FINANSTILSYNET
THE FINANCIAL SUPERVISORY
AUTHORITY OF NORWAY

Summary report from thematic inspection: Recognition of credit losses according to IFRS 9

Survey of nine banks

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Contents

1 General

1.1 Background

In 2019, Finanstilsynet conducted a thematic inspection of the implementation of the requirements regarding credit losses in IFRS 9 *Financial instruments* in DNB Bank, SpareBank 1 SMN, Sparebanken Vest, Sparebanken Sør, Sparebanken Øst, Sandnes Sparebank, Helgeland Sparebank, Bank Norwegian and Komplett Bank. The inspection aimed to review how the banks employ the new credit loss requirements that came into force on 1 January 2018. As part of the thematic inspection, the banks' models and financial statements in selected areas described in IFRS 9 were reviewed.

The regulatory framework for monitoring the banks' implementation of the credit loss requirements in IFRS 9 is outlined in the IFRS Regulation[1], in the ESMA guidelines on enforcement of financial information and in the EBA guidelines on credit institutions' credit risk management practices and accounting for credit losses[2] (in accordance with the EU Capital Requirements Regulation).

The summary report provides a description of individual topics addressed during the thematic inspection. In the reports to the individual banks, Finanstilsynet points to aspects that in its view should be improved or amended. In this connection, Finanstilsynet has made no further assessment of loss allowances for individual credit exposures, nor has it said anything about the individual bank's general impairment level. These issues are followed up at a risk-based level at on-site inspections and possibly through financial reporting supervision.

Subsequent to the on-site inspections, Norway, like other countries, has been hit by an economic downturn as a consequence of Covid-19. The thematic inspection is based on the regulatory framework for banks at the time of the inspection and any announced changes, and does not factor in how the significant deterioration of the Norwegian and international economy has been reflected in the banks' loss allowances in 2020. However, the summary report includes some general reflections related to the assessment of expected credit losses in 2020 and associated disclosures.

One topic that is closely related to the recognition of expected credit losses is the recognition of assets and companies repossessed from customers who have defaulted on their bank loans. This was not a topic at the thematic inspection, but was on the agenda in a separate financial reporting supervision and is discussed in more detail in section 6.

[1]Regulation (EC) no. 1606/2002 on the application of international accounting standards
[2]EBA guidelines on credit institutions' credit risk management practices and accounting for expected credit losses, published on 12 May 2017

1.2 Brief description of the requirements in IFRS 9 regarding credit losses

The requirements regarding credit losses in IFRS 9 apply to loans and other financial assets measured at amortised cost[3]. For loans included in the measurement category 'fair value through other comprehensive income (OCI)', the credit loss requirements apply only to classification in the income statement. The credit loss requirements do not apply to loans included in the measurement category 'fair value through profit or loss'. For such assets, the requirements in IFRS 13 *Fair Value Measurement* apply.

Impairment of loans is recognised in three stages under IFRS 9:

- Stage 1: No significant increase in credit risk
- Stage 2: Significant increase in credit risk
- Stage 3: Credit-impaired loans

For stage 1 loans, 12-month expected credit losses are calculated, while for loans in stages 2 and 3, lifetime expected credit losses are calculated.

Loans that are credit-impaired when purchased or originated, are measured at fair value at initial recognition, without further loss allowances for expected credit losses (stage 1). In subsequent periods, the carrying amount is adjusted by changes in expected credit losses over the life of the loans. The thematic inspection did not include any further assessment of the banks' recognition of such loans.

IFRS 9 does not require the use of a specific method for measuring expected credit losses. The measurement is required to reflect:

- An unbiased and probability-weighted amount
- The time value of money (present/discounted value)
- 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. The information available will vary between banks and between portfolios in individual banks.

Key topics for assessment when measuring expected credit losses:

- Governance and control, see section 3.
- Underlying models and estimates, see section 4.3.
- Adjustment for future prospects, see section 4.4.
- Criteria for identifying loans with a significant increase in credit risk, see section 4.5.

[3] The credit loss rules also apply to loan commitments, financial guarantee contracts, lease receivables as defined in IFRS 16 and contract assets as defined in IFRS 15.

2 Summary

Governance and control (section 3)
The thematic inspection revealed that all the banks have some shortcomings in their policies and procedures for assessing and measuring expected credit losses, including policies for when different methods for measuring stage 3 expected credit losses should be used.

Several of the banks use temporary adjustments to estimated credit losses when determining loss allowances. The banks' policies and procedures must specify how temporary adjustments should be assessed and tested.

Most of the banks have established a general framework for independent testing (validation) of IFRS 9 models. Validation procedures provide little description of how the validation of various parts of IFRS 9 will be implemented. The banks report that they are still working on this.

Finanstilsynet did not review the boards of directors' understanding of the methodology and assumptions used to measure expected losses in connection with the thematic inspection. Finanstilsynet expects the boards to understand the basis for calculating loss allowances, including key assumptions and how changes in these can affect the allowance level, as well as the key drivers behind changes in loss allowances from one measurement period to the next.

Underlying models and estimates (section 4.3)
All the banks estimate stage 1 and stage 2 expected credit losses by using models for probability of default (PD), loss given default (LGD) and exposure at default (EAD). IRB banks estimate expected credit losses based on the IRB models. Some banks using the standardised approach apply PD models that they already use in internal risk management. In addition, newly developed models are used for calculating PD and LGD. In order to develop and maintain models, the banks need sufficient data and well-designed systems and procedures.

Stage 3 expected credit losses are generally calculated using a cash flow method, whereby the banks estimate future cash flows from the customer including the realisation of any collateral. The banks have experience with this method for internal risk management. Some banks use only one scenario when calculating stage 3 expected credit losses. Other banks estimate expected credit losses by probability weighting the present value of future cash flows under different scenarios and estimating the loss as the difference between value-weighted cash flows and the carrying amount. Finanstilsynet would like to point out that expected credit losses should be the result of estimated losses under various scenarios weighted by the probability that the different scenarios will materialise.

A few banks adjust for expected life depending on the scenario, and there is little differentiation between expected life estimates for the different loan products. In Finanstilsynet's opinion, expected life is one of the assumptions that should be different under the various scenarios when forward-looking information is taken into account.

Adjustment for future prospects (section 4.4)
When calculating expected credit losses, banks must adjust historical information to reflect current conditions and forecasts of future conditions.

Most of the banks use three future scenarios based on statistics and forecasts for key macroeconomic variables. There are significant differences in the scenarios and in how these are weighted. Some banks use macroeconomic models to generate scenarios and quantify the effects of the scenarios on loss allowances, while other banks base their projections solely on discretionary judgments of default based on the macroeconomic variables.

Finanstilsynet expects the banks to use a baseline scenario that reflects the best estimate of future macroeconomic developments based on externally available information. Finanstilsynet questions whether the downside scenario used by several of the banks adequately captures the effects of a severe downturn. It is important that the banks take into account that there may be significant non-linearity in losses in a downside scenario compared with the baseline scenario. During an economic upturn, normal economic times and moderate downturns, credit losses are usually very low or low, while losses can be very high during a severe downturn.

Significant increase in credit risk (section 4.5)
When considering whether credit risk has significantly increased, most of the banks use a combination of quantitative, qualitative and backstop indicators. Determining significant increases in credit risk over the expected life of the loan is an important assessment under IFRS 9. A significant increase in credit risk should be assessed as the change in the risk of default occurring over the expected life of the loan. According to the standard, changes in the risk of default over the next twelve months may be a reasonable approach under certain conditions. Several of the banks have chosen this approach.

IFRS 9 contains an exception provision which entails that under certain conditions, credit risk on loans that have low credit risk at the reporting date can be assumed not to have increased significantly since initial recognition. The majority of the banks have defined absolute and relative thresholds which mean that loans with a PD lower than the set thresholds remain in stage 1 as long as the PD is below this threshold. When using such thresholds, some loans will be subject to the exception for low credit risk. Banks that apply the exception for loans with low credit risk should show due care, and Finanstilsynet recommends that the banks reconsider their use of the exception.

Uncertainty in estimates (section 4.7)
Banks have considered the uncertainty in the measurement of expected credit losses in various ways. However, assessments of the uncertainty inherent in methods and data, especially in areas where the banks' own data are weak and the data used are not necessarily representative of banks' portfolios, have not been fully taken into account in the banks' methodology. Finanstilsynet expects the banks to factor in this uncertainty and to follow up possible bias in the estimates when calculating expected credit losses.

Disclosures (section 5)
Finanstilsynet would like to emphasise the importance of providing precise and bank-specific information in annual and interim financial statements, thus enabling users of the financial statements to understand the effect of credit risk on future cash flows and the associated uncertainty. In Finanstilsynet’s opinion, the disclosures on credit risk in the financial statements for 2018 were in many respects too general and lacked important information.

Most of Finanstilsynet's comments to the disclosures in the financial statements for 2018 had been addressed in the financial statements for 2019. However, Finanstilsynet nevertheless encourages the banks to further improve the information to make it clear and relevant to the users' needs.

3 Governance and control

3.1 Governance and control requirements

The system for risk management and internal control (cf. the national regulations implementing CRR/CRD IV, Sections 35-41) shall include measurement of expected credit losses. It is specifically stated that banks shall prepare guidelines for assessing and measuring expected credit losses and documenting methodologies and procedures, cf. Section 27. The board of directors is responsible for ensuring that the bank has functioning systems and procedures for measuring expected credit losses in accordance with the requirements, and shall approve and regularly review its policies, cf. Section 26.

According to principle 1 of the EBA guidelines on credit institutions' credit risk management practices and accounting for expected credit losses, the board of directors shall ensure that the institution has an effective process to ensure that all relevant and reasonable and supportable information, including forward-looking information, is appropriately considered in assessing credit risk and measuring expected credit losses. It follows on from the same guidelines that the board must ensure that clear policies have been established for communication and coordination among the institution's financial reporting staff and credit risk staff and others who are involved in the credit risk assessment and ECL measurement process. Assessments and decisions should be documented.

The banks should regularly review the methodology and assumptions used to estimate expected credit losses and compare the estimates to actual credit loss experience, cf. IFRS 9 B5.5.52. Validation is discussed in section 4.2.5 of the EBA guidelines on credit institutions' credit risk management practices and accounting for expected credit losses. The banks should regularly assess the suitability of the models for expected credit losses, document validation methods and procedures for following up validation results. The validation should be independent of model development, and the results should be reported to relevant management levels at the bank. The model validation should be subject to independent auditing.

Furthermore, section 4.2 of the EBA guidelines states that banks must document the reasons for the choice of methods and assumptions for measuring expected credit losses. The use of temporary adjustments must be documented and tested.

3.2 The banks' practices

The survey shows that all the banks have prepared policies and procedures related to the assessment and measurement of expected credit losses, as well as documentation of methodologies and procedures. However, there are some deficiencies in all of the banks' policies and procedures. Among other things, several of the banks fail to adequately explain which units will be involved in the assessment and measurement of expected credit losses and to specify the roles and responsibilities of the various units in this process. Furthermore, several of the banks allow the use of different methods to measure stage 3 expected credit losses, but the majority of the banks have not established policies for when to use the different methods.

Few banks have made changes to their processes for determining loss allowances as a result of the introduction of IFRS 9, while none of the banks have changed their approval limits etc.

Several of the banks use temporary adjustments to estimated credit losses when determining loss allowances. The banks' policies and procedures provided little clarification as to how temporary adjustments should be determined and verified.

Most of the banks have established a general framework for validation of IFRS 9 models, and the responsibility for validation rests with the risk management unit. In most of the banks, the validation results are reviewed by the board of directors. In some cases, the role played by the board in reviewing validation results and changes to models was unclear to Finanstilsynet.

The policies of some banks do not explicitly state how the independence of the validation process is ensured and which units in the organisation are involved in decisions concerning validation and changes to the models. The validation procedures of all the banks provide little description of which tests will be carried out, which periods will be included and how the outcome of the tests will be assessed and followed up, for example in the form of acceptance criteria.

In some of the banks, policies, including validation policies, have generally been prepared by third parties. In its preliminary report, Finanstilsynet questioned the bank's ownership of the model and pointed to significant key person risk. The banks have now prepared some procedures on their own and expect the key person risk to be reduced.

In all the banks, validation procedures are still under preparation. According to many of the banks, policies and procedures are being further developed to ensure that all elements of the validation are described. The procedures will be approved before the validation of IFRS 9 for 2020 starts.

3.3 Finanstilsynet's assessment

Finanstilsynet would like to point out that policies, procedures and documentation for estimating and assessing expected credit losses must be comprehensive and complete. The policies should specify which units will be involved in the assessment and measurement of expected credit losses as well as the roles and responsibilities of the various units in this process. If the banks plan to use various methods to measure stage 3 expected credit losses, the policies must specify when the different methods should be used.

Finanstilsynet would also like to point out that the migration of loans from stage 1 to stage 2 is a consequence of a significant increase in credit risk. This increase in credit risk means that lifetime expected credit losses should be calculated rather than 12-month expected losses, resulting in a significant rise in loss allowances. The changes in methodology for loss allowances may trigger a need to make changes to approval limits etc.

Temporary adjustments may result in less consistent loss allowance practices over time. In some cases, however, temporary adjustments may be required when the models do not take sufficient account of updated information and it takes time to customise the models. Finanstilsynet expects clear and detailed policies for temporary adjustments to be established,

specifying in which cases temporary adjustments can be used. Furthermore, the policies must specify who should approve possible temporary adjustments.

Finanstilsynet points to the board's responsibility for ensuring that the bank has appropriate systems and procedures for measuring and validating expected credit losses in accordance with the requirements, and that clear policies have been established. Finanstilsynet also expects the boards to understand the basis for calculating loss allowances, including key assumptions and how changes in these can affect the allowance level, as well as the key drivers behind changes in loss allowances from one measurement period to the next.

Banks are expected to have independent validation processes to ensure that model and data limitations are identified and understood. This will make them better able to assess model changes and justify and document any temporary adjustments.

When using external suppliers, it is important that the bank has sufficient internal resources and expertise in model development and application to be able to integrate external deliveries into risk management.

Finanstilsynet expects the bank's procedures to also include regular reviews of key model inputs and outcomes as part of the quality assurance of the bank's IFRS 9 system.

4 Measurement of expected credit losses

4.1 Introduction

Banks shall calculate expected credit losses on all loans measured at amortised cost:

- For new loans and loans where the bank has identified no significant increase in credit risk[4] (stage 1), 12-month expected credit losses (IFRS 9.5.5.5) shall be measured. 12-month expected credit losses result from default events that are expected to occur within 12 months after the end of the reporting period.
- For loans where the bank has identified a significant increase in credit risk (stage 2) and for loans identified by the bank as credit-impaired (stage 3), lifetime expected credit losses shall be measured (IFRS 9.5.5.3). Lifetime expected credit losses are expected credit losses resulting from possible default events over the expected life of the loan.

A further description of banks' identification of loans subject to a significant increase credit risk can be found in section 4.5, while the banks' identification of credit-impaired loans is described in section 4.6.

Banks should measure expected credit losses on loans in a manner that reflects (IFRS 9.5.5.17):

- A unbiased and probability-weighted amount that is determined by evaluating a range of (minimum two[5]) possible outcomes.
- The time value of money (present/discounted value) According to IFRS 9 B5.5.28, a credit loss arises even if the entity expects to be paid in full but later than when contractually due.
- 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. The information available will vary between banks and between portfolios in individual banks.

There are no requirements in IFRS 9 for the use of a specific method. A further description of the banks' models for and estimation of expected credit losses can be found in section 4.3.

Historical information is an important starting point for measuring expected credit losses. However, banks must take into account the effect of divergent circumstances on the reporting date and the impact of divergent forecasts of future conditions, cf. IFRS 9 B5.5.52. A further description of the banks' adjustments of loss estimates for future conditions can be found in section 4.4.

Banks' measurement of expected credit losses is attended by uncertainty. A further description of how banks relate to uncertainty in the assessments can be found in section 4.7

Default is a key element in measuring expected credit losses in stages 1, 2 and 3. A further description of the banks' definition of default can be found in section 4.2.

[4] With the exception of purchased and originated credit-impaired loans, see section 1.2.
[5] IFRS 9 B5.5.42

Banks' testing (validation) of applied loss models is important to ensure reliable measurement of expected credit losses. A further description of the banks' validation results can be found in section 4.8.

4.2 Definition of default

4.2.1 IFRS and EBA

Default is not defined in IFRS. Banks are required to apply a definition of default that is consistent with the one used for internal credit risk management purposes, cf. IFRS 9 B5.5.37. However, there is a presumption that default does not occur later than when a financial asset is 90 days past due unless an entity has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

It is stated in the CRR/CRD IV regulations[6] that an exposure shall be deemed to be in default if a material obligation is more than 90 days past due. An exposure shall also be deemed to be in default if the institution considers it unlikely that it will be repaid in full without implementing measures, e.g. collateral realisation, debt settlement, bankruptcy or forbearance.

The EBA has published guidelines on the application of the definition of default that the banks are expected to comply with no later than 1 January 2021. Among other things, the guidelines introduce a probation period for return to non-default status.

4.2.2 The banks' practices

All the banks have stated either in notes and/or in the model documentation that the default definition used for IFRS 9 purposes in the financial statements is consistent with the one used for internal credit risk management.

Furthermore, all the banks the have a maximum 90 day past-due limit for classifying loans as defaulted. The majority of the banks have established a materiality threshold for overdue amounts of NOK 1 000.

All the banks also use other criteria to label loans as defaulted if it is likely that customers will not have the ability to service their total debt obligations through ordinary operations ('unlikeliness to pay'). Observed criteria include impaired creditworthiness, changes in terms due to payment problems, probability of debt negotiation, bankruptcy, fraud and death.

A small number of banks apply default definitions at account level and do not classify any other of the customer's loan accounts as being in default ('contagion effect').

One bank treats unpaid instalments individually and assumes that the oldest instalment payment is covered first, so that days past due are counted from the due date on the oldest instalment that remains unpaid. This is not in line with the regulations, see section 4.2.3 below.

[6] Cf. Section 2, which implements EEA obligations corresponding to Regulation (EU) 575/2013, Article 178

The majority of the banks have started preparations to be compliant with the new requirements of the regulations (cf. Section 2 of the CRR/CRD IV regulations, Article 178 of Regulation (EU) 575/2013 and Section 7 of the CRR/CRD IV regulations and guidelines from the EBA).

4.2.3 Finanstilsynet's assessment

Finanstilsynet would like to point out that the definition of default must be included in the banks' model documentation, and that the same definition must be communicated and used in various governing documents. The definition must be disclosed in the banks' financial statements.[7]

The default criteria, including 90 days pas due, and the criteria that define 'unlikeliness to pay' apply regardless of the collateralisation of the loan. Any collateral provided is thus of no relevance when considering whether a loan should be deemed to be in default.

Finanstilsynet would like to point out that even if only one of the customer's loans is in default, the customer's payment problems may also have an impact on the customer's ability to service other credit obligations. According to Article 178.1 (a) of the CRR, as a general rule, all loans to a borrower shall be deemed in default if one of the loans is in default.

For retail exposures, the definition of default may be applied at individual loan level. However, Finanstilsynet would like to point out that if one of several loans of the same category (e.g. unsecured loans) is in default, all loans in this category shall be deemed to be in default. Furthermore, all loans shall be deemed to be in default if loans that make up a large part of the total credit exposure are in default.

Finanstilsynet points out that assessments of days past due should be made at individual loan level, and that these loans represent the unit of account. There is a presumption in the regulations that default does not occur later than when a financial asset is 90 days past due, cf. IFRS 9 B5.5.37. If the customer fails to make timely payment of one or more instalments, the entire loan shall be classified as defaulted if it is 90 days or more past due, or be moved to stage 2 if the outstanding claim is more than 30 days past due. Finanstilsynet would like to point out that partial payment cannot be regarded as payment of the oldest instalment according to the provision on when a loan should be considered to be in default.[8]

The rules for defining default in the capital adequacy framework have recently been changed. Important changes include the introduction of materiality thresholds, a probation period for return to non-default status, a specification of the 90 days past due limit and the minimum criteria to be considered for unlikeliness to pay. By 1 January 2021, the institutions must have introduced a default definition in accordance with the requirements of the CRR/CRD IV.

The changes in the default definition may have implications for how historical data are used in the modelling and calibration of expected losses. Finanstilsynet expects the banks to consider the need to adjust historical data when implementing a new definition of default.

[7] IFRS 7.35Fb)
[8] Page 83 of the guidance to the capital reporting

4.3 Underlying models and estimates

IFRS 9 does not set specific requirements for the methods, models or techniques used to measure expected credit losses. The EBA states that banks, as far as possible, should coordinate internal management systems and data used to grant credit, monitor credit risk and measure losses for accounting and capital adequacy purposes, cf. section 4.2.7 of the EBA guidelines on credit risk management practices and accounting for expected credit losses.

The most relevant methods for measuring expected credit losses are to estimate the loss as the product of probability of default (PD), loss given default (LGD) and exposure at default (EAD), and to use the cash flow method or the LGD method for the individual portfolios or segments.

The modelling and measurement method should be adapted to the characteristics of the underlying portfolio and the availability of historical/statistical material.

4.3.1 PD, LGD and EAD

The banks' practices

All the banks subject to the thematic inspection estimate stage 1 and stage 2 expected credit losses as the product of probability of default (PD) multiplied by loss given default (LGD) and exposure at default (EAD).

All the IRB banks estimate expected credit losses based on the IRB models. Some banks that apply the standardised approach use PD models that the banks have experienced with in their internal risk management. Some banks develop PD models in cooperation with external suppliers or have made their own simple PD estimation based on default rates. Several banks have little data for estimating LGD. Some banks have developed LGD models solely for IFRS 9 purposes. One bank estimates LGD based on externally available information. Some banks estimate LGD for unsecured loans based on historical sale prices for non-performing portfolios and their own experience of recovery.

PD and LGD should reflect the economic situation on the measurement date. The IRB banks adjust PD and LGD to reflect the various assumptions used for accounting purposes and capital adequacy purposes. The capital adequacy framework requires that PD reflects long-term average levels and that LGD takes account of recessions, while for accounting purposes, the estimates should reflect the economic situation on the measurement date including forward-looking information.

Banks have different approaches to estimating lifetime PD. Some banks have estimated lifetime PD by taking various macroeconomic scenarios into account. The other banks have estimated lifetime PD by extrapolating/scaling 12-month PD without factoring in expected macroeconomic developments. Some banks stated that they plan to develop lifetime PD models.

Finanstilsynet's assessment

The banks should as far as possible coordinate models for estimating expected credit losses with their internal risk management models. The development and maintenance of models entails that the bank's data and systems and procedures must meet strict requirements. Banks

wanting to use PD/LGD models to estimate expected credit losses must consider whether the model estimates provide timely identification of loans with a significant increase in credit risk as well as an unbiased estimate of expected credit losses. This could be challenging for banks with little available data. See Finanstilsynet 's assessment under section 4.3.2. for a description of other methods.

Finanstilsynet expects the banks to refine their models for expected credit losses and also to consider developing models for calculating lifetime PD to enable them to use lifetime PD to identify a significant increase in credit risk, cf. section 4.5.1, and to measure lifetime expected credit losses.

4.3.2 Other methods/models

The banks' practices
None of the banks in the survey use the loss rate method to calculate stage 1 and stage 2 expected credit losses.

When measuring stage 3 expected credit losses, the nine banks use different methods. The methods used are PD/LGD estimates, the cash flow method and the loss rate method based on historical loss rates.

Several of the banks use both PD/LGD estimates and the cash flow method when measuring stage 3 expected credit losses. Most of these banks have provided no or an inadequate specification of the criteria for when expected credit losses should be measured by using the cash flow method. A few of the banks use only PD/LGD estimates. There is little use of methods whereby estimates are based on historical loss rates when measuring expected credit losses.

More about the cash flow method
All the banks that apply the cash flow method discount cash flows when measuring expected credit losses.

Several of the banks use only one scenario in their calculation of expected credit losses. After the thematic inspection, some of these banks have changed their practices and now use more scenarios. Different calculation methods have been observed when using scenarios to measure stage 3 expected credit losses. Some banks estimate cash flows under different scenarios and weight the discounted cash flows (present values) based on the probability that the scenarios will materialise. The sum of the weighted cash flows is measured against the loan's carrying amount. Other banks calculate credit losses under two or more scenarios and weight the losses in the different scenarios based on the probability that the various outcomes will occur.

In cases where the calculation results in zero expected credit losses, some banks still recognise a loss allowance for the exposure, measured by using PD/LGD estimates.

Finanstilsynet's assessment
For banks that do not apply PD/LGD/EAD in the calculation of expected credit losses, a method that estimates loss rates based on historical loss rates on different sub-portfolios could be applied. When measuring expected credit losses, the bank must adjust historical loss rates for business cycles and assess future macroeconomic developments when estimating the loss rates to be used in the calculation of expected credit losses.

The calculation of expected credit losses should be the result of estimated losses under various scenarios weighted by the probability that the different scenarios will materialise, cf. IFRS 9.5.5.17 and IFRS 9 B5.5.28. If the bank weights the present value of future cash flows when estimating stage 3 expected credit losses, there might be situations under some scenarios where the value of discounted cash flows is higher than the loan's carrying value. During the thematic inspection, it was observed that some banks have weighted excess and deficit values (relative to carrying amount), whereby excess values that do not accrue to the bank reduce expected losses in the calculation. Such a practice does not provide an unbiased estimate. Finanstilsynet expects the banks to change this practice in the future.

The rules for stage 3 expected credit loss calculations are basically the same as for stage 2, but calculations of expected credit losses on stage 3 exposures will often be based on a cash flow method. Calculations of expected credit losses according to this method may in some cases result in zero expected credit losses. In Finanstilsynet’s opinion, the banks must consider whether zero loss allowances appear reasonable, as the expected credit losses should be unbiased.

4.3.3 Expected life

IFRS

Expected credit losses should be estimated over the expected life of the loan, cf. IFRS 9 B5.5.28. As a general rule, expected life cannot exceed the contractual period over which the bank is exposed to credit risk, cf. IFRS 9.5.5.19. The expected life of revolving credit facilities, such as credit cards and overdraft facilities, which may be cancelled, may nevertheless be longer than the contractual cancellation period, cf. IFRS 9 B5.5.39. For example, the bank may have a contractual right to withdraw the credit at one day's notice. In practice, however, the bank continues to extend credit for a longer period and only withdraws the facility after the credit risk of the borrower increases, which could be too late to prevent credit losses. In the case of revolving credit facilities, the bank must consider measuring expected credit losses beyond the contractual cancellation period.

The banks' practices

All the banks have explained that they calculate expected life for individual loans based on information and statistics per segment or product type. Some banks specifically stated that lifetime estimates differ depending on the country in which the customer resides.

At the time of the inspection, a small number of the banks adjusted expected life on the basis of the scenarios used. Some banks stated that they use contractual life rather than expected life for stage 3 loans.

For revolving credit facilities such as credit cards, the estimated expected life varies among the banks, ranging from a few months to several years.

During the inspections, all the banks stated that their expected life estimates will be assessed for reasonableness and adjusted if deemed necessary in connection with the validation and review of the loss model.

Finanstilsynet's assessment
When estimating the expected life of a loan, the bank must take all contractual terms into account, including the possibility of payment extensions and pre-payments. Finanstilsynet notes that the banks assume that the loans will have a short expected life. If expected life is estimated to be too short, expected credit losses will be estimated to be too low. The risk of default on loans with comparable credit risk levels is higher the longer the expected life of the loan**.**

Finanstilsynet would like to point out that the banks should differentiate expected life for the various products. When estimating expected life, historical information must be divided into portfolios and/or product types of sufficient detail. The banks must consider whether the bank's historical data and other statistics should be differentiated, e.g. on different industries and geographical areas. Furthermore, Finanstilsynet expects the banks to make a more thorough assessment of the expected life of revolving credit facilities in accordance with the regulations.

In Finanstilsynet's view, the banks must take care not to make the same assumptions about prepayment on a stage 2 loan as on a stage 1 loan, as a significant increase in credit risk may affect the probability of prepayments being made. In general, banks should consider using contractual life for customers with impaired credit quality and customers in the weakest credit classes. It is assumed that these customers are less likely to be able to make prepayments of instalments and to have less opportunity to refinance their loan with others.

Finanstilsynet believes there is reason to assume that expected life will be different under the various scenarios and that the banks should take this into account. During a recession and/or in a situation with higher interest rates, there is reason to believe that customers will be less likely to make prepayments than during an economic upturn and/or a situation with low interest rates. In the current situation, Finanstilsynet believes that the banks should take into consideration that loans' expected life will increase due to the more widespread use of interest-only periods and weaker economic prospects, even though lower interest rates pull in the opposite direction.

4.3.4 Effective interest rate

IFRS
Expected credit losses shall be discounted to the reporting date, using the effective interest rate determined at initial recognition, cf. IFRS 9 B5.5.44. Fees shall be amortised over the expected life of the financial instrument unless they relate to a shorter period, cf. IFRS 9 B5.4.4.

The calculated effective interest rate is used when recognising interest income on the loan regardless of which stage the loan is in. The original effective interest rate should be used even if the loan is credit-impaired (stage 3). When the loan is credit-impaired, interest income should be calculated by applying the effective interest rate to its amortised cost, cf. IFRS 9.5.4.1b) and IFRS 9 Appendix A, definition of amortised cost for a financial asset.

The banks' practices
The majority of the banks subject to the thematic inspection take account of front-end fees and any transaction costs and record these on an accrual bases over the life of the loan. Some

banks have stated that they amortise fees over the loan's contractual term. Furthermore, there are examples of front-end fees being recorded on an accrual basis, but these are not part of the effective interest rate used for discounting.

One bank did not recognise interest income on credit-impaired loans. As a result, the bank reported lower interest income and lower credit losses than if it had complied with the regulations. The bank rectified this in the fourth quarter of 2019.

Finanstilsynet's assessment
Finanstilsynet would like to point out that the calculation of amortised cost including the calculation of effective interest, has not been changed after the introduction of IFRS 9. In the same way as under IAS 39, the fair value of a loan at initial recognition is the transaction price minus front-end fees plus transaction costs. Transaction costs are referred to as marginal costs that are directly related to the acquisition, issuance or sale of a financial asset, e.g. agent fees, cf. IFRS 9 B5.4.8. Front-end fees and transaction costs are recorded on an accrual basis over the expected life of the loan as part of the loan's effective interest rate.

The effective interest rate calculated at initial recognition of the loan is used both for interest recognition and for discounting the loss, and should be based on expected life. The loan's expected life will in many cases be significantly shorter than its contractual life, and fees should therefore be accrued over a shorter period than the contractual term of the loan.

The banks should continue to recognise interest on credit-impaired loans. Just as in IAS 39 and the Norwegian Lending Regulations, interest on impaired loans shall be calculated on the basis of amortised cost, and interest income shall be calculated using the effective interest rate calculated on initial recognition.

4.4 Adjustment for future prospects

4.4.1 IFRS and EBA

Historical information is an important starting point for measuring expected credit losses. However, banks must adjust historical information to reflect the impact of current conditions and forecasts of future conditions that did not affect the period on which the historical information is based. Banks must also remove the effects of the conditions in the historical period that are not relevant to the future contractual cash flows, cf. IFRS 9 B5.5.52. Forward-looking information shall also be taken into account when determining whether credit risk has increased significantly, cf. IFRS 9 B5.5.15 and IFRS 9.5.5.17c).

The EBA guidelines (section 38) point out that institutions should develop and document their processes to generate relevant scenarios to be used in the estimation of expected credit losses, including a process for determining the time horizon of the scenarios.

4.4.2 The banks' practices

Use of judgment
The extent to which the banks rely on regression-based models varies greatly. Some banks use macroeconomic models to generate scenarios and quantify the effect of the scenarios on expected credit losses, while other banks base their projections of loss allowances under the various scenarios solely on discretionary judgments of default, factoring in macroeconomic

variables. Some of the banks rely on a combination of statistical models and judgment. The more advanced models also have significant elements of judgment, for example in connection with the choice of method, estimation range, explanatory variables and key assumptions.

Factors taken into account
Most of the banks let the scenarios affect their PD and LGD levels as well as EAD. Several of the banks use the most recently observed PD level, or possibly the average level for the last few years, as the development path for the baseline scenario. Under the downside scenario, several of the banks use roughly the same PD level as during the financial crisis in 2008-2009.

With respect to LGD, the practice also varies between the banks. Some of the IRB banks use the LGD level in the IRB model in the downside scenario, as this level will reflect the level during the banking crisis. In the baseline and upside scenarios, the LGD level is often adjusted back to the levels expected in normal or good economic times.

Sources of macroeconomic variables
Most of the banks use publicly available statistics and forecasts for key macroeconomic variables, such as GDP growth, debt growth, interest rate levels and unemployment. The most commonly used sources are Norges Bank (the central bank of Norway) and Statistics Norway.

Segmentation
All the banks in the selection use separate macroeconomic assumptions for the personal customer market and the corporate market, respectively. Several banks also distinguish between different industries in the corporate market, often divided into a two-digit number of segments. In such cases, the banks often use a combination of official statistics and their local knowledge of and experience from the individual industry. Some banks also use different segments in the personal customer market.

Scenarios
Most of the banks use three future scenarios: baseline (expected), upside and downside. The most common duration of the scenarios is five years. To generate downside scenarios, some banks use available stress test scenarios that have been prepared by Finanstilsynet or Norges Bank and are presented in public reports (cf. 'Risk Outlook' and 'Financial Stability Report'). Some banks use modelled downside and upside scenarios in the form of a weighted average of multiple scenarios according to specific percentiles in a normally distributed range of outcomes, e.g. a probability fan. In this case, the probability of the upside and downside scenarios materialising is fixed, while PD and LGD vary depending on future prospects. Other banks do not define specific downside scenarios, but keep PD and LGD at certain levels and estimate, on the basis of the macroeconomic variables, the probability that defaults will reach the defined level. This probability is then used to calculate a weighted level of default.

The models of several of the banks allow for taking industry-specific factors into account in the scenarios, but the majority of these banks have made little use of this option. The oil service industry is the main exception. The industry-specific scenarios are largely based on judgment.

Most of the banks use judgment when weighting the scenarios, e.g. 60 per cent probability that the baseline scenario will materialise and 20 per cent probability that the upside and downside scenarios, respectively, will materialise. There are significant differences in the

banks’ weighting. For example, the weighting of the downside scenario varies from 5 to k30 per cent. The banks that use industry-specific scenarios may apply different probability weights for individual industries.

In 2019, there were generally relatively small differences in the baseline scenarios. This is logical, as the baseline scenarios in normal times are often based on the same macroeconomic forecasts, and loss allowances are generally low. All the banks' loss allowances were significantly lower than during the banking crisis in Norway (1988-1992), and the downside scenarios had relatively little impact on the loss allowance level compared with the baseline scenarios.

Method description and integration into other activities
The banks that use more advanced projection methods provide relatively detailed descriptions of how the methods have been developed. Most of the banks that use simpler methods or largely apply judgment describe their methods and discretionary assessments in some detail, but the level of detail varies considerably.

For all of the banks, it is more or less challenging to provide relevant and sufficiently long historical time series of data, especially for the downside scenarios. Most of the banks state that there is a correlation between the downside scenarios in banks' loss calculations according to IFRS 9 and ICAAP. However, the correlation is often little documented.

4.4.3 Finanstilsynet's assessment

Finanstilsynet expects the banks to use a baseline forecast that reflects the best estimate of future macroeconomic developments and the need for loss allowances. The forecasts used should be based on available information from external sources, such as macroeconomic forecasts from Norges Bank, Statistics Norway or other well-reputed institutions. If the bank believes that these forecasts are not relevant and instead chooses to use its own macroeconomic forecasts in the projections, this must be justified and documented. If relevant external forecasts are not available, the bank must use its best judgment.

The severity and development path of the downside scenarios are relatively similar for most of the banks. Several of the banks assume that macroeconomic developments will return to their starting point at the end of the projection period. This means that if the risk of losses is initially considered to be low, estimated expected credit losses will typically be low at the beginning and end of the period. Credit losses will be relatively high only in the middle of the period irrespective of how weak the macroeconomic forecasts are. Furthermore, loan losses will be low at the end of the projection period if they are low at the beginning of the period. During the banking crisis in Norway (1988-1992) and other serious crises, macroeconomic developments were weak and loan losses were high for many years. It cannot be excluded that similar development paths will occur again, and they must therefore, in Finanstilsynet’s opinion, be included in the bank's projection methodology.

Finanstilsynet points to the importance of ensuring consistency between the weighting and the severity of the scenarios. Finanstilsynet questions whether the downside scenario used by several of the banks adequately captures the effects of a severe downturn. In Norway, a

banking crisis has occurred approximately every 30 years since 1830.[9] Overall, the banking crises have contributed to high loan losses (banking crisis levels) for a total of 35 years during this period, or roughly one in five years. It is important that banks factor in the possibility that there may be significant non-linearity between macroeconomic developments and loan losses. During an economic upturn, normal economic times and ordinary downturns, credit losses are usually low or very low, while losses can be very high during a severe and prolonged downturn.

In consequence of the Covid-19 pandemic and the oil price crisis, Norwegian banks' total loss allowances have risen to the highest level since the banking crisis in the early 1990s. Consequently, actual developments in loss allowances and macroeconomic variables are now more serious than those captured in banks' historical data, which do not include data from crises other than the 2008-2009 financial crisis, which was a mild crisis for Norway.

As a result of the changes in the macroeconomic outlook, the banks' loss allowances for customers in stages 1, 2 and 3 must be based on new scenarios and assumptions. Consideration must be given to whether customers will be negatively affected also after the situation normalises and in the longer term. Banks must specifically assess whether loans to customers show signs of increased credit risk or have been credit-impaired. Such an assessment can be made at group level. Some industries, customer segments and regions must be expected to be hit particularly hard, and the losses therefore cannot be expected to be captured, neither by the models nor as part of the individual review. It may also be necessary to adjust loss allowances based on management's judgment (temporary adjustments).

Some banks use only one scenario for stage 3. Finanstilsynet would like to emphasise that the IFRS 9 impairment regulations require estimates to be unbiased. This means that banks, when measuring expected credit losses, must allow for more than one outcome. For a number of banks, their method of determining stage 3 credit losses will have a material impact on total loss allowances. It is also important that banks' individual loss assessments reflect that loss allowances may be significantly higher during a serious recession (systemic crisis) than during a normal downturn. Negative domino effects within the business community and between households and the business community may contribute to a severe weakening of the debt servicing capacity of most corporate customers, while large and prolonged declines in prices of property and other assets may cause banks' collateral values to fall to completely different levels than during normal economic times.

Some banks use the same repayment plan (typically contractual amortisation) and estimated pre-payment of the loan in all scenarios. In Finanstilsynet's assessment, is not realistic to assume that the loan customer will have the same ability to pay instalments during a downside scenario as in a baseline or optimistic scenario. See also section 4.3.3.

With respect to documentation of the macroeconomic model, several banks have given a limited description of how the model should be used and the results understood. This may restrict the use of the model for purposes other than accounting and reduce its contribution to banks' general risk management.

[9] See Magdalena Riiser, "Asset prices, investment, credit, and financial vulnerability", Norges Bank Economic Commentaries No. [9] 4 2010 and Karsten R. Gerdrup, "Three episodes of financial fragility in Norway since the 1890s", BIS Working Papers No 4 2010, October 2003.

4.5 Identifying loans with a significant increase in credit risk

4.5.1 Main rule

IFRS and EBA

Quantitative criteria

In order to assess whether credit risk has increased significantly, the banks should compare the risk of a default occurring at the reporting date with the risk of a default occurring at the date of initial recognition, cf. IFRS 9.5.5.9.

A significant increase in credit risk should be assessed against the change in the risk of default occurring over the expected life of the loan. According to IFRS 9 B5.5.13, however, changes in the risk of default occurring over the next twelve months may be a reasonable approximation ("proxy") of the changes in the lifetime risk of a default occurring in cases where default patterns are not concentrated at a specific point during the expected life of the loan. It is stated in B5.5.14 that changes in 12-month PD are not suited for interest-only loans with a maturity of more than 12 months nor for loans where changes in credit-related or macroeconomic factors are not adequately reflected in 12-month PD.

The EBA guidelines (section 4.3.2) refer to the expectations to banks' assessments of whether there has been a significant increase in credit risk.

Other criteria

The banks should apply qualitative methods alongside PD models to capture developments in credit risk that are not reflected in the PD models. IFRS 9 B5.5.17 mentions a number of qualitative factors that may be relevant in this regard. Among these are significant changes in external market indicators of credit risk, adverse changes in the borrower's financial conditions and increases in credit risk for other exposures of the same borrower.

If contractual payments are more than 30 days past due (‘backstop’), cf. IFRS 9.5.5.11, the credit risk on the loan is presumed to have increased significantly since initial recognition unless this presumption can be rebutted.

The banks' practices

Most of the banks use a combination of quantitative, qualitative and backstop indicators. Some of the banks have prepared and used lifetime PD to assess significant increases in credit risk, while other banks used-12 month PD.

The banks that make PD assessment use relative criteria in combination with absolute criteria. With respect to the relative criteria, some banks have set the threshold for a significant increase in credit risk at 150 per cent, while other banks have set the threshold at 100 per cent. One bank uses different thresholds depending on the product and the PD at initial recognition, and the relative criteria are up to 900 per cent. Banks that do not make PD assessments use risk categories and 30 days past due as criteria for moving loans from stage 1 to stage 2.

All the banks used other criteria when assessing significant increases in credit risk, such as 30 days past due, forbearance and customers on the watchlist.

Most of the banks use the same criteria for all their loans within both the personal customer and corporate segments. Some banks have differentiated criteria depending on PD at initial recognition, some of which also differentiate between various products in different regions.

Finanstilsynet's assessment

In order to assess whether credit risk has increased significantly, the risk of a default occurring at the reporting date should be compared with the risk of a default occurring at the date of initial recognition.

At the time of the thematic inspections, a minority of the banks used lifetime PD when assessing significant increases in credit risk. When assessing a change in lifetime PD, account must be taken of the fact that the lifetime risk of default usually decreases over time if the credit risk is unchanged and the loan is closer to maturity. If the risk of default on a loan is the same at initial recognition and at subsequent reporting dates, it may indicate an increase in credit risk. This can be factored in by using annualised lifetime PDs to assess the relative increase in credit risk during the period.

The majority of the banks used 12-month PD as an approximation to a change in lifetime PD. Finanstilsynet would like to point out that circumstances may arise where changes in the risk of default must be assessed over the life of the loan. For example, this applies to interest-only loans and in cases where changes in credit-related or macroeconomic factors are not adequately reflected in the estimated 12-month PD, cf. IFRS 9 B5.5.13-14. Finanstilsynet expects the banks to assess whether it is reasonable to use only 12-month PD when assessing a significant increase in credit risk.

Several banks that used 12-month PD at the time of the inspection were considering refining the model to reflect changes in macroeconomic factors. Finanstilsynet would like to point out that taking account of changes in macroeconomic factors is particularly important in the current situation, marked by great uncertainty about economic conditions due to the Covid-19 pandemic and falling oil prices. A short-term perspective will not be consistent with IFRS 9, as the standard requires that assessments are based on the expected life of the financial instrument. See also section 4.4.3.

The majority of the banks used two different PD models at the time of the inspection. New customers were given a score in the application score model and were transferred to the behaviour score model after some time. Finanstilsynet would like to point out that the customer's PD may changed at the time of transfer while the risk remains unchanged. Changes in PD when transferring to a behaviour score may be due to both better access to data and changes in risk. Finanstilsynet would like to emphasise that assessments of whether a significant increase in credit risk has occurred should identify changes in credit risk for the exposure, not changes in the access to data. If the behaviour score PD is calibrated lower than the application score PD, the bank's identification of exposures with a significant increase in risk may be deficient. Finanstilsynet expects the banks to consider whether any differences in the calibration between the models will have a material effect and possibly adjust for this.

Finanstilsynet would like to remind the banks that breaches of covenants should be one of the criteria considered when moving loans to stage 2 (for loans other than those qualifying for being moved to stage 3).

Finanstilsynet expects the banks to consider whether the selected criteria are reasonable. For example, if a significant proportion of the loans are transferred directly from stage 1 to non-performing status (stage 3), it may indicate that the criteria are too broad and do not capture increases in credit risk in a timely manner. Finanstilsynet assumes that the criteria used to identify a significant increase in credit risk will be monitored and adjusted if necessary.

4.5.2 Exception for loans with low credit risk

IFRS and EBA

If a financial instrument is deemed to have low credit risk at the reporting date, the banks may, under certain conditions, assume that credit risk has not increased significantly since initial recognition, cf. IFRS 9.5.5.10 and B5.5.22-B5.5.24. This exception was introduced by the standard setter (IASB) to make the institutions' loss models for financial instruments more cost-effective. The assessment shall be carried out regardless of the value of collateral.

Use of the exception is discussed in sections 132–134 of the EBA guidelines on credit institutions' credit risk management practices and accounting for expected credit losses, stating that credit institutions' use of the exception should be limited. The guidelines point out that credit institutions should conduct timely assessment of significant increases in credit risk for all exposures.

The banks' practices

The majority of the banks have defined absolute and relative thresholds which mean that loans below the set thresholds remains in stage 1 as long as they are within this threshold, regardless of the loan's PD at origination. In practice, the use of such thresholds means that the bank applies the exception in IFRS 9 for loans with low credit risk

Banks that use the exception for loans with low credit risk have different approaches. The absolute threshold for 12 month-PD varies between 0.5 per cent and 0.75 per cent. In addition, the use of risk classification systems where customers in risk categories A–D are defined as low risk has been observed. Another alternative is that the lifetime PD must have increased by at least 0.6 percentage points.

Finanstilsynet's assessment

The banks' use of absolute and relative thresholds means that a large proportion of loans are covered by the exception for loans with low credit risk. In the personal customer market, this proportion ranges from around 60 per cent to 90 per cent of total lending to the segment.

Finanstilsynet refers to the EBA guidelines, where it is pointed out that banks' use of the low credit risk exception should be limited and, in particular, that credit institutions should conduct timely assessment of significant increases in credit risk for all lending exposures. The rationale behind the exception was to reduce the cost of following up financial instruments with low credit risk. It is Finanstilsynet's understanding that this applies especially to financial instruments other than loans, as banks have credit rating systems to follow up all loans.

The banks must make a timely assessment of increases in credit risk by comparing the customer's current situation with the situation when the loan was originated. If this is not done on a timely basis, there will be a delay in the calculation of lifetime losses, and there may be a threshold effect if a large proportion of the loans are both belatedly and collectively

moved to stage 2. In times of increased uncertainty about economic developments, as in the current situation marked by the effects of Covid-19 and the fall in oil prices, banks must take special care in monitoring customers' financial situation. Finanstilsynet expects the banks that use the low-risk exception to reconsider this practice.

4.6 Identification of credit-impaired loans

4.6.1 IFRS

IFRS 9 requires that credit-impaired loans be transferred to stage 3. A loan is considered to be credit-impaired when one or more events that have a negative effect on estimated future cash flows have occurred, cf. IFRS 9 Appendix A, definition of credit-impaired financial asset. Evidence that a loan is credit-impaired includes observable data about the following events:

- Significant financial difficulty of the borrower
- A breach of contract, such as a default or past due event
- The borrower has been granted concessions due to financial difficulties
- It is probable that the borrower will enter bankruptcy or other financial reorganisation

4.6.2 The banks' practices

All the banks identify defaulted loans as credit-impaired. Default is not defined in IFRS, but the banks apply the definition in the capital adequacy framework, see section 4.2, and have presumed that this is the same as credit-impaired.

4.6.3 Finanstilsynet's assessment

The definition of default in the capital adequacy framework is similar to the definition of credit-impaired in IFRS 9. In Finanstilsynet's opinion, it is reasonable to use the same definition for credit-impaired loans as for defaulted loans.

4.7 Uncertainty in estimates

Measuring uncertainty results from the use of a chosen model and the data used in the estimation, as well as the judgment applied. Historical information must be adjusted if it is not representative of current conditions and forecasts of future conditions, cf. IFRS 9 B5.5.52. When the availability of detailed information is limited, the degree of judgement that is required to estimate expected credit losses will increase, cf. IFRS 9 B5.5.50.

The banks' practices
Banks have considered the uncertainty in the measurement of expected credit losses in various ways. However, assessments of the uncertainty inherent in methods and data, especially in areas where the banks' own data are weak and the data used are not necessarily representative of banks' portfolios, have not been taken into account in the banks' methodology.

Finanstilsynet's assessment
Finanstilsynet expects the banks to factor in this uncertainty and to follow up possible imbalances in the calculation of expected credit losses. For example, the use of average considerations may result in large deviations as LGD is often either low or high, and the loss period may be of longer duration. Furthermore, the availability of limited data that reflect a

benign economic climate and low losses may result in biased estimates. Finanstilsynet expects the banks to make a critical assessment of the estimates and sources of uncertainty and to implement necessary measures.

4.8 Validation

IFRS and EBA
The banks should regularly review the methodology and assumptions used to estimate expected credit losses and compare the expected credit loss estimates with actual experience, cf. IFRS 9 B5.5.52. The EBA elaborates on requirements for regular validation of models and other assumptions on which banks base their loss estimates. The validation should provide a basis for assessing weaknesses and uncertainties in the methodology, as well as the accuracy of estimates. Assessments must be made of data quality and of whether the data are representative of the portfolio. The banks should be able to document their validation procedures and frameworks as well as validation results, including any measures taken.

The banks' practices
The banks have somewhat different approaches to validating their models. Some banks validate expected losses (LGD) based on the latest available observations against an average of historically observed losses, while others validate predicted losses one year back in time against observed losses during the most recent period. Banks validate the sub-components of the IFRS models to varying degrees. The IRB banks refer to the IRB validation of the sub-components. Some banks make a qualitative validation of sub-components such as PD, LGD and CCF (credit conversion factor).

Finanstilsynet's assessment
According to Finanstilsynet's preliminary inspection reports, several of the banks' validation of parts of their IFR 9 system was somewhat inadequate. Limited availability of data for measuring write-offs against predicted losses also poses a challenge for the banks. Finanstilsynet would like to remind the banks that qualitative assessments must supplement quantitative tests and criteria, especially where the availability of data is limited. The banks must assess the quality and representativeness of the data. In situations where external data are used, for example where the bank cooperates with other banks on data and models, any differences in risk between their own portfolio and those of the other banks involved must be considered. Sensitivity analyses and stress tests can provide a basis for assessing assumptions for the IFRS 9 estimates and the reasonableness of the estimates under different scenarios.

The banks must assess whether estimates and assumptions reflect underlying risks, including the expected life of loans, cf. sections 4.3.1 to 4.3.3. The banks must consider whether the criteria for identifying loans in stages 2 and 3 capture loans with a significant increase in credit risk, cf. section 4.5.

Based on the banks' feedback, Finanstilsynet notes that the application of IFRS 9 is still at a relatively early stage, which means that processes are being developed and that the data used in the validation will be improved in the longer term. Finanstilsynet expects the banks to assess validation results in light of the current economic situation and will further develop validation processes and procedures to help reduce the uncertainty inherent in banks' loss allowances.

5 Disclosures

5.1 IFRS

The introduction of IFRS 9 ‘Financial Instruments’ has changed the requirements for disclosures on credit risk in IFRS 7 ‘Financial Instruments: Disclosures’. The new disclosure requirements are extensive. One of the requirements is that credit risk disclosures shall enable users of financial statements to understand the effect of credit risk on future cash flow and the associated uncertainty, cf. IFRS 7.35B. Other disclosure requirements are set out in the chapter below.

5.2 Banks' financial statements for 2018 and Finanstilsynet’s assessments

All the banks indicate that considerable uncertainty attends the calculation of expected credit losses. According to some of the banks, the most extensive use of judgment is required when assessing significant increases in credit risk and the use of forward-looking information. Others point to the assessment of corporate loans. However, several of the banks provide little specific information on which assumptions entail a significant risk of resulting in a material adjustment to expected credit losses, cf. IAS 1.125. Some banks provide information about the sensitivity of expected credit losses to the methods and assumptions used, but several banks fail to provide information about this. In Finanstilsynet’s assessment, this is important information to enable the users of the financial statements to understand how expected credit losses are calculated as well as the uncertainty associated with this calculation. In order for users to understand this, the information must be specific and sufficiently detailed. For example, the banks may specify how loss allowances are affected by different macroeconomic variables, different weighting of scenarios or different criteria for migrating loans from stage 1 to stage 2.

All the banks include a description of the model and the parameters included in the model, cf. IFRS 7.35G a). All the banks use a model based on probability of default (PD), loss given default (LGD) and exposure at default (EAD). Most banks also specify how the parameters are set. One bank lacks a description of how PD, LGD and EAD are set, and several banks provide only a general description. Finanstilsynet would like to stress the importance of providing a detailed description.

In their assessments of forward-looking information, cf. IFRS 7.35G b), all the banks use scenarios to calculate model-based expected credit losses. However, there are large differences in how the banks describe the scenarios, which macroeconomic variables are included, how these are determined and how the various scenarios are weighted. Some banks include a general statement that forward-looking information is taken into account without specifying how. Other banks’ descriptions do not reflect how the bank actually factors in forward-looking information.

All the banks describe the criteria for a significant increase in credit risk, cf. IFRS 7.35F a). Some of the banks state that they use developments in lifetime PD to assess whether there has been a significant increase in credit risk. Some banks state that they use developments in 12-month PD. Other banks do not specify whether they use 12-month or lifetime PD. Finanstilsynet would like to encourage banks that use 12-month PD to assess whether credit risk has increased significantly to describe how forward-looking information is taken into account in the assessment.

With the exception of the consumer loan banks, all the banks use the exception for loans with low credit risk. The threshold for what is considered low credit risk varies from 0.5 per cent PD to 0.75 per cent PD. This appears from the criteria for a significant increase in credit risk, but none of the banks explicitly state that the low-risk exception has been applied. It should be noted that this is a requirement pursuant to IFRS 7.35F a) i).

All the banks provide information on how loans and expected credit losses are distributed on the various stages of the loss model and how loans have been migrated between the stages through the year, cf. IFRS 7.35H and 7.35I. This information should be provided for each class of financial instrument. The classes shall be determined by the bank and be appropriate for the nature of the information provided, cf. IFRS 7 B1. Three of the banks provide information for the personal customer and corporate markets respectively; both consumer loan banks provide information for various types of consumer loans; one bank provides information for loans at amortised cost and loans in the measurement category 'fair value through other comprehensive income (OCI)'; one bank provides information on loans and financial guarantees and standby credit facilities, respectively; and two banks only provide information for all loans combined. Examples of how the information can be presented are given in the 'Implementation guidance' to the standard. Here, residential mortgages are specified as a separate class. In Finanstilsynet's opinion, it is expedient to distinguish between residential mortgages and corporate loans, as the risk associated with these classes of loans usually varies. Residential mortgages may migrate between the various stages at different times and at a different scale than corporate loans.

Information shall be given on how the return to performing status of loans with lifetime expected credit losses has been assessed, cf. IFRS 7.35F f) i) and IFRS 7 B8A c), i.e. when the loan is moved from stage 2 to stage 1 and from stage 3 to stage 1 or 2. Only two banks have provided information about this.

Information shall be given about loans for which the bank has not recognised a loss allowance because of the collateral, cf. IFRS 7.35K b) iii). Three of the banks have not provided this information.

For credit-impaired loans, information about the collateral held as security and other credit enhancements must be provided, cf. IFRS 7.35K c). Several of the banks have not provided this information.

Furthermore, information shall be disclosed about the contractual amount outstanding on loans that have been written off and are still subject to enforcement activity, cf. IFRS 7.35L. Several of the banks have not provided this information.

Any changes in the estimation techniques or significant assumptions and the reasons for those changes shall be disclosed, cf. IFRS 7.35G c). All the banks have confirmed that they will provide such information when needed.

Finanstilsynet would like to emphasise the importance of providing precise and bank-specific information, thus enabling users of the financial statements to understand the effect of credit risk on future cash flows and the associated uncertainty. In Finanstilsynet's opinion, the disclosures in the financial statements for 2018 were in many respects too general and lacked important information. Most of Finanstilsynet's comments to the disclosures in the financial statements for 2018 had been addressed in the financial statements for 2019. However, Finanstilsynet nevertheless encourages the banks to further improve the information to make it clear and relevant to the users' needs.

5.3 Disclosures in interim reports for 2020

According to the accounting regulations (IAS 34), an interim financial report shall include an explanation of events and transactions that are significant to an understanding of the changes in financial position and performance of the entity since the end of the last annual reporting period. As a result of Covid-19, banks' 2020 interim reports will be prepared under other economic circumstances than the financial statements for 2019. It is therefore important to provide supplementary and comprehensive disclosures on the assumptions used when calculating the banks' expected credit losses, including:

- Critical estimates: For most banks, expected credit losses are identified as critical estimates. The description in the financial statements for 2019 of critical estimates may be a good starting point for the description in the interim financial statements in 2020, but must be updated with the economic situation and outlook at the reporting date, cf. IAS 34.16Ad). It is likely that other aspects of expected credit losses have become critical to the estimation of loss allowances, and that previous sensitivity analyses with changes in the value of losses due to changes in assumptions, must be adjusted and possibly supplemented by more qualitative analyses.
- Description of assumptions: It must be clearly stated how the consequences of Covid-19 and the measures implemented have been taken into account in the assessment of the estimates, including how this affects the migration from stage 1 to stages 2 and 3 and the actual calculation of expected credit losses. It should be stated whether any support schemes have been included in the loss calculation and whether the bank has made temporary adjustments to model-calculated loss allowances and, if so, the scope of the adjustments.
- Credit concentration: Covid-19 and the measures implemented have different effects across sectors (industries and regions), and consideration must be given to whether customer portfolios should be classified differently and be subject to new analysis.
- Credit risk management: The way banks manage credit risk is likely to change in light of government support schemes and other relief measures banks offer customers. It is important to give a good description of this and the effect on the bank's credit risk management and financial reporting.
- Events after the reporting period: The economic situation may change quickly. Banks must provide good and descriptive disclosures on events that have occurred between the reporting date and the preparation of the interim financial statements.

6 Repossessed assets and companies

6.1 Introduction

In connection with the follow-up of defaulted loans, banks may take over assets and companies to secure their values.

Recognition of repossessed assets and companies was initially not part of the thematic inspection, and Finanstilsynet has not reviewed the banks' practices. Based on the current uncertain situation, in which a severe and prolonged economic setback must be taken into account, Finanstilsynet wishes to draw attention to the accounting regulations concerning repossessed assets and companies, including the valuation and presentation thereof. Banks may face situations where they are required to consolidate repossessed companies.

6.2 Accounting regulations

As part of its treatment of defaulted loans and guarantees, the banks will in some cases take over assets that have been furnished as collateral for such loans. The banks will also occasionally take over companies and continue operations in the capacity of owner for a certain period. In addition, the terms of financial restructuring solutions may be such that banks take control of one or more assets, often referred to as ‘silo’, cf. IFRS 10 *Consolidated Financial Statements.*

At the time of takeover, the assets and any acquired liabilities shall be measured at fair value in accordance with IFRS 13 *Fair Value Measurement.* IFRS 3 *Business Combinations* may also be applied if a business is acquired. The difference between the fair value of net repossessed assets and the carrying amount of the loan shall be recognised as a credit loss.

The acquired assets shall be recognised in the bank’s balance sheet according to their nature, for example as repossessed inventory, fixed assets and buildings. If a business is taken over, it shall be consolidated in accordance with the rules of IFRS 10. A bank usually has no intention to be a long-term owner. IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* regulates the measurement and presentation of non-current assets and activities to be sold and discontinued.

In order to ensure that non-current assets and companies that have been taken over as part of the restructuring of loans, are presented in compliance with IFRS 5, the bank must have made a decision to sell and have taken active measures to find a buyer and to complete its plan. In addition, it must be highly likely that the asset or company will be sold within one year from the date of classification. The one-year deadline may be extended if the delay is caused by events or circumstances beyond the bank's control, but the bank remains committed to its plan to sell, cf. IFRS 5.9.

If the above conditions are met, non-current assets held for sale shall be presented on a separate line in the balance sheet. Correspondingly, the total assets and total liabilities referring to discontinued operations shall be presented separately in the balance sheet on the lines ‘assets

held for sale' and 'liabilities held for sale', while the result shall be presented on a separate line as held for sale in the income statement.

In situations where the bank does not want or does not have the opportunity to sell within one year, IFRS 5 cannot be applied. If the bank has taken over an existing entity and become the owner, and does not meet the requirements of IFRS 5, consolidation will be required unless the exceptions in IFRS 10 apply.

If the bank obtains control of the entity that has been taken over and the terms of IFRS 5 are not met, the bank must consolidate the entity as a subsidiary. Finanstilsynet expects the banks to consider the issue of consolidation of repossessed companies in future reports.

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