PRUDENTIAL PRACTICE GUIDE

APG 220 Credit Risk Management

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About this guide

Prudential practice guides (PPGs) provide guidance on APRA's view of sound practice in particular areas. PPGs frequently discuss legal requirements from legislation, regulations, or APRA's prudential standards, but do not themselves create enforceable requirements.

Prudential Standard APS 220 Credit Risk Management (APS 220) sets out APRA's requirements for an authorised deposit-taking institution (ADI) to implement a credit risk management framework that is appropriate to its size, business mix and complexity.

Credit risk management forms part of an ADI's over-arching risk management framework and, as such, is also subject to *Prudential Standard CPS 220 Risk Management* (CPS 220). Accordingly, APRA expects *Prudential Practice Guide APG 220 Credit Risk Management* (APG 220) to be read in conjunction with *Prudential Practice Guide CPG 220 Risk Management* (CPG 220). In relation to residential mortgage lending, APG 220 is to be read in conjunction with *Prudential Practice Guide APG 223 Residential Mortgage Lending* (APG 223).

Subject to the requirements of APS 220 and CPS 220, an ADI has the flexibility to structure its business operations in the way most suited to achieving its strategic objectives. Not all practices outlined in this PPG will be relevant for every ADI and some aspects may vary depending upon the size, business mix and complexity of the ADI's business operations.

Introduction

1. Credit risk is most simply described as the potential that a borrower will fail to meet its obligations in accordance with agreed terms.[1] It is important for ADIs to manage the credit risk inherent in its entire portfolio as well as the risk in individual exposures and transactions.

2. ADIs also need to consider the relationships between credit risk and other risks they may face. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term viability of an ADI.

3. For most ADIs, loans are the largest and most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of an ADI, including in the banking book and in the trading book, and both on- and off-balance sheet. ADIs may face credit risk in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, in the extension of commitments and guarantees, and the settlement of transactions.

4. Although the requirements of APS 220 are most clearly applicable to the business of lending, they would be applied to all activities where credit risk is present.

5. It is important that ADIs identify, measure, monitor and control or mitigate credit risk as well as hold adequate capital against this risk.

[1] For the purpose of this PPG, a reference to a borrower is also a reference to a counterparty.

Credit risk management framework

Credit risk appetite

6. APS 220 requires an ADI to have an appropriate credit risk appetite statement as part of its credit risk management framework.[2] The credit risk appetite statement is typically used to communicate the Board's expectations of how much credit risk the ADI is prepared to accept.

7. The articulation of credit risk appetite and credit risk tolerances are central to a credit risk appetite statement. Credit risk appetite is the degree of credit risk that an ADI is prepared to accept in the pursuit of its strategic objectives and business plan. Credit risk tolerances are based on the maximum level of acceptable credit risk.

8. The development and review of an ADI's credit risk appetite statement is generally performed as part of an ADI's strategic and business planning process. The credit risk appetite statement provides relevant information on the Board's expectations regarding the credit risk appetite, and in turn is updated to reflect any changes as a result of the strategic and business planning process.

9. An ADI may express its credit risk appetite in a number of ways. Generally, the credit risk appetite is expressed in the form of high level qualitative statements that clearly capture the ADI's attitude to and level of acceptance of credit risk. An ADI may also express its risk appetite at a granular level to reflect particular divisional and business units. It is desirable that the credit risk appetite statement include quantitative measures where appropriate.

10. Credit risk tolerances can be expressed in a number of different forms and can act as triggers for considering whether action is necessary in relation to credit risk. Where possible, credit risk tolerance is expressed as a measurable limit to enable a clear and transparent monitoring process that enables the ADI to remain within the credit risk tolerance.

Credit risk management strategy

11. APS 220 requires an ADI to maintain an appropriate and well-documented credit risk management strategy.[3] An ADI's credit risk management strategy covers the many activities of the ADI in which it is exposed to credit risk.

[2] Such a statement need not be a stand-alone document, where set out in the ADI's over-arching risk appetite statement required under CPS 220.

[3] Such a document need not be a stand-alone document, where set out in the ADI's over-arching risk management strategy document required under CPS 220.

12. APRA expects that an ADI's credit risk management strategy contains sufficient information to communicate, in general terms, the ADI's approach to credit risk management.

13. It is prudent for an ADI's credit risk management strategy to provide continuity in approach. It is important that the strategy take into account economic and credit cycles and the resulting shifts in the composition and quality of the ADI's overall credit portfolio. Although the strategy would be regularly reviewed and, where appropriate, amended, it is to be viable in the long-run and through various economic and credit cycles.

Role of the Board and senior management

14. The Board does not have direct day-to-day responsibility for credit risk management. However, APS 220 requires the Board to establish the credit risk appetite and credit risk management strategy and oversee senior management such that they develop and implement the credit risk policies and processes consistent with the credit risk appetite and credit risk management strategy. This oversight includes that the credit risk management framework is effective and supported by the appropriate level of skills and resources.

15. APRA expects that the Board clearly communicate its expectations in respect of the reporting and escalation of credit risk issues to be provided by senior management, the credit risk management function and internal credit risk reviews.

16. It is expected that the Board sufficiently, actively and rigorously engage on credit risk issues. While the Board may obtain recommendations and advice on credit risk issues from Board committees, external advisers and senior management, the Board is expected to independently challenge the advice and recommendations presented for Board consideration or noting.

17. It is important for the Board to be alert to pressures on credit standards that could emerge, particularly as competition intensifies. In addition, the Board needs to be alert to overly ambitious lending growth or market share targets. The achievement of 'above system' rates of growth is a commonly used metric of 'success' in this area but it is a metric that may have no regard to the quality of lending being written.

18. The Board also needs to be alert to credit deterioration and signs that there may be problems that senior management may not be raising with the Board. It is important that appropriate checks are in place to maintain an independent perspective on credit quality and particular practices across the credit portfolio.

19. It is prudent for the Board to consider whether the ADI's remuneration policies do not contradict its credit risk management strategy. Remuneration policies that reward unacceptable behaviour such as generating short-term returns while deviating from credit risk policies or exceeding established limits, significantly weaken and undermine the ADI's credit risk processes.

20. APRA expects senior management to report on credit risk and escalate material credit risk issues to the Board or relevant Board committees in a timely manner.

Credit risk management function

21. APS 220 requires an ADI to implement a credit risk management framework that is appropriate to its size, business mix and complexity.

22. Some small ADIs may not have a risk management function (or staff) purely dedicated to credit risk management. This does not mean that an ADI is not required to have a credit risk management function; such a function is required to form part of the overall risk management framework.

Credit risk policies and processes

23. A cornerstone of safe and sound banking is the design and implementation of written policies and processes related to identifying, measuring, monitoring and controlling or mitigating credit risk. Credit risk policies would be clearly defined, consistent with prudent banking practices and relevant regulatory requirements, and adequate for the size, nature and complexity of the ADI's activities.

24. Policies and processes that are properly developed and implemented assist the ADI to maintain sound credit standards, monitor and control credit risk, properly evaluate new credit products and activities and identify and administer non-performing exposures.

25. As discussed further in paragraphs 30 to 36 below, it is important that an ADI develop and implement policies and processes so that the credit portfolio is appropriately diversified, given the ADI's target markets and overall credit risk management strategy.

26. In order to be effective, credit risk policies would be communicated throughout the ADI, implemented through appropriate processes, monitored and regularly revised to take into account changing internal and external circumstances. Effective policies would address equally the important functions of reviewing exposures on an individual basis and ensuring appropriate diversification at the portfolio level.

27. When an ADI engages in assessing and approving exposures that are located outside Australia, they undertake, in addition to credit risk, risk associated with the location of the asset or loan and the conditions in the home country of a foreign borrower. In all instances of international transactions, it is prudent for an ADI to understand the potential for spill over effects from one country to another or contagion effects for an entire region. ADIs that engage in originating, assessing and approving exposures outside Australia would be expected to have adequate policies and processes for identifying, measuring, monitoring and controlling or mitigating country risk and transfer risk in their international lending and investment activities.

28. APRA expects an ADI to develop a clear understanding of the credit risk involved in more complex credit assessment and approval activities. This is particularly important because the credit risk involved may be less obvious and require more analysis than

the risk of more traditional credit assessment and approval activities. Although more complex credit assessment and approval activities may require tailored policies, processes and controls, the basic principles of credit risk management would still apply.

29. New credit products and activities require significant planning and careful oversight to ensure the risks are appropriately identified and managed. It is prudent that the risks of new credit products and activities are subject to adequate policies, processes and controls before being introduced or undertaken. APRA would also expect an appropriate operating capacity and business systems to be in place to support new credit risk products and activities before these products and activities are introduced.

Internal limits

30. An important element of credit risk management is the establishment of internal limits on single borrowers and groups of connected borrowers, higher risk credit products and activities and geographical locations.

31. The extent of portfolio diversification is important. For example, a portfolio comprising many small loans to unrelated borrowers is generally less risky than a portfolio of large loans. Other diversification benefits may exist across geographical locations and credit products and activities.

32. An ADI may have credit exposures in a range of geographical locations within Australia and overseas. An ADI's credit risk framework is expected to take into account the prevailing conditions in those locations. Local economic, social, climatic, political and other conditions may impact the credit outcomes.

33. Most ADIs tend to have a lot of property-related exposures and therefore it is prudent for ADIs to actively think about establishing appropriate limits to manage this concentration.

34. It is prudent for limits to be established for borrowers or groups of borrowers that have higher risk characteristics such as high leverage, high loan-to-valuation ratios, sub-investment grade ratings and borrowers with multiple exceptions. It is also prudent for limits to be established for higher risk credit products and activities such as unsecured, long-tenor, non-amortising, speculative development and such lending as peer-to-peer or marketplace lending.

35. Some ADIs are exposed to credit risk from activities and instruments in the trading book and off-balance sheet. Limits on such transactions are particularly effective in managing the overall credit risk profile or counterparty credit risk. In order to be effective, limits would generally be binding and not driven by customer demand.

36. It is good practice for ADIs to consider the results of stress testing in the overall limit setting process. Such stress testing would take into consideration economic and credit cycles, interest rate and other market movements, and liquidity conditions.

Credit origination and assessment and approval

Use of third parties

37. Higher inherent risk may be a feature of credit risk sourced via a third party (for example, a broker or introducer). This may reflect incentive arrangements (fees and commissions) that potentially promote inappropriate behaviours, lax credit standards, poor monitoring and the potential for application fraud. Thus, it is prudent for ADIs to identify exposures where the income or cash flows (and other) verification is performed by a third party and to enhance monitoring of these exposures.

38. It is important that ADIs have formal processes to approve or certify the third party involved, have formal control and review of the exposures approved, and have clear consequences for those not meeting the compliance levels. ADIs are expected to also check that the legal basis underpinning the relationship with a third party (which would be expected to be documented) is appropriate. This would include having appropriate remuneration arrangements in place. It is also important that an ADI's formal processes are tailored to the type of product the third party originates.

39. In other circumstances, an ADI may have direct exposure to credit risk through a third party, such as an on-line lending platform where requests from borrowers for loans are made and then matched against offers from the ADI to fund (partially or fully) a loan or loans, and the platform operator or other third party undertakes the credit assessment and approval of the underlying borrowers under its own credit risk policies and processes. This type of lending is often referred to as peer-to-peer or marketplace lending, and ADIs typically have no ability to influence the credit risk policies and processes of the third party under these arrangements. The third party does not lend its own money, so all the credit risk is borne by the ADI.

40. For peer-to-peer or marketplace lending, it is prudent that ADIs have a clear understanding of the associated risks. Prior to entering into these arrangements, APRA expects an ADI to develop a strong strategic rationale for participation in this type of lending. In addition to the need to conduct appropriate due diligence, it is prudent for ADIs to ensure provisions that impose obligations on the third party to notify the ADI of, and seek the ADI's consent to, any material changes to its credit risk policies are included in any agreement between the ADI and the peer-to-peer lender.

Credit assessment and approval

41. Establishing sound, well-defined credit assessment and approval criteria is essential to assume credit risk in a prudent manner. An ADI's own criteria would set out who is eligible for credit and for how much, what types of credit are available, and under what terms and conditions exposures may be approved.

42. The various factors to be considered and documented in assessing and approving exposures are set out in APS 220. Not all aspects of the criteria in paragraphs 44 and

45 of APS 220 would be relevant to certain credit products and activities. The criteria is principles-based and intended to be applied in a manner proportionate to the nature, type and size of the exposure. This provides for a scalable and flexible approach to credit assessment.

43. An ADI would be expected to make reasonable inquiries and take reasonable steps to verify a borrower's financial situation. Some credit products and activities may warrant a streamlined credit assessment which may not be fully consistent with a traditional credit assessment. APRA would expect an ADI to be able to demonstrate the reasonableness of such streamlined credit assessment approaches.

44. Having regard to the nature, type and size of the exposure, APRA would not expect the same comprehensive credit assessment be undertaken for a corporate loan and a small unsecured personal loan. An ADI would also need to exercise experienced credit judgement relevant to a small medium enterprise (SME) loan, noting that the relevance of each of the criteria in paragraphs 44 and 45 in APS 220 may also vary between SMEs.

Exposures to individuals

45. An ADI may utilise various methods of assessing an individual's capacity to service an exposure, such as looking at a borrower's regular savings pattern to see if it is greater than the contractual repayments under the exposure. An ADI would be expected to make use of, but not solely rely on, comprehensive credit reporting data, where available, as part of a robust credit risk assessment.

46. In regard to assessing a borrower's repayment capacity under various scenarios, the use of appropriate interest rate buffers and other adjustments in the credit assessment of a borrower are critical in order determine the capacity of the borrower to repay the exposure.

47. The interest rate used to assess serviceability would seek to confirm that the borrower can service the loan, even if interest rates increase. The use of an appropriate interest rate buffer is particularly relevant during a low interest rate environment and provides an indication of a borrower's excess cash flow. This cash flow represents the amount the borrower could potentially use to make excess repayments or discretionary spending, but would be reduced by any future interest rate increases. Interest rate buffers would also be applied to any other existing debts of the borrower.

48. ADIs have flexibility to set their own floor rates, taking into account the outlook for interest rates and other factors. ADIs are also expected to maintain sufficient prudence in serviceability assessments through appropriate buffers. APRA does not expect that buffers would be adjusted on an individual basis to approve an exposure that otherwise would not meet the ADI's credit assessment and approval criteria.

49. Applying an appropriate 'haircut' or discount to income or cash flow from less reliable sources (for example, income earned from overtime or bonuses) is prudent when assessing capacity to repay. Rental income would also attract a similar discount to account for possible tenant vacancies and variability of property management costs and maintenance.

50. The use of borrower-declared expenses when these are greater than calculated benchmarks is prudent. In general, the use of benchmarks by an ADI as the default measure of a borrower's expenses would not constitute effective verification by an ADI of a borrower's expenditure. Indeed, it may mask the fact that no reasonable inquiry has been made about the borrower's financial position. Benchmarks may be used where declared expenses appear low, however they would not be a replacement for the ADI making reasonable inquiries.

51. A prudent ADI would also have effective processes to verify a potential borrower's existing debt commitments and to make reasonable inquiries and take reasonable steps to identify undeclared debt commitments.

52. In the case of interest-only loans, capacity to repay would be calculated based on the principal and interest payments that will apply when the interest-only period ends. It is prudent that these principal and interest payments are calculated using appropriate buffers referred to in paragraphs 46 to 48 above.

Exposures other than to individuals

53. For exposures other than to individuals, an ADI may build an overall picture of a borrower's credit risk profile by analysing key financial statements (balance sheet, profit or loss and cash flow statements) as well as soundly based projections and business plans. Typically, reliance is placed on calculating and assessing a wide range of financial ratios. Key areas of focus may include interest cover, gearing levels, debt service ratios as well as industry benchmarks, if relevant. A lower relative interest cover may be considered reasonable for good, long-standing borrowers and entities with high quality management in industries with less volatile cash flows. In general, proposals reflective of negative interest cover are not serviceable on contracted terms and are inherently dependent upon restructure at some later date.

54. In regard to a borrower's historical financial and future cash flows, start-up businesses would typically provide cash flow projections only; for existing businesses an ADI may also rely on historical performance of the business for credit assessment purposes.

55. As an ADI's exposure to credit risk becomes more complex (for example, participation in project finance, lending in support of private equity transactions and asset leasing) it may become more difficult to reliably ascertain cash flow estimates. In such cases, considerable reliance is usually placed on scenarios to develop cash flow estimates and subjecting them to sensitivity analysis. It is considered prudent that an ADI's policies and processes that govern credit assessment and approval activities guide the ADI's personnel as to the approach to be used and highlight the need to assess and document cash flow assumption forecasts. For asset leasing, an ADI lessor would need to assess not only the creditworthiness of the lessee, but in the case of an operating lease, the residual asset risk associated with the underlying asset.

56. In considering covenants designed to limit an ADI's exposure to changes in the future risk profile of a borrower to an acceptable level, an ADI would need to be cognisant of the nature, type and size of the exposure and relevant laws, regulations and banking codes. It is important for an ADI to set covenants at an appropriate level so as to

effectively mitigate risks, and that the ADI has the ability to track compliance with such covenants.

Collateral and guarantees

57. ADIs may utilise transaction structure, collateral and guarantees to help mitigate risks in individual exposures but it is expected that transactions would be entered into primarily on the strength of the borrower's repayment capacity. As outlined in APS 220, collateral is not a substitute for a comprehensive assessment of the borrower, nor would it compensate for insufficient information.

58. ADIs may not always use external valuations to determine security value. Sometimes ADIs rely on internal valuations. Conflict of interest exists if personnel who undertake the valuation are the same as those who are engaged in the origination, assessment and approval of the exposure. This conflict is not avoided by having another person sign off on the valuation. An internal valuation may contain significant errors i.e. a valuation may depend upon an optimistic view of the security (e.g. a property) and a second person who may not inspect the property would have no means of checking and correcting errors. If an internal valuation is to be used then it is expected that it is conducted by personnel who are independent of the origination, assessment and approval process.

59. APS 220 requires insurance of a property asset taken as security to be maintained under the contractual terms of the exposure. APRA expects an ADI to regularly review insurance arrangements. This does not mean an ADI would necessarily review the holding of insurance across the full term of the exposure for all types of exposures. For example, for residential mortgage loans, an ADI would only be expected to confirm insurance in the first year and make it a contractual obligation for the term of the loan.

60. With regard to guarantees, ADIs would be expected to evaluate the level of coverage provided in relation to the credit-quality and legal capacity of the guarantor. ADIs would be circumspect when making assumptions about implied support from such parties.

Other considerations

61. Some ADIs may participate in loan syndications. It is considered prudent that ADIs not place undue reliance on the credit risk analysis undertaken by the lead underwriter or on external credit ratings. All syndicate participants would perform their own due diligence, including independent credit risk analysis and review of syndicate terms prior to committing to the syndication. Each ADI would analyse the risk and return on syndicated loans in the same manner as directly sourced loans.

62. In considering potential exposures, ADIs would need to recognise the necessity of establishing provisions for identified and expected losses and holding adequate capital to absorb unexpected losses. The ADI would factor these considerations into credit assessment and approval, as well as into the overall portfolio risk management process.

63. Many individuals within an ADI may be involved in the credit assessment and approval process. In addition, the same borrower may approach several different areas of the

ADI for various forms of credit. ADIs may choose to assign responsibilities in different ways; however, it is important that the credit assessment and approval process coordinate the efforts of all of the various individuals in order to ensure that sound credit decisions are made.

64. In order to maintain a sound credit portfolio, an ADI would have an established formal credit assessment and approval process. Approvals would be made in accordance with the ADI's written guidelines and by the appropriate level of management. There is expected to be a clear audit trail documenting that the approval process was complied with and identifying the personnel and/or committee(s) providing input as well as making the credit decision. This includes a clear audit trail that tracks conditions of approval and whether they have been satisfactorily met.

65. It is prudent for ADIs to invest in adequate credit decision resources so that they are able to make sound credit decisions consistent with their credit risk management strategy. ADIs often benefit from the establishment of specialist credit committees or groups to analyse and approve exposures related to significant product lines, types of credit facilities and industrial and geographical sectors. APRA expects such committees to be governed by an agreed terms of reference. These terms of reference would be clear on roles and responsibilities and also be subject to regular review.

66. APRA expects that each credit proposal would be subject to careful analysis by a qualified credit analyst with expertise commensurate with the nature, size and complexity of the transaction. An effective evaluation process establishes minimum requirements for the information on which the analysis is to be based. Prudent policies would set out the information and documentation needed to approve new exposures, renew existing exposures and modify the terms and conditions of previously approved exposures. The information is the basis for any internal evaluation or credit risk grade (where applicable) assigned to the exposure and its accuracy and adequacy is critical to the ADI making appropriate judgements about the acceptability of the exposure.

67. It is prudent for ADIs to have and develop personnel who have the experience and knowledge to exercise appropriate judgement in assessing, approving and managing credit risks. An ADI's credit assessment and approval process is expected to establish accountability for decisions taken and designate who has the absolute authority to approve exposures or modifications in credit terms. ADIs typically utilise a combination of individual signature authority, dual or joint authorities, and a credit committee or group, depending upon the size and nature of the exposure. It is expected that approval authorities would be commensurate with the expertise of the individuals involved.

68. ADIs from time to time utilise an automatic decision engine to decision credit applications. It is prudent for ADIs that utilise such systems to have processes and systems in place to regularly review the appropriateness of the parameters of such systems and to ensure that individual exposures that can be approved are aligned with the ADI's credit risk appetite statement. Credit applications assessed by an automatic decision engine are expected to take into consideration any existing related loan exposures and their performance.

Credit administration, measurement and monitoring

69. Credit administration is a critical element in maintaining the safety and soundness of an ADI. Once an exposure is approved, it is usually the responsibility of the business unit, often in conjunction with a credit administration support team, to ensure that the exposure is properly monitored and managed. This includes keeping the credit file up to date and obtaining current financial information.

70. Given the wide range of responsibilities of the credit administration function, its organisational structure may vary with the size and sophistication of an ADI. In large ADIs, responsibilities for the various components of credit administration are usually assigned to different areas. In small ADIs, a few individuals might handle several of the functional areas. Where individuals perform sensitive functions such as custody of key documents, transferring funds or entering limits into the database, it is prudent that they report to managers who are independent of the business origination and credit approval processes.

71. In developing credit administration areas, APS 220 sets out a number of requirements that relate to the efficiency and effectiveness of credit administration operations, including monitoring documentation, contractual requirements, covenants and collateral.

72. As part of an ADI's credit administration operations, APRA expects the ADI's credit files to include all of the information necessary to ascertain the financial condition of the borrower as well as sufficient information to track the decisions made and the history of the exposure. For example, APRA would expect the credit files to include financial statements, financial analyses and internal credit risk grading documentation (where applicable), internal memoranda, reference letters, and valuations/appraisals. The loan review function would also determine that the credit files are complete and that all approvals and other necessary documents have been obtained.

73. ADIs need to develop and implement comprehensive processes and information systems to monitor the condition of individual exposures and obligors across the ADI's various portfolios. These processes would define criteria for identifying and reporting potential problem exposures and other transactions to ensure that they are subject to more frequent monitoring as well as possible corrective action, re-classification and provisioning. For large or more complex exposures the criteria for identifying potential problem exposures is expected to extend beyond merely whether the exposure is in arrears.

74. Specific individuals would be responsible for monitoring credit quality, including ensuring that relevant information is passed to those responsible for assigning internal credit risk grades (where applicable) to the exposure. In addition, individuals would be made responsible for monitoring on an ongoing basis any underlying collateral and guarantees. Such monitoring would assist the ADI in making necessary modifications to contractual arrangements (for example, restructured or 'hardship' exposures) as

well as maintaining adequate provisions for credit losses. In assigning these responsibilities, senior management would need to recognise the potential for any conflicts of interest.

75. A prudent ADI would be expected to develop watch-list criteria based on factors such as industry, ownership, balance sheet, cash flow, debt service capacity and ageing to promptly identify credit-related issues pertaining to borrowers and assess the implications on the quality of exposures.

Internal credit risk grading systems

76. As the scope, scale and complexity of an ADI's business grows, an ADI would be expected to implement a more sophisticated approach to the monitoring of its credit risk profile attuned to its increasing risk exposure. This would include a systematic classification and monitoring of its credit profile by level of risk. Although APRA only requires ADIs with approval to use the IRB Approach to have an internal credit risk grading system, all ADIs are encouraged to develop and utilise an internal credit risk grading system in managing credit risk.

77. An internal credit risk grading system can be an important tool in monitoring the quality of individual exposures, as well as the credit portfolio. A well-structured internal credit risk grading system is a useful way of differentiating the degree of credit risk in the different exposures of an ADI. An effective internal credit risk grading system allows for accurate determination of the overall characteristics of the credit portfolio, including concentrations and problem exposures, and the adequacy of provisions.

78. Typically, a credit risk grading system categorises exposures into various risk grades, designed to take into account gradations in risk. Such risk grades would be clearly defined. Simpler systems might be based on a few categories; however, more meaningful systems will have numerous gradations for exposures in order to properly differentiate the relative credit risk they pose.

79. The risk grading of exposures which are homogenous and have the same risk characteristics may be undertaken on a segment level or portfolio basis. Risk grades assigned to exposures would take into account all relevant and material information.

80. In order to facilitate early identification of changes in risk profile, an ADI's credit risk grading system would be responsive to indicators of potential or actual deterioration in credit risk. Examples of specific indicators could include qualitative factors such as management quality, loss of key customers and increased competition or quantitative factors such as reduction in sales or profits, deterioration of key financial metrics and arrears. Exposures would be assigned a new risk grade when conditions either improve or deteriorate.

81. APRA expects exposures with deteriorating risk grades be subject to additional oversight and monitoring, for example, through inclusion on a watch-list that is regularly reviewed by senior management. The risk grades may also be used by line management in different areas to track the current characteristics of the credit portfolio and help determine necessary changes to the credit risk management

strategy of the ADI. Consequently, it is important that the Board and senior management also receive regular reports on the condition of the credit portfolios based on such risk grades.

82. It is prudent for an ADI to designate the personnel responsible for the design, implementation, operation, performance and periodic testing and validation of the internal credit risk grading system. Responsibilities are to be clearly defined and documented. Personnel are expected to have the knowledge, skills, tools and resources necessary to carry out their responsibilities. Because of the importance of ensuring that risk grades are consistent and accurately reflect the quality of exposures, responsibility for setting or confirming such risk grades are expected to rest with a credit review function independent of the area that originated the graded exposure.

Information systems and other analytical techniques

83. It is prudent for ADIs to have methodologies that enable them to quantify the risk involved in exposures to individual borrowers. A prudent ADI would also be able to analyse credit risk at the product and portfolio level in order to identify any sensitivities or concentrations.

84. The analysis of credit risk data is expected to be undertaken at a regular frequency with the results reviewed against relevant limits. ADIs would need to use measurement techniques that are appropriate to the complexity and level of the risks involved in their activities, based on robust data, and subject to regular validation.

85. The effectiveness of an ADI's credit risk measurement process is highly dependent on the quality of management information systems. The information generated from such systems enables the Board and all levels of management to fulfil their respective oversight roles, including determining the adequate level of capital. Therefore, the quality, detail and timeliness of information are critical. In particular, information on the composition and quality of the various portfolios would need to permit senior management to assess quickly and accurately the level of credit risk that the ADI has incurred through its various activities and determine whether the ADI's performance is in line with the credit risk management strategy and, in turn, the ADI's credit risk appetite.

86. It is prudent for ADIs to have credit risk management systems that are both fit for purpose and have an appropriate level of system health. This includes systems covering loan origination, core banking, portfolio management, collections, collateral management and problem loan management.

87. ADIs need to monitor exposures against established portfolio limits. It is important that ADIs have a management information system in place to ensure that exposures approaching risk limits are brought to the attention of senior management. It is expected that all exposures are included in a risk limit measurement system. The ADI's information system would be expected to aggregate credit exposures to individual borrowers and report on overrides/waivers/exceptions to credit risk limits and other credit risk policies and processes on a meaningful and timely basis.

88. It is prudent for ADIs to have information systems in place that enable management to identify concentrations of risk within the credit portfolio. The adequacy and scope of information is to be reviewed on a regular basis by business line managers and senior management to ensure that it is sufficient in light of the complexity of the business. ADIs would be expected to have in place effective information systems that permit additional analysis of the credit portfolio, including stress testing.

Systems for monitoring the overall composition and quality of the credit portfolio

89. ADIs may focus on oversight of contractual performance of individual exposures in managing their overall credit risk. While this focus is important, ADIs also need to have in place an appropriate system for monitoring the overall composition and quality of the various credit portfolios. This system would be consistent with the nature, size and complexity of the ADI's portfolios.

90. ADIs may gain a clear understanding of the asset quality of their credit portfolios by analysing the projected, current and historical level of delinquency and defaults. ADIs would recognise that the delinquency rate and number of exposures deteriorating in credit quality will likely escalate by many multiples between the peaks and troughs of economic and credit cycles.

91. When monitoring the overall composition and quality of its credit portfolios, it is prudent for an ADI to consider:

- the levels and trends of delinquencies, restructured or 'hardship' and other problem exposures (including past-due and watch list) as well as write-offs and provision coverage ratios;
- peer analysis;
- analysis of credit migration for the portfolios;
- correlation between credit quality and growth in lending and fee-based credit activities;
- trends/changes in loan pricing methods, portfolio management and outcomes of stress tests; and
- outcomes from internal and external reviews of portfolios.

92. Some early warning indicators to identify emerging credit risks include, but are not limited to, rapid loan growth, growing concentrations in particular exposures and regular or increasing number of overrides/waivers/exceptions approved against the ADI's own credit risk policies and processes.

93. APRA expects ADIs to monitor trends in requests for, and approvals of restructured exposures and to conduct regular assessments of the default and loss characteristics of these exposures (also refer to paragraphs 119 to 127 below). This means that an ADI would have in place data and systems to allow it to readily identify, measure and report internally on these arrangements. For example, it is prudent for ADIs to monitor key metrics such as: number, dollar amount and reasons for new requests for restructured or 'hardship' concessions, by product type; number, dollar amount and types of new

and outstanding restructured or 'hardship' concessions granted; and cure rates, provisions and ultimate loss rates on these exposures.

94. A source of credit-related problems in an ADI may arise from concentrations within the credit portfolio. Concentrations of risk can take many forms and can arise whenever a significant number of exposures have similar risk characteristics.

95. Concentrations also occur in exposures with the same maturity. Concentrations can stem from more complex or subtle linkages among exposures in the portfolio. The concentration of risk does not only apply solely to the approval of loans but to the whole range of banking activities that, by their nature, involve counterparty credit risk. A high level of concentration exposes an ADI to adverse changes in the area in which the exposures are concentrated.

96. In many instances, due to an ADI's geographical location or lack of access to economically diverse borrowers, avoiding or reducing concentrations may be difficult. In addition, ADIs may want to capitalise on their expertise in a particular industry or economic sector. Consequently, an ADI may not necessarily forego approval of exposures solely on the basis of concentration.

97. ADIs may make use of alternatives to reduce or mitigate concentrations. Such measures can include pricing for the additional risk, increased holdings of capital to compensate for the additional risks and making use of loan syndications in order to reduce dependency on a particular sector of the economy, industry or group of related borrowers. ADIs would not be expected to enter into transactions with borrowers they do not know or engage in credit activities they do not fully understand simply for the sake of diversification. This is especially important for small ADIs; there is limited benefit in diversification, unless an ADI is actually decreasing risk.

98. ADIs may have a number of mechanisms to manage credit concentrations and other portfolio issues. These include asset sales, credit derivatives, securitisation programs and other secondary loan markets. However, mechanisms to deal with portfolio concentration issues involve risks that must also be identified and managed. Consequently, when ADIs decide to utilise these mechanisms, they need to have adequate policies and processes, as well as adequate controls, in place.

Controls over credit risk

99. Because various appointed individuals throughout an ADI may have the authority to approve exposures, the ADI would need to have an efficient internal review and reporting system in order to manage effectively the ADI's various portfolios. It is expected that this system would provide the Board and senior management with sufficient information to evaluate the performance of relevant personnel and the condition of the credit portfolio.

100. Internal reviews of credit risk conducted by personnel that are independent from the business function provide an important assessment of individual exposures and the overall quality of the credit portfolio. Such a review function can help evaluate the overall credit administration process, determine the accuracy of internal credit risk grades (where applicable), and confirm whether relevant personnel are properly monitoring individual exposures. The credit review function would be expected to report directly to the Board, a committee with audit responsibilities, or senior management without lending authority (for example, senior management within the risk control function).

101. For small ADIs, it may be appropriate for internal reviews of credit risk to be 'insourced' or 'outsourced' depending the costs of such reviews. Where ADIs outsource these reviews, the ADI would need to have regard to *Prudential Standard CPS 231 Outsourcing* (CPS 231).

102. The objective of credit risk management is to maintain an ADI's credit risk exposure within parameters set by the Board and senior management. The establishment and enforcement of internal controls, operating limits and other practices would help ensure credit risk exposures do not exceed levels acceptable to the ADI. Such a system would assist management to monitor adherence to the established credit risk objectives.

103. It is expected that limit systems ensure that approval of credit exceeding certain predetermined levels receive prompt management attention. An appropriate limit system would assist management in controlling credit risk exposures, initiating discussion about opportunities and risks, and monitoring actual risk taking against predetermined credit risk tolerances.

104. It is prudent for internal reviews of credit risk processes to be conducted on a regular basis to determine that credit activities are in compliance with the ADI's credit policies and processes, that exposures are authorised within the guidelines established by the ADI and that the existence, quality and value of individual exposures are accurately being reported to senior management. Such reviews would also be used to identify areas of weakness in the credit risk management policies and processes as well as any overrides/exceptions/waivers to policies, processes and limits.

105. The management of overrides, exceptions and waivers is also fundamental to ensure credit practices are controlled and aligned to an ADI's credit risk appetite. A disconnect between what the policies consider acceptable and the actual exposures approved via

overrides/exceptions/waivers can affect the quality of the credit decision. In the particular case of ADIs using scorecards, the quality of the credit decision may be negatively affected by the ADI's practices on overrides, exceptions and waivers. It is expected that senior management regularly question the frequency of overrides. exceptions and waivers, the controls the ADI has in place and the effect these overrides may have on a scorecard's predictive capability.

106. It is considered prudent for ADIs to 'hindsight' credit decisions to detect anomalies (where the ADI has instituted an internal credit risk grading system it is expected that this is specifically hind-sighted) and provide remedial training. A prudent ADI would have an understanding of the desired outcomes from any such reviews, which may include: an evaluation of individual lender and business unit against their key performance indicators, such as credit policy and compliance metrics; and an assessment of the continued relevance and appropriateness of the same credit risk policies and processes.

107. An important reason for establishing a systematic credit review process is to identify deteriorating or problem exposures. A reduction in credit quality would need to be recognised at an early stage when there may be more options available for managing the exposure. APRA expects an ADI to have a disciplined and vigorous remedial management process, triggered by specific events, that is administered through the credit administration and problem recognition systems.

108. An internal credit risk grading system can play a role in identifying portfolio deterioration. It is prudent for definitions of credit risk grades to be regularly updated or refreshed. The criteria used to watch list exposures and whether this process is successful in identifying eventual problems is also important.

109. An ADI's credit risk policies are expected to clearly set out how the ADI will manage problem exposures. ADIs differ on the methods and organisation they use to manage problem exposures. Responsibility for such exposures may be assigned to the originating business function, a specialised workout section, or a combination of the two, depending upon the size and nature of the exposure and the reason for its problems.

110. Effective workout programs are critical to managing risk in the portfolio. It is important for an ADI to segregate the workout function from the area that originated the exposure. The additional resources, expertise and more concentrated focus of a specialised workout section normally improve collection results. A workout section can help develop an effective strategy to rehabilitate a problem exposure or to increase the amount of repayment ultimately collected. An experienced workout section can also provide valuable input into any credit restructurings.

111. APRA expects an ADI to have experienced and skilled collections staff managing the higher risk and more problematic exposures of the ADI. The collections function is an important unit in an ADI however it is sometimes overlooked and potentially under-resourced (some ADIs may presume there is a ready market for collections personnel as and when they are needed). However, market dynamics will generally mean many ADIs will be looking to hire collections personnel at the same time (i.e. during systemic

downturns) so ongoing training and personnel development are to be considered as part of larger collections operations.

112. APS 220 requires an ADI to have regard to community expectations as to how borrowers are to be treated. In meeting this requirement, an ADI would need to exercise judgement and have regard to reputation risk.

Non-performing exposures

113. The definition of non-performing exposures in APS 220 includes criteria for categorising exposures that are centred on delinquency status (i.e. 90 days past due) or the likelihood of repayment. It also clarifies the consideration of collateral in categorising assets as non-performing. The definition focuses on a debtor basis, but allows categorisation of exposures as non-performing on a transaction basis for exposures to individuals. It also introduces clear rules regarding the upgrade of a non-performing exposure to performing and the interaction between restructured and non-performing status.

114. When applied, the debtor approach applies at the level of a single borrower. When a borrower belongs to a group, designating an exposure to one entity belonging to a group as non-performing does not necessarily lead to designating all exposures to the other entities from the same group as also being non-performing. However, designating the exposure to one of the group entities as non-performing would be one of the inputs, along with the respective financial situation of other entities from the same group, when assessing the creditworthiness and determining the performing or non-performing status of exposures to the other entities in the group.

115. The 90 days past due criterion is supplemented by considerations for analysing a borrower's unlikeliness to pay, for which the emphasis is on the importance of financial analysis. Collateralisation plays no direct role in the categorisation of non-performing exposures. Any recourse by the ADI would not be considered in this judgment. Collateral may, however, influence a borrower's economic incentive to pay and, therefore, has an indirect impact on the assessment of a borrower's unlikeliness to pay. However, any recourse by the ADI would not be considered in this judgement. Collateral may be one of the inputs, along with other factors, in assessing the borrower's unlikeliness to pay.

116. The unlikeliness to pay criterion would be assessed through a comprehensive analysis of the financial situation of the borrower, using all inputs available, including but not limited to: patterns of payment behaviours in past circumstances; new facts that change the borrower's situation; and financial analysis.

117. When applying the criterion of unlikeliness to pay, the contractual features of the exposure (e.g. an interest-only mortgage loan) would not automatically result in its categorisation as non-performing without analysis of payment behaviours or the financial situation of the borrower. However, regardless of its contractual features, an exposure is categorised as non-performing when it is more than 90 days past due and meets the materiality threshold.

118. In regard to the financial analysis of exposures to individuals, this analysis may include consideration of debt service coverage ratio, loan-to-value ratio, credit scores and any other relevant indicators. Financial analysis of exposures to other than individuals may include, as appropriate, the following ratios: leverage ratio; debt/EBITDA ratio; interest coverage ratio; current liquidity ratio; or ratio of (operating cash flow + interest expenses)/interest.

Restructured exposures

119. Restructured exposures involve a concession that is granted due to a borrower's financial difficulty on any exposure in the form of a loan, a debt security or an off-balance sheet item (for example, loan commitments or financial guarantees).

120. Concessions granted by ADIs typically include a reduction in the interest rate or payment, lengthening of loan maturity, or full or partial deferral (capitalisation) of interest for a temporary period. Restructured exposures would include exposures where the underlying loan terms (for example, principal, payment schedule, fees payable or interest rate payable) are contractually reduced or otherwise modified in a manner that would not be commercially available to other borrowers in good standing.

121. APS 220 lists a number of examples of concessions. Where loan terms have been modified on terms that are equivalent to those offered commercially (for example, a change from fixed to floating rate or from principal and interest to interest-only payments), with no concessions made to the terms or criteria currently offered by the ADI to customers in good standing, the loan would not be considered restructured for regulatory purposes.

122. It is essential for ADIs to have a thorough understanding of the risk profile of exposures where restructure is granted and ensure the risks are appropriately reflected in internal management reporting, provisioning and capital adequacy calculations.

123. A concession provided by an ADI can be triggered by:

    - changes in the conditions of the existing contract, giving considerably more favourable terms to the borrower;
    - a supplementary agreement, or a new contract to refinance the current transaction; or
    - the exercise of clauses embedded in the contract that enable the borrower to modify the terms and conditions of its contract or to take on additional loans, debt securities or off-balance sheet items at its own discretion.

124. There are many types of concession granted by ADIs, or exercised by borrowers in existing contracts. Not all concessions lead to a reduction in the net present value of the exposure, and therefore the recognition of a loss by the ADI.

125. In determining whether to approve restructuring, an ADI would first need to determine if the borrower is experiencing financial difficulty. The following list provides examples of possible indicators of financial difficulty, but is not intended to constitute an exhaustive list. In particular, financial difficulty can be identified even in the absence of arrears on an exposure:

    - a borrower is currently past-due on any of its exposures;
    - a borrower is not currently past-due, but it is probable that the borrower will be past-due on any of its exposures in the foreseeable future without the

concession, for example, when there has been a pattern of delinquency in payments on its exposures;

- a borrower's outstanding securities have been delisted, are in the process of being delisted, or are under threat of being delisted from an exchange due to non-compliance with the listing requirements or for financial reasons;
- on the basis of actual performance, estimates and projections that encompass the borrower's current capabilities, the ADI forecasts that the borrower's committed or available cash flows will be insufficient to service its loans or debt securities (both interest and principal) in accordance with the contractual terms of the existing agreement for the foreseeable future;
- a borrower's existing exposures are categorised as exposures that have already evidenced difficulty in the borrower's ability to repay in accordance with the classification of exposures under APS 220;
- a borrower's exposures are non-performing or would be classified as non-performing without the concession; and
- the borrower cannot obtain funds from sources at an effective interest rate equal to the current market interest rate for similar loans or debt securities for a borrower of good standing.

126. Restructured exposures may be classified as 'performing' or 'non-performing' for regulatory reporting purposes. The appropriate classification will depend on the status of the exposure at the time when concession is granted and the borrower's payment history or creditworthiness after the extension of the concession.

127. Under APS 220, a restructured exposure may cease being categorised as such when both an objective criterion (a probation period for which a minimum duration of six months is set) and a solvency criterion are met.

Credit risk and accounting for expected credit losses

128. The failure to identify and recognise increases in credit risk in a timely manner can aggravate underlying weaknesses in credit quality, adversely affect ADI capital adequacy, and hinder appropriate risk assessment and control of an ADI's credit risk exposure. The involvement of an ADI's credit risk management function in the assessment and measurement of expected credit loss is essential to ensuring adequate provisions in accordance with the applicable accounting framework.

129. An expected credit loss approach is intended to be forward-looking i.e. it is unnecessary for a trigger event to have occurred before credit losses are reported for accounting purposes. As with accounting standard requirements, APRA expects ADIs to base their measurements of expected credit loss on reasonable and supportable information that includes historical, current and forecast information. Thus, the effects of possible future credit loss events on expected credit loss is to be considered.

130. The Basel Committee's document '*Guidance on credit risk and accounting for expected credit losses*', 18 December 2015, sets out guidance on sound credit risk practices associated with the implementation and ongoing application of expected credit loss accounting frameworks. APRA expects ADIs to have regard to this guidance when applying expected credit loss accounting standards.

Glossary

Term	Definition
ADI	Authorised deposit-taking institution as defined in the Banking Act 1959
APS 112	*Prudential Standard APS 112. Capital Adequacy: Standardised Approach to Credit Risk*
APS 220	*Prudential Standard APS 220 Credit Risk Management*
Basel Committee	Basel Committee on Banking Supervision
Board	Board of directors
CPS 220	*Prudential Standard CPS 220 Risk Management*
Loan-to-valuation ratio (LVR)	The ratio of the amount of the loan outstanding to the value of the property securing the loan.
Non-performing	An exposure that is in default. A default is considered to have occurred with regard to a particular borrower when either, or both, of the two following events have taken place: the ADI considers that the borrower is unlikely to pay its credit obligations to the ADI in full, without recourse by the ADI to actions such as realising available security; the obligor is 90 days or more past-due on a credit obligation to the ADI.
Overrides, exceptions and waivers	Approval of an exposure that is outside an ADI's credit risk policies.
Past-due	Where any amount due under a contract (interest, principal, fee or other amount) has not been paid in full at the date when it was due. An exposure is considered past-due from the first day of missed payment.
90 days past due	An exposure subject to a regular repayment schedule is considered 90 days past-due when: at least 90 calendar days have elapsed since the due date of a contractual payment which has not been met in full; and the total amount unpaid outside contractual arrangements is equivalent to at least 90 days' worth of contractual payments. This includes all fees and any charges that are due but unpaid as a result of missed payments. Overdrafts are considered past-due once the borrower has breached an advised limit or been advised of a limit smaller than current outstandings. Non-authorised overdrafts are

	considered to have a zero limit for regulatory capital purposes. An ADI must, therefore, treat days past-due as commencing once any credit is granted to an unauthorised borrower and if such credit is not repaid within 90 days, the exposure must be considered to be in default.
Restructured	An exposure where: a borrower is experiencing financial difficulty or hardship in meeting its financial commitments; and the ADI grants a concession to the borrower that it would not otherwise consider.

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