnings management' because of increased reliance on judgement.

As with the comments on FASB (2012), some strong views were expressed about the costs of lack of convergence in this area. For example, in commenting on IASB (2013a), a major U.K. bank suggested that a material difference between the IASB and the FASB in accounting for credit losses would be costly in that it would confuse investors, give rise to the need for financial statement preparers to provide additional non-GAAP measures, and could affect the relative competitiveness of entities reporting under the two regimes. This commentator did not see additional disclosure as an effective substitute for convergence.²⁵ IASB (2013a) led to the IFRS 9 requirements on impairment, which are described below.

3.2.2 IFRS 9 (IASB, 2014a): Scope of the Impairment Model

The scope of the IFRS 9 impairment requirements includes:

1. Financial assets measured at amortized cost. Such assets are assets that meet the following conditions: (a) the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows and (b) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
2. Financial assets measured at fair value through other comprehensive income. Such assets are assets that meet the following conditions: (a) the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and (b) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
3. Lease receivables, contract assets, loan commitments and financial guarantee contracts that are not measured at fair value through profit or loss.

See IFRS 9 (paragraph 4.1.2, paragraph 4.1.2A, paragraph 5.5.1, paragraph 5.5.2, paragraph BC5.118).

3.2.3 IFRS 9 (IASB, 2014a): Recognition and Measurement of Losses

The key feature of the IFRS 9 impairment model is the categorisation of assets into those for which 12-month expected losses should be recognized at the reporting date and those for which lifetime expected losses should be recognized at the reporting date. (IFRS 9 also specifies a 'simplified approach' for certain assets, including trade receivables, which are likely to have a maturity that is less than one year and for which lifetime expected credit losses and 12-month expected credit losses are likely to be similar. Under this approach, lifetime expected losses should be recognised. This approach is not referred to in further detail on this paper.) The categorisation of assets into 12-month-loss and lifetime-losses categories is the feature of the three-bucket approach and IFRS 9 to which the FASB attributed its inability to converge with the IASB on credit-loss impairment, referring to 'two different measurement objectives'. Key elements of the three-bucket approach are retained in IFRS 9 in that assets are grouped into three categories. These are referred to in an IASB summary document as 'Stage 1', 'Stage 2' and 'Stage 3' (IASB, 2014b), although this terminology is not used in IFRS 9 itself. The categories are as follows:

- Stage 1 assets, for which credit risk has not increased significantly since initial recognition. 12-month expected losses are recognized and interest is calculated based on the gross carrying amount before deducting the loss allowance;
- Stage 2 assets, for which credit risk has increased significantly and the resulting credit quality is not considered to be low credit risk. IASB (2014b, p. 18) describes Stage-2 assets similarly to Bucket-2 assets under the three-bucket approach: for example, 'information emerges that a

region in the country is experiencing tough economic conditions'. Full lifetime expected credit losses are recognized and interest is calculated based on the gross carrying amount before deducting the loss allowance;

- Stage 3 assets, where credit risk has increased such that the particular assets are considered to be credit-impaired. This is similar to Bucket-3 under the three-bucket approach. Full lifetime expected credit losses are recognized and interest is calculated based on the gross carrying amount of the asset less the loss allowance.

The Stage-1 recognition of 12-month expected losses where credit risk has not increased significantly since initial recognition is an operationally simplified approach to addressing the IASB (2009) objective to recognize initial expected credit losses over time (IFRS 9, paragraph BC5.195).

Transfer from the 12-month-expected-loss category (Stage 1) to the lifetime-expected-loss category (Stages 2 and 3) is dependent upon assessment of whether the credit risk on a financial instrument has increased significantly since initial recognition. The assessment, which may be on an individual or collective basis, is based on change in the risk of a default occurring over the expected life of the financial instrument and not on the change in the amount of expected credit losses (IFRS 9, paragraph 5.5.9).

Measurement of expected credit losses should reflect the following:

- An unbiased and probability-weighted amount based on evaluating a range of possible outcomes.
- The time value of money. IFRS 9 states that

Expected credit losses shall be discounted [...] using the effective interest rate determined at initial recognition or an approximation thereof. If a financial instrument has a variable interest rate, expected credit losses shall be discounted using the current effective interest rate [...] For purchased or originated credit-impaired financial assets, expected credit losses shall be discounted using the credit-adjusted effective interest rate determined at initial recognition. (IFRS 9, B5.5.44-45)²⁶

There is no equivalent to the FASB's permission of methods that do not explicitly recognize the time value of money.

- Reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

(IFRS 9, paragraph 5.5.17)

The Standard says the following on the measurement of lifetime and 12-month expected losses:

For lifetime expected credit losses, an entity shall estimate the risk of a default occurring on the financial instrument during its expected life. 12-month expected credit losses are a portion of the lifetime expected credit losses and represent the lifetime cash shortfalls that will result if a default occurs in the 12 months after the reporting date (or a shorter period if the expected life of a financial instrument is less than 12 months), weighted by the probability of that default occurring. Thus, 12-month expected credit losses are neither the lifetime expected credit losses that an entity will incur on financial instruments that it predicts will default in the next 12 months nor the cash shortfalls that are predicted over the next 12 months (IFRS 9, paragraph B5.5.43)

As the term '12-month expected credit losses' could denote various things, it is useful to clarify what is denoted by the term in IFRS 9. The meaning is explained and exemplified within the Implementation Guidance (IFRS 9, paragraphs IE49-IE50). 12 month expected credit losses for a loan for which credit risk has not increased significantly since initial recognition is the product of:

- the proportion of the gross carrying amount of the loan that is expected to be lost in the event that the loan defaults (loss given default (LGD));²⁷
- the probability of default (PD) over the next 12 months;
- the gross carrying amount of the loan.

For example, if the gross carrying amount of the loan is CU 1,000,000, the LGD is 25 % (0.25) and the PD over the next 12 months is 0.5 % (0.005), then the loss allowance is: CU 1,250 (= 0.25 × 0.005 × 1,000,000).

3.2.4 IFRS 9 (IASB, 2014a): Other Issues

3.2.4.1 Financial assets measured at fair value through other comprehensive income

Under IFRS 9 expected losses for financial assets measured at fair value through other comprehensive income (FV-OCI) are calculated using the same model that is used for all other financial assets in the scope of impairment accounting.²⁸ An example of how the impairment of FV-OCI assets would be treated is given in the implementation guidance of IFRS 9: A reduction in fair value of CU 50 from CU 1,000 to CU 950 comprises (i) an impairment loss of CU 30 and (ii) other net-negative valuation effects totalling CU 20. Item (i) is recognized as an impairment loss in profit or loss. Item (ii) is debited to other comprehensive income (IFRS 9, paragraphs IE78-IE81, Example 13).

3.2.4.2 Purchased-Credit-Impaired (PCI) Financial Assets

IFRS 9 does not change the pre-existing requirement of IAS 39 that an entity should include the initial expected credit losses in the estimated cash flows when calculating the effective interest rate for financial assets that are credit-impaired on initial recognition.²⁹ IFRS 9 says that, for purchased or originated credit-impaired financial assets, '[...] the entity shall apply the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition' (IFRS 9, paragraph 5.4.1 (a)). Echoing the point made previously in connection with the FASB (2016) model for PCI assets, there is a similarity between this treatment and the treatment that was proposed for all financial assets at initial recognition under IASB (2009).³⁰ Unlike in FASB (2016), there is no gross-up at acquisition for an initially recognized allowance for credit losses.³¹

3.3 Summary of Key Differences Between FASB (2016) and IFRS 9 in Accounting for Impairment

Key differences between the FASB (2016) and IFRS 9 approaches to impairment are summarised and discussed in this subsection.

FASB (2016) requires that an entity should recognize the current estimate of all contractual cash flows not expected to be collected as the allowance for expected credit losses. Under IFRS 9: for assets for which credit risk has increased significantly since initial recognition, the loss allowance is an amount equal to lifetime expected credit losses; for assets for which credit risk has not increased significantly since initial recognition, the loss allowance is an amount equal to 12-month expected credit losses. The FASB (2016) position with regard to credit-loss impairment is similar to that in FASB (2010a), although it is no longer required to assume that existing economic conditions would remain unchanged for the remaining life of assets. The IASB appears to have shifted further from its initial position than the FASB, including through the recognition of 12-month expected-losses for assets where credit risk has not increased significantly since initial recognition. Although this could be interpreted as acceptance of the FASB preference for a foreseeable-loss floor and produces some day-1 losses, we view it as essentially a pragmatic way of achieving time apportionment of expected losses on the assets in question.

Under FASB (2016), the allowance for credit losses may be determined using discounted-cash-flow-based methods or by other non-discounted-cash-flow-based methods such as loss-rate methods or roll-rate methods. IFRS 9 requires that expected credit losses of a financial instrument should be measured such as to reflect the time value of money. IFRS 9 reflects a stronger focus on a present-value-based approach for the determination of loss allowances.

The scope of the IFRS 9 impairment requirements includes financial assets measured at fair value through other comprehensive income (FV-OCI), which include debt securities that are

available for sale: impairment is calculated on the basis of expected losses using the same expected-loss model used for all financial assets in the scope of impairment accounting. The scope of the FASB (2016) CECL impairment model does not include debt securities classified as available-for-sale: current U.S. GAAP is largely retained within a new Subtopic 326-30, with the introduction of an allowance account to allow reversals of credit losses to be recognized.

There is a significant difference between the FASB and the IASB with regard to the treatment of PCI assets. The IFRS 9 treatment of PCI assets is the same as that under IAS 39. The FASB's position is clearly differentiated from this in requiring that the purchase price for such assets is grossed up for an allowance for credit losses at the date of acquisition. This aligns with an important element of the FASB's general CECL model by eliminating the pre-existing requirement that loss allowances should reflect only losses incurred after acquisition.

The key difference between the FASB (2016) and IFRS 9 requirements has its roots in the fundamental difference that was evident at the start of the process with regard to whether a credit loss should be measured by reference to contractual cash flows or by reference to cash flows expected on initial recognition.

4 Evidence on Possible Relative Impacts of the FASB and IASB Approaches to Impairment

The ability to assess the likely impacts of the implementation of the FASB (2016) and IFRS 9 approaches is limited by the fact that the approaches are new and are not yet required to be implemented in any regime. In particular, it is difficult to predict the outcomes under the FASB's CECL model in response to the requirement that the allowance for credit losses should reflect the amount not expected to be collected on financial assets in combination with the stipulation that an entity is not required to develop forecasts over the contractual term of the financial assets if those

forecasts are not reasonable and supportable (FASB, 2016, paragraph 326-20-30-9). However, there are a number of observations that can be made, and summary statistics can provide at least some indication of the potential order of magnitude of any impact.

Other things equal with regard to loans, losses and charge offs, the accelerated recognition of losses under the FASB's and the IASB's expected-loss models will tend to cause loss-allowance accounts in balance sheets to be higher than they would have been under the incurred-loss model.³² With regard to the FASB's model, the U.S. Comptroller of the Currency indicated that CECL would increase allowances 'perhaps in the neighbourhood of 30 to 50 percent system-wide if applied today' (Curry, 2013). With regard to the IFRS 9 proposal, EFRAG (2015) reports some survey-based evidence that loss allowances are expected to rise under IFRS 9 relative to the current incurred-loss model. Also, an IASB Staff Paper provides some evidence, based on a small fieldwork exercise, that increases in balance-sheet loss-allowance accounts under IFRS 9 relative to the IAS 39 incurred-loss model could be material (IASB, 2013c).

With regard to differences between the impacts of the FASB (2016) requirements and the IFRS 9 requirements, we are not aware of any specific analysis of this. However, the IASB Staff Paper suggests that allowances arising from recognition of lifetime losses on all financial assets could be materially greater than those arising from the IFRS 9 requirements to recognize 12-month expected losses on some financial assets and lifetime losses on others (IASB, 2013c). This implies that the allowances under FASB (2016) could be materially greater than under IFRS 9.

The principal difference between the FASB and IFRS impairment methods relates to assets for which credit risk has not increased significantly since initial recognition. Under FASB (2016), expected losses beyond the 12-month horizon would be recognized for such assets, whereas under IFRS 9 they would not be recognized. As a report of the Financial Stability Board of September

2013 put it: 'Under both sets of proposals the provisions for loan losses are based on the same information set of loss expectations and, for poorly performing loans, the provisioning would be the same under both proposals. The difference between the proposals is in the impairment accounting for performing loans' (Financial Stability Board, 2013, p. 34). This suggests that examination of the magnitude of performing loans relative to total loans and relative to equity may provide some indication of the likely order of magnitude of differences in loss allowances that would be recognized for a given set of facts under the FASB CECL model and under IFRS 9. We acknowledge that any inferences drawn from this approach must be qualified because the category 'performing loans' does not correspond precisely to the IFRS 9 12-month-expected-loss category.³³

Subject to this qualification, examination of the magnitude of loans categorised as performing loans relative to total loans and relative to equity and of some related statistics provides some indication of the potential order of magnitude of the differences between loss allowances under the FASB (2016) and IFRS 9 impairment approaches. We present statistics in Table 2 for non-U.S. banks (emerging markets and developed markets) and for U.S. banks (small and large) derived from data provided by SNL Financial. Table 2 reports for the years 2007 to 2014 the medians of various statistics for bank/years for which SNL provides data for all of the variables presented in that table. We make a number of observations based on the statistics in Table 2. First, for U.S. banks and for emerging-market banks, Total Assets are typically around 10 times the magnitude of Equity. In non-U.S. developed-markets they are typically 15 to 20 times the magnitude of equity. This reflects the very high leverage of banks. Second, Gross Loans are typically about 60% to 70% of Total Assets, and are more than five times larger than Equity for U.S. and emerging-market banks and more than ten times larger than Equity in non-U.S. developed markets. Third, the median Loan-Loss Allowance as a percentage of Equity is typically around 10%

for U.S. banks, around 20% to 40% in emerging markets and around 10% to 20% in non-U.S. developed markets. Fourth, similar to Gross Loans, Performing Loans are typically more than five times larger than Equity for U.S. and emerging-market banks and more than ten times larger than Equity in non-U.S. developed markets. The key points from the foregoing are that loans are a large number relative to Total Assets and Equity and, in particular, that Performing Loans are typically several times larger than Equity. Even small differences between loan-loss allowances for performing loans as a proportion of the loans could cause material proportionate differences in total loan-loss allowances and in equity.³⁴

In light of the probability that a significant proportion of loans for which IFRS 9 would only recognize 12 month expected losses would be consumer loans, the last two columns of Table 2 report statistics for Consumer Loans and Consumer Mortgage Loans, the latter of which are expected to be longer-term on average. In both cases, statistics are reported as a percentage of Gross Loans. Consumer Loans are typically between 30% and 45% of Gross Loans for emerging markets and U.S. banks and between 50% and 60% of Gross Loans for non-U.S. developed markets. Consumer Mortgage Loans are typically between 10% and 20% of Gross Loans for emerging markets and for large U.S. banks, around 25% of Gross Loans for small U.S. banks and between 35% and 50% of Gross Loans in non-U.S. developed markets. As Gross Loans are many times larger than Equity, these items are themselves large relative to Equity.

We also note the possibility that differences between the structure of bank lending in the U.S. and elsewhere may mitigate the effect of differences between the FASB and IASB impairment standards. For example, as Giner and Arce (2016) note, the average time that banks expect to hold loans on their balance sheets may be less in the U.S. than elsewhere.³⁵

It is difficult now to predict the magnitude of the effect of the FASB/IASB differences on accounting for impairment. However, with the qualifications referred to above, the differences could give rise to material proportionate differences in loss allowances between the two regimes.

-----TABLE 2 ABOUT HERE -----

5. Respective Merits of the Two Approaches

This section summarises arguments for and against the IFRS 9 and FASB (2016) approaches to impairment and issues to be considered in evaluating the potential contributions of the two approaches to promoting financial stability.

The FASB's aim to recognize as losses all contractual cash flows not expected to be collected is a relatively simple aim likely to be easily understood by and intuitively appealing to many users of financial statements. An aim in the IASB's 2009 exposure draft on impairment (IASB, 2009) was to reflect the relationship between the pricing of financial assets and expected credit losses by recognizing initially-expected credit losses over time within credit-loss adjusted interest revenue. This was seen to be a faithful representation of the economics of lending and associated loan losses, as it effectively treats initial expected loan losses as being compensated in the lending margin rather than giving rise to losses to be recognized as soon as they are foreseen. The eventual IFRS 9 approach involving recognition of 12-month losses where credit risk has not increased significantly since initial recognition is intended as an operationally practicable application of the IASB (2009) model. The source of the difference between the FASB and the IASB with regard to the partial or full recognition of expected credit losses could be characterised as follows: are loss expectations at initial recognition compensated by the lending margin, and therefore to be recognized over time along with interest (IASB), or are they to be recognized

immediately in loss allowances (FASB)? Alternatively: should losses be recognized by comparison with expected cash flows as at the time of initial recognition (IASB) or by comparison with contractual cash flows (FASB)? This tension was reflected in a dissenting opinion of FASB members reported within FASB (2016), where it was argued that 'a method of recording interest income along with related expected credit loss provisions would result in a more faithful reflection of the economics of lending' (FASB, 2016).

Particular issues that arise in comparing the FASB and IASB approaches are now considered.

5.1 One or Two Sets of Expected Losses/One or Two Measurement Objectives

An issue that has arisen prominently in debate about the respective merits of the IFRS 9 and FASB (2016) approaches is the relative desirability of (i) recognizing different sets of expected losses (12-month or lifetime) depending on whether or not credit risk on a financial instrument has increased significantly since initial recognition, as required by IFRS 9, and (ii) recognizing the same set of expected losses (all contractual cash flows not expected to be collected) regardless of whether or not credit risk on a financial instrument has increased significantly, as in FASB (2016).

The FASB sees its recognition of one set of losses as constituting the consistent application of 'one measurement objective' to all assets regardless of the degree of credit risk. Having two classifications (full recognition and partial recognition) is seen as introducing undesirable subjectivity, and therefore earnings-management opportunities, into the process of measuring impairment. Transfers from the 12-month category to the lifetime category could introduce a 'cliff' effect. Also, the FASB reported that some stakeholders saw this as amounting to the reintroduction of an incurred-loss recognition trigger into the model (FASB, 2012, p. 5).

A counter-argument to the perceived problems of having two sets of expected losses (full or partial), depending on the circumstances, is that this provides opportunities for communication of information that a uniform approach would not give. This argument was mentioned by EFRAG (2015). It could further be argued that, because of the time horizon involved and the nature of the information and estimates that would have to be used, considerable subjectivity would be involved in measuring all lifetime expected credit losses on all financial instruments at initial recognition.³⁶

5.2 Day-1 Losses

Both the FASB requirements and the IFRS 9 requirements can give rise to 'day-1 losses', which appear counter-intuitive. The numerical illustration in subsection 2.1 illustrates that the recognition of day-1 losses can be seen as an inappropriate combination of a net-of-credit-loss numerator (expected cash flows) and a gross-of-credit-loss denominator (discount rate). This point was also made in a dissenting opinion reported within FASB (2016): 'Recording a credit loss at initial recognition (along with a related allowance for loan losses) results in a balance sheet presentation that reflects the credit risk twice; it is reflected in the price paid (which is based on the terms of the instrument, including the stated interest rate) and it is reflected in the allowance for loan losses' (FASB, 2016). The double counting of initial loss expectations through the recognition of day-1 loss allowances is likely to be costly. It could dis-incentivise lending to high-credit-risk borrowers, and would result in apparent subsequent gains as excessive loss allowances are reversed. Excessive loss allowances may create incentives for lenders to run down loan books to realise accounting gains on 'under-valued' assets. These costs have to be balanced against the desirability of ensuring that all expected future losses are recognized at each reporting date, which is the preference reflected in the FASB (2016) requirements. As the set of losses to be recognized is larger under

FASB (2016) than under IFRS 9, it is likely that any problems arising from the recognition of day-1 losses will be more pronounced under the former than under the latter. Also, it could be argued that any day-1 recognition of 12-month expected losses at initial recognition under IFRS 9 is just part of a practical mechanism for spreading loss recognition across time rather than part of a mechanism for achieving reserve-adequacy-motivated recognition of day-1 losses.

5.3 Issues To Be Considered in Evaluating the Contributions of the Approaches to Promoting Financial Stability

In considering the question of how the FASB (2016) and IFRS 9 approaches compare with regard to their possible effects in promoting financial stability, it is helpful to make the following two points. First, banking regulators, in specifying how banks' regulatory capital is calculated, may require adjustments to be made in respect of loss allowances. The effect on book equity capital of applying the impairment requirements of standard setters can therefore be modified in arriving at regulatory capital.³⁷ Second, accounting standard setters do not typically see it as part of their role to require that financial reporting should focus on the needs of regulators with responsibility for maintaining financial stability. In considering the argument that financial reporting should take account of such regulatory needs, the two standard setters each said the following in their 2010 Conceptual Framework documents:

The Board acknowledged that the interests of investors, lenders, and other creditors often overlap with those of regulators. However, expanding the objective of financial reporting to include maintaining financial stability could at times create conflicts between the objectives that the Board is not well equipped to resolve. For example, some may take the view that the best way to maintain financial stability is to require entities not to report or to delay reporting some changes in asset or liability values. That requirement almost certainly would result in depriving investors, lenders, and other creditors of information that they need. The only way to avoid conflicts would be to eliminate or deemphasize the existing objective of providing information to investors, lenders, and other creditors. The Board concluded that eliminating that objective would be inconsistent with its basic mission, which is to serve the information

needs of participants in capital markets. (FASB, 2010b, paragraph BC1.23; IASB, 2010, paragraph BC1.23)

The standard setters further noted that 'providing relevant and faithfully represented financial information can improve users' confidence in the information and, thus, contribute to promoting financial stability' (FASB, 2010b, paragraph BC1.23; IASB, 2010, paragraph BC1.23).³⁸ Consistent with this view, Bushman & Williams (2015) report evidence that lack of timeliness in loan-loss recognition by banks reduces transparency in an important respect and contributes to problems during recessions. One of the effects that they refer to is 'delayed expected loss recognition (DELR) creating a common source of risk vulnerability across high DELR banks simultaneously, which leads to risk co-dependence among banks and systemic effects from banks acting as part of a herd' (Bushman & Williams, 2015, p. 512).³⁹

Because it involves fuller recognition of expected losses, it might be argued that the FASB approach is more likely than the IFRS 9 approach to satisfy prudential-regulatory-based preferences for loss-allowance adequacy. However, overstatement of loss allowances can be costly, particularly if significant day-1 losses can arise. It is relevant here that, where the term 'prudence' appears in conceptual-framework documents, it denotes the exercise of caution under uncertainty and not deliberate bias.⁴⁰

We understand that prudential-regulatory-related influences that might create pressure for fuller recognition of expected losses may be stronger on the FASB than on the IASB, in part due to the explicit link between U.S. GAAP and bank regulation. This link is found in what Hodder & Hopkins (2014) refer to as 'RAP-GAAP conformity', which refers to the requirement that regulatory accounting principles must be consistent with or no less stringent than GAAP.⁴¹ The requirement for U.S. depository institutions to follow GAAP with regard to the allowance for loan and lease losses is referred to in a 2006 Interagency Policy Statement on the Allowance for Loan and Lease

Losses.⁴² Related to this, in the Basis for Conclusions of IFRS 9, the IASB identified as a reason for differences in feedback received by the FASB and IASB that 'the interaction between the role of prudential regulation and loss allowances is historically stronger in the U.S.' (IFRS 9, BC5.116). The perception that accounting for loan losses by U.S. banks is subject to prudential-regulatory-based influences was reflected in evidence to a December 2015 European Parliament hearing.⁴³ The danger that full day-1 recognition of expected credit losses might be perceived to be aimed at achieving an inappropriate prudential-regulatory-motivated overstatement of loss allowances was referred to in the dissenting opinion reported within FASB (2016).⁴⁴ It is important that accounting standard setters do not allow the quality of financial reporting to be adversely affected as a consequence of prudential-regulatory-related influences.

Based on the above, our view is that the relative quality of different impairment approaches should not be judged by whether they directly address concerns about loss-allowance adequacy on the part of bank regulators, who can require loan-loss allowances in financial statements to be adjusted for regulatory-capital purposes, but by the quality of information they provide to markets and other stakeholders to promote transparency and market stability.

5.4 Concluding Remarks For This Section

Both the FASB and the IASB have a shared objective to improve substantially the accounting for credit losses, in particular by requiring recognition of expected losses. The approaches adopted by the two standard setters differ from each other to some extent. The FASB, with an apparent greater focus on sufficiency of loss allowances, requires recognition of all expected future credit losses at each reporting date. The IASB's IFRS 9, with an apparent greater focus on what the IASB sees as the economic substance of lending and loan losses and the dangers of unduly high loss allowances,

requires more limited recognition of expected future credit losses. Both standard setters can be expected to succeed in addressing their shared objective to improve accounting for impairment arising from credit losses, in particular with regard to the recognition of expected losses, albeit in different ways reflecting their partially different focuses.

6. Prospects for Convergence between FASB and IASB in the Future

After an extended but unsuccessful attempt to achieve convergence, the FASB and IASB have gone their own partially separate ways on accounting for impairment. Timely implementation of high-quality expected-loss accounting for impairment to replace the current incurred-loss model was seen as important and preferable to further time-consuming and potentially fruitless efforts to achieve convergence. Both standard setters appear confident that they have achieved their objectives, albeit in the case of the IASB through significant operational simplification. In our view, there is no reason to expect the standard setters to move from their considered current positions towards convergence with each other unless significant new information or new pressures emerge.

Our reading of comment letters indicates that, although some commentators see different FASB and IASB standards on impairment as desirable because of jurisdictional differences, there is a predominant preference for convergence on this issue. Non-converged standards are largely seen as a necessary expedient in light of the pressing need for more timely accounting for credit-loss-related impairment rather than as something that is desirable in itself. A flavour of the concerns about non-convergence is given in the FASB summary of commentators' feedback on FASB (2012). Some commentators argued that:

- (a) certain financial institutions (specifically those that prepare financial statements under U.S. GAAP) will be at a regulatory capital disadvantage compared to those institutions preparing financial statements under IFRS, (b) investors would be affected when analyzing and comparing financial statements of financial institutions prepared under U.S. GAAP

against those prepared under IFRS, and (c) financial statement preparers would face significant operational challenges when preparing financial statements under both U.S. GAAP and IFRS. (See paragraph B1 of the summary of commentators' feedback.)⁴⁵

It was also reported that some commentators

[...] believe that international convergence is fundamental to global capital markets and anything less than full convergence on the recognition of credit losses on financial instruments would be detrimental to the competitiveness of global capital markets. (See paragraph B2 of the summary of commentators' feedback.)

Recall also the references in subsections 3.1.1 and 3.2.1 of this paper to the comments by a ratings agency and a major U.K. bank to the effect that a material difference between the FASB and the IASB in accounting for credit losses would be costly in that it would confuse investors, would give rise to the need for financial statement preparers to provide additional non-GAAP measures, and would significantly complicate the task of financial analysis.

Although it is difficult to establish on the basis of currently available information the likely magnitude of the differences between loan-loss allowance under the FASB (2016) and IFRS 9 requirements, examination of the magnitudes of performing loans relative to Gross Loans and Equity reported in Table 2 gives some feel for the potential materiality of the differences: there is reason to believe that the resultant differences in loan-loss allowances and equity could be proportionately material. This is confirmed by other opinions reported in this paper. Once the FASB (2016) and IFRS 9 impairment standards are implemented side by side, it is possible that 'convergence through disclosure and reconciliation' may overcome the problems posed by FASB/IASB differences. However, it appears likely that we have not heard the last word on this issue and that implementation will bring pressures for change, including for closer FASB/IASB convergence on this issue. Day-1 losses, which are likely to be substantially larger under FASB (2016) than under IFRS 9 and which have given rise to significant comment in a dissenting opinion

reported in FASB (2016), seem to be a likely source of pressure to achieve closer FASB/IASB convergence on credit-loss impairment.

7. Concluding Comments

This paper outlines the work of the FASB and the IASB since 2009 on the development of expected-loss methods for measuring the impairment of financial instruments arising from credit losses, and describes and compares key features of the different credit-loss impairment requirements developed by the two standard setters. It also provides information indicative of the possible effect of differences between the final requirements of the two standard setters, summarises arguments for and against the main elements of those requirements, and comments on the prospects for potential convergence between the two standard setters in this area.

The history of the work of the standard setters in developing the credit-loss-impairment provisions in FASB (2016) and IFRS 9 includes an extended and ultimately unsuccessful attempt by the two standard setters to produce a converged approach. The lack of convergence on credit-loss impairment is largely due to a difference between the FASB and the IASB, arising from different objectives evident in the initial exposure drafts of the two standard setters, as to whether impairment losses should reflect the shortfall in cash flows expected to be collected relative to the contractual cash flows of assets (FASB) or the shortfall in cash flows expected to be collected relative to cash flows expected at initial recognition of assets (IASB). The FASB wishes to require that the current estimate of all cash flows not expected to be collected by an entity in respect of its existing financial instruments should be recognized at each reporting date, such that the allowance balance is sufficient to cover all estimated credit losses. The IASB wishes to reflect the economics of lending and loan losses by recognizing that economic losses arise when credit loss expectations

change from initial expectations, and to strike a balance between the dangers of unduly low loss allowances and the dangers of unduly high loss allowances: for assets for which credit risk has increased significantly since initial recognition, the loss allowance is an amount equal to lifetime expected credit losses but, for assets for which credit risk has not increased significantly since initial recognition, the loss allowance is an amount equal to 12-month expected credit losses. Setting the allowance equal to 12-month expected losses in the latter case is an operationally simplified approach to addressing an initial IASB (2009) objective to recognize initial expected credit losses over time as part of a credit-loss-adjusted effective interest rate.

The FASB (2016) and IFRS 9 approaches each resulted from extensive deliberations and each has what many regard as a reasonable and intuitive basis. However, concerns have been raised about the standard setters' lack of convergence in this important area, including with regard to the costs that the existence of materially different impairment approaches might impose on the preparers and users of financial statements.⁴⁶ Evidence on which to base assessment of the likely impact on loss allowances of the two standard setters' expected-loss approaches relative to the incurred-loss approach or relative to each other's expected-loss approaches is limited. Among other things, it is difficult to predict the outcome from the combination of the FASB's requirement that the allowance for credit losses should reflect the full amount not expected to be collected on financial assets and its stipulation that forecasts over the contractual term of financial assets are not required where forecasts are not supportable. However, it is likely that loss allowances will rise under both approaches relative to the incurred-loss approach because a broader set of losses will be recognizable. It also appears likely that they will rise more under the FASB approach than under IFRS 9, because a broader set of losses will be recognizable under the FASB approach. Some appreciation of the potential order of magnitude of the difference between allowances under the

FASB (2016) and IFRS 9 approaches is given by considering that, as noted by the Financial Stability Board (2013), the primary difference between the approaches of the FASB and the IASB could be said to relate to performing loans. The magnitudes of banks' performing loans relative to equity suggest that the proportionate effect on loss allowances of the difference could be material.

In our view it is possible that, once the FASB and IASB standards both become operational, pressures for a converged approach could re-emerge as a consequence of costs imposed on preparers and users of financial statements by materially different outcomes of applying the two non-converged approaches. Meanwhile, we believe that the standard setters are right, in the absence of immediate prospects of convergence, to proceed now to higher-quality expected-loss-based standards even if they are not converged standards.

Acknowledgements

This paper is adapted from the following study that was conducted at the request of the European Parliament's Committee on Economic and Monetary Affairs: O'Hanlon, Hashim & Li, 'Expected-Loss-Based Accounting for the Impairment of Financial Instruments: the FASB and IASB IFRS 9 Approaches', European Parliament, 2015, [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/563463/IPOL_STU\(2015\)563463_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/563463/IPOL_STU(2015)563463_EN.pdf). Copyright for that study remains with the European Parliament at all times. The study by O'Hanlon, Hashim & Li was requested as part of the European Parliament's involvement in the European Union's endorsement process for IFRS 9 *Financial Instruments*. The paper has benefited from the comments of an anonymous reviewer and the editor.

Notes

¹ The requirement to use an incurred-loss model is described as follows in current U.S. GAAP:

The following provides an overview of generally accepted accounting principles (GAAP) for loan impairment:

- a. [...] the concept in GAAP is that impairment of receivables shall be recognized when, based on all available information, it is probable that a loss has been incurred based on past events and conditions existing at the date of the financial statements.
- b. Losses shall not be recognized before it is probable that they have been incurred, even though it may be probable based on past experience that losses will be incurred in the future. It is inappropriate to consider possible or expected future trends that may lead to additional losses. (FASB Codification 310-10-35-4)

It is described as follows under International Financial Reporting Standards (IFRS) in IAS 39 (IASB, 1998 and subsequently amended, paragraph 59):

'A financial asset or a group of financial assets is impaired and impairment losses are incurred 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, are not recognised.'

² See Camfferman (2015) for an account of the development of the incurred-loss-based impairment model within IFRS.

³ See Gebhardt & Novotny-Farkas (2011) for evidence that the adoption in the European Union of the incurred-loss model required by IAS 39 (IASB, 1998 and subsequently amended) coincided with a reduction in the timeliness of recognition of loan losses relative to previous loan-loss-accounting regimes.

⁴ For the Norwalk Agreement, see <http://www.fasb.org/news/memorandum.pdf>.

⁵ See also Andre, Cazavan-Jeny, Dick, Richard & Walton (2009) for an indication that standard setters were under political pressure to act quickly on financial instruments in the wake of the crisis. This may have contributed to their addressing the issue of credit-loss impairment separately in the first instance.

⁶ See European Parliament hearing of 1 December, 2015 at <http://www.europarl.europa.eu/ep-live/en/committees/video?event=20151201-1500-COMMITTEE-ECON>. See also O'Hanlon, Hashim & Li (2015), which was commissioned by the European Parliament as part of its involvement in the European Union's process for endorsement of IFRS 9, in order to document the differences between FASB and IASB expected-loss impairment proposals and their potential implications. See also Bischof & Daske (2016), Gebhardt (2016) and Novotny-Farkas (2016), which are published in this issue and are also related to papers commissioned by the European Parliament in connection with the endorsement of IFRS 9. See also Nobes (2015) and Walton (2015) for discussion of aspects of the European Union's endorsement process.

⁷ See paragraphs 9 and 63 of IAS 39.

⁸ The numerical example in Table 1 and Figure 2 is drawn from various sources. These include the text of IASB (2009), including paragraphs B22 and B23 which relate to the allowance account, the IASB numerical example referred to in a note to Table 1, and an IASB diagram referred to in a note to Figure 2.

⁹ This latter decomposition is based on the authors' assessment of how the impairment would have been dealt with under IASB (2009). As far as we are aware, this level of detail is not provided in the IASB's own descriptions of accounting for impairment under IASB (2009).

¹⁰ See the later reference to the dissenting opinion reported in FASB (2016).

¹¹ References to comments are based in part on the summary of comment letters on the exposure draft produced by the standard setter and in part on the authors' review of comment letters themselves. The standard setter's summary can be accessed at <http://www.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognitio/Impairment/Meeting-Summaries/Documents/FI0710b09Aobs.pdf>; the comment letters can be accessed at <http://www.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognitio/Impairment/ED/Comment-Letters/Pages/Comment-Letters.aspx>.

¹² References to comments are based in part on the summary of comment letters on the exposure draft produced by the standard setter and in part on the authors' review of comment letters themselves. The standard setter's summary can be accessed at http://www.fasb.org/cs/ContentServer?site=FASB&c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176158096249; the comment letters can be accessed at

-
- http://www.fasb.org/jsp/FASB/CommentLetter_C/CommentLetterPage&cid=1218220137090&project_id=1810-100.
- ¹³ Hodder & Hopkins (2014) also noted this.
- ¹⁴ The IASB document also included an IASB-only Appendix on Presentation and Disclosure.
- ¹⁵ References to comments are based in part on the summary of comment letters on the Supplementary Document produced by the standard setters and in part on the authors' review of comment letters themselves. The standard setters' summary can be accessed at http://www.fasb.org/cs/ContentServer?site=FASB&c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176158457166; the comment letters can be accessed at http://www.fasb.org/jsp/FASB/CommentLetter_C/CommentLetterPage&cid=1218220137090&project_id=2011-150.
- ¹⁶ See paragraph 35 of the summary of comment letters on the Supplementary Document referred to previously.
- ¹⁷ See the letter from Barclays dated 1 April 2011.
- ¹⁸ References to comments are based in part on the summary of comment letters on the exposure draft produced by the standard setter and in part on the authors' review of comment letters themselves. The standard setter's summary can be accessed at http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176162917634; the comment letters can be accessed at http://www.fasb.org/jsp/FASB/CommentLetter_C/CommentLetterPage&cid=1218220137090&project_id=2012-260.
- ¹⁹ See the FASB's comment-letter summary (paragraph 9a), available at http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176162917634.
- ²⁰ See the letter from Standard and Poor's Ratings Services dated 28 June 2013.
- ²¹ For example, it 'may lead some to believe that an entity must identify the exact amount and timing of uncollectible cash flows in each year of the asset's life for use in a discounted cash flow technique to estimate expected credit losses' (FASB, 2016, paragraph BC46).
- ²² This is different from current GAAP which requires a write down upon occurrence of an other-than-temporary impairment, with subsequent improvements being recognized in interest income over the remaining life. See the tentative Board decisions on modifications to impairment guidance in Topic 320 reached on 13 August 2014 at http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176164310031.
- ²³ A distinction is drawn between the general requirement for inclusion of expected credit losses in the effective-interest-rate calculation under IASB (2009) and the requirements under IASB (2013a) in respect of purchased or originated credit-impaired financial assets: 'A financial instrument shall not be considered to be a purchased or originated credit-impaired financial asset solely because of its credit risk on initial recognition. For a financial instrument to be a purchased or originated credit-impaired financial asset, there must be objective evidence of impairment at initial recognition.' (IASB, 2013a, paragraph B9)
- ²⁴ References to comments are based in part on the summary of comment letters on the exposure draft produced by the standard setter and in part on the authors' review of comment letters themselves. The standard setter's summary can be accessed at <http://www.ifrs.org/Meetings/MeetingDocs/IASB/2013/July/05C-Impairment.pdf>; the comment letters can be accessed at <http://www.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognitio/Impairment/Exposure-Draft-March-2013/Comment-letters/Pages/Comment-letters.aspx>.
- ²⁵ See the letter from Barclays dated 9 July 2013.
- ²⁶ Although the current effective interest rate on variable-rate loans is normally determined by reference to the reporting-date level of the interest rate against which the asset's interest rate is indexed, there has been some debate as to whether yield-curve-based rates might be applied to expected cash shortfalls in some cases. See an IASB Staff Paper from 11 December 2015: <http://www.ifrs.org/Meetings/MeetingDocs/Other%20Meeting/2015/December/ITG/AP7-Meaning-of-current-effective-interest-rate.pdf>.
- ²⁷ Since the loss is already stated in present-value terms, the time value of money is not referred to here.
- ²⁸ The available-for-sale category of financial assets that exists in IAS 39 is not present in IFRS 9. In explaining its rationale for this, the IASB states that it believes that the FV-OCI measurement category in IFRS 9 is fundamentally different to the available-for-sale category in IAS 39 because it is based on the criteria of assets' contractual cash

flow characteristics and the business model in which they are held rather than being a residual category into which entities could classify assets using significant discretion (IFRS 9, paragraph BC4.161).

²⁹ The relevant section of IAS 39 (paragraph AG 5) is as follows: 'In some cases, financial assets are acquired at a deep discount that reflects incurred credit losses. Entities include such incurred credit losses in the estimated cash flows when computing the effective interest rate'.

³⁰ Here, it should be noted that PCI assets are typically a relatively small part of banks' assets, and that systems and accounting practice for this class of assets are well established.

³¹ For reasoning behind the IASB's position on this, see IFRS 9, paragraphs BC5.219-BC5.220.

³² It should be noted that a change from one impairment model to another may alter the timing of the recognition of losses on assets and the average magnitude of balance-sheet loss allowances, but will not (other things equal) change the total amount of losses recognised over the life of the assets.

³³ The lack of direct mapping between the IFRS 9 12-month-expected-loss/lifetime-expected-loss categorisation and the performing/non-performing categorisation is indicated in a PWC paper that refers to (i) the 12-month-expected-loss category (Stage 1) as 'performing loans', (ii) assets for which credit risk has increased significantly and the resulting credit quality is not considered to be low credit risk but are not considered to be credit-impaired (Stage 2) as 'under-performing loans', and (iii) assets that are considered to be credit-impaired (Stage 3) as 'non-performing loans' (PWC, 2014).

³⁴ Note that the effect on equity of a difference in the loan-loss allowance is determined to some extent by the tax treatment of recognized loan losses.

³⁵ This possibility was also referred to at the meeting of the European Parliament's Committee on Economic and Monetary Affairs (1 December, 2015) in connection with the Parliament's involvement in the European Union's endorsement process for IFRS 9.

³⁶ In a meeting between FASB representatives and representatives of U.S. Community Banks on 4 February 2016, community bankers expressed concern at the difficulty of forecasting losses beyond short horizons.

³⁷ For example, in adjusting its 2014 balance-sheet Shareholders Equity of USD 190,447 millions in order to arrive at its Tier 1 Capital of USD 152,739 millions, HSBC Holdings plc deducted USD 5,813 million in respect of 'negative amounts resulting from the calculation of expected loss amounts'. See the Annual Report and Accounts 2014 of HSBC Holdings plc, p. 246, at <http://www.hsbc.com/investor-relations/financial-and-regulatory-reports>. For details of the calculation of regulatory capital calculations for U.S. Bank Holding Companies, see schedule HC-R of the FR Y-9C form published by the Board of Governors of the Federal Reserve System: http://www.federalreserve.gov/reportforms/forms/FR_Y-9C20150630_f.pdf.

³⁸ See Barth & Landsman (2010) for discussion relevant to this issue.

³⁹ The effect documented by Bushman & Williams (2015) contrasts with the more direct effect documented by Beatty & Liao (2011). They report that, relative to banks with less timely expected-loss recognition, banks with more timely recognition reduce their lending less during recessions, and that this effect arises in part through a regulatory-capital-related constraint.

⁴⁰ See for example the IASB's 2015 exposure draft ED/2015/3 Conceptual Framework for Financial Reporting (IASB, 2015)

⁴¹ Title 12, Chapter 16, U.S. Code § 1831n (a)(2)(A) states that 'the accounting principles applicable to reports or statements required to be filed with Federal banking agencies by all insured depository institutions shall be uniform and consistent with generally accepted accounting principles.' The following paragraph (§ 1831n (a)(2)(B)) then requires that, if the Federal banking agency or corporation determines that the application of GAAP is inconsistent with the objectives of (i) accurate measurement of capital, (ii) facilitation of effective supervision and (iii) facilitation of corrective action, an accounting principle may be applied 'which is no less stringent than generally accepted accounting principles'. Also, the March 2016 version of the Instructions for Preparation of Consolidated Reports of Condition and Income (FFIEC 031 and 041) states that 'For recognition and measurement purposes, the regulatory reporting requirements applicable to the Call Report shall conform to U.S. generally accepted accounting principles.' See https://www.ffiec.gov/pdf/FFIEC_forms/FFIEC031_FFIEC041_201506_i.pdf.

⁴² This statement is available at <http://www.federalreserve.gov/boarddocs/srletters/2006/SR0617a1.pdf>, and referred to in <http://www.federalreserve.gov/boarddocs/srletters/2006/SR0617.htm>. It is stated that 'This policy statement applies to all depository institutions (institutions), except U.S. branches and agencies of foreign banks, supervised by the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision (the "banking agencies") and to institutions insured and supervised by the National Credit Union Administration (NCUA) (collectively, the "agencies")'.

⁴³ In verbal comment to the European Parliament's Committee on Economic and Monetary Affairs (1 December, 2015) in connection with the Parliament's involvement in the European Union's endorsement process for IFRS 9, Mr Michael Ashley said '...the whole history of U.S. GAAP accounting for loan losses is steeped in what the prudential regulators in the U.S. have required...'

⁴⁴ The dissenting opinion reported within FASB (2016) included the following:

For example, respondents to the proposed Update expressed the belief that the incremental loss that would be recognized under the Update is not based on the economics of the transaction but rather on a prudential desire to have a higher level of loan loss reserves reflected in financial reports to investors. 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.....

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. Messrs. Kroeker and Smith do not believe that it is appropriate for the Board to ignore the concept of neutrality in its standards. (FASB, 2016).

⁴⁵ The summary can be accessed at http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176162917634; the comment letters can be accessed at http://www.fasb.org/jsp/FASB/CommentLetter_C/CommentLetterPage&cid=1218220137090&project_id=2012-260.

⁴⁶ See the references to the view of Standard and Poor's Ratings Services (in subsection 3.1.1) and Barclays (in subsection 3.2.2). See also the quotes from the FASB summary of commentators' feedback (in section 6).

REFERENCES

- André, P., Cazavan-Jeny, A., Dick, W., Richard, C., & Walton, P. (2009). Fair Value Accounting and the Banking Crisis in 2008: Shooting the Messenger, *Accounting in Europe*, 6(1), pp. 3-24.
- Barth, M. & Landsman, W. (2010). How did financial reporting contribute to the financial crisis?, *European Accounting Review*, 19(3), pp. 399-423.
- Beatty, A. & Liao, S. (2011). Do delays in expected loss recognition affect banks' willingness to lend? *Journal of Accounting & Economics* 52(1), pp. 1-20.
- Bischof, J. & Daske, H. (2016) Interpreting the European Union's IFRS Endorsement Criteria: The Case of IFRS 9, *Accounting in Europe*, 13(2), In this issue.
- Bushman, R. & Williams, C. (2015). Delayed expected loss recognition and the risk profile of banks. *Journal of Accounting Research* 53, pp. 511-553.
- Camfferman, K. (2015) The Emergence of the 'Incurred-Loss' Model for Credit Losses in IAS 39, *Accounting in Europe*, 12(1), pp. 1-35.
- Curry, T. (2013). Remarks by Thomas J. Curry (Comptroller of the Currency) Before the AICPA Banking Conference, Washington D.C., September 16, 2013. Retrieved from <http://www.occ.treas.gov/news-issuances/speeches/2013/pub-speech-2013-136.pdf>
- EFRAG. (2015). Adoption of IFRS 9 Financial Instruments, Brussels, 2015.
- FASB. (2010a). *Exposure Draft: Proposed Accounting Standards Update. Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities* (26 May 2010). Financial Accounting Standards Board.
- FASB. (2010b). Statement of Financial Accounting Concepts No. 8. *Conceptual Framework for Financial Reporting* (September 2010). Financial Accounting Standards Board.
- FASB. (2011). *Supplementary Document. Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities: Impairment* (31 January 2011). Financial Accounting Standards Board.
- FASB. (2012). *Exposure Draft: Proposed Accounting Standards Update. Financial Instruments: Credit Losses* (20 December 2012). Financial Accounting Standards Board.
- FASB. (2016). *Accounting Standards Update. Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (June 2016). Financial Accounting Standards Board.
- Financial Crisis Advisory Group. (2009). Report of the Financial Crisis Advisory Group, 28 July 2009. Retrieved from http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176156365880.
- Financial Stability Board. (2013). Overview of Progress in the Implementation of the G20 Recommendations for Strengthening Financial Stability: Report of the Financial Stability Board to G20 Leaders, 5 September 2013. Retrieved from http://www.financialstabilityboard.org/wp-content/uploads/r_130905c.pdf?page_moved=1.
- Gebhardt, G. (2016) Impairments of Greek Government Bonds under IAS 39 and IFRS 9: A Case Study, *Accounting in Europe*, 13(2), In this issue.
- Gebhardt, G. & Novotny-Farkas, Z. (2011). Mandatory IFRS adoption and accounting quality of European banks. *Journal of Business Finance and Accounting* 38(3&4), pp. 289-333.
- Giner, G. & Mora, A. (2016). Bank loan loss accounting: Research implications for the post-crisis debate. Working Paper. University of Valencia.
- Hodder, L. & Hopkins, P. (2014). Agency problems, accounting slack, and banks' response to proposed reporting of loan fair values. *Accounting, Organizations and Society* 39, pp. 117-133.

- IASB. (2009). *Exposure Draft ED/2009/12. Financial Instruments: Amortised Cost and Impairment*, November 2009, International Accounting Standards Board.
- IASB. (2010). *The Conceptual Framework for Financial Reporting*, September 2010, International Accounting Standards Board.
- IASB. (2011). *Supplement to ED/2009/12. Financial Instruments: Amortised Cost and Impairment (Financial Instruments: Impairment)*, January 2011, International Accounting Standards Board.
- IASB. (2013a). *Exposure Draft ED/2013/3 Financial Instruments: Expected Credit Losses*, March 2013, International Accounting Standards Board.
- IASB. (2013b). *Snapshot: Financial Instruments – Expected Credit Losses March 2013*, International Accounting Standards Board.
- IASB. (2013c). Staff Paper. Financial Instruments: Impairment. IASB Meeting of 22-26 July 2013, Agenda Reference 5B. Retrieved from <http://www.ifrs.org/Meetings/MeetingDocs/IASB/2013/July/05B-Impairment.pdf>.
- IASB. (2014a). IFRS 9 *Financial Instruments*. International Accounting Standards Board.
- IASB. (2014b). Project Summary. IFRS 9 Financial Instruments, July 2014. Retrieved from <http://www.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognition/Documents/IFRS-9-Project-Summary-July-2014.pdf>.
- IASB. (2015). *Exposure Draft ED/2015/3 Conceptual Framework for Financial Reporting*, May 2015, International Accounting Standards Board.
- IASB/FASB. (2011). Staff Paper. Impairment: Three-bucket approach - IASB/FASB Meeting in week commencing 13 June 2011, Agenda Reference 8. Retrieved from <http://www.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognition/Impairment/Meeting-Summaries/Documents/FI0611b08obs.pdf>.
- IASB. (1998, and subsequently amended). International Accounting Standard 39 - *Financial Instruments: Recognition and Measurement*, International Accounting Standards Committee.
- Nobes, C. (2015) IFRS Ten Years on: Has the IASB Imposed Extensive Use of Fair Value? Has the EU Learnt to Love IFRS? And Does the Use of Fair Value make IFRS Illegal in the EU?, *Accounting in Europe*, 12(2), pp. 153-170.
- Novotny-Farkas, Z. (2016) The Interaction of the IFRS 9 Expected Loss Approach with Supervisory Rules and Implications for Financial Stability, *Accounting in Europe*, 13(2), In this issue.
- O'Hanlon, J., Hashim N. & Li, W. (2015). Expected-Loss-Based Accounting for the Impairment of Financial Instruments: the FASB and IASB IFRS 9 Approaches, *European Parliament*, 2015, ref: IP/A/ECON/2015-14/PE 563.463. Retrieved from [http://www.europarl.europa.eu/RegData/etudes/STUD/2015/563463/IPOL_STU\(2015\)563463_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/563463/IPOL_STU(2015)563463_EN.pdf).
- PWC. (2014). IFRS 9 – Expected Credit Losses, 13 August 2014. Retrieved from <https://www.pwc.com/us/en/cfodirect/assets/pdf/in-depth/us2014-06-ifrs-9-expected-credit-losses.pdf>.
- Walton, P. (2015) IFRS in Europe – An Observer's Perspective of the Next 10 Years, *Accounting in Europe*, 12(2), pp. 135-151.

Table 1. Numerical example of IASB (2009) expected-loss model

Panel 1: Contractual and expected cash flows (portfolio of loans totalling Currency Units (CU) 1,000)				
Year	Contractual cash flows (CU)	Interest revenue based on contractual cash flows (CU)	Expected cash flows as at time 0 (CU)	Expected shortfall relative to contractual cash flows (CU)
0	-1,000.00		-1,000.00	0.00
1	100.00	100.00	100.00	0.00
2	100.00	100.00	100.00	0.00
3	100.00	100.00	100.00	0.00
4	100.00	100.00	100.00	0.00
5	1,100.00	100.00	982.65	117.35
<i>Effective interest rates based on:</i>				
	<i>Contractual cash flows</i>	<i>10.00%</i>		
	<i>Expected cash flows</i>		<i>8.00%</i>	

continued

Table 1. Numerical example of IASB (2009) expected-loss model (continued)

Panel 2: Expected evolution of the net amortized cost of the loans based on time-0 expected cash flows and net-of-credit-loss effective interest rate (equal to outcomes if there are no post-time-0 revisions in expectations)

Year	Brought forward CU	Expected net interest revenue CU	Impairment CU	Charge offs CU	Cash receivable CU	Carried forward CU
<u>Net book value</u>						
0					1,000.00	1,000.00
1	1,000.00	80.00 (8%)			-100.00	980.00
2	980.00	78.39 (8%)			-100.00	958.39
3	958.39	76.67 (8%)			-100.00	935.06
4	935.06	74.80 (8%)			-100.00	909.86
5	909.86	72.79 (8%)			-982.65	0.00
<i>Disaggregated into loan account and loss allowance account:</i>						
<u>Loan account</u>						
		Expected gross interest revenue				
0					1,000.00	1,000.00
1	1,000.00	100.00 (10%)			-100.00	1,000.00
2	1,000.00	100.00 (10%)			-100.00	1,000.00
3	1,000.00	100.00 (10%)			-100.00	1,000.00
4	1,000.00	100.00 (10%)			-100.00	1,000.00
5	1,000.00	100.00 (10%)		-117.35	-982.65	0.00
<u>Allowance account</u>						
		Initially expected losses (note 2)				
0						0.00
1	0.00	-20.00				-20.00
2	-20.00	-21.61				-41.61
3	-41.61	-23.33				-64.94
4	-64.94	-25.20				-90.14
5	-90.14	-27.21		117.35		0.00

continued

Table 1. Numerical example of IASB (2009) expected-loss model (continued)

Panel 3: Evolution of the net amortized cost of the loans based on time-0 expected cash flows and net-of-credit-loss effective interest rate plus impairment						
Year	Brought forward CU	Net interest revenue CU	Impairment CU	Charge offs CU	Cash receivable CU	Carried forward CU
<u>Net book value</u>						
0					1,000.00	1,000.00
1	1,000.00	80.00			-100.00	980.00
2	980.00	78.39			-100.00	958.39
3	958.39	76.67	-100.00		-100.00	835.06
4	835.06	66.80			-100.00	801.86
5	801.86	64.15			-866.01	0.00
<i>Disaggregated into loan account and loss allowance account:</i>						
<u>Loan account</u>						
		Gross interest revenue				
0					1,000.00	1,000.00
1	1,000.00	100.00			-100.00	1,000.00
2	1,000.00	100.00			-100.00	1,000.00
3	1,000.00	100.00			-100.00	1,000.00
4	1,000.00	100.00			-100.00	1,000.00
5	1,000.00	100.00		-233.99	-866.01	0.00
<u>Allowance account</u>						
		Initial loss expectations and 'interest' on impairment				
0						0.00
1	0.00	-20.00				-20.00
2	-20.00	-21.61				-41.61
3	-41.61	-23.33	-100.00			-164.94
4	-164.94	-33.20				-198.14
5	-198.14	-35.85		233.99		0.00

continued

Table 1. Numerical example of IASB (2009) expected-loss model (continued)

Panel 3: Evolution of the net amortized cost of the loans based on time-0 expected cash flows and net-of-credit-loss effective interest rate plus impairment – continued						
Year	Brought forward CU	Net interest revenue CU	Impairment CU	Charge offs CU	Cash receivable CU	Carried forward CU
<i>Disaggregation of allowance account:</i>						
<u>Initial expectations</u>						
		Initial loss expectations				
0						0.00
1	0.00	-20.00				-20.00
2	-20.00	-21.61				-41.61
3	-41.61	-23.33				-64.94
4	-64.94	-25.20				-90.14
5	-90.14	-27.21		117.35		0.00
<u>Impairment</u>						
		'Interest' on impairment				
0						0.00
1	0.00					0.00
2	0.00					0.00
3	0.00		-100.00			-100.00
4	-100.00	-8.00				-108.00
5	-108.00	-8.64		116.64		0.00

Notes:

1. The section of Panel 3 entitled 'Net book value' is consistent with a numerical example provided by the IASB to illustrate the accounting for impairment under the proposals in IASB (2009). The IASB's numerical example is available at <http://www.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognitio/Impairment/IASB-Staff-Examples/Pages/IASB-Staff-Examples.aspx>.
2. The recognition of initial expected losses in each period includes 'interest' (effectively an unwinding of the discount) in respect of the element of initially expected losses recognized in previous periods.
3. The impairment in year 3 is the present value of the revision in expectations of the year 5 cash flow: $-100.00 = (866.01 - 982.65) / 1.08^2$. With the exception of the revision of initial expectations that gives rise to this impairment charge, there is no other revision of initial expectations in this example.
4. The disaggregation of the loss allowance in the latter part of Panel 3 is based on the authors' assessment of how the impairment would have been dealt with under IASB (2009). As far as we are aware, this level of detail is not provided in the IASB's own descriptions of accounting for impairment under IASB (2009).

Table 2. Summary statistics

Panel 1. Non-U.S. banks - medians											
Year		No. of Cases	Total Assets (% of Equity)	Gross Loans (% of Total Assets)	Gross Loans (% of Equity)	Loan-Loss Allowance (% of Equity)	Loan-Loss Expense (% of Net Income)	Performing Loans (% of Gross Loans)	Performing Loans (% of Equity)	Consumer Loans (% of Gross Loans)	Consumer Mortgage Loans (% of Gross Loans)
2007	Emerging	45	932.1	67.8	650.1	20.0	22.3	94.9	573.6	30.7	10.9
	Developed	72	1812.5	65.6	1140.2	8.6	11.3	98.3	1109.5	51.7	35.9
2008	Emerging	50	963.9	69.9	685.6	25.3	44.8	90.8	603.2	30.4	11.1
	Developed	98	2003.1	69.1	1272.9	13.2	24.8	96.8	1211.8	57.8	41.9
2009	Emerging	55	879.6	70.5	597.7	42.3	74.9	87.4	523.6	30.5	11.9
	Developed	101	1883.1	69.1	1110.0	20.1	49.6	96.0	1006.9	56.9	41.0
2010	Emerging	61	874.1	70.3	594.3	36.4	43.2	84.3	501.1	38.4	14.5
	Developed	103	1767.2	70.5	1094.6	19.9	29.7	96.3	1040.9	61.2	47.2
2011	Emerging	68	874.4	70.0	601.4	34.7	36.8	86.4	509.6	35.3	17.1
	Developed	108	1808.6	68.8	1100.3	19.5	29.5	96.1	1025.9	57.7	44.5
2012	Emerging	71	871.5	68.3	597.3	35.3	38.1	86.9	477.3	37.5	16.0
	Developed	111	1709.8	69.3	1104.2	17.7	31.4	95.9	1027.5	61.2	46.1
2013	Emerging	72	890.9	68.0	596.9	34.6	37.8	89.5	508.3	41.9	16.9
	Developed	107	1601.1	69.8	1099.6	19.3	37.3	95.3	986.8	58.1	46.7
2014	Emerging	70	964.2	67.3	598.9	36.6	49.2	90.8	517.0	41.1	17.1
	Developed	112	1531.1	70.3	1013.9	16.6	24.8	95.2	935.0	57.9	46.7
2007-2014	Emerging	492	905.9	68.9	617.8	32.1	40.3	88.9	524.7	37.0	15.2
	Developed	812	1724.4	69.2	1104.7	16.7	28.7	96.4	1028.6	58.1	45.0

continued

Table 2. Summary statistics (continued)

Panel 2. U.S. banks - medians											
Year		No. of Cases	Total Assets (% of Equity)	Gross Loans (% of Total Assets)	Gross Loans (% of Equity)	Loan-Loss Allowance (% of Equity)	Loan-Loss Expense (% of Net Income)	Performing Loans (% of Gross Loans)	Performing Loans (% of Equity)	Consumer Loans (% of Gross Loans)	Consumer Mortgage Loans (% of Gross Loans)
2007	Small	726	1,008.0	72.4	716.5	7.5	10.6	99.5	710.9	39.4	25.3
	Large	18	1,188.6	69.8	730.5	9.6	22.8	99.2	725.5	42.1	17.0
2008	Small	761	1,035.2	73.7	741.1	9.3	31.7	98.8	731.2	38.2	25.6
	Large	18	987.7	69.6	656.5	13.0	84.4	98.2	650.3	41.7	18.3
2009	Small	845	1,047.6	70.7	729.5	10.8	58.0	97.6	710.7	38.0	25.1
	Large	18	894.6	67.2	562.9	19.1	116.1	95.2	535.4	44.3	19.5
2010	Small	934	1,045.3	68.6	698.8	11.6	44.7	97.1	667.5	37.3	24.3
	Large	18	870.4	65.1	536.9	18.2	58.8	95.8	508.4	46.1	21.4
2011	Small	934	994.6	66.4	643.6	10.8	31.8	97.0	622.4	37.3	25.1
	Large	18	891.7	62.7	521.7	13.6	22.9	96.5	507.8	44.1	21.7
2012	Small	869	975.3	65.9	632.2	10.1	20.8	97.5	612.0	37.0	24.8
	Large	18	886.9	62.1	525.2	10.5	16.6	97.0	510.3	45.2	22.1
2013	Small	867	983.0	67.4	641.0	9.6	10.8	98.0	623.5	36.4	25.1
	Large	18	880.8	64.7	512.2	8.4	8.9	97.3	488.5	45.4	20.0
2014	Small	864	941.5	69.1	634.1	8.4	6.6	98.5	620.7	37.0	25.6
	Large	18	867.3	64.8	512.1	7.5	9.2	97.7	492.7	42.6	18.1
2007-2014	Small	6800	999.7	69.1	672.1	9.7	21.7	98.1	653.6	37.3	25.1
	Large	144	911.0	66.2	566.4	10.9	28.1	97.4	549.6	43.8	19.1

continued

Table 2. Summary statistics (continued)

Notes:

1. Statistics for which medians are presented in this table are as follows:

- Total Assets as a percentage of Equity
- Gross Loans as a percentage of Total Assets
- Gross Loans as a percentage of Equity
- Loan-Loss Allowance as a percentage of Equity,
- Loan-Loss Expense as a percentage of Net Income Before Tax and Loan-Loss Expense
- Performing Loans (Gross) as a percentage of Gross Loans,
- Performing Loans (Gross) as a percentage of Equity
- Consumer Loans as a percentage of total Gross Loans
- Consumer Mortgage Loans as a percentage of total Gross Loans

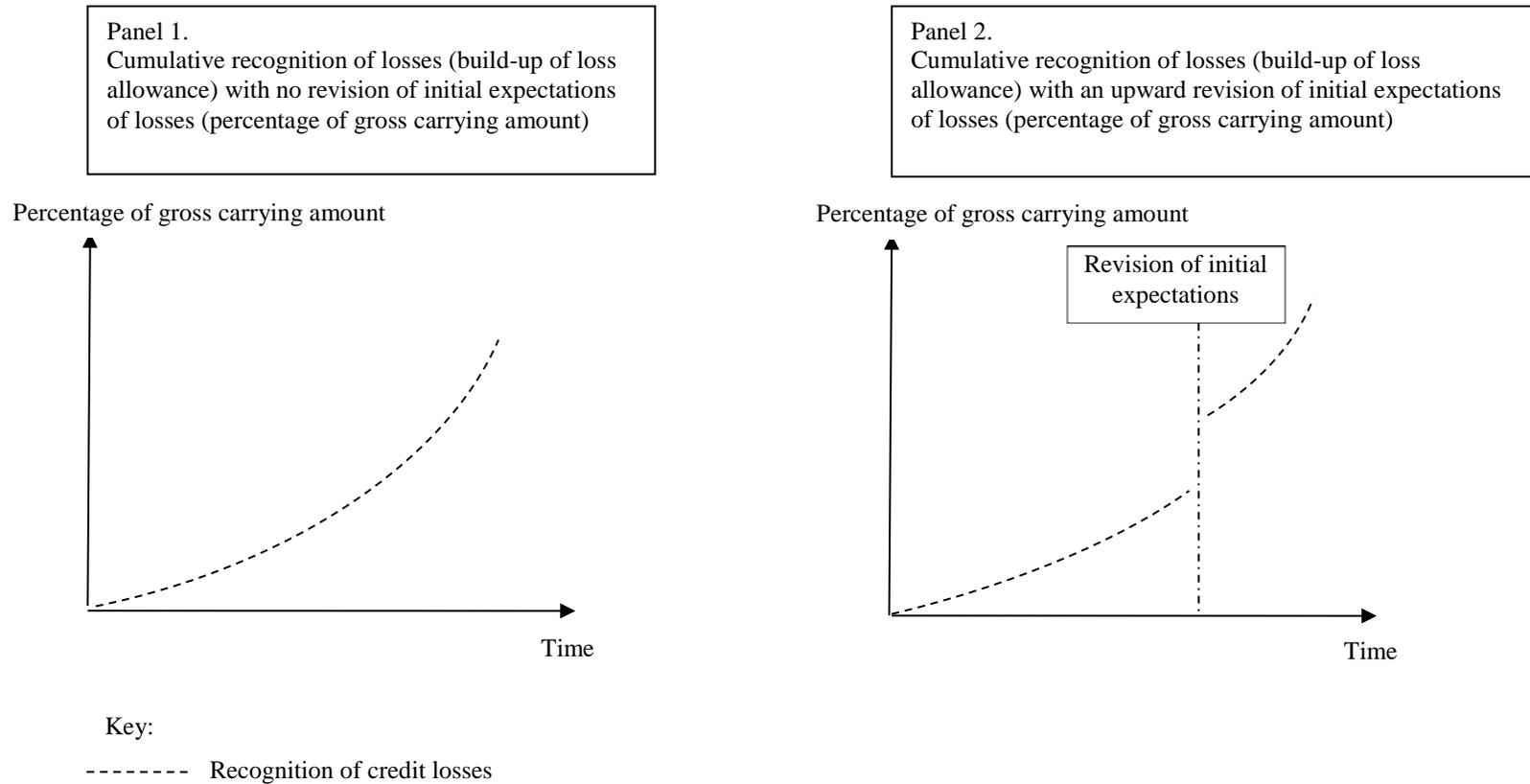
All data are obtained from SNL Financial. The statistics provided are for those bank-years for which data for all variables are available from SNL Financial.

2. For non-U.S. banks, the classification as 'emerging' or 'developed' is as given by SNL Financial.
3. The eighteen banks classified as large U.S. banks are the eighteen U.S. banks that were in the top twenty by total assets for each year from 2007 to 2014.
4. Performing loans are equal to total gross loans less gross nonperforming loans as reported by SNL Financial. For all non-European banks (including the U.S.), SNL Financial defines nonperforming loans as 'the sum of non-accruing and renegotiated loans'. For European banks, the definition is 'Loans and leases considered to be impaired and potential problem loans that could incur impairment charges in the future and warrant close monitoring'.

Figure 1. Expected Loss Approaches to Credit-Loss Impairment: Documents Issued by FASB and/or IASB from 2009 to 2016

<p>IASB 2009 <i>Exposure Draft ED/2009/12. Financial Instruments: Amortised Cost and Impairment</i>, November 2009.</p>	<p>Joint FASB/IASB Supplementary Document.</p> <p>FASB 2011 <i>Supplementary Document. Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities: Impairment</i>, 31 January 2011.</p>	<p>Three-bucket proposal.</p> <p>IASB/FASB 2011 <i>Staff Paper. Impairment: Three-bucket approach - IASB/FASB Meeting in week commencing 13 June 2011, Agenda Reference 8.</i></p> <p>Key elements of this proposal were reflected in IASB (2013) but not in FASB (2012).</p>	<p>IASB 2013 <i>Exposure Draft ED/2013/3. Financial Instruments: Expected Credit Losses</i>, March 2013.</p>	<p>IASB 2014 <i>IFRS 9: Financial Instruments</i>, July 2014 (Effective for annual periods beginning on or after 1 January 2018)</p>
<p>FASB 2010 <i>Exposure Draft: Proposed Accounting Standards Update. Accounting for Financial Instruments and Revisions to the Accounting for Derivative Instruments and Hedging Activities</i>, 26 May 2010.</p>	<p>AND</p> <p>IASB 2011 <i>Supplement to ED/2009/12. Financial Instruments: Amortised Cost and Impairment (Financial Instruments: Impairment)</i>, January 2011.</p>	<p>Key elements of this proposal were reflected in IASB (2013) but not in FASB (2012).</p>	<p>FASB 2012 <i>Exposure Draft: Proposed Accounting Standards Update. Financial Instruments: Credit Losses</i>, 20 December 2012.</p>	<p>FASB 2016 <i>Accounting Standards Update. Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.</i> (Effective for fiscal years beginning after 15 December 2019 or 15 December 2020 for different types of entity)</p>

Figure 2. Accounting for loss allowance - IASB 2009 exposure draft without and with revision of initial expectations of credit losses



Note:

Panel 1 is based on a diagrammatic representation in IASB (2013b, p. 8). Panel 2 is the authors' adaptation of the diagram in Panel 1, based on Panel 3 of Table 1.