Reserve Bank of New Zealand
Te Pūtea Matua

Capital Standard

Guidance Note

GN XX.1

Guidance Note version history

[Day Month] 20XX	First issue date	Relates to Capital Standard version dated [1 December 2028]

Contents

Use and status of the Guidance

1. The purpose of this Guidance is to assist licensed deposit takers (or **deposit takers**) to interpret and comply with the Capital Standard (the **Standard**). This recognises that the Standard deals with technical subject matter and there may be no case law or other external reference points to assist with its interpretation. Guidance will assist individual deposit takers with their own compliance and support a more consistent approach across the industry.

2. Consistent with our approach more generally, this Guidance does not cover in any detail provisions where we consider the content is self-explanatory. The majority of the Standard carries over policy positions that are well understood by industry participants and their advisors. Where appropriate, we have replicated existing explanatory material in this Guidance, without looking to supplement it further simply because it has been moved or redrafted as part of the DTA Standards process.

3. The Guidance assists by:

   - Outlining the context and purpose of the Standard. Technical content is better understood with awareness of the policy intent at the time it was drafted.
   - Outlining our preferred interpretation in relation to some clauses, where we have been made aware of differing interpretations by deposit takers.

4. To assist in using the Guidance:

   - The Guidance is designed to be read alongside the Standard. Sections of this Guidance have the same headings as sections of the Standard. Clause numbers are those from the Standard.
   - In the event of any conflict between the text of the Standard and this Guidance, the Standard prevails. The Standard is secondary legislation made under the DTA, while the Guidance does not have formal status. The Guidance represents our view and is therefore an authoritative indicator of that view. However, ultimately, it is for a court to determine the correct interpretation of the Standard.
   - The Reserve Bank will keep under constant review and update the Guidance. We may change our guidance or our interpretation of the Standard if we consider this appropriate. We do not do this lightly and will endeavour to notify deposit takers in advance if we are considering amending the content of the Guidance.
   - This Guidance is not legal advice. We encourage deposit takers to seek their own professional advice, as it is their responsibility to determine their obligations and ensure that they comply with the requirements of the Standard.
   - The Guidance relates to the version of the Standard as at [day month year].
   - We welcome feedback on the Guidance at any time.

Part A: About this Standard

Overview

5. The Capital Standard sets the minimum capital requirements for deposit takers in New Zealand.

6. Deposit takers get their funding from two places – their owners (often referred to as 'shareholders') and people they borrow from, including depositors, (often referred to as 'creditors'). The money that deposit takers get from their owners is referred to as 'capital'. This consists of financial resources that can absorb losses.

7. We require deposit takers to have minimum levels of capital, meaning a minimum percentage of their funding must come from their owners. These minimum requirements help to make sure that the owners of a deposit taker are the first to bear losses, not depositors or other creditors. It ensures that the owners have a meaningful stake in the business, because the more owners have to lose the greater their incentive to manage risks prudently.

8. When the amount of a deposit taker's capital gets too low, and it cannot get any more capital, the deposit taker is likely to fail. So, the more capital a deposit taker has, the more money it can stand to lose before going out of business. The capital standard helps meet the purposes of the DTA to promote the prosperity and well-being of New Zealanders and contribute to a sustainable and productive economy by protecting and promoting the stability of the financial system. It also helps meet the additional purposes of:

    - Promoting the safety and soundness of each deposit taker
    - Promoting public confidence in the financial system
    - Avoiding or mitigating the adverse effects of risks to the financial system and risks from the financial system that may damage the broader economy.

Context and purpose of the Capital Standard

9. Deposit takers worldwide are subject to regulatory capital requirements. The capital requirements in the Standard are based on Pillars 1 and 2 of the Basel Committee on Banking Supervision's (**Basel**) recommendations in its International Convergence of Capital Measurement and Capital Standards (June 2006, and as amended).

10. Pillar 1 refers to the minimum capital ratio requirements that banking supervisors internationally are recommended to impose on deposit takers. Based on those recommendations, the Reserve Bank requires a deposit taker to hold minimum amounts of different tiers of regulatory capital, expressed as percentages of the deposit taker's total risk-weighted asset equivalents (total RWA equivalents). For example, the ratio of total capital to total RWA equivalents must be no lower than 12% made up of 9% Tier 1 capital and up to 3% Tier 2 capital.

11. Capital requirements promote the maintenance of a sound financial system and, by reducing the probability or extent of deposit taker failures, also protect the wider economy from the costs that can arise from the failure of financial institutions. Capital requirements also help make sure that the deposit-taking system can continue to supply credit to the

economy in times of economic stress, reducing the negative feedback loops that can occur between financial losses to deposit takers and the real economy.

12. The Capital Standard sets out minimum capital requirements for each of the Proportionality Framework's three groups of deposit takers, with larger deposit takers required to hold a higher prudential capital buffer to reflect their higher systemic risk.

13. The Capital Standard only applies to locally-incorporated deposit takers and does not apply to overseas licensed deposit takers (**branches**). Capital requirements for branches are set by their home regulators (i.e., the regulator in the jurisdiction they are headquartered in who are responsible for supervising the global operations of the deposit taker).

14. The Capital Standard sets requirements for the three different elements of the capital framework: the required levels of capital, the steps to calculate risk weighted exposures to be used for the capital calculation, what constitutes eligible capital, and by converting exposures into risk weighted assets.

15. The Capital Standard is divided into 9 parts:

- Part 1 covers definitions and general provisions
- Part 2 covers capital requirements
- Part 3 covers components of capital
- Part 4 covers new capital and changes in capital
- Part 5 covers the standardised approach for calculating credit risk RWAs
- Part 6 covers credit risk mitigation
- Part 7 covers the capital requirements for market risk
- Part 8 covers the capital requirements for operational risk
- Part 9 covers the capital requirements for funds management, securitisation, insurance and loan transfers.

Banks that have been approved to use "internal models" do not use some or all of the "standardised" approaches in this standard, instead using the approaches described in the Internal Models Standard.

Part B: Guidance on the Capital Standard

Part 1: Preliminary provisions

16. Consistent with section 20 of the Legislation Act 2019, words or expressions used in the Capital Standard have the same meaning as in the Deposit Takers Act 2023 (DTA). For example, 'debt security' is defined in section 6 of the DTA (by reference to section 8 of the Financial Markets Conduct Act 2013).

17. The Capital Standard does not specify the point in time at which the quantitative requirements apply or must be calculated (for example, at the end of each business day). Instead, the requirements apply on a continuous basis. Deposit takers are not

expected to produce real-time calculations and generally will not need to calculate their capital ratio(s) at multiple times throughout the day or on non-business days. However, they must be confident that they hold sufficient capital to always exceed the minimum requirement.

Part 2: Capital Requirements

18. Part 2 sets out the required minimum capital ratios, including required Tier 1, Tier 2 and loss absorbing capacity. It also sets out the scope of the capital requirements (the capital group). Beyond regulatory minimum capital, this part defines an additional level of capital (the combined capital buffer) which deposit takers must either meet or potentially become subject to restrictions on distributions under clause 19.

19. These requirements and conditions are based on Pillars 1 and 2 of the Basel Committee on Banking Supervision's (**Basel**) recommendations in its International Convergence of Capital Measurement and Capital Standards (June 2006, and as amended).

20. Pillar 1 refers to the minimum capital ratio requirements that banking supervisors internationally are recommended to impose on deposit takers. Based on those recommendations, the Reserve Bank requires a deposit taker to hold minimum amounts of different tiers of regulatory capital, expressed as percentages of the deposit taker's total risk-weighted asset equivalents (total RWA equivalents). For example, the ratio of total capital to total RWA equivalents must be no lower than 12% made up of 9% Tier 1 capital and up to 3% Tier 2 capital.

21. Pillar 2 capital requirements are additional deposit taker specific capital requirements. The Pillar 2 framework includes ensuring that deposit takers have internal processes that will ensure that they maintain adequate capital to cover all risks: the Reserve Bank has implemented this in New Zealand by means of the Internal Capital Adequacy Assessment Process (**ICAAP**) requirements which are set out in subpart 3. The Reserve Bank also can impose capital overlays on individual deposit takers or across industry in response to prudential risks.

22. To avoid doubt, the capital adequacy requirements that apply to locally-incorporated deposit takers do not apply to overseas-incorporated deposit takers. For overseas-incorporated deposit takers, the applicable minimum capital requirements are set and administered by the home country regulator.

23. A deposit taker is typically required to calculate capital ratios on a banking group basis for the purpose of meeting minimum capital ratios, and is required to calculate solo capital ratios for disclosure purposes.

Subpart 1: General Provisions

Scope of minimum requirements (Clause 8 to 11)

24. The intent of clauses 8 to 11 is to define the set or sets of entities which must be included when capital ratios are calculated. In certain circumstances the Standard requires that the deposit taker must also comply with capital requirements calculated on a basis which excludes certain subsidiaries from the calculation. For example, clause 9(2) specifies that when a deposit taker has an overseas subsidiary it is required to comply with requirements for the capital group excluding the overseas subsidiary.

25. As per clauses 9 and 10 of the Standard, total RWA equivalents must be calculated for the consolidated and (if applicable) solo capital group. As shown in clause 8, these include credit risk, market risk and operational risk RWAs. The Reserve Bank may specify an overlay to be added to the RWA calculation if satisfied of the matters in clause 15. There is normally no overlay. Standardised and internal models approach.

26. There are two general approaches to calculating regulatory minimum capital ratios: the standardised approach and the internal models approach. A deposit taker must use the standardised approach unless it has been approved by the Reserve Bank to use the internal models approach. A deposit taker using the internal models approach is known as an 'internal models deposit taker', while a deposit taker using the standardised approach is known as a "standardised deposit taker".

27. A standardised deposit taker may apply to the Reserve Bank to be approved as an 'internal models deposit taker'.

28. An application for approval must be made in a manner specified by the Reserve Bank (if any). If no manner has been specified, a deposit taker will need to discuss what is required with the Bank. Among other things, the applicant will need to satisfy the Reserve Bank that it can meet the minimum requirements set out in Part 2 and schedules 1 to 4 of the Internal Models Standard.

Subpart 2: Capital Requirements

Minimum Capital and Loss Absorbing Capacity (Clause 12-22)

29. A locally incorporated deposit taker is required under clause 12 to have a minimum of NZD $5m in tier 1 capital from when it is first licensed. The policy intent is to ensure that the deposit taker has sufficient substance to carry on business and to demonstrate that the owners have made a reasonable commitment to the business. A deposit taker will face restrictions on discretionary distributions if it does not maintain tier 1 capital above this level.

30. Most other capital requirements are expressed as ratios of total RWA equivalents as defined in clauses 13 and 14. There is a minimum ratio requirement for tier 1 capital and total capital for all deposit takers. The largest (group 1) deposit takers have an additional requirement to hold capital beyond the total capital requirement (loss-absorbing capacity), see clause 16. Individual firms may also be subject to further tier 1 requirements via conditions of license (a 'capital overlay'). However, the Reserve Bank does not intend to use this discretion to routinely maintain and adjust supervisory capital requirements.

31. Tier 1 capital that has not been applied to meeting minimum requirements may be used to meet the combined buffer (clause 17). The combined buffer comprises a capital conservation buffer, the countercyclical capital buffer (CCyB), and a buffer overlay. As with the capital overlay, the Reserve Bank does not use routinely set buffer overlays. Further guidance on the CCyB is provided in Box 1 below.

32. When a deposit taker does not have a full capital buffer, clauses 21 and 22 apply restrictions on distributions to holders of tier 1 securities. These limit distributions to a specified proportion of net profit, with the limitations becoming more severe the smaller the deposit taker's combined buffer ratio becomes.

33. When the CCyB is set below 1%, distribution restrictions may also apply even if a deposit taker meets the combined capital buffer. This is intended to prevent deposit takers that are close to the required combined buffer from releasing capital to their shareholders following a reduction in the CCyB. The intent of a reduction in the CCyB is to encourage deposit takers to continue to lend during a downturn, rather than increasing distributions to shareholders.

34. Besides distribution restrictions that apply automatically as a result of the deposit taker's capital buffer, clause 22 enables the Reserve Bank to make further distribution restrictions in certain circumstances. Our intent is to use this for financial system stability reasons, as we did during the COVID-19 pandemic.

Box 1: Guidance on the CCyB[1]

CCyB settings

Clause 17 sets out a range of CCyB settings (from 0-1% of RWAs) that may be specified in a deposit taker's licence conditions. This is consistent with the Reserve Bank's approach for the other macroprudential tools included in the Lending Standard, which sets out a range of settings for loan-to-value ratio (LVR) restrictions and debt-to-income (DTI) restrictions that may be specified in a deposit taker's licence conditions.

The Reserve Bank intends to apply the same CCyB to all Group 1 and Group 2 deposit takers, but does not intend to apply it to Group 3 deposit takers. This is consistent with the Reserve Bank's approach to applying the other macroprudential tools included in the Lending Standard.

The Reserve Bank intends to review macroprudential policy settings annually. However, the CCyB is intended to be kept at its long-run setting of 1% (of RWA) through the financial cycle, unless there are exceptional circumstances such as a significant economic downturn.

If there is a significant economic downturn, the Reserve Bank does not intend to wait for an annual review of macroprudential policy settings to reduce the CCyB if that was the appropriate response. The Reserve Bank may use the annual reviews when returning the CCyB back to its long-run setting after the period of stress has abated.

Timing of changes to CCyB settings

Decisions to reduce the CCyB are intended come into effect immediately as they are announced. The level of reduction in the CCyB will depend on the severity of the stress in the economy.

The Reserve Bank intends to return the CCyB to its long-run settings at an early opportunity after the stress period has abated. However, the rate of increase in returning the CCyB back to its long-run setting will depend on economic conditions at the time. For example, the CCyB may be increased by 0.5 or 1 percentage point increments per year if the economic recovery is strong, whereas the CCyB may be increased in smaller increments (for example, 0.25 percentage points) if the recovery is weaker. The Reserve Bank intends to announce decisions to increase CCyB at least 12 months prior to the increase coming into effect.

[1] For further information on how the Reserve Bank uses the CCyB see Macroprudential Policy Framework - Reserve Bank of New Zealand - Te Pūtea Matua

Subpart 3: Internal capital adequacy assessment process (ICAAP)

35. General risk management requirements for material risks, such as capital and liquidity, are contained in the Deposit Takers (Risk Management) Standard 2027 (the **Risk Management Standard**). Requirements that are particularly relevant to the management of material risks, such as capital risk include:

- a structural system for risk management that includes a risk management strategy and a risk appetite statement;
- procedures for the review of the risk management framework and risk management function;
- a stress-testing programme;
- an appropriate internal control framework; and,
- experienced and qualified staff.

36. Deposit takers are expected to ensure that their policies, strategies and plans are consistent with, and appropriately referenced or incorporated within, the deposit taker's broader risk management framework.

37. Under clause 23, a deposit taker's board is responsible for ensuring the overall capital adequacy of the deposit taker. In complying with this clause, we expect that a deposit taker's board does not solely focus on meeting the minimum requirements in subpart 2 (refer also to the discussion of Pillar 1 and Pillar 2 in paragraphs 20 and 21 of this guidance). To address these broader risks, clause 24 requires deposit takers to have an ICAAP process to identify material risks that are not fully captured by the capital requirements (e.g. identify and measure material risks of the capital group that are not captured in the calculation of total RWA equivalents, or are entirely out of scope of those calculations), and determine an internal capital allocation for each of these.

38. Such 'other' material risks could include underestimation of credit risk in the Pillar 1 standardised credit approach, risks of internal ratings migrations in the Pillar 1 internal model-based approach to credit risk, and residual risk stemming from credit risk mitigation. Under clause 33, the deposit taker should have in place policies and systems to both monitor and control concentrated exposures to credit and other risks, and in turn consider whether additional capital is a suitable risk mitigant.

39. If a deposit taker is a member of a larger deposit-taking group, the deposit taker may base its approach on group-wide methodologies. However, each deposit taker remains responsible for its own ICAAP and ensuring it meets the requirements under the Capital Standard.

40. Clause 32 sets out requirements for an adequate ICAAP process. For example, because the ICAAP is expected to be forward looking, deposit takers are expected to consider their strategic plan and the associated capital requirements (clause 32(1)). Deposit takers are also expected to consider plausible stress scenarios (stress-tests) where capital is depleted and the strategic plan cannot be achieved (clause 32(2)(b)). Note that more rigorous requirements apply for group 1 and 2 deposit takers as set out in clauses 30-34. Requirements for group 3 are covered in clause 35.

Part 3: Components of Capital

41. Part 3 defines the components of the equity side of a deposit taker's balance sheet that may be counted as tier 1 or tier 2 capital. With the exception of certain transitional rules, tier 1 is the only form of tier-1 capital recognised under the capital standard. Tier 1 capital is defined in clauses 38-49 of the Standard.

Subpart 2: Categories of capital

42. A definition of tier 1 capital is included in subpart 2 in clause 38. Tier 1 capital, as defined, is the highest quality of capital, and is intended to-

- provide a permanent and unrestricted commitment of funds; and
- be freely available to absorb losses; and
- not impose any unavoidable servicing charge against earnings.

43. To achieve this, the subpart sets out a number of deductions and adjustments that must be made. A regulatory exclusion or 'removal' may result in an addition to or subtraction from the total tier 1 capital figure, as specified in each of those sections. In contrast, 'deductions' can only reduce tier 1 capital. Additional deductions from tier 1 capital may be required under the corresponding deductions approach provided in subpart 3.

44. The intent of clauses 39 to 49 is for any asset that is deducted from tier 1 capital to not be included in the calculation of total RWA equivalents.

45. Under clauses 50-51, tier 2 capital comprises certain types of reserves and subordinated debt instruments that do not qualify as tier 1 capital but are available to absorb losses ahead of more senior creditors of the [capital group] in a winding up.

46. Regarding revaluation reserves, the intent of clause 50(2)(d) is that cumulative losses below depreciated cost value on any individual property are not to be netted against revaluation gains on other property. Such losses impact on tier 1 capital via the accounting treatment, and no regulatory adjustments apply to that impact.

47. The addition to tier 2 capital arises where an internal models deposit taker's eligible impairment allowances on non-defaulted internal models-risk-weighted loans exceed the deposit taker's estimate of expected loss on such loans. The amount that can be included as tier 2 capital is capped at 0.6% of total RWAs on internal models-risk-weighted loans.

Subpart 3: Deductions from total capital for capital ratio calculations

48. Subpart 3 specifies certain deductions from total capital. The policy intent of clause 53 is that the deduction must be made from the category of capital for which the instrument would qualify if it were issued by a member of the capital group, or a higher category if that category is exhausted. For example, if the deposit taker starts with 100 tier 2 capital and is required to deduct 150 from tier 2 capital under this subpart, the banking group is left with nil eligible tier 2 capital and 50 would be deducted from tier 1 capital.

49. The policy intent of clause 53 is that assets deducted according to the corresponding deductions approach are not included in the calculation of total RWA equivalents.

50. Clauses 55 and 56 describes how to handle small (less than 10% of the shares or other instrument in the entity) investments by the deposit taker and calculate the required

corresponding deductions. The value of the deposit taker's tier 1 capital to be used for applying the threshold is the value after applying all the regulatory adjustments to tier 1 capital set out in subpart 2.

51. Clause 55(3) is designed so that the total amount to be deducted under this clause is allocated across tier 1 and tier 2 capital in proportion to the share that each category of capital has in the total of capital instruments the banking group owns falling within the scope of this deduction. For example, assume a deposit taker has total applicable investments that are 23% of tier 1 capital, 75% of those investments are tier 2 instruments. The deduction from the deposit taker's tier 2 capital is 13% of tier 1 capital (23%-10%) multiplied by 75%. So the deduction from tier 2 capital is 9.75% of the value of tier 1 capital. If this exceeds total tier 2 capital, the corresponding deduction rule means any excess deduction must be applied to tier 1 capital.

Subpart 4: Requirements for ordinary shares to be tier 1 capital

52. This subpart sets out requirements for ordinary share capital to count as tier 1 capital.

53. With respect to clause 59(c), this condition is still deemed to be met if the deposit taker has issued an instrument other than ordinary shares that has a write-off or conversion feature. The policy intent of 59(d) is that mutual entities that adopt a 'one member, one vote' rule are not, merely through the adoption of that rule, prevented from satisfying this condition (see clause 62(d) below). Clause 59(f) refers to an unlimited and variable claim, not a fixed or capped claim. A building society's right to repay funds under section 11(2) of the Building Societies Act 1965 is not considered to make building society shares "redeemable" in clause 59(h).

54. The 'contractual cap' referred to in 60(a)(iii) does not refer to obligations placed on the deposit taker by the Reserve Bank through standards or license conditions (e.g. restrictions on distributions relating to capital buffers).

Subpart 5: Requirements for mutual capital instruments to be tier 1 capital

Clause 62: General requirements for mutual capital instruments to be tier 1 capital

55. For 62(d), mutual entities that adopt a 'one member, one vote' rule are not, merely through the adoption of that rule, prevented from satisfying this condition.

56. For 62(e), the holders' claim must rank junior to all other liabilities, including members' deposits, as well as any tier 2 capital instruments. The holders' claim should rank equally with the right of members to share in surplus assets upon liquidation, according to the formulas set out in clause 62(2). This is the mechanism that ensures that the mutual capital instrument has properties that are as close as possible to ordinary shares and matches subordination and proportionality requirements.

57. For 62(j), a building society's right to repay funds under section 11(2) of the Building Societies Act 1965 is not considered to make building society shares "redeemable".

58. For 62(n), it is acceptable for some terms of an instrument to be governed by New Zealand law, and some by a permitted foreign law. When using foreign governing law to cover some, or all, of the terms of an instrument, the deposit taker must provide a legal opinion in an acceptable form, as set out in clause 86(1)(e).

Clause 63: Distribution requirements for mutual capital instruments to be tier 1 capital

59. For 63(1)(b)(ii), this requirement does not prevent the registered deposit taker from indicating an intended or projected return or distributions per mutual capital instrument to investors as part of the discretionary distribution policy.

60. For 63(1)(b)(iii), a registered deposit taker's conditions of registration typically limit the proportion of distributable earnings that the deposit taker may pay out if the combined buffer ratio of the banking group (as defined in Part 2 of the Capital Standard) is below a specified amount.

Subpart 6: Requirements for instruments to be tier 2 capital

Group 2 and 3 deposit takers

61. Tier 2 instruments for deposit takers that are not group 1 deposit takers are described in this subpart. Unpaid interest may still be treated as a liability of the issuer.

62. Further detail on some matters in this Part (e.g. forms of legal opinion, and requirements for repayment of a tier 2 instrument), are described in Part 4: New capital and changes in capital.

63. The intent of clause 66 is that tier 2 capital comprises certain types of reserves and subordinated debt instruments that do not qualify as tier 1 capital but are available to absorb losses ahead of more senior creditors of the capital group in a winding up.

64. Clause 70 is intended to prevent the terms of an instrument providing a financial incentive for the issuer to redeem it. One component of that limits the ability of interest rates to reset except in certain ways. For example, an eligible instrument may specify the interest rate as a fixed margin above a recognised market benchmark such as the bank bill rate.

65. Similarly, clause 71 is intended to rule out credit-sensitive distribution features. This includes, for example, a distribution that is reset periodically based in whole or in part on the credit standing of any member of the capital group. An eligible instrument may utilise a broad index as a reference rate for distribution or payments calculation purposes, provided that the index does not exhibit any significant correlation with the issuer's credit standing.

66. The intent of clause 72 is to generally prohibit a deposit taker and entities it controls from purchasing or funding the purchase of the tier 2 instruments, with certain exceptions, including those set out in clause 73.

Subpart 8: Recognition in capital of minority interests and capital issued by SPVs

67. This subpart sets out rules for when capital issued by a subsidiary of a deposit taker that is a member of the capital group may be counted as capital of the capital group. Eligibility and calculation rules apply, which are designed to take account of the capital position of the subsidiary.

68. The intent of clause 77 is that ordinary shares and mutual capital instruments issued to third party investors by a subsidiary that is not a deposit taker cannot be included in the tier 1 capital of the capital group. These amounts may be included in the total capital of the capital group, subject to conditions below. The Standard imposes different requirements in the case of Tier 2 instruments issued by subsidiaries, as specified in Clause 79.

69. The intent of clauses 76-80 is to specify adjustments that apply when capital in a subsidiary deposit taker is recognised as eligible capital. The intent of clause 78 is for deposit takers to subtract the surplus tier 1 capital of the subsidiary attributable to minority shareholders. The surplus tier 1 is the excess over regulatory requirements including buffers.

70. For example, suppose a subsidiary deposit taker has a capital ratio of 40%, where minority interests are $1bn and total tier 1 capital is $4bn. No adjustments are required related to clauses 39-49). Assuming the tier 1 capital ratio requirement is 10% and RWA is $10bn, the tier 1 requirement of subsidiary is $1bn. This means surplus capital is $3bn, of which 25% is attributable to minority interests (i.e. $0.75bn), so the parent can recognise $250mn of minority interests in subsidiary as capital of the capital group.

Subpart 9: Eligibility of capital instruments issued via an SPV

71. This subpart provides conditions under which a SPV issued or purchased capital instrument may be used to meet capital requirements. Clause 81 sets out requirements that the instrument issued by the deposit taker to the SPV must meet for classification as tier 2 capital. The intent is that such instruments match the instrument issued by the SPV to third party investors in all material respects (for example, that the maturity dates, interest rates, payment dates, and any repayment terms match, and that the instruments are of the same category of regulatory capital).

Part 4: New capital and changes in capital

72. This part sets out process requirements for a New Zealand-incorporated registered deposit taker, involving interactions between the deposit taker and the Reserve Bank.

73. Subpart 1 sets out the notifications and information that the deposit taker must provide to the Reserve Bank before it issues a new tier 2 capital or mutual capital instrument that it wishes to use to meet it regulatory capital requirements.

74. Subpart 2 sets out the processes a deposit taker must follow, and the information it must provide to the Reserve Bank, in relation to certain specified transactions, including changes to its capital levels. It also covers the requirements for amending the terms of existing issued capital instruments used to meet regulatory requirements.

Subpart 1 – Issue of new capital instrument to be used for capital requirements

Clause 86: Documents required for new instrument notice

75. Clause 86 sets out the documents required for proving the Reserve Bank notification of the issuance of certain capital instruments.

76. The wording of the signed opinion included in Schedule 2 is designed to give the Reserve Bank assurance that an instrument complies with the tier 2 capital or mutual capital instrument eligibility requirements, and that no additional clauses that are added to the terms and conditions of the instrument will subvert that compliance. However, the directors of a deposit taker are expected to ensure that their deposit taker's capital instruments comply with the capital standard for the entire period that the instrument is recognised as regulatory capital.

77. A deposit taker may issue a capital instrument in a foreign currency, as the standard does not otherwise restrict the currency of issuance to NZD. However, for the purpose of

providing a foreign law opinion, clause 62(3) limits the permitted foreign laws to those of New South Wales (Australia), Victoria (Australia), England and New York.

Clause 88: Additional information if mutual capital instrument issued in foreign currency

78. When complying with clause 88, deposit takers are expected to convert mutual capital instruments issued in foreign currency into NZD in line with the appropriate accounting rules for equity instruments, which generally do not require revaluation at the spot exchange rate.

Clause 89: Additional information required if capital instrument issued to related entity

79. The intent of this clause is to enable the Reserve Bank to understand the ultimate source of funds for new capital issuances. For example, if the deposit taker intends to issue a capital instrument to a holding company, the deposit taker is expected to provide information on any related funding transactions for that holding company and also funding of entities further up the ownership structure. Clauses 93 and 94 limits the extent to which some types of related party of a deposit taker can purchase or fund an eligible capital issue.

Clause 90: Additional information required if new instrument issued out of SPV

80. Clause 90 sets out requirements related to instruments issued by an SPV and the instrument with materially identical terms issued by the deposit taker to the SPV. The intent of clause 90(2)(b) is for the notifications applicable to the instrument issues within the capital group, to match the required notification of the instrument issued out of the capital group to third party investors.

Subpart 2 – Capital transactions and changes

Clause 92: Redemption of tier 2 capital restricted

81. The intent of subclause 92(2)(a) is that a replacement capital issue must have at least the same total value as the capital it replaces.

82. Clauses 92(2)(c)(i) and 92(5) cover redemptions resulting from a potential change in tax or other regulatory laws and set out circumstances where a potential change would not satisfy the redemption criteria, including where the change could have been reasonably anticipated. Clause 92(5) sets out circumstances where a potential change could reasonably have been anticipated. Clauses 93 and 94: Purchases of own capital and funding of own capital

83. These clauses limit the amount of tier 2 capital or mutual capital instruments that can be purchased or funded by a member of the deposit taker's capital group. The policy intent is to ensure the loss absorbing capability of capital is genuinely spread to third parties rather than remaining within the group.

84. Despite anything in these clauses, due to the effect of clause 72, if the deposit taker, or an entity over which the deposit taker exercises control or significant influence, purchases the instrument or indirectly funds the purchase of the instrument, that instrument will not meet the requirements for eligible regulatory capital.

85. Note that clause 89 requires information to be provided to the Reserve Bank regarding the source of funds for purchases of capital by other members of the deposit taker's group, including holding companies.

Part 5: Total credit risk RWAs (standardised approach)

86. Part 5 of the standard sets out the methodology for calculating total credit risk RWAs. Total credit risk RWAs is key part of the calculation of total RWA equivalents and therefore capital ratios, as set out in Part 2 of the Capital Standard.

87. The focus of Part 5 is on the standardised approach to calculating total credit risk RWAs. However, clauses 104-107 explain how total credit risk RWAs are calculated in the case of deposit takers approved by the Reserve Bank to use the internal-ratings based approach (an "internal models deposit taker"). Requirements for the use of internal models are set out in the Internal Models Standard and guidance is covered in a separate document.

88. This section of the guidance is not intended to be a "how-to" guide for the use of the standardised approach. It provides a general overview of the policy intent and then provides specific commentary on selected clauses of the Standard.

89. Under the standardised approach, a deposit taker's RWAs are calculated by multiplying a standardised risk weight for each counterparty by the total credit risk exposure amount for that counterparty. For residential mortgage loans, the risk weighting categories take into account loan-to-value ratios at the time of origination and lender's mortgage insurance arrangements. For other types of counterparties, risk weights are derived from standardised rating grades, which in turn are based on external ratings from independent credit rating agencies.

90. A standardised deposit taker must use the approach in the Standard to calculate RWAs for all of the credit exposures that fall within the scope of the definitions in the Standard. An internal models deposit taker must use the approach in this document to calculate RWAs in any of the cases where the Capital Standard specifies standardised RWAs are required.

91. The risk-weighting methodology includes measurement of credit exposure amounts that are not recognised on the balance sheet, including potential future credit exposure on derivatives, credit exposures arising from contingent liabilities (such as commitments and guarantees), and the Credit Valuation Adjustment (**CVA**).

92. Total exposure to a given counterparty is calculated by summing the direct on-balance credit exposure and the credit-equivalent amount (**CEA**) of other forms of credit exposure. For off-balance sheet exposures arising from instruments such as lending commitments or guarantees provided by the deposit taker, the CEA is calculated as the notional amount of the instrument multiplied by a specified credit conversion factor (**CCF**). For the counterparty credit risk exposure arising from a derivative for with a counterparty, the CEA is calculated using the "current exposure method". Under that method, a deposit taker may net the potential future exposure amounts arising on several derivatives with a given counterparty, subject to it meeting specified conditions and using a specified approach.

93. Note that while focussed on credit risk, this Part also requires deposit takers to calculate RWAs for certain other assets that are included on the accounting balance sheet but do not give risk to credit risk: for example, fixed assets.

Subpart 1: General provisions

Calculation of total credit risk RWAs for internal models deposit takers (clauses 104-107)

94. Clauses 104-107 set out how total credit risk RWAs is calculated in the case of an internal models deposit taker. This includes:

- Calculating credit risk RWAs per the Internal Models Standard for all modelled exposure classes for which the deposit taker has been approved by the Reserve Bank (in accordance with clause 104);
- Calculating the credit risk RWAs for these exposures using the standardised approach (in accordance with clause 106).
- Calculating the standardised floor, by multiplying the amount in 2 by 0.85 (in accordance with clause 104(1)(a)(ii));
- Applying the "internal models scalar" of 1.2 to the RWAs calculated using the Internal Models Standard in 1 (in accordance with clause 104(1)(a)(i));
- Determining the greater of the products calculated in 3 and 4 (which determines whether the standardised floor is "binding");
- Adding the credit risk RWAs for exposures for which the deposit taker is required to calculate RWAs using the standardised approach (in accordance with clause 105(3))

Subpart 2: Calculation of credit risk RWAs under standardised approach

95. This subpart sets out the methodology for calculating credit risk RWAs. The process includes several limitations and/or exclusions.

Clause 109: Deductions and exclusions

96. Clause 109(1)(b) refers to deducting any impairment allowances attributable to the exposure: The impairment allowances attributable to an exposure are intended to include any loss allowance for expected credit loss individually assessed on the exposure, and the portion of any collectively assessed impairment allowance that is allocated to the exposure. In addition, this deduction is intended to apply both to impairment allowances recognised on on-balance sheet assets, and to impairment allowances recognised on commitments and financial guarantee contracts, for which the calculation approach is set out in clause 161.

Clause 110: Risk-weighted credit exposures across all borrowers or counterparties

97. The intent of clause 110 is to set out the process for calculating risk weighted credit risk exposures, such as those relating to loans and debt securities held by the deposit taker, plus the "credit equivalent amount" of certain off-balance-sheet exposures such as undrawn loan commitments.

98. For 110(2)(b) the standardised rating grades include a grade of "unrated" for any exposure meeting the conditions of clause 121.

Clause 112: RWA for credit valuation adjustment capital charge

99. The intent of this clause is calculate the contribution of the CVA capital charge to total credit risk RWAs.

100. The CVA capital charge is intended to reflect the credit risk associated with counterparties for non-centrally-cleared derivatives, based on the total CEA for each counterparty, calculated in accordance with part 5 subpart 7.

101. Note that part 5 subpart 9 provides that in some cases, the deposit taker's involvement in the central clearing of a derivative gives rise to an exposure which is treated as a bilateral trade, for the purposes of the CVA capital charge calculation.

Clause 113: RWAs from trades settled on central counterparties

102. For a deposit taker calculating capital ratios using the standardised approach, the contribution to total credit risk RWAs from trades involving a CCP is set out in the Standard. The intent of this part of the calculation is to recognise that the credit risk characteristics of transactions involving CCPs can differ from transactions settled bilaterally.

103. For clause 113(1)(b) the precise approach depends on aspects of the transaction. In particular, the method used depends on whether the transaction meets the conditions in subpart 9 clauses 182(3), 182(4), or 182(5) respectively.

104. The intent of clause 113(1)(d) is that, if the deposit taker has posted collateral, the calculation includes the credit risk both on the assets posted and on the counterparty holding the collateral.

Subpart 3: Standardised rating grades

105. This subpart sets out the approach a deposit taker must use to determine the standardised rating grades to be used for risk-weighting exposures to credit risk.

106. For residential mortgages, the risk-weighting categories take into account LVRs and lender's mortgage insurance arrangements. For other types of exposure, credit ratings from independent credit rating agencies are used as a basis for determining risk weights.

Clause 118: Inferred ratings

107. The intent of clause 118 is to set out the inferred ratings that apply where an issue-specific credit rating is not available. The use of inferred ratings is intended to reduce the number of claims that end up as 'unrated' under clause 121.

108. A long-term issuer rating typically applies to senior unsecured claims. Where an issue-specific credit rating is not available, the intent of clause 118(2) is for the deposit taker to treat all senior unsecured claims on the borrower as having that issuer credit rating. The range of possible long-term and issuer credit ratings is shown in the table in clause 123.

109. Subject to clause 120, clauses 118(3)-(6) set out provisions that apply if the deposit taker has an unassessed claim on a borrower that does not have an inferred rating arising from subclause (2). Subclause (4)(b) is intended to ensure that a claim on an issuer is not given a more favourable risk weight than a higher-ranking claim on the same issuer by relying on the treatment for unrated claims.

110. Clause 118(5) states that "The deposit taker must not determine the rating grade for an unassessed claim on a borrower using an issue-specific short-term credit rating of another claim on the borrower". In the cases provided for in clause 135, a short-term credit rating of one claim on a borrower may affect the risk-weighting of another claim on the borrower that is unrated in terms of subpart 3. The range of possible rating agency short-term credit ratings is shown in clause 122.

111. Note that the intent of clause 118(5) is not to prevent a deposit taker from using an issue-specific short-term credit rating for the corresponding short-term claim itself.

Clause 121: "Unrated" grade when no rating agency credit rating applies

112. Typically, if a borrower has a long-term issuer rating, most claims on the borrower that do not have an issue-specific credit rating will have a credit rating inferred from the issuer rating. An unrated claim may for example be a claim in a different currency to the currency of the issuer rating, or a claim that is subordinated to senior claims to which the issuer rating applies.

Rating grades (clauses 121-123)

113. Clauses 121-123 cover how the credit ratings for a claim determined under this subpart translate into a rating grade, or are classified as "unrated".

- In the case of a short-term claim, if there is no issue-specific short-term rating, then clause 122 applies – the claim is "unassessed" and the long-term issuer credit rating applies, if there is one. In this case the associated issuer rating grade is determined by the table in clause 123.
- If there is no issue-specific short-term rating and no long-term issuer credit rating then the claim is "unrated".

Subpart 4: Risk weights for credit exposures

Risk weights for items other than Residential Mortgage Lending (RML)

Clause 125: Currency, gold and cash items

114. A 0% risk weight applies in a range of circumstances. Clause 125(2) states that "A cash item in the process of collection from another deposit taker must be treated as a claim on that deposit taker with a maturity of 3 months or less". This includes, for example, cheques, drafts, or other items drawn on other registered deposit taker or overseas deposit takers that are payable immediately upon presentation and that are in the process of collection.

Clause 126: Claims on sovereigns and central banks

115. In the case of sovereigns and their central banks, an implicit guarantee from a sovereign to another entity does not qualify that other entity for a lower risk weight than would otherwise apply. Any consideration of the use of explicit guarantees should be done in accordance with Part 7 of the Capital Standard: Credit Risk Mitigation.

116. As set out in Part 7 of the Capital Standard, when there is an issue-specific rating, if the rating agency has considered the impact of the relevant guarantee in those credit ratings, then additional credit risk mitigation is not permitted.

Clause 127: Claims on public sector entities

117. The category public sector entity includes the New Zealand Local Government Funding Agency Limited. It does not include other council-controlled trading organisations, which will generally qualify as 'corporate' in the Capital Standard.

Clause 129: Claims on deposit takers and overseas banks

118. The three-month maturity date of three-month bank bills aligns with the New Zealand financial market maturity convention.

Clause 133: Banks and corporates: issue-specific short-term ratings

119. For deposit takers and corporates, the risk-weights for 'short term' claims follow issue-specific short-term ratings. In this clause 'short-term' does not denote any particular maximum maturity: rather, it refers to the nature of the rating agency credit rating. The possible rating agency short-term credit ratings and the corresponding short-term rating grades are set out in clause 122.

Clause 134: Floor on unrated deposit taker, bank, and corporate claims

120. The intent of clause 134(2) is to override the usual risk-weighting treatment for unrated claims on deposit takers with up to 3 months' original maturity, provided in column 2 of the table in clause 129.

121. The intent of subsection (4) is to override the usual risk-weighting treatment for unrated claims on deposit takers or corporates in clauses 129 and 131, regardless of maturity.

122. These overrides apply regardless of whether the deposit taker holds any of the outstanding debt issue that determines the risk-weighting of the claim under this clause.

Clause 135: Deposit takers: unrated claims up to 3 months when other claims have short-term credit ratings

123. This clause covers requirements when a counterparty deposit taker has one or more issues outstanding that have an issue-specific short-term credit rating. The intended effect of this clause is that the general preferential risk-weighting treatment in clause 129 for claims up to 3 months on deposit takers and overseas banks is overridden if the counterparty has issued any debt with an issue-specific short-term credit rating that leads to a higher risk weight under clause 133.

Clause 136: Past due non-mortgage loans

124. The applicable risk weights in this clause varies depending on any allowance for expected credit losses that is attributable to the asset. The allowance for expected credit losses attributable to an asset refers to the loss allowance assessed on the asset on an individual basis, or the portion of any collectively assessed allowance that is allocated to the asset (or both).

Clause 141: Deposit taker as lessor

125. For clause 141(1), if the leased asset is eligible as collateral in Part 7 of the Capital Standard: Credit Risk Mitigation, the deposit taker may adjust the RWA for credit risk mitigation in accordance with that part.

126. In some circumstances, the deposit taker is exposed to residual value risk. For 141(3), an internal models deposit taker calculating the RWA for a counterparty within a modelled exposure class, the standardised risk-weighting treatment in clause 141 applies to any residual value risk, but the applicable internal models risk-weighting treatment in the Internal Models Standard applies to the exposure to the lessee.

Clause 142: Exposures to small and medium enterprises (SME)

127. Small business loans extended through, or guaranteed by, an individual count towards the aggregated exposure of the SME. A business loan above the maximum aggregate

threshold $2 million falls within the other SME exposure class, even if it is extended through, or guaranteed by, an individual.

Clause 143: Farm lending exposure

128. For the purposes of subclause (6) (the definition of "farm lending exposures") ANZIC06 is the Australian and New Zealand Standard Industrial Classification 2006, and codes in the range A011 to A019 are classified as agriculture.

Clause 147: Other assets

129. For a standardised deposit taker, these "other assets" include, for example, loans to personal customers other than RMLs.

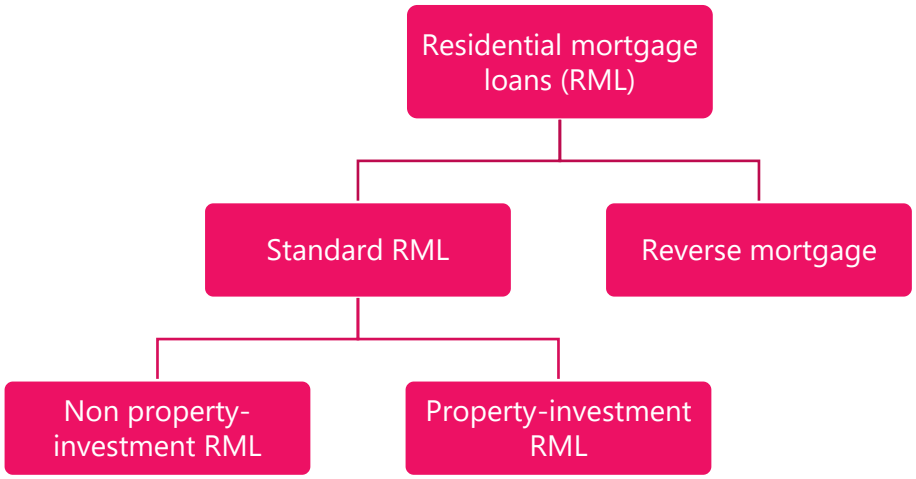
Subpart 5: Risk weights for RMLs

130. The risk weight to be applied to a residential mortgage loan (**RML**) is based on the type of loan, the loan-to-valuation ratio (LVR) of the loan, and whether lender's mortgage insurance (LMI) is in place. This subpart therefore

- defines RML,
- defines the subcategories of RML,
- defines the LVR for an RML, and
- specifies the eligibility conditions for LMI.

131. RML are categorised as either a standard RML or a reverse RML. Standard RML are then divided into non-property investment RML (owner-occupier houses) or property investment RML. Figure 1 visually demonstrates the RML classification hierarchy and acts as a flow chart for how to classify a mortgage.

Figure 1: residential mortgage lending classification categories.



Clause 149: Meaning of other terms in this subpart

132. Clause 149(1)(c) describes circumstances where a secondary resident qualifies as owner-occupied residential property. An example would be where the secondary residence is a holiday home that is rented out for six weeks a year.

Clause 150: Loan-to-valuation ratio (LVR) for residential mortgage loan

133. Clause 150 states the method that must be followed for calculating loan value and property value for use in calculating the LVR.

134. The intent of this clause is that the LVR calculation does not include, lending facilities that are not tied to, nor managed as part of, the RML and that are not normally treated as secured over the residential property (for example, credit cards or personal loans).

Clause 151 Requirements for residential property valuation policy

135. Clause 151 sets out requirements for a deposit taker's residential property valuation policy. These requirements are the same as those applying to residential property valuation policies for internal models credit risk RWAs in the Internal Models Standard, except that under the standardised approach, the additional requirement in clause 151(g) specific to reverse mortgage loans is included.

Clause 157: Risk weights for reverse RML

136. Under Part 5, a reverse RML is only recognised in the RML category up to the value of the residential property used as security for the loan. Any excess of the loan over the property value is deducted from tier 1 capital in accordance with clause 48 of Part 3. Amounts deducted from capital under Part 3 are also deducted from a credit exposure in accordance with clause 109(1).

137. This means that, a reverse RML for which the loan amount is greater than the property value gives rise to a RWA equal to 100% of the property value and a deduction from tier 1 capital equal to the loan value less the property value.

138. There is no separate treatment for defaulted reverse RMLs.

Subpart 6: Equivalent exposure amounts for off-balance sheet exposures

139. The subpart of the Capital Standard sets out the methodology to be used to define the credit equivalent amount (**CEA**) for the off-balance sheet credit exposure arising on specified types of transaction that create contingent liability, including lending commitments, and for identifying the entity to be used for determining the risk weight.

140. The methodology in this subpart of the Standard only applies directly to exposures being risk-weighted using the standardised approach. For internal models corporate specialised lending subject to the slotting approach, the method for calculating the CEA of contingent liabilities is specified in the Internal Models Standard and is based on the method in this Part with certain adaptations. For any other exposure to a counterparty within a modelled exposure class, an internal models deposit taker must follow the approach in the Internal Models Standard for estimating the credit conversion factor (**CCF**).

141. The CEA for an off-balance sheet item is intended to represent the amount of an on-balance sheet exposure that would expose the deposit taker to equivalent credit risk.

Clause 161: Credit equivalent amounts for off-balance sheet exposures

142. The intent of clause 161(2), is that any amount that a borrower has drawn down under a commitment or other lending facility are treated as an on-balance sheet exposure for the purpose of clause 110.

Clause 162: Risk weight and credit conversion factor for off-balance sheet exposures

143. A credit card facility with standard terms is normally eligible for a 0% CCF. To satisfy this requirement we would generally expect the deposit taker to review any outstanding unused balance at least annually and the deposit taker can cancel the credit card unconditionally at any time without prior notice.

Subpart 7: Counterparty credit risk (CCR)

144. This subpart applies to the CCR that arises when a deposit taker enters into a derivative contract or securities financing transaction (**SFT**) that gives rise to a contracted future payment or flow of future payments to and from an identifiable counterparty that are based on market variables. The contract may be entered into via an exchange ('exchange traded') or bilaterally ('over-the-counter' or '**OTC**'). If a contract is settled via a central counterparty (**CCP**), concessionary risk-weighting treatments may apply, as set out in subpart 8, but the relevant trade exposure amounts are still determined using the methods in this part.

145. This subpart applies regardless of whether the counterparty is subject to the standardised risk-weighting treatment or to the internal models approach. The calculation of total exposure at default (**EAD**) for an internal models deposit taker set out in the Internal Models Standard and cross-refers to this subpart for the calculation of the CCR component of EAD.

Clause 163: Recognition of Collateral

146. The comprehensive methodology for adjusting exposure for collateral is set out in clause 196 of the Capital Standard. The simple methodology (subject to eligibility) is set out in clause 204 of the Standard. For SFTs, recognising collateral is an integral part of the CEA calculation (see clause 172 of the Capital Standard).

Clause 169: When deposit taker may calculate credit equivalent for derivative if bilateral netting agreement

147. Clause 169 permits deposit taker to calculate the CEA of its CCR exposure arising from forwards, swaps, options, and similar derivatives with a given counterparty, on a net basis if the requirements set out clause are met. A payments netting contract intended only to reduce the operational costs of daily settlements typically does not meet the conditions in clause 172(2) and hence does not allow the deposit taker to net potential future exposures.

Clause 170: Calculation of net credit equivalent amount in case of bilateral netting agreement

148. Clause 170 includes a formula for calculating the net CEA for the counterparty credit exposure arising from derivatives that are subject to a bilateral netting agreement. This includes the net current credit exposure (**NCCE**).

149. Expressed in mathematical terms:

- $GCCE = \sum_i Max(MTM_i, 0)$
- $NCCE = Max(\sum_i MTM_i, 0)$
- where, in each case,–
- i = index of derivatives subject to the bilateral netting agreement.

- MTMi = the current mark-to-market value of derivative "i", which is positive if the derivative is in the money, and negative if out of the money.

150. If any of the relevant transactions are matching transactions, as defined in clause 171(3), those transactions are subject to the special treatment provided for in clause 171(2).

Clause 171: Calculation of net exposure for derivatives with same currency and maturity

151. This clause adjusts the calculation of $PFCE_{Gross}$ and GCCE in clause 170 where the transactions covered by a netting agreement with a given counterparty include matching transactions. Note that $PFCE_{Gross}$ and GCCE are defined in clause 170(3).

152. The effect of the treatment is that any group of matching transactions is treated on a net basis, including in the calculation of the total gross exposure numbers. The reason for allowing this approach for matching transactions is that offsetting contracts in the same currency maturing on the same date will have lower potential future exposure as well as lower current exposure.

Clause 172: Calculation of credit equivalent amount for SFT

153. The Standard requires deposit takers to calculate the CEA of the CCR arising from a single SFT using either the comprehensive methodology to recognition of collateral set out in clause 196 or the simple methodology set out in clause 204. Under the approach to Credit Risk Mitigation, the simple methodology is not available for an internal models deposit taker. The simple methodology is only available for a non-internal models approved deposit taker that holds the SFT in its banking book and has elected to apply the simple methodology to all of its collateralised banking book exposures. The simple methodology for collateral is not available for calculating the CEA of SFTs covered by a master netting agreement.

Subpart 8: Credit valuation adjustment (CVA) capital charge

154. This subpart sets out how a deposit taker must calculate the Credit Valuation Adjustment (**CVA**) capital charge on its derivatives that are settled bilaterally. The CVA charge covers the risk of mark-to-market losses on the expected counterparty credit exposures arising from the deposit taker's derivatives. This is in addition to the capital requirements for the risk of default of any counterparty with which the deposit taker has a derivative contract, which are calculated using the CEA amounts defined in [Part E]. The CVA charge is a single number calculated from the CEAs of the counterparty credit exposure to each of the deposit taker's derivative counterparties.

Clause 174: General methodology for calculating credit valuation adjustment capital charge

155. This clause includes a formula for calculating the CVA capital charge in the general case.

156. To avoid doubt, in determining the maturities M_i, M_i^{hedge} and M_j^{ind} in this subpart, no one-year floor or five-year cap applies. This is different from the definition of M for the purpose of calculating risk weights for the internal models corporate class (see the Internal Models Standard).

Clause 175: Calculating credit valuation adjustment capital charge: no eligible hedges and more than 1 counterparty

157. In the case of no eligible hedges, the formula in this clause is derived from the formula in the general case by setting all the hedge values (B_i and B_j^{ind}) to zero.

Clause 176: Calculating credit valuation adjustment capital charge: no eligible hedges and 1 counterparty

158. The intent of this clause is that, if a deposit taker has exposures from derivatives with only one counterparty and does not use CVA hedges in accordance with clause 177, the deposit taker can calculate the CVA capital charge using a simplified formula. The formula for the CVA in this clause is derived from the formula in clause 174 when the index number 'i' only takes the value 1.

159. To avoid doubt, in determining the maturity "M", no one year floor or five year cap applies.

Subpart 9: Derivative transactions and SFTs settled via central counterparties (CCPs)

160. For a deposit taker calculating capital ratios using the standardised approach, the contribution to credit risk RWAs from trades involving a CCP is set out in this part of the Standard.

161. If the deposit takers has posted collateral, the calculation includes the credit risk both on the assets posted and on the counterparty holding the collateral.

162. Requirements vary depending on whether the deposit taker is a Qualifying Central Counter Party (**QCCP**) clearing member acting on own behalf, a client of a QCCP clearing member, or a QCCP clearing member acting on behalf of a client.

163. The Standard confirms that the treatment in subpart 9 applies equally to deposit takers using the standardised and internal models approaches to risk weights.

Clause 180: Meaning of qualifying central counterparty

164. The Standard defines a QCCP. Where the CCP is from a jurisdiction in which the regulator applies the CPMI/IOSCO principles and determines that the CCP complies with those principles, the Reserve Bank will in general consider that the CCP is a QCCP. However, the Reserve Bank may approve a deposit taker's use of a QCCP and may require a deposit taker to hold additional capital against its exposures to a QCCP if there are material shortcomings in the regulation of that QCCP. A CCP located in a jurisdiction where the regulator does not apply the CPMI/IOSCO principles will be treated as non-qualifying unless determined otherwise by the Reserve Bank.

165. When deciding whether to approve a CCP as a QCCP under 180(2), the Reserve Bank will also consider how well a potential CCP complies with guidance issued by the Committee on Payment and Settlement Systems of the Bank for International Settlements and the International Organization of Securities Commissions since April 2012.

Clause 181: Risk-weighted assets if deposit taker is qualifying central counterparty clearing member acting on own behalf

166. In the case of a QCCP clearing member acting on own behalf, the trade exposure (**TE**) definition means that TE does not include the value of any collateral that the deposit taker has posted in connection with the trade. The capital requirements for posted collateral are dealt with separately in clause 184. If the deposit taker holds any collateral against the trade exposure, that may be recognised in the calculation of TE, as provided for in subpart 7.

167. Where a default fund is shared between products or types of business that give rise to settlement risk only, and products or types of business that give rise to CCR, there are variations to requirements. Products with settlement risk only include, for example, equities and bonds. Products that give rise to CCR are limited to OTC derivatives, exchange traded derivatives, and SFTs.

Clause 182: Risk weight if deposit taker is client of qualifying central counterparty clearing member

168. This clause sets out the risk-weight calculation that applies where a deposit taker is a client of a clearing member of a QCCP and it clears a contract through the QCCP. This risk-weighting treatment is the same as for the clearing member's own exposures to the QCCP, except that the client does not have credit exposure arising from a contribution to the default fund, "DF". As in the clearing member case, posted collateral is treated separately under Clause 184.

169. The intent of clauses 182(3)(c) and (d) is that each deposit taker is responsible for assessing and deciding what legal basis would be required by the relevant courts and administrative authorities in all the relevant jurisdictions in the event of a legal challenge on their claim to their clearing intermediary and/or QCCP. In order to satisfy this provision, we would expect that, to ensure continuing enforceability, deposit takers will consider circumstances where further review may be required, for example any time when contracts change or relevant laws or other requirements change in the relevant jurisdictions. In order to satisfy the provisions we would expect that if a deposit taker has any doubt on legal certainty of their arrangements, the deposit taker is expected to not apply the risk weight specified in the clause 182(2).

170. For the purposes of 182(5), the intent of this clause is that a standardised deposit taker calculates the RWA by multiplying the CEA (as determined under subpart 7 of Part 5) by the risk weight for the clearing member. A deposit taker using the internal models approach is also required to calculate the RWA using the approach for a bilateral exposure to the counterparty in the relevant circumstances. This is also covered in the Internal Models Standard in clause 113. In such circumstances, clause 113(2) of the Internal Models Standard covers the requirements for deposit takers using internal models, including their use of the applicable calculation methodology set out in Part 4 of the Internal Models Standard. In each case, the requirement in subpart 8 of the Capital Standard around including CEA in the CVA calculation also apply.

Clause 183: Risk weight if deposit taker is qualifying central counterparty clearing member acting for client

171. This clause covers the capital requirements that apply when the deposit taker is a clearing member of a QCCP and enables a client to carry out a trade involving the QCCP. The intent is that the deposit taker calculates an RWA for its counterparty credit exposure to the client using the same approach as for a bilateral trade with the client, except that it would multiply the CEA of the exposure by a scalar specified in 183(2) (i.e. 71%).

172. This means that, where the deposit taker is using the standardised approach for calculating the RWA for the client, the RWA is the CEA calculated in accordance with subpart 7, multiplied by the scalar, and then multiplied by the applicable risk-weight for the client from subpart 5.

173. Where the deposit taker is using the internal models approach for calculating the RWA for the client, it must calculate the RWA using its approved internal model and the

methodology in the Internal Models Standard applicable to the exposure class of the client, with EAD for the calculation being the CEA calculated in accordance with the internal models standard and then multiplied by the scalar.

174. The deposit taker must reflect its exposure to the client in its CVA capital charge, by including the CEA of the exposure. Inclusion in the CVA calculation is consistent with the exposure being treated as a bilateral trade. For the purpose of the CVA calculation, CEA is not multiplied by the scalar in 183(2).

Clause 184: Risk weight if deposit taker has posted assets as collateral

175. This clause specifies a range of requirements for a deposit taker that is either a clearing member of a QCCP, a client of a clearing member of a QCCP, and has posted assets as collateral in relation to trades carried out across the QCCP. The intent is that the conditions for a 2% or 4% risk-weight for the CCR on collateral posted by a client mirror the conditions for a 2% or 4% risk-weight of the client's trade exposures under clause 182.

176. The policy intent of clause 184(5) is that:

- when the standardised approach applies, the deposit taker calculates the RWA as the value of the collateral multiplied by the applicable risk-weight from subpart 4 for the entity holding the collateral.
- when the internal models approach applies, the deposit taker calculates the RWA using the internal models methodology applicable to the exposure class of the entity holding the collateral, with EAD being the value of the collateral.

Part 6: Credit risk mitigation

177. Part 6 sets out the main requirements for the recognition of credit risk management (**CRM**) techniques when determining total RWA equivalents.

178. Note that Part 6 does not cover measurement of the counterparty credit risk exposure arising on derivatives under a bilateral netting agreement with a single counterparty. That measurement approach and the conditions for using it are provided in clause 169 or part 5, as part of the general methodology for calculating the CEA of derivatives.

179. In addition to the off-balance sheet netting referred to above, the following credit risk mitigants are recognised under the Capital Standard:

- collateral posted by a counterparty or by a third party on behalf of the counterparty;
- on-balance sheet netting of loans and deposits;
- guarantees and indemnities; and
- credit derivatives.

180. However, credit risk mitigants are recognised only if they meet the documentation and all other requirements set out in Part 6 of the Capital Standard: Credit risk mitigation, and only the specified forms of credit risk mitigation (**CRM**) may be taken into account in determining the risk weight for an exposure. Further, as per clause 191(1) a deposit taker may ignore CRM in an RWA calculation if recognising the mitigation would result in a higher RWA amount than otherwise.

181. Collateral may be recognised for CRM purposes using either the simple or comprehensive methodology. In the simple method, the risk weight of collateral is substituted for the risk weight of the counterparty for the collateralised portion of an exposure, generally subject to a risk weight floor of 20%. The comprehensive method allows fuller offset of collateral against exposures by effectively reducing the exposure amount by the value ascribed to the collateral.

182. On-balance sheet netting is recognised by reducing the exposure amount. In the case of guarantees and credit derivatives, the risk weight of the protection provider is substituted for that of the underlying counterparty.

183. For all eligible forms of collateral, various adjustments are required for features such as mismatches between the currency or the maturity of the underlying exposure and the mitigant.

Subpart 1 – Preliminary

184. Subpart 1 defines terms and describes which forms of CRM are covered in other subparts. Table 1 below outlines this and provides a summary of key parts of the rest of the standard.

Table 1: Guidance on general application of credit risk mitigation

Collateral posted by a counterparty or by a third party on behalf of the counterparty		
	Internal models exposure (only applies to any part of EAD arising from counterparty credit risk)	Standardised exposure
For counterparty exposures in the banking book	The deposit taker must use the comprehensive methodology.	The deposit taker may use either the comprehensive methodology or the simple methodology.
For counterparty exposures in the trading book	The deposit taker must use the comprehensive methodology.	The deposit taker must use the comprehensive methodology.
Under the comprehensive methodology, the deposit taker reduces the exposure amount to the counterparty by a prescribed amount of the collateral posted. Under the simple methodology, the deposit taker risk-weights the collateralised portion of the counterparty exposure by the risk-weight that applies to the collateral as an exposure		
On balance-sheet netting		
Internal models exposure		Standardised exposure
In calculating EAD, the deposit taker may net the exposure amount against a deposit held, subject to relevant requirements and mismatch adjustments.		The deposit taker may net the exposure against a deposit held, subject to relevant requirements and mismatch adjustments.
Guarantees and credit derivatives		
Internal models exposure		Standardised exposure
The deposit taker must adjust the PD and/or LGD inputs used to model RWA for the exposure.		The deposit taker must use the substitution approach.

Under the substitution approach, the deposit taker applies the risk-weight of the provider (guarantor, indemnifier, or credit derivative seller) instead of the underlying exposure of the obligor.

Subpart 2: General requirements for recognising credit risk mitigation

185. This subpart sets out requirements for credit risk mitigation to be recognised under the standardised approach and the internal models approach. Deposit takers using the internal models approach may recognise credit risk mitigation on a given exposure providing it meets the general requirements of subpart 2 and also meets the internal models purpose test.

186. The intent of clause 188 is that, where deposit takers use the internal models approach to calculate RWA for credit risk, they also use the internal models approach to recognise credit risk mitigation.

187. Specific requirements for guarantees and credit derivatives are set out in subpart 5 for deposit takers using the standardised approach, and subpart 6 for deposit takers using the internal models approach.

188. Note that some other credit risk mitigation may be recognised by deposit takers using the internal models approach in accordance with the Internal Models Standard. For example, the Internal Models Standard sets out the separate internal models method for taking account of guarantees and credit derivatives in the RWA calculation, under which the deposit taker adjusts PD or LGD.

Clause 189: Recognising credit risk mitigation: group 3 deposit takers

189. The intent of clause 189 is to provide Group 3 deposit takers the option to use a simplified form of credit risk mitigation [that is consistent with the credit risk mitigation previously available under the Deposit Takers (Credit Ratings, Capital Ratios, and Related Party Exposures) Regulations 2010. Broadly, this allows a Group 3 deposit taker to deduct a deposit from the book value of a loan, or take a loan sub-participation transaction into account, before calculating the RWA for an exposure.

Subpart 3: Collateral

Clause 192: Simple and comprehensive methodologies

190. There is a simple and (alternative) comprehensive methodology to recognising collateral as credit risk mitigation. In the simple methodology, the risk weight of collateral is substituted for the risk weight of the counterparty for the collateralised portion of an exposure, which is generally subject to a risk weight floor of 20%. The comprehensive methodology allows fuller offset of collateral against exposures by effectively reducing the exposure amount by the value ascribed to the collateral. Under clause 192, internal models deposit takers may only use the comprehensive methodology.

191. A capital requirement applies to a deposit taker on either side of a collateralised transaction. For example, both repurchase and reverse repurchase agreements are subject to capital requirements. Likewise, both sides of a securities lending and borrowing transaction are subject to explicit capital charges, as is the posting of securities in connection with a derivative exposure or other borrowing.

Clause 193: Eligible collateral

192. This clause sets out the types of collateral eligible for credit risk mitigation. The intent of this clause is that a cash-funded credit linked note that is issued by the deposit taker against an exposure in its banking book and that fulfils the criteria for credit derivatives may be treated as a cash collateralised transaction.

Clause 194: Minimum requirements to recognise eligible collateral

193. This clause sets out requirements related to the deposit taker's relationship to collateral which must be fulfilled to treat the collateral as credit risk mitigation.

Clauses 195 to 202: Treatment of collateral: comprehensive methodology

194. These clauses describe how to adjust exposures for credit risk mitigation under the comprehensive methodology. This involves adjusting the values of exposure and collateral by haircutting to reflect potential volatility. Special rules apply where there are multiple SFTs with the counterparty and a master netting agreement exists (clauses 201 to 202). There is also a special set of conditions under which a zero haircut may be used (clause 200).

195. Otherwise, under clause 195, the adjusted exposure amount after credit risk mitigation (E*), is the difference between the volatility-adjusted exposure amount and the volatility-adjusted collateral amount. If the exposure and collateral are denominated in different currencies, clause 196 requires the deposit taker to make an additional downwards adjustment to the collateral amount (referred to as the haircut 'HFX'), which is intended to take into account possible future fluctuations in exchange rates.

196. The intent of clause 196(2), is that collateral held against a derivative or group of netted derivatives with a single counterparty is adjusted by the haircuts 'HC' and 'HFX' as applicable, but the haircut 'HE' does not apply.

197. If the collateral held against a derivative or group of netted derivatives is subject to a standard Credit Support Annex (or equivalent documentation), the intent is that a currency mismatch arises on any of the collateral that is in a currency other than the Base Currency specified in the Credit Support Annex.

198. Where a group of netted derivatives and the collateral held against them are in a mix of currencies, a deposit taker is expected to apply a reasonable approach to determine which portions of the collateral can be matched by currency to portions of the net derivative exposure, and then apply the required haircut 'HFX' to the rest of the collateral held.

199. Haircuts are generally defined by clause 197. However, the percentages given in that clause are based on re-margining and collateral revaluation being undertaken on a daily basis, and also assumes a 10-working day holding period. The intent of clauses 198-199 it to set out how a deposit taker must adjust haircuts where those conditions do not apply. The holding period refers to the estimated time between the last day on which the deposit taker held the correct amount of collateral, and final liquidation of the collateral, in the event of default.

Box 2: Example of application of clauses 198-199:

If the collateral is an equity in the NZX50, clause 197 gives a value for H_M of 15%. If the actual number of working days between remargining or revaluation (as the case may be) is 6 days, then the value of N_R is 6 (days). Finally, if the collateral is being held in relation to secured lending, the relevant minimum holding period for that type of transaction is 20 days, giving a value for T_M of 20 (days).

Inserting those values into the formula in clause 199 would mean that the supervisory haircut (H) is 23.7%, calculated as follows:

$H = 15\% \times \sqrt{\frac{6+(20-1)}{10}}$ = *15%* $\times \sqrt{2.5}$ and hence H (haircut to use) = 23.7%

(rounded). This value of H is inserted for the collateral haircut H_C in the formula in clause 196.

200. The formula in clause 202 is designed to give a net exposure amount after netting all the exposures and collateral, plus an add-on amount to reflect possible price changes of the securities involved in the transactions, and a further add-on for currency risk, if any. The net long or short position in each security included in the netting agreement is multiplied by the appropriate haircut. All other rules for the calculation of haircuts set out in clauses 198 to 199 apply to deposit takers using bilateral netting agreements for SFTs.

201. SFTs that are not covered by a master netting agreement are treated as individual collateralised transactions, and the formula in clause 196 applies for calculating the net exposure amount for each of those SFTs.

Clauses 203 to 204 Treatment of collateral: simple methodology

202. Clauses 203 to 204 provide a simpler methodology to recognising collateral for credit risk mitigation. The intent of clause 203 is that a deposit taker may only use this methodology where certain conditions are met, including that the collateral must remain pledged for at least the life of the exposure. This means that a deposit taker using the simple methodology is unable to use the maturity mismatch adjustment provided for in subpart 7.

203. Clause 204 determines the risk weight on the portion of an exposure collateralised by eligible collateral. The intent of this clause is for the portion of the exposure not covered by the collateral to be risk-weighted using the risk weight applicable to the counterparty.

Box 3: Example of simple methodology

A deposit taker has a loan of $100 to a corporate borrower with a risk rating grade of 2. The deposit taker holds collateral against the loan in the form of NZ government bonds with a current value of $60, under terms meeting the conditions in clause 203. In this case, the deposit taker may apply a 0% risk weight to $48 of the total exposure ($60 discounted by 20%, in accordance with 204(2), and a 50% risk weight to the remaining $52 of the exposure (50% being the risk weight for a corporate with rating grade 2). The total RWA is then $26 (50% of $52).

Subpart 4: On-balance sheet netting

204. This subpart sets out the requirements for bilateral on balance sheet netting of loans and deposits, and the approach to take if those requirements are met and the deposit taker wants to recognise netting.

205. In forming a view on enforceability (for the purposes of clause 205(a)) a deposit taker is expected to have a well-founded legal basis for their view.

206. The policy intent of this subpart is that bilateral netting agreements with legal entities that are related to each other may be comingled, to the extent that the exposures and collateral can be rolled up into a single holding company or other unifying entity.

207. The formula in clause 207(1) uses the same methodology as for collateral (see the formula in clause 196) but with the loan treated as the exposure and the deposit treated as cash collateral.

Subpart 5: Treatment of guarantees, indemnities, and credit derivatives: standardised approach

208. This subpart sets out the requirements for treating guarantees, indemnities, and credit derivatives as credit risk mitigation, and the approach to take if those requirements are met.

209. The requirements relate to the credit protection provider (clause 209) and the nature of the guarantee, indemnity, or credit derivative (clause 210, with further requirements in clause 211). Regarding the requirements in clause 215:

209.1. 'Legally enforceable' is intended to mean that, in the case of a guarantee, the guarantee is actually posted and/or provided. A commitment to provide a guarantee is not sufficient.

209.2. 'Irrevocable' is intended to mean that there is no clause that would allow the protection provider to cancel cover unilaterally or that would increase the effective cost of cover as a result of deteriorating credit quality in the hedged exposure.

209.3. 'Unconditional' is intended to mean that there are no provisions in the contract that could prevent the protection provider from being obliged to make immediate payment should the original counterparty fail to make payments due.

210. Clause 211 requires the guarantee to cover "all types of payment". This is intended to include, for example, interest, margin payments, and similar types of payments. Clause 211 is also intended to require the deposit taker to have the ability to pursue repayment from the guarantor immediately after any qualifying default or non-payment. In these cases, the guarantor may assume the future payment obligations of the obligor covered by the guarantee or may make one lump sum payment.

Clauses 212 to 215: Eligible types of credit derivative

211. These clauses describe when a credit derivative may be recognised. In certain cases, partial recognition is allowed (clause 213(2)). Note that full or partial recognition in this clause is then subject to additional adjustment in clauses 217-218. Clauses 214 and 215 impose additional requirements on cash-settled credit derivatives and credit derivatives with asset mismatches.

Clause 217 to 218: Adjustments for currency or maturity mismatch

212. The intent of these clauses is that amount of the exposure deemed to be protected is reduced if the guarantee or credit derivative is denominated in a different currency to the underlying exposure. The currency mismatch formula is based on the formula for adjusting

haircuts in the treatment of collateral, but without any adjustment for different holding periods. Maturity mismatch rules are covered in subpart 6.

Clause 219: Method of recognition in RWA calculation

213. The intent of this clause is that the portion of an exposure that is guaranteed may be assigned the risk weight of the protection provider. This covers both the case where the protection provider covers all losses up to the amount of the protection provided, and the case where the deposit taker and the protection provider share losses on the protected portion on a pro-rata basis. The intent is that any remaining unguaranteed exposure is assigned the risk weight applicable to the underlying obligor.

214. However, the intent of clause 219 is that credit protection may not be recognised at all if the deposit taker takes the first loss on an exposure. For example, this would apply in the case of a guarantee - the deposit taker can only claim on the guarantee if losses exceed the unprotected part of the claim and, in the case of a credit derivative, if the protected portion ranks after the unprotected portion.

Subpart 6: Treatment of guarantees, indemnities, and credit derivatives: internal models approach

215. Under clause 220(1), the internal models approach to guarantees and derivatives may only be used if the credit protection provider is subject to an internal model. The intent of this clause is that, where a deposit taker intends to recognise a guarantee or credit derivative provided by a credit protection provider that is subject to the standardised approach, the whole RWA calculation must follow the standardised approach.

216. The intent of clause 220(2) is that the use of the internal models approach requires the use of the rules in subpart 5 on asset and currency mismatch and the rules in subpart 7 on maturity mismatch where applicable.

217. The intent of clause 222 is to allow for guarantees and credit derivatives to either be applied to reducing PD or LGD, but with certain restrictions on that choice. For retail exposures, this applies whether the credit protection covers an individual obligation or a pool of exposures.

218. There are also provisions in clause 222 that determine how to treat guarantees or credit derivatives that do not fully cover the underlying exposure. The intent of clause 222(4)(b) is that credit protection may not be recognised if the deposit taker takes the first loss. The condition that the protected portion ranks equal or senior to the unprotected portion means that the deposit taker does not take the first loss on the underlying exposure.

219. Clauses 226-228 provide further detail on how to adjust PD or LGD. The intent of clause 228 is to limit the adjustment so that the guaranteed exposure may not have a lower PD or LGD than a comparable direct exposure to the credit protection provider. This is to ensure that a deposit taker cannot recognise the additional protection from only taking a loss if both the counterparty and guarantor fail ("double default").

220. In complying with these clauses, a deposit taker is expected to use the adjusted PD, LGD and EAD used to compute unexpected loss in calculating expected loss for an exposure

Subpart 7: Maturity mismatch

221. The intent of clauses 229-233 is to enable deposit takers to recognise a reduced amount of CRM in certain cases where the credit risk mitigant has a shorter effective residual maturity than the underlying exposure (i.e. a 'maturity mismatch').

222. If the deposit taker uses the simple methodology to collateral (see clause 203), it does not recognise collateral with a maturity mismatch and apply the adjustment approach provided for in this subpart. Instead, such deposit takers are expected to take a conservative approach to determining those residual maturities.

223. For the underlying exposure, a deposit taker is expected to take into account any available grace period in calculating the longest possible remaining time. In this context, the grace period refers to the time allowed between a default on the underlying obligation to pay and the time when payment is required.

224. In calculating the shortest possible time remaining until the term of a mitigant expires per clause 231, a deposit taker is expected to take into account any clause in the documentation supporting the transaction that may reduce that term. The intent of this clause is that:

- If the counterparty has the discretion to reduce the term, the effective maturity is the first date on which the counterparty can exercise its discretion.
- If the deposit taker has the discretion to reduce the term of that mitigant, and the terms of the mitigant contain a positive incentive for it to exercise its discretion before the agreed maturity, the effective maturity is the remaining time to the first date when the discretion can be exercised.

225. The formula in clause 233 reduces the amount of credit protection that can be recognised. It incorporates other adjustments already made in subparts 3 to 5, such as haircuts. The application of this formula is intended to ensure that no recognition is given to credit risk mitigation with a maturity mismatch if its residual maturity is 0.25 years (that is, 3 months) or less.

Part 7: Capital requirement for market risk

226. Capital requirements for market risk are intended to protect both individual deposit takers and the financial system from adverse movements in interest rates and market prices. Capital requirements help ensure deposit takers remain resilient to these market and interest rate movements and help protect depositors and the broader financial system

227. For the financial system, unmanaged market and interest rate risks can lead to sudden, correlated losses across deposit takers, threatening the stability of the financial system. Capital requirements reduce the risk of systemic crises driven by market or interest rate shocks.

228. For individual deposit takers, changes in interest rates and market prices can reduce a deposit taker's earnings and the economic value of its balance sheet. Capital provides a buffer so deposit takers can absorb these losses without becoming insolvent. Requiring capital against market risk exposures also encourages deposit takers to measure, monitor, and control these risks, rather than taking excessive maturity or repricing mismatches to boost short-term profits.

229. The capital methodology for market risk in the banking book in the capital standard is based on the Basel Committee's standardised approach set out in its January 1996 document *Amendment to the Capital Accord to Incorporate Market* Risks (BCBS24) and in its December 2019 version, (MAR20).[2]

230. The capital methodology for market risk in the trading book in the capital standard is based on the Basel Committee's simplified standardised approach set out in its January 2023 version (MAR40).[3]

231. The Reserve Bank does not give deposit takers the option of becoming approved to use their own internal models to calculate capital requirements for market risk, as provided for in the Basel approach.

Subpart 1: Preliminary provisions

232. The methodology measures a deposit taker's potential exposure to economic loss arising from adverse movements in interest rates, equity prices, exchange rates, and commodity risk.

233. The values of fixed assets are influenced by movements in interest rates, exchange rates, and equity prices, but are not included in the framework, because of a desire to reduce complexity, and because fixed assets are generally not an important component of deposit takers' asset holdings.

234. Similarly, commodity risk (that is, economic losses arising from adverse movements in the price of commodity instruments) is not included in the banking book market risk measurement framework, because New Zealand deposit takers do not generally have significant exposures to commodity risk in the banking book.

Clause 236: When exposures must be calculated

235. The intent of this clause is that market risk exposures which arise in the course of a business day (intra-day exposures) are not included in capital requirement for market risk.

236. Under clause 236(b), market risk in the banking book must be calculated at least quarterly. This can be done on any basis within the quarter, from daily to quarterly calculations.

Subpart 2: Calculation of capital requirement for market risk

Clause 238: Capital charge for market risk: banking book

237. The methodology for interest rate risk in the banking book directly produces a figure for the amount of capital at risk from interest rate exposure. This amount is equivalent to the capital charge for interest rate risk in the banking book.

238. The capital charges for currency risk and equity risk are determined by first calculating the gross risk exposure and then multiplying that amount by 8%. This ensures that the measures of exposure to different forms of market risk are placed on a comparable scale: that is, the Value at Risk (**VaR**). [4]

[2] Available at https://www.bis.org/publ/bcbs24.pdf and https://www.bis.org/basel_framework/chapter/MAR/20.htm?inforce=20191215&published=20191215 respectively
[3] Available at https://www.bis.org/basel_framework/chapter/MAR/40.htm
[4] Value at Risk (VaR) is a statistical measure used to estimate the maximum potential loss of an investment or portfolio over a specified time period, at a given confidence level.

Clause 239: Capital charge for market risk: trading book

239. The methodology for market risk in the trading book utilises the Basel Framework's "Simplified Standard Approach" (MAR40), effective from 1 January 2023 and last updated on 5 July 2024. If this is no longer the current version in the Basel Framework, it is available in the 'time traveller' tool on the BIS website which allows you to see previous versions of the Basel Framework.

240. When we are assessing if a deposit takers methodology is consistent with MAR40 we will take account of the discretions in MAR40 in the following way.

Table 2: MAR40 discretions

MAR40 Section	Approval/discretion in MAR40	The Reserve Bank's intention
40.8	When the government paper is denominated in the domestic currency and funded by the bank in the same currency, at national discretion a lower specific risk capital requirement may be applied.	We are not intending to use this discretion, and the standard capital requirements will apply.
40.9(2)	The qualifying category includes securities issued by public sector entities and multilateral development banks, plus other securities that are rated IG[5] by one rating agency and not less than IG by any other rating agency specified by the national authority (subject to supervisory oversight).	We have a list of approved ratings agencies in Part 6. We therefore don't need specific supervisory oversight for this.
40.9(3)	The qualifying category includes securities issued by public sector entities and multilateral development banks, plus other securities that are subject to supervisory approval, unrated, but deemed to be of comparable investment quality by the reporting bank, and the issuer has securities listed on a recognised stock exchange.	We are not intending to use this discretion. Unrated securities will get an unrated risk weight.
40.10, 40.11 & 40.12	Monitoring the application of the criteria in 40.9.	As we are not intending to use the discretion in MAR40.9, these approvals/discretions should not be required.
40.13	Discretion to apply a higher specific risk charge or disallow offsetting	The Reserve Bank does not intend to use this discretion to apply a higher specific risk weight or disallow offsetting.

[5] IG include rated Baa or higher by Moody's and BBB or higher by Standard and Poor's.

MAR40 Section	Approval/discretion in MAR40	The Reserve Bank's intention
40.29	With supervisors' consent use the alternative duration method for general market risk.	The Reserve Bank will allow this with the approval of the supervisor.
40.47	National supervisory authorities will take care to ensure that this 2% risk weight applies only to well-diversified indices and not, for example, to sectoral indices.	The Reserve Bank will allow this, but the deposit taker will need to get supervisory approval before applying the 2% risk weight.
40.62	A bank of which business in foreign currency is insignificant, and which does not take FX positions for its own account may, at the discretion of its national authority, be exempted from capital requirements on these positions.	The Reserve Bank does not intend to use this discretion.
40.66	There are two options to calculate commodity risk: • The maturity ladder approach • The simplified approach	The Reserve Bank will allow both, but a deposit taker will need confirm which option they will be using.
40.68	National authorities will have discretion to permit netting between different subcategories of the same commodity in cases where the subcategories are deliverable against each other. They can also be considered as offsetable if they are close substitutes against each other and a minimum correlation of 0.9 between the price movements can be clearly established over a minimum period of one year. However, a bank wishing to base its calculation of capital requirements for commodities on correlations would have to satisfy the relevant supervisory authority of the accuracy of the method that has been chosen and obtain its prior approval.	The Reserve Bank will not include this discretion.
40.74	For the treatment of options, two alternative approaches will be permissible at the discretion of the national authority under the simplified standardised approach:	Deposit takers can include either of these approaches depending on whether they only purchase options or also write them.

MAR40 Section	Approval/discretion in MAR40	The Reserve Bank's intention
	• deposit takers that only use purchased options can use the simplified approach • deposit takers that also write options use the delta-plus approach or the scenario approach.	
40.77	These sensitivities will be calculated according to an approved exchange model or to the deposit taker's proprietary options pricing model subject to oversight by the national authority.	The Reserve Bank will allow this subject to oversight of the pricing model.
40.81-40.86	These paragraphs lay out the scenario approach for options.	We do not intend to include the scenario approach when considering if models comply with MAR40.

Clause 240: Capital requirements for market risk for certain group 3 deposit takers

241. The group 3 market risk requirement is based on the requirement in the Non-Bank Deposit Taker (NBDT) regulations. The NBDT regulations included a requirement to hold capital for operational and market risk based on the equation below.

$$Capital\ requirement\ for\ operational\ and\ market\ risk = \frac{Total\ assets + RWA\ for\ credit\ risk}{2} \times 0.175$$

242. This has been split into separate requirements for operational and market risk with scalars of 0.125 and 0.05 respectively. Therefore, this should give the same total capital result for these sections.

243. The intent of clause 240 is for a group 3 deposit taker that has a trading book to measure the 95% VaR of their trading portfolio. This is both the 1-day VaR and the 1-month VaR. If either VaR breaches the threshold in the clause twice in any 6-month period clause 240 requires the deposit taker to move to the same market risk in the trading book capital requirements as group 1 and 2 deposit takers.

244. Under clause 240(3), the deposit taker will have 12 months from the earlier of the two times that the VaR exceeded the threshold to move to the group 1 and 2 capital requirements.

245. For group 3 deposit takers that transition to the group 1 and 2 trading book capital requirements, the intent of 240(3) is that this capital charge for the trading book is additional to the requirement calculated in 240(1), which continues to measure the other market risk faced by the firm.

Subpart 3: Capital charge for interest rate risk in banking book

246. This paragraph illustrates step by step the methodology for the interest rate risk capital calculation set out in part 7 subpart 3: capital charge for interest rate risk in the banking book.

1. **Scoping** - All financial instruments within the scope of the market risk calculation, other than long or short positions in equity instruments, are included.
2. **Decomposition** – If applicable, derivatives are converted into positions in the relevant underlying in accordance with 243(2).

    A. Futures and forward contracts (including forward rate agreements) are treated as a combination of a long and a short position in a notional government security. For example, a long position in a June three-month interest-rate future (taken in April) is to be reported as a long position in a government security with a maturity of five months and a short position in a government security with a maturity of two months.

    B. Swaps are treated as two notional positions in government securities with relevant maturities. For example, an interest rate swap under which a deposit taker is receiving floating-rate interest and paying fixed will be treated as a long position in a floating-rate instrument of maturity equivalent to the period until the next interest fixing and a short position in a fixed-rate instrument of maturity equivalent to the residual life of the swap.

3. **Delta-equivalent value of options** - If a deposit taker uses the delta-plus method in accordance with clause 268, options are converted into the options' delta-equivalent value which will be then slotted into the interest rate time-bands. (Note that if a deposit taker uses other methods, the positions for the options and the associated underlying, cash or forward, are subject to separately calculated capital requirements. The capital charges thus generated will be added on to the capital requirements at the end.)
4. **Exclusion** – In each currency, if the exclusion criteria in clauses 247-250 are met, a deposit taker may exclude a matched long and short position from the calculation of the calculation.
5. **Rate Insensitive Products (RIPs)** – A deposit taker determines RIPs and allocates their values in an appropriate time band in accordance with clauses 252 to 253.
6. **Rate Sensitive Products** – A deposit taker allocates the values of rate sensitive products in an appropriate time band in accordance with clauses 254 to 255.
7. **Directional interest rate risk, basis risk and yield curve risk** – In each currency, a deposit taker calculates capital charges for these risks in accordance with clauses 256 to 265.

Clause 242: Capital charge for interest rate risk in the banking book

247. The aggregation rule accounts, at least in part, for correlations in interest rate movements across currencies, and is less conservative than the standard Basel model which requires the aggregation of the absolute positions across currencies.

Clause 243: Calculation of interest rate exposure in each currency

248. An example for 243(3)(b) would be a cross-currency interest rate swap, which would be treated as separate asset and liability positions in the respective currencies.

249. The net open position in each currency may be a positive or negative number, and the calculations of exposure to basis risk and yield curve risk includes a step to give each of those measures the same sign as the net open position in the currency. This means that there is no offsetting between directional interest rate risk, basis risk and yield curve risk, and the aggregate for each currency may be positive or negative.

Clause 244: Valuation of financial instruments

250. In clause 244(1)(b) the term 'notional underlying instrument' is intended to reflect that some derivatives do not refer to a specific financial instrument. Some examples of how to consider the relevant principal amounts in these cases are provided in the next section.

251. To calculate the value of derivatives other than options and the value of other recognised financial instruments, deposit takers may refer to the Basel frameworks MAR40 for guidance on appropriate methods.

Clause 245: Treatment of derivatives for interest rate risk

252. Clause 245(1) captures interest rate derivatives that include a foreign exchange component, including instruments such as cross currency basis swaps or swaptions.

253. For the purposes of 245(2)(a), our expectation is that to comply with the requirement, deposit takers would generally treat the notional amount of an interest rate swap contract as the principal amount of the corresponding notional financial asset and financial liability.

254. For the purposes of 245(3)(b), our expectation is that to comply with the requirement, deposit takers would generally treat the contract amount of the principal amount of the notional financial asset and liability underlying a forward rate agreement.

255. For the treatment of derivatives other than options, deposit takers may refer to MAR40.31 to MAR40.36 of the Basel Framework, which includes guidance on decomposition and offsetting for all interest rate derivatives and off-balance-sheet instruments which react to changes in interest rates, (e.g., forward rate agreements, other forward contracts, bond futures, interest rate and cross-currency swaps and forward foreign exchange positions).

256. For options and any instruments with optionality (e.g., barrier options), deposit takers are expected to consider clause 246.

Clause 246: Treatment of interest rate risk on options

257. We would encourage deposit takers that trade significantly in options to use the Basel "delta-plus method" to capture gamma and vega risks. The delta-plus approach is laid out in MAR40.77-40.80 of the Basel Framework.

Clauses 251-255: Allocating instruments to time bands

258. The intent of these clauses is to specify how deposit takers must allocate the financial assets and liabilities that are not excluded under clauses 252-255 to time bands depending on the nature and interest rate repricing date of the instrument. These time bands are then used to determine the net positions and risk weights that apply for net open interest rate risk exposure (clause 256), basis risk exposure (clauses 257-259) and yield curve risk exposure (clauses 260-265).

Clause 252: Determination of rate-insensitive products (RIPs)

259. Examples of RIPs include retail savings and transaction accounts with zero or near-zero interest rates, for example, cheque account balances or saving accounts earning, say, 0.5 per cent interest or less. RIPs can also include zero or low interest lending, for example credit card balances.

260. The intent of the seasonal RIP subcategory is to capture RIPs that are sensitive to intra-year seasonal patterns, for example, tax or Christmas flows. It is not intended to capture observed variations in RIPs over more than one year or expected variations in RIPs arising from future marketing strategies or technological change.

Clause 256: Calculation of net open interest rate exposure (directional interest rate risk)

261. Clause 256 sets out how deposit takers must calculate their net open interest rate exposure.

262. The applicable risk weights in the table are intended to represent the price sensitivity of net asset (or liability) positions to interest rate changes. This measure of interest rate exposure is based on the assumed set of interest changes shown in Column 2 of the table in clause 256. The risk weight for each time band in Column 3 approximates to the duration of a financial instrument in that time band given the assumed change in interest rates. [6] The result of this is that the risk-weighted net open position estimates the change in a deposit takers net financial assets for the assumed change in interest rates (i.e. the amount of capital at risk).

263. The intent of clause 256(1) is to allow deposit takers to offset interest rate exposures within a given time band (and currency), before calculating the net open interest rate risk exposure. Note that different methods apply when calculating basis risk exposure and yield curve risk exposure.

264. As the net asset/liability position in each time band can be positive or negative, the net open interest rate exposure can also be positive or negative.

Clause 258: Calculation of basis risk in each time band

265. The measure of directional interest rate risk calculated in clause 256 offsets assets and liabilities in each time band to leave only the net open interest rate exposure. The calculation of basis risk exposure accounts for the possibility that interest rate movements may not be perfectly matched, even for similar maturities, because of basis risk. [7] The intent of the calculation in clause 258 is to "disallow" a portion of the matching from clause 256 in the calculation of aggregate capital charge for interest rate risk. The disallowance factor is significantly higher for rate-insensitive products, since they are by definition unlikely to change value much when interest rates generally change.

266. The amount in 258(2)(a) corresponds to the amount that is netted off in calculating the net open position for the time band in clause 258(1).

Clause 259: Basis risk to have same sign as directional interest rate risk

267. The figures calculated in Clauses 257 and 258 are always positive, but basis risk should not offset the directional interest rate risk in a given currency. Hence, the basis risk measure in

[6] duration is a measure of how sensitive a bond's price is to changes in interest rates.
[7] Basis risk is the risk that the price of a hedging instrument does not move exactly in line with the price of the asset being hedged.

a currency must be given the same sign as the net open interest exposure calculated for that currency.

Clause 260: Horizontal disallowance in single currency

268. The intent of clause 260 is to adjust the measure of interest rate risk in a single currency to account for yield curve risk, that is, imperfect correlation in interest rates across different time horizons.

269. The measure of directional interest rate risk calculated in clauses 260-265 adds the risk-weighted net positive and negative positions across time bands. The implied assumption in fully offsetting these amounts is that interest rate movements in each of the time bands are perfectly correlated with each other: that is, a constant yield curve shift. The intent of the treatment in clauses 260-265 is to account for yield curve risk by disallowing a portion of those offset amounts. The method calculates standard horizontal disallowances.

270. The proportion of the offset which is added back varies according to the proximity of the time bands to one another. The further apart the time bands, the greater the add-on arising from imperfect correlation along the yield curve.

271. A within-zone horizontal disallowance is calculated for each of the three time zones to account for divergent yield curve movements across the time bands within that time zone. An across-zone horizontal disallowance is calculated between Zones 1 and 2, Zones 2 and 3, and Zones 1 and 3, to account for divergent yield curve movements across time zones.

272. The total calculated in this way is given the same sign as the directional interest rate risk position, which can be a net long (positive) or net short (negative) position in a given currency. This is to ensure that yield curve risk always increases the absolute value of the interest rate risk in each currency.

Clause 261: Calculation of amount of within-zone disallowance and residual position

273. For the purposes of clause 261(3): The risk weighted net position in a time band is the figure calculated in clause 256(2).

274. The matched position represents the amount that has been offset, within the time zone, between time bands with long positions and time bands with short positions. If the net positions in the time bands are all long, or all short, there is no offsetting, and the matched position for the time zone is nil.

275. The residual position in clause 261(2) is the amount left over after any matching. It can be a positive (long) or negative (short) amount. It is used to calculate the across-zone disallowances.

Clause 263: Zone 1-zone 2 disallowance

276. The Zone 1 and 2 net residual positions are the amounts left over after matching between Zones 1 and 2, and are carried forward for the Zone 2-3 and Zone 1-3 disallowance calculations in clauses 264 and 265.

Clause 264: Zone 2-zone 3 disallowance

277. The Zone 3 net residual position is the amount left over after matching between Zones 2 and 3, and is carried forward for offsetting against the Zone 1 net residual position in clause 265.

A worked example of the interest rate risk methodology

278. Suppose that a deposit taker has the following positions in New Zealand Dollar (NZD).

- Credit card balances, NZD100millions, treated as a core rate-insensitive product.
- New Zealand Government bond, NZD13.33million market value, residual maturity 8 years, coupon 8%
- Bond issued by a multilateral development bank, NZD75million market value, residual maturity two months, coupon 7%
- Interest rate swap, NZD150millions, the deposit taker receives floating rate interest and pays fixed, next interest fixing after 9 months, residual life of swap 8 years
- Long position in interest rate futures, NZD50millions, delivery date after 6 months, life of underlying government security 3.5 years
    - Please refer to the corresponding column numbers, 1) to 21), in this spreadsheet workbook. A workbook with formula behind can be provided upon request.

A spreadsheet workbook for the worked example in the Appendix 1

	Time bands		-1m	1-3m	3-6m	6-12m	1-2y	2-3y	3-4y	4-5y	5-7y	7-10y	10y-
	Zones		Zone 1				Zone 2				Zone 3		
1)	Positions in New Zealand Dollar	Credit card balance - RIPs	5	2.5	2.5	10	20	20	20	10	10		
		New Zealand Government bond										13.3	
		Bond issued by a multilateral development bank		75									
		Swap				150						-150	
		Futures			-50				50				
2)	Net positions (256(1))		5	77.5	-47.5	160	20	20	70	10	10	-136.7	0
	Risk weights (%) (256(2))		0	0.20	0.40	0.70	1.25	1.75	2.25	2.75	3.25	3.75	4.40
	Risk-weighted net positions		0	0.16	-0.19	1.12	0.25	0.35	1.58	0.28	0.33	-5.13	0
3)	The net open interest rate risk exposure (256(3))		-1.27										
4)	Basis risk exposures (257-259)	Matched position	0	0	2.5	0	0	0	0	0	0	13.3	
5)		Absolute value of RIPs	5	3	3	10	20	20	20	10	10		
6)		Vertical disallowance	0	0	0	0.01	0.05	0.07	0.09	0.06	0.07	0.02	0
7)		Total basis risk	-0.37										
8)	Within zone disallowance (261)	Aggregate risk-weighted long position	1.29				2.45				0.82		
		Aggregate risk-weighted short position	-0.20				0				-5.63		
9)		Risk-weighted matched position	0.20				0				0.82		
11)		Residual position	1.09				2.45				-4.80		
10)		Within-zone disallowance	0.08				0				0.25		
12)	Zone 1/2 disallowance (263)	Zone 1/2 matched position	0										
13)		Zone 1/2 across-zone horizontal disallowance	0										
14)		Zone 1 net residual position	1.09										
15)		Zone 2 net residual position					2.45						
16)	Zone 2/3 disallowance (264)	Zone 2/3 matched position					2.45						
17)		Zone 2/3 across-zone horizontal disallowance					0.98						
18)		Zone 3 net residual position									-2.35		
19)	Zone 1/3 disallowance (265)	Zone 1/3 matched position	1.09										
20)		Zone 1/3 across-zone horizontal disallowance	1.09										
21)	Total horizontal disallowance (260)		-2.39										
	Total interest rate exposure in New Zealand Dollar (243)		-4.03										

279. The deposit taker's positions are slotted into the time-bands after following the Steps 1 to 6 above.

<u>Net open interest rate risk exposure</u>

280. For a currency x, the risk-weighted net position (asset or liability) in a time band t is calculated in accordance with 256 (1) and (2).

$$NA_t = rw_t \times \sum_i A_{i,t}$$

$$NL_t = rw_t \times \sum_j L_{j,t}$$

Subject to:

$A_{i,t}$ ≡ Position of an asset i in the time band t

$L_{j,t}$ ≡ Position of a liability j in the time band t

rw_t ≡ Risk weight for the time band t divided by 100

NA_t ≡ Risk weighted net asset position in the time band t

NL_t ≡ Risk weighted net liability position in the time band t

281. The net open interest rate risk exposure in a currency *x* (NE_x^{total}) is calculated according to 256(3).

$$NE_x^{total} = \sum_t (NA_t + NL_t)$$

In the worked example, the net open interest rate risk exposure is -1.27.

Basis risk exposure

282. The matched position in a time band t (MP_t) is calculated according to 258(2).

$$MP_t = \text{Min}\left(\sum_i |A_{i,t}|, \sum_i |L_{i,t}|\right)$$

In the worked example, the matched position in the time-band 7-10 years is 13.3.

283. The absolute value of the rate-insensitive products in a time band t (RIP_t) is calculated according to 258(2). Please note that rate-insensitive products are a subset of asset (or liability).

$$RIP_t = \sum_n |RIA_{n,t}| + \sum_m |RIL_{m,t}|$$

Subject to:

$RIA_{n,t}$ ≡ Position of a rate-insensitive asset n in the time band t

$RIL_{m,t}$ ≡ Position of a rate-insensitive liability m in the time band t

In the worked example, the absolute value of the rate-insensitive products in the time-band 5-7 years is 10.

284. The vertical disallowance in the time band t (VD_t) is calculated according to 258(3).

$$VD_t = rw_t \times [0.2 \times RIP_t + max\{0, 0.05 \times (MP_t - RIP_t)\}]$$

In the worked example, the vertical disallowance in the time-band 6-12 months is 0.01.

285. Total exposure to basis risk in a single currency *x*, (BR_x^{total}), is calculated according to 257 and 259.

$$BR_x^{total} = \begin{cases} (-1) \times \sum_t VD_t \ for\ NE_x^{total} < 0 \\ \sum_t VD_t \ otherwise \end{cases}$$

In the worked example, the total exposure to basis risk is -0.37.

Within zone disallowance

286. The aggregate risk-weighted long and short positions in a time zone z are calculated in accordance with clause 261.

$$RwA_z = \sum_t^{t \in z} NA_t$$

$$RwL_z = \sum_t^{t \in z} NL_t$$

Subject to:

$RwA_z \equiv$ Aggregate risk-weighted long positions in a time zone z

$RwL_z \equiv$ Aggregate risk-weighted short positions in a time zone z

In the worked example, the aggregate risk-weighted long and short positions in Zone 1 are 1.29 and -0.20, respectively.

287. The risk-weighted matched position in a time zone z (MP_z^{within}) is calculated as:

$$MP_z^{within} = \text{Min}(|RwA_z|, |RwL_z|)$$

In the worked example, the risk-weighted matched position in Zone 1 is 0.20.

288. Within-zone disallowance in a time zone z (DA_z^{within}) is calculated according to 261(1).

$$DA_z^{within} = rw_z^{within} \times MP_z^{within}$$

Subject to:

$rw_z^{within} \equiv$ Disallowance factor for Zone z divided by 100

In the worked example, the within-zone disallowance in Zone 1 is 0.08.

289. A within-zone residual position in a time zone z (RP_z^{within}) is calculated according to 261(2). This will be used to calculate the across-zone disallowances at the next stage.

$$RP_z^{within} = RwA_z + RwL_z$$

In the worked example, the within-zone residual position in Zone 1 is 1.09.

Zone 1/2 disallowance

290. Zone 1/ Zone 2 matched position ($MP_{z1,2}^{across}$) is calculated in accordance with clause 263.

$$MP_{z1,2}^{across} = \begin{cases} 0 \ for\ RP_{z1}^{within} \times RP_{z2}^{within} > 0 \\ \min\left\{\left|RP_{z1}^{within}\right|, \left|RP_{z2}^{within}\right|\right\} \ otherwise \end{cases}$$

In the worked example, Zone 1/ Zone 2 matched position is 0.

291. Zone 1/Zone 2 across-zone horizontal disallowance ($DA_{z1,2}^{across}$) is then calculated as:

$$DA_{z1,2}^{across} = rw_{z1,2}^{across} \times MP_{z1,2}^{across}$$

Subject to:

$rw_{z1,2}^{across} \equiv 0.4$

In the worked example, Zone 1/Zone 2 across-zone horizontal disallowance is 0.

292. Zone 1 net residual position is calculated in accordance with 263(2).

$$NRP_{z1} = \begin{cases} (-1) \times \left(\left|RP_{z1}^{within}\right| - MP_{z1,2}^{across}\right) for\ RP_{z1}^{within} < 0 \\ \left|RP_{z1}^{within}\right| - MP_{z1,2}^{across}\ otherwise \end{cases}$$

In the worked example, Zone 1 net residual position is 1.09.

293. Zone 2 net residual position is also calculated in accordance with 263(2).

$$NRP_{z2} = \begin{cases} (-1) \times \left(\left|RP_{z2}^{within}\right| - MP_{z1,2}^{across}\right) for\ RP_{z2}^{within} < 0 \\ \left|RP_{z2}^{within}\right| - MP_{z1,2}^{across}\ otherwise \end{cases}$$

In the worked example, Zone 2 net residual position is 2.45.

<u>Zone 2/3 disallowance</u>

294. Zone 2/ Zone 3 matched position is calculated in accordance with clause 264.

$$MP_{z2,3}^{across} = \begin{cases} 0\ for\ RP_{z3}^{within} \times NRP_{z2} > 0 \\ \min\left\{\left|RP_{z3}^{within}\right|, \left|NRP_{z2}\right|\right\}\ otherwise \end{cases}$$

Subject to:

$MP_{z2,3}^{across} \equiv$ Zone 2/ Zone 3 matched position

In the worked example, Zone 2/ Zone 3 matched position is 2.45.

295. Zone 2/Zone 3 across-zone horizontal disallowance ($DA_{z2,3}^{across}$) is then calculated as:

$$DA_{z2,3}^{across} = rw_{z2,3}^{across} \times MP_{z2,3}^{across}$$

Subject to:

$rw_{z2,3}^{across} \equiv 0.4$

In the worked example, Zone 2/Zone 3 across-zone horizontal disallowance is 0.98.

296. Zone 3 net residual position is calculated in accordance with clause 264(2).

$$NRP_{z3} = \begin{cases} (-1) \times \left(\left|RP_{z3}^{within}\right| - MP_{z2,3}^{across}\right) for\ RP_{z3}^{within} < 0 \\ \left|RP_{z3}^{within}\right| - MP_{z2,3}^{across}\ otherwise \end{cases}$$

In the worked example, Zone 3 net residual position is -2.35.

<u>Zone 1/3 disallowance</u>

297. Zone 1/ Zone 3 matched position ($MP_{z1,3}^{across}$) is calculated in accordance with clause 265.

$$MP_{z1,3}^{across} = \begin{cases} 0 \ \ for\ NRP_{z1} \times NRP_{z2} > 0 \\ \min\{|NRP_{z1}|, |NRP_{z3}|\} \ \ otherwise \end{cases}$$

In the worked example, Zone 1/ Zone 3 matched position is 1.09.

298. Zone 1/Zone 3 across-zone horizontal disallowance ($DA_{z1,3}^{across}$) is calculated in accordance with clause 265(1)(b).

$$DA_{z1,3}^{across} = rw_{z1,3}^{across} \times MP_{z1,3}^{across}$$

Subject to:

$rw_{z1,3}^{across} \equiv 1.0$

In the worked example, Zone 1/Zone 3 across-zone horizontal disallowance is 1.09.

Total horizontal disallowance

299. The total horizontal disallowance in a single currency *x* (DA_x^{total}) is calculated in accordance with clause 260.

$$DA_x^{total} = \begin{cases} (-1) \times \left\{ \sum_{z=z1}^{z3} DA_z^{within} + \sum_{z=z1,2}^{z1,3} DA_z^{across} \right\} \ \ for\ NE_x^{total} \times \left\{ \sum_{z=z1}^{z3} DA_z^{within} + \sum_{Z=z1,2}^{z1,3} DA_Z^{across} \right\} < 0 \\ \left\{ \sum_{z=z1}^{z3} DA_z^{within} + \sum_{Z=z1,2}^{z1,3} DA_Z^{across} \right\} \ \ otherwise \end{cases}$$

In the worked example, the total horizontal disallowance in New Zealand Dollar is -2.39.

The total interest rate exposure in a single currency *x* (IRE_x) is calculated in accordance with clause 243. (Note that if a deposit taker uses any methods for options other than the delta-plus one, a capital charge calculated separately for options should be added on at this stage.)

$$IRE_x = NE_x^{total} + BR_x^{total} + DA_x^{total}$$

In the worked example, the total interest rate exposure in New Zealand Dollar is -4.03.

Aggregate capital charge for interest rate risk is then calculated in accordance with clause 242 once the calculations above have been done for each currency.

$$IRCC^{agg} = max\left[\sum_x IRE_x|_{IRE_x>0}, \left|\sum_x IRE_x|_{IRE_x<0}\right|\right]$$

Subpart 4: Capital charge for currency risk in banking book

Clause 266: Capital charge for currency risk in banking book

300. For the purposes of this clause, recognised financial instruments are in intended to cover foreign currency assets and liabilities recorded in the deposit taker's financial statements, including all foreign currency borrowings, deposits, loans, bills and investments, and liquid assets (including funds lodged with overseas banks and in money market securities).

Clause 267: Scope of calculation

301. The definition of unrecognised financial instruments in clause 267(4) is intended to cover foreign currency transactions not recorded or disclosed under conventional double-entry accounting procedures, but which entail an identifiable foreign currency commitment. Gross amounts of outstanding sale and purchase contracts must be included.

302. The risks subject to the currency risk calculation include foreign exchange risk throughout the deposit taker, regardless of whether it is on-balance sheet or off-balance sheet. For example, an off-balance sheet contingent liability (e.g., a guarantee or similar instrument) in foreign currency that is certain to be called and is likely to be irrecoverable would be relevant to the calculation for the exposure to currency risk in a single foreign currency.

303. In clause 267(4)(a), a spot transaction is intended to capture transactions contracted for receipt or delivery within two business days from the calculation date. An undelivered spot transaction is intended to capture outstanding spot contracts written but not delivered. This also includes forwards due to be delivered 'within spot', all undelivered legs of 'less than spot' swaps, and the undelivered 'spot' legs of spot/forward swaps.

304. For the purposes of clause 267(4)(b),a forward purchase or sale is intended to capture a transaction contracted for receipt or delivery beyond two business days from report date. Forward purchases/sales refer to the gross amount of outstanding forwards, other than those to be delivered "within spot". These instruments also include both legs of forward/forward swaps and outstanding forward legs of spot/forward swaps.

305. Clause 267(4)(c): is intended to include to all foreign currency futures and options contracts outstanding at the calculation date.

Subpart 6: Designation of instruments as trading book or banking book

306. Part 7 subpart 6 of the capital standard is based on the Basel framework boundary between the banking and trading book laid out in RBC25 of the Basel framework. This subpart sets out the instruments to be included in the trading book.

Clause 273: Instruments held for certain purposes must be included in the trading book

307. Periodic sale activity is on its own is insufficient to consider an instrument to be held for short-term resale under clause 273(a).

Clause 274: Certain instruments must be included in the trading book

308. A deposit taker will have a net short risk position for equity risk or credit risk in the banking book if the present value of the banking book increases when an equity price decreases or when a credit spread on an issuer or group of issuers of debt increases.

309. Instruments including credit default swaps (CDS's) that give rise to a net short credit or equity position in the banking book must be assigned to the trading book unless a trading book treatment is explicitly excluded for the specific type of position. In this example, the net short position resulting from such instruments (i.e., the amount which cannot be offset against any long positions) must be treated as a trading book position and be subject to market risk capital requirements.

310. Deposit takers should continuously manage and monitor their banking book positions to ensure that any instrument that individually has the potential to create a net short credit or

equity position in the banking book is not actually creating a non-negligible net short position at any point in time.

311. A trading-related repo-style transactions comprise those entered into for the purposes of market-making, locking in arbitrage profits or creating short credit or equity positions.

312. A floor to an equity-linked bond is an embedded option with an equity as part of the underlying, and therefore the embedded option should be bifurcated and included in the trading book.

Part 8: Capital requirement for operational risk

313. Part 8 of the Capital Standard lays out how to calculate capital requirements for operational risk. Capital requirements for operational risk are intended to ensure that deposit takers hold a minimum amount of regulatory capital to absorb losses arising from failures in internal processes, people, systems, or from external events (e.g., fraud, IT outages, legal risk, cyber incidents).

314. The operational risk capital requirements are based on the Basel Frameworks standardised approach to operational risk capital requirements laid out in OPE25 of the Basel framework and the relevant definitions laid out in OPE10. The requirements are based on the version of OPE25 effective as of 1 January 2023.

315. The Standard does not include the parts of OPE25 that deal with the Internal Loss Multiplier (**ILM**). This is because we set the ILM equal to one. Therefore, including the ILM in the calculation laid out in the capital standard would add complexity to both the capital standard and the calculation of operational risk but would not impact the capital charge for operational risk. This means that the operational risk capital calculation is based on the Business Indicator (**BI**) component calculation.

316. The BI component measures the scale and risk profile of a deposit takers business activity. It translates a deposit taker's size and complexity into a standardised capital requirement. The BI component is a three-year average of selected income and expense items. Together, these components provide a proxy of how exposed a deposit taker is to failures in processes, systems, people and external events. The BI is the sum of the interest, leases and dividend component, the services component, and the financial component laid out in clauses 290, 291, and 292 of the Capital Standard respectively.

Clause 286: Interpretation in this part

317. The intent of clause 286 is that the absolute value of net items (e.g., interest income – interest expense) is calculated first year by year before calculating the average of the three years.

318. If a deposit taker has been operating for less than 3 years, then the deposit taker must average the operational risk component over as much time they have been in business for years 1 and 2. Then once the deposit taker has been in business for 3 or more years, the deposit taker is expected to follow the standard 3-year average for the averaged components.

Clause 287: Capital requirement for operational risk calculated under this Part

319. For the avoidance of doubt, while the 0.125 scalar in this clause appears similar to the 12.5 scalar in clause 8(c), these are two unrelated scalars. These are:

- For Groups 1 and 2 deposit takers the scalar is 12.5 and is based on the scalar in the BCBS framework.
- For Group 3 deposit takers the scalar is 0.125 (i.e., 12.5%) and is based on the previous NBDT regulations. The NBDT scalar was 17.5% but this was for both operational and market risk. In the Capital Standard this has been split into two separate components – 12.5% for operational risk, and 5% for market risk.

Clause 288: Operational risk capital charge

320. Mathematically the calculation of Operational Risk Capital (**ORC**) in clause 288 is shown in the table below.

Table 3 – ORC charge

BI amount	Operational Risk Capital
Less than $1.75bn	$BI \times 12\%$
$1.72bn to $50bn	$\$1.75bn \times 12\% + (BI - \$1.75bn) \times 15\%$
More than $50bn	$\$1.75bn \times 12\% + \$48.25bn \times 15\% + (BI - \$50bn) \times 18\%$

321. For example, calculating the ORC using the formula in clause 288 for a deposit taker with a BI value of $3bn. The deposit taker's operational risk capital requirements are calculated as follows:

$1.75bn × 0.12 + ($3bn - $1.75bn) × 0.15 = $0.3975bn

322. This gives a total capital charge for operational risk of $0.3975 billion or $397.5 million.

Clause 290: Interest, finance lease and dividend component

323. The intent of this clause is that the absolute value of net items (e.g., interest income – interest expense) is calculated first year by year before the average of the three years is calculated.

Clause 293: Bank may approve exclusion of transferred business from business indicator

324. If the Reserve Bank approves the exclusion of transferred business from the BI, then the deposit taker is expected to exclude the activities from the calculation of the BI immediately after the approval.

Clause 295: Operational risk overlay

325. Under this clause, the Reserve Bank may specify an overlay to be added to the operational risk calculation if the circumstances of an individual deposit taker are such that the Reserve Bank considers it appropriate. Clause 295(2) includes the criteria the Reserve Bank will consider when making this decision.

326. There is normally no overlay. The Reserve Bank will specify the details of an overlay in the deposit taker's conditions of license. This includes specifying which part of the calculation is impacted by the overlay.

Worked example of the operational risk capital (ORC) calculation

Table 4 - Financial information for the deposit taker in the ORC worked example.

	Year 1	Year 2	Year 3
Interest income	115	70	125
Interest expense	68	120	72
Interest-earning assets	2,600	2,400	2,500
Dividend income	7	9	8
Other operating income	6	7	7
Other operating expense	4.5	8	5
Fee income	38	34	28
Fee expense	23	27	21
Net Profit & Loss trading book	12	-5	0
Net profit & loss banking book	47	41.5	-13

The interest, finance lease, and dividend component (ILDC)

327. Table 4 shows the example deposit takers ILDC financial information for the past three years. This subsection then works through the four steps for the calculation of the ILDC.

328. Step 1: the interest income minus the interest expenses:

- Year 1: Interest income 115 – interest expense 68 = 47 → |47| = 47
- Year 2: Interest income 70 – interest expense 120 = –50 → |–50| = 50
- Year 3: Interest income 125 – interest expense 72 = 53 → |53| = 53
- First, calculate the absolute value for each year: 47, 50, and 53.
  Then calculate the three-year average:
- $\frac{47+50+53}{3} = 50 \text{ million}$

329. Step 2: interest-earning assets:

- Calculate the three-year average:

$$\frac{2{,}600 + 2{,}400 + 2{,}500}{3} = 2{,}500 \text{ million}$$

- Multiply this by 2.25%:

$$2.25\% \times 2{,}500 = 56.25 \text{ million}$$

330. Step 3: Dividend income

- Calculate the three-year average for dividend income:

$$\frac{7+9+8}{3}=8$$

331. Step 4: bring the components together

- $\text{ILDC} = \min(50, 56.25) + 8 = 50 + 8 = 58$

The services component (SC)

332. Table 4 shows the example deposit takers SC financial information for the past three years. This subsection works through the two steps for the calculation of the SC.

333. Step 1: take three-year averages of each component

- Other operating income:

$$\frac{6+6+7}{3}=6.33 \text{ million}$$

- Other operating expenses:

$$\frac{4.5+8+5}{3}=6.5 \text{ million}$$

- Fee income:

$$\frac{38+34+28}{3}=33.33 \text{ million}$$

- Fee expense:

$$\frac{23+27+21}{3}=23.67 \text{ million}$$

334. Step 2: bring the components together:

- $\text{SC} = \max(6.33, 6.5) + \max(33.33, 23.67) = 6.5 + 33.33 = 39.83 \text{ million}$

The Financial component (FC)

335. Table 4 shows the example deposit taker's FC financial information for the past three years. The section then works through the two steps for the calculation of the FC.

336. Step 1: find the absolute values for the net profit and loss in the trading book and take the average of the three years absolute values

- Year 1: net profit and loss in the trading book $|12| = 12$
- Year 2: net profit and loss in the trading book $|-5| = 5$
- Year 3: net profit and loss in the trading book $|0| = 0$
- First, calculate the absolute value for each year: 12, 5, and 0.
  Then calculate the three-year average:

$$\frac{12 + 5 + 0}{3} = 5.67 \text{ million}$$

337. Step 2: find the absolute values for the net profit and loss in the banking book and take the average of the three years absolute values

- Year 1: net profit and loss in the banking book $|47| = 47$
- Year 2: net profit and loss in the banking book $|41.5| = 41.5$
- Year 3: net profit and loss in the banking book $|-13| = 13$
- First, calculate the absolute value for each year: 47, 41.5, and 13.
  Then calculate the three-year average:

$$\frac{47 + 41.5 + 13}{3} = 33.83 \text{ million}$$

338. Step 3: bring the components together:

$$FC = 5.67 + 33.83 = 39.5 \text{ million}$$

Calculate the BI

339. The BI is the sum of the three BI components.

$$\text{BI} = \text{ILDC} + \text{SC} + \text{FC} = 58 + 39.83 + 39.5 = 137.33 \text{ million}$$

Calculating the ORC

340. The ORC is the BI multiplied by the marginal coefficients in Clause 291. As the BI is less than $1.75 billion only the 12% marginal coefficient is required for the example deposit taker.

$$\text{ORC} = 137.33 \times 12\% = 16.48 \text{ million}$$

Calculating the RWA for operational risk

341. The example deposit taker's ORC of $16.48 million is then multiplied by 12.5 to get the risk weighted assets for operational risk.

$$RWA_{Operational\ risk} = 16.48 \times 12.5 = 206 \text{ million}$$

Part 9: Funds management, securitisation, insurance and loan transfers

Subpart 1: Funds management or securitisation

342. The intention of this subpart is to set out the adjustments that a deposit taker must make to its calculation of capital ratios, to reflect risks arising from its involvement with funds management or securitisation. Such adjustments may include deductions from capital (see subpart 2 and 3 of part 3 and consolidation of special purpose vehicles (SPVs) with the deposit taking group for determining the scope of capital group in clause 7.

Clause 297: Deposit taker must consolidate SPV in capital group when calculating capital requirements

343. A deposit taker may be exposed to risks as a result of its association with funds management and securitisation activities. Some of these risks arise from implicit, or moral, obligations, rather than formal legal obligations.

344. For example, a deposit taker may feel an obligation to provide support to SPVs set up to conduct securitisation or funds management activities, because it considers that its own reputation and/or customer base will suffer if support is not provided. To the extent that a deposit taker creates a degree of separation between itself and its funds management and securitisation activities, these implicit risks can be reduced.

345. A deposit taker may face more explicit forms of risk where it provides credit enhancements to SPVs. Examples of credit enhancements include, but are not limited to, the following:

- holding a subordinated class of securities issued by the SPV
- provision of financial services (for example, interest rate swaps) on other than arm's length terms and conditions
- provision of risk insurance
- provision of guarantees
- over-collateralisation
- repurchase or replacement of non-performing loans
- a one-off gift or a long-term loan, maturing after other securities issued by the SPV
- payment of expenses incurred by the fund
- management fee structures that vary with the level of non-performing assets held by a SPV or with the capital value of a managed fund such that there is potential for fees to fall to a level which would be below the level that the deposit taker would expect to receive if fees were set at market levels on arm's length terms and conditions.

Clause 298: Minimum separation requirements

346. The intent of this clause is to set out the information that is required to be disclosed in order to demonstrate that minimum separation exists between the deposit taker and any SPV. However, the deposit taker will also need to take account of its legal obligations as an issuer under the Financial Markets Conduct Act 2013 and Financial Markets Conduct Regulations 2014.

347. While there is no requirement to hold capital against funds management and securitisation activities where minimum separation has been achieved, deposit takers are expected to take into account the fact that it is very difficult to totally eliminate implicit credit risk. Deposit takers are expected to ensure that their ICAAP takes account of any residual implicit risk, particularly where funds management and securitisation activities are significant in size relative to the deposit taker's other activities.

Clause 299: Treatment of credit enhancement where not otherwise required to consolidate

348. The term credit enhancement is intended to capture a contractual arrangement in which the deposit taker retains or assumes a securitisation exposure and, in substance, provides some degree of added protection to other parties to the transaction.

Subpart 2: Affiliated insurance business

Clause 301: Requirements if deposit taker provides credit enhancement to affiliated insurance group.

349. The intent of this subpart is to set out the adjustments that a deposit taker must make to its calculation of capital ratios, to reflect risks arising from its involvement with insurance affiliates. Such adjustments may include deductions from capital.

350. The role of distributing, or marketing, insurance products underwritten by affiliated insurance entities may involve an exposure to implicit risk, that is, to reputational risks and to moral recourse as a result of a close association with those affiliated entities.

351. Implicit risk can be reinforced if explicit support is provided to the insurance entity. To the extent that the deposit taking group and any affiliated insurance entities create a degree of separation between each other, these risks can be reduced.

Clause 302: Deposit taker must deduct funding exposure to affiliated insurance group

352. Clause 302 requires the deposit taker to deduct from tier 1 capital its total funding exposure to any affiliated insurance group where the minimum separation requirements are not met. In particular, this requirement is intended to apply if the deposit taker's funding of an affiliated insurance group is more than 5% of that insurance group's assets. The deposit taker is required to deduct from tier 1 capital its total funding of all affiliated insurance groups and associated securitisation and funds management vehicles, if that total funding is more than 10% of the deposit taking group's tier 1 capital. The intent of clause 302 is that the funding of an affiliated insurance group is not required to be deducted twice if both conditions are met.

Clause 303: Minimum requirements

353. Examples of credit enhancements include, but are not limited to, the following:

- holdings of, or investments in, equity instruments or subordinated classes of financial instruments
- provision of currency, interest rate, or other derivatives for hedging purposes on other than arm's length terms and conditions (for this purpose, derivatives that are not traded in an active and liquid market, or whose data inputs are not taken from an active and liquid market, are regarded as credit enhancements)
- provision of funding and liquidity support on other than arm's length terms and conditions
- guarantees and other risk assumption techniques which provide support for the asset risks of any member of the insurance group (for example, asset credit risks, equity risks, or property price risks), other than derivatives on arm's length terms and conditions
- asset transfers from the deposit taking group to any member of the affiliated insurance group at less than fair value
- repurchase or replacement of non-performing assets
- payment of expenses or liabilities.

Subpart 3: Treatment of funding exposure across subparts 1 and 2

354. Subpart 3 is intended to provide that funding of affiliated insurance groups and unconsolidated fund management and securitisation vehicles must be fully deducted from tier 1 capital if it exceeds 10% of tier 1 capital.

Subpart 4: Loan transfers

355. Subpart 4 sets out the conditions under which a deposit taker achieves a "clean transfer" of a loan or commitment to lend, which it may then exclude from its capital ratio requirements

356. These conditions are intended to ensure that, as a result of the loan transfer, the deposit taker (or another member of the deposit taking group)–

- is under no obligation to repurchase the transferred loan; and
- would incur no loss (of interest or principal) in the event of non-performance by the borrower; and
- would not feel impelled to support the loan in any circumstances.