AUTORITÉ DES MARCHÉS FINANCIERS

CAPITAL ADEQUACY REQUIREMENTS GUIDELINE

Reciprocal Unions

January 2024

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Chapter 1. Introduction and general guidance

1.1 Introduction

1.1.1 Guideline objective

Section 189 of the *Insurers Act* (CQLR, chapter A-32.1) (the "Act") includes a requirement that the sums pooled by an authorized reciprocal union ("reciprocal union") must enable the reciprocal union to meet the liabilities contracted by the persons in the union as part of their insurer activities, as and when they become due. This requirement entails the establishment by the *Autorité des marchés financiers* (the "Authority" or the "AMF") of a capital adequacy assessment framework for reciprocal unions.

For this purpose, the Act provides that reciprocal unions be given a guideline relating to the maintenance of adequate assets to meet such liabilities.[1]

The purpose of these guidelines is to increase the transparency and predictability of the criteria used by the AMF in assessing the quality and prudence of the management practices of the financial institutions for which those criteria are intended. The ability of these institutions to meet their obligations to investors and policyholders is key to achieving this objective. This principle is reflected in the capital adequacy requirements for reciprocal unions set forth in this guideline.

The risk-based capital adequacy framework is based on an assessment of insurance risk, market risk, credit risk and operational risk through the application of various risk factors and margins. Reciprocal unions are required to meet a ***capital available to capital required*** test. The definition of capital available to be used for this purpose is described in Chapter 3 and is calculated on a consolidated basis.

The *Capital Adequacy Requirements Guideline – Reciprocal Unions* outlines the capital framework using a risk-based formula for target capital requirements and minimum capital requirements and defines the capital that is available to meet the minimum standard. The Minimum Capital Test (MCT) determines the minimum capital required and not the optimum capital required at which a reciprocal union must operate.

1.1.2 Scope of application

This guideline applies to all reciprocal unions formed in accordance with the Civil Code of Québec (CQLR, c. CCQ-1991) or an applicable law in another Canadian jurisdiction and which, under the Act, are authorized to carry on insurer activities in Québec (hereinafter collectively referred to as the "reciprocal unions" and individually as the "reciprocal union"). It applies on a consolidated basis in accordance with Canadian generally accepted accounting principles (CGAAP).[2] Accordingly, each component of capital available and

1 Section 195 of the Act.

2 The Canadian Accounting Standards Board has adopted International Financial Reporting Standards (IFRS) as Canadian GAAP applicable to publicly accountable enterprises, including insurers. The main source of Canadian GAAP is the Chartered Professional Accountants Handbook.

capital required is calculated in such a way as to include all of the reciprocal union's operations as well as any financial activity by its subsidiaries.

For purposes of this guideline and in order to simplify the text, the use of the generic term "reciprocal union" should be interpreted as referring, depending on the context, to the persons in the union or to the mandatary responsible for representing them and providing for the reciprocal union's mode of operation.[3]

Moreover, in this guideline, non-qualifying subsidiaries[4] should be deconsolidated and accounted for using the equity method. Interests in non-qualifying subsidiaries are excluded from capital available and capital required calculations, as are loans or other debt instruments issued to them if they are considered as capital in the entity (reference Section 3.4).

1.1.3 Effective date

This version of the guideline takes effect on January 1, 2024 and is applicable for fiscal years beginning on or after that date. Early application is not permitted.

1.1.4 Clarification

Unless the context indicates otherwise, in this guideline, concepts pertaining to corporate relationships, such as subsidiaries, associates, joint ventures and related enterprises, as well as terminology, should be interpreted in accordance with CGAAP.

Assets and liabilities of subsidiaries consolidated for the purposes of this guideline are therefore subject to risk factors and asset and liability margins in the reciprocal union's MCT.

1.1.5 Interpretation

This guideline sets out the AMF's capital requirements in relation to the main insurance risk management activities and other financial operations commonly carried out by a reciprocal union in the course of its insurer activities.

Because the requirements set forth in this guideline are intended mainly as guidance for reciprocal unions, the terms, conditions and definitions contained herein may not cover all situations arising in practice. The results of applying these requirements should therefore not be interpreted as being the sole indicator for assessing a reciprocal union's financial position. The reciprocal union is expected to submit to the AMF beforehand, where applicable, any situation whose treatment is not covered in this guideline or for which the recommended treatment seems inadequate. This also applies with respect to any issue arising from an interpretation of the requirements set forth in this guideline.

3 Section 188 of the Act.

4 See Section 3.4 for the definition of "non-qualifying subsidiary".

Furthermore, despite the requirements described in the guideline, in any case where the AMF believes that the capital treatment is inappropriate, a specific capital requirement may be determined for a particular reciprocal union.

1.2 Risk-based capital adequacy

The AMF expects reciprocal unions to meet the MCT capital requirements at all times. To be considered capital available, capital instruments must meet certain qualifying criteria and are subject to capital composition limits and deductions and adjustments (reference Chapter 3). Under this guideline, the notion of capital encompasses capital available within any entity consolidated for the purpose of calculating the MCT ratio.

Under the MCT, capital requirements for various risks are set directly at a pre-determined target confidence level. The AMF has elected 99% of the expected shortfall (conditional tail expectation or CTE 99%) over a one-year time horizon, including a terminal provision, as a target confidence level.[5]

As a first step, the risk factors defined in this guideline are used to compute the target capital requirements on a consolidated basis. The reciprocal union's minimum required capital is then determined as the sum of the target capital requirements for each risk component, less the diversification credit, the result of which is divided by 1.5.

The target capital requirements are calculated as follows:

Sum of the capital required for the following risks:

- Insurance risk (reference Chapter 4):
  - liability for incurred claims and unexpired coverage;
  - exposure to unregistered reinsurance held;
  - earthquakes.
- Market risk (reference Chapter 5):
  - interest rate;
  - foreign exchange;
  - equity;
  - real estate;
  - other market risk exposures.
- Credit risk (reference Chapter 6):

[5] As an alternative, the AMF used a value at risk (VaR) at 99.5% confidence level or expert judgement when it was not practical to use the CTE approach.

- counterparty default risk for balance sheet assets;
- counterparty default risk for off-balance sheet exposures;
- guarantee instruments held for unregistered reinsurance (reference Section 4.4.2) and self-insured retention (reference Section 4.5).

- Operational risk (reference Chapter 7).

Less:

- Diversification credit (reference Chapter 8).

The minimum capital required is then calculated as follows:

- Target capital required divided by 1.5.

The MCT ratio, expressed as a percentage, is then calculated by dividing the capital available by the minimum capital required.

1.3 General requirements

1.3.1 Prior approval from the AMF

Because the AMF prefers a principles-based approach for the supervision of insurance activities, reciprocal unions have sufficient flexibility to establish the most appropriate strategies, policies and procedures that will enable them to apply the expectations and requirements set out in this guideline commensurate with their nature, scale and complexity.

Although the operations or treatments related to the MCT are all theoretically applicable to reciprocal unions, they may, in practice, not be appropriate for the union's reality. In this regard, the AMF prefers a prudent approach that involves greater cooperation with the reciprocal union upstream of any operation so as to minimize the risk that an operation would result in the inadequate treatment of capital or undermine the reciprocal union's solvency.

Reciprocal unions are therefore expected to consult the AMF and seek the AMF's prior approval before applying the requirements or benefitting from the advantages afforded under this guideline:

- for any investment activity or other financial operation related to subsidiaries, associates and joint ventures (reference Section 3.4);
- for any activity or operation involving:
  - the use of collateral or guarantees, except in connection with any amount for ceded reinsurance (Chapters 5 and 6);
  - the use of derivatives for hedging or speculation (reference Chapters 5 and 6);

- other off-balance sheet exposures described in Section 6.2 (structured settlements, commitments, repurchase and reverse repurchase transactions, guarantees).

Moreover, the AMF expects the union to obtain the AMF's prior authorization in the specific cases and situations referred to elsewhere in this guideline.

The AMF, pursuant to its powers under the Act, will determine the appropriate action to take in light of the request and information sent to it. In all cases, the AMF will consider the nature, size and complexity of the reciprocal union's activities in evaluating the request.

1.3.2 Considerations relating to reinsurance

1.3.2.1 Definitions

In this guideline, the expressions "registered reinsurance" and "unregistered reinsurance" refer to Annex A of the *Reinsurance Risk Management Guideline*.

1.3.2.2 Registered reinsurance

Capital requirement calculations under the MCT reflect reciprocal unions' use of registered reinsurance in the course of their activities. Amounts receivable and recoverable under registered reinsurance contracts held are subject to the risk factors described in Section 6.1.3 of this guideline.

In this guideline, the following risk pooling arrangements are recognized as registered reinsurers:

- Risk Sharing Plan (RSP) administered by the Groupement des assureurs automobiles;
- Provincial Risk Sharing Pools administered by the Facility Association.

As regards these two risk pooling arrangements, the capital treatment is aligned with the accounting treatment for these transactions.

1.3.2.3 Unregistered reinsurance

For business under an unregistered reinsurance contract held, amounts receivable and recoverable from the agreement and reported on the balance sheet are deducted from available capital, i.e., the calculations must be made as if the business were not registered, to the extent that they are not covered by amounts payable to assuming reinsurers. A ceding reciprocal union may also ask the AMF to benefit from a credit in respect of this capital requirement if it demonstrates to the AMF that these amounts are covered by acceptable collateral obtained from assuming reinsurers that allows the reciprocal union to guarantee the performance of its obligations in Québec.[6]

[6] The AMF may, if deemed appropriate, require the reciprocal union to provide the necessary documents or to observe certain formalities in order to obtain the credit. Before submitting any request, reciprocal unions are advised to consult the AMF's website to see if instructions have been issued in this regard.

Section 4.4.2 of this guideline provides additional guidance on capital deduction, the margin requirement on amounts recoverable from unregistered reinsurance and the limit on the use of guarantee instruments.

1.3.3 Audit

1.3.3.1 External audit

Effective for fiscal years beginning before January 1, 2025

The AMF expects the MCT ratio to be audited annually by an external auditor. The external auditor's opinion should address compliance with this guideline at the time the MCT ratio is determined.

The AMF expects the external auditor to provide its opinion to the lead supervisor annually within 90 days of fiscal year-end.

Effective for fiscal years beginning on or after January 1, 2025

The AMF expects the external auditor to evaluate and opine on whether the numerator and denominator of the annual MCT ratio have been prepared, in all material respects, in accordance with the MCT requirements.

The AMF expects the external auditor to provide its opinion to the lead supervisor annually no later than 90 days of fiscal year-end.

1.3.3.2 Internal audit

The AMF expects the internal auditor to evaluate and opine on the effectiveness of the processes and internal controls in place for the MCT Return, including related systems, and the monitoring of compliance with AMF-approved models.

The AMF expects the internal auditor to provide his or her opinion to the AMF within 90 days of fiscal year-end at a minimum once every three years based on the reciprocal union's risk-based frequency of review.

The internal audit may be completed at any time during the fiscal year. If the internal audit opinion does not include testing of controls at year-end, the insurer must attest to the AMF that the processes and controls continue to be in place and that no material changes occurred at year-end.

A reciprocal union may appoint an independent qualified party to conduct out this audit.

1.3.4 Allocation

Reciprocal unions may need to undertake an allocation exercise in order to determine the capital requirements in accordance with the provisions of this guideline. In such cases, the AMF expects:

- the allocation approaches to be systematic and justified in an appropriate manner;
- the allocation approaches used by the reciprocal union for capital purposes to be aligned with the allocation approaches it uses for its other business decisions;
- the allocation approaches to be reasonably consistent both over time and as regards the similarity of their characteristics. Any occasional changes in the allocation approach should be justifiable;
- the allocation approaches to be determined without creating bias. Reciprocal unions should be aware of results that are regularly biased by the choice of the allocation approach. Allocation approaches must therefore be adjusted accordingly;
- the allocation approaches to allow for allocating income and expense amounts with acceptable accuracy[7] and take into account any reasonable supporting information available at the reporting date and obtained without undue cost or effort.

Reciprocal unions must have effective monitoring and internal reporting processes in order to ensure their ongoing compliance with the above principles. They must document the principles underlying their allocation process and any changes to significant professional judgment used in their allocation approaches, including how they meet the principles set out above.

1.3.5 Transition period

The contractual service margin (CSM) arising from favorable development from business combinations and portfolio transfers, entered into by no later than June 30, 2019, can be included in capital available. This transitional provision will apply until December 31, 2025.

1.3.6 Designated representative's signature

The senior management attestation on the MCT Return cover page must be signed by a representative designated by the reciprocal union's senior management (the "designated representative"). The designated representative must not be directly involved in the preparation of the MCT Return and must have the knowledge and expertise required to interpret the MCT.

The AMF expects senior management attestations to be submitted to it based on the MCT Return filing frequency and requirements.

[7] The allocation approaches for amounts relating to loss components, if any, should reflect the expected relative profitability of each of the classes of insurance in this guideline.

The AMF expects the designated representative to perform a review of the MCT Return to inform the senior management attestations, and to provide an attestation on the accuracy and completeness of the MCT Return, which attestation must appear on the MCT Return cover page.

The designated representative's annuall attestation submission is to be accompanied by a summary of unadjusted errors[8] identified by the external auditor. Submission of unadjusted errors is limited to those impacting the calculation of the MCT ratio.

[8] Unadjusted errors below misstatement posting thresholds identified by external auditors in the performance of their work can aid AMF in understanding where errors reside in regulatory ratio calculations, which can support their effective supervision.

Chapter 2. Risk and Capital Management

2.1 Integrated risk management

Risks are inherent in the conduct of a financial institution's business and can represent both opportunities and threats. Since some undesirable risks cannot be eliminated entirely, they must be managed based on their significance, i.e. the scope and frequency of the effects they are likely to have on a financial institution if they materialize.

Risk management is therefore critical to the conduct of a reciprocal union's business. It is an ongoing, dynamic and evolving process that must be part of the reciprocal union's corporate culture and effectively contribute to the attainment of its strategic objectives.

Reciprocal unions should aspire to an integrated approach to risk management rather than one under which risks are considered separately. Thus, risks determined to be less material but that could become material when combined should also be considered. Such a management approach should be adapted to the size, nature and complexity of each reciprocal union and require standardized processes and reliable information systems capable of identifying connections between risks and providing reports containing relevant, clear and adapted information in a timely manner.

While this guideline can be used to determine capital available and capital required with respect to the key risks that can be measured by a standardized approach, integrated risk management provides a more accurate assessment of risks that are more difficult to measure with the usual methods (reference Section 2.2.2.2.).

Risks associated with the use of technologies, because of their many ramifications, are good examples of risks with multiple consequences: interrupted operations, loss of data, identity theft, cyberattacks, damage to reputation, lawsuits, etc. With this in mind, resources, technologies and knowledge must be aligned to manage these risks adequately and comprehensively across the entire reciprocal union.

Integrated risk management involves identifying, assessing, quantifying, controlling, mitigating and carefully monitoring the material risks to which a reciprocal union is exposed. Capital management is included within integrated risk management not only because of its role in measuring capital adequacy, but also because of its role in identifying and assessing the various risks to which the reciprocal union is exposed.

2.2 Capital Management

2.2.1 Role of capital management

The ability of financial institutions to fulfill their obligations to their clients is a fundamental component of risk management practices. A reciprocal union's capital plays an essential role in this regard insofar as one of main functions of a reciprocal union is to ensure that commitments to the persons in the union are met.

Capital management is a very broad process that covers not only the measurement of capital adequacy, but also all the strategies, policies and procedures used by a reciprocal union to determine and plan its capital. Regulatory requirements, environment, risk profile, risk appetite, strategic planning and economic imperatives must all be considered in the process. Such a management approach should be adapted to each reciprocal union's size, nature and complexity.

Capital is a crucial component of a reciprocal union's solvency and its management is intrinsically related to the reciprocal union's risk-taking. The AMF expects each reciprocal union to set up a process for assessing its own risk and solvency that allows it to identify the relationships between its various activities, thereby facilitating decision-making by taking its capital level, risk appetite and business strategies into account.

The reciprocal union should also have a broad vision and take account of factors such as procyclicality, economic imperatives and regulator expectations. One of its main objectives should therefore be to achieve its business or strategic plan in a context that enables it to maintain sufficient capital to withstand the impact of a major adverse shock, thereby reducing the probability of default.

The planning process must be carried out with the objective of developing an internally consistent and coherent vision of current and future capital needs and must be supported by an adequate organizational strategy, including optimal risk management.

2.2.2 Levels of capital

Under the Act, a reciprocal union must pool the sums needed to enable it to meet the liabilities contracted by the persons in the union as part of their insurer activities, as and when they become due. The minimum adequacy requirements for those sums are set forth in this guideline. However, as those requirements are based on standardized assumptions applicable to the entire industry, they may not perfectly reflect the specific risk profile of each reciprocal union.

Consequently, in addition to regulatory capital requirements, a reciprocal union should maintain additional capital levels to reflect its specific risk profile and have a margin to cover its other needs. Several incremental levels are established in accordance with the requirements for the MCT ratio calculation.

2.2.2.1 Regulatory capital

Regulatory capital refers to the two levels established by the AMF, i.e., the minimum level and the intervention target level.

Reciprocal unions are required to maintain, continuously and at a minimum, an MCT ratio of 100%, meaning that capital available must be equal to or greater than minimum capital required. However, in the scope of its supervisory activities, the AMF expects an MCT intervention target capital ratio, or intervention target ratio, of 250% to be maintained. These two ratios correspond to the regulatory capital requirement levels.

The 250% intervention target ratio provides a sufficient cushion above the minimum capital required and, allows, among other things, early detection of issues by the AMF as part of its usual supervisory activities. In addition, it provides the AMF with sufficient flexibility to proactively intervene if the situation requires, in accordance with the powers conferred on it by the Act, so as to minimize the impacts on the reciprocal union and its members. This ratio therefore enables the AMF to intervene in a timely manner if required by a reciprocal union's situation and to be reasonably assured that the measures taken by the reciprocal union will remedy the issues in question before they significantly affect its solvency. The intervention target ratio provides additional capacity to absorb unexpected losses in relation to the risks covered by this guideline.

However, the minimum ratio and the intervention target ratio do not explicitly consider all risks that could occur. In fact, these ratios are based on simplifying assumptions common to a standard approach to solvency valuation. Quantifying several of these risks using a standard methodology for all reciprocal unions is not warranted at this time given that, on the one hand, the level of exposure to these risks and the risk profile vary from one reciprocal union to the other and that, on the other hand, using a standard approach to measure them is difficult.

Consequently, the AMF asks each reciprocal union to assess its overall capital adequacy relative to its risk profile. This assessment is made by establishing an internal capital target ratio that is higher than the 250% intervention target ratio.

2.2.2.2 Internal capital target

To establish its internal capital target ratio, a reciprocal union must determine the target capital required to cover the risks related to its operations by considering, among other things, its risk appetite and the results of sensitivity analyses based on various scenarios and simulations.[9] Therefore, in addition to the risks covered in the calculation of the MCT ratio, the internal capital target ratio must take into account other risks, including:

- residual credit, market and insurance risks; for example, some risks related to risk transfers are types of market risks not covered in the calculation of the MCT ratio;
- liquidity risk;
- concentration risk;
- regulatory risk;
- strategic risk;
- risk related to access to market capital;
- reputation risk.

[9] In order to make sure that the internal capital target ratio is above the intervention target ratio, the level of internal target capital should be expressed as a percentage of the reciprocal union's minimum capital requirements as set forth following this guideline, and compared to the minimum capital ratio and the intervention target ratio.

The determination of the internal capital target ratio therefore allows each reciprocal union to take proper account of these risks. Reciprocal unions can meet this requirement by drawing, for example, on adverse plausible financial condition testing (FCT) scenarios or on stress testing scenarios. The impact of the various scenarios should be tested on the proposed internal capital target ratio and not on the reciprocal union's actual capital ratio.

The internal capital target ratio must be reported in the FCT Report. Reciprocal unions must provide the AMF, when the AMF requests it, with a document justifying their internal capital target ratio by means of explanations supported by an appropriate method and appropriate data. The AMF may ask a reciprocal union to establish a new internal capital target ratio if the justification provided does not demonstrate to the AMF's satisfaction that the capital ratio submitted is relevant and sufficient.

Failure to comply with the internal capital target ratio will result in supervisory measures by the AMF commensurate with the circumstances and the corrective actions taken by the reciprocal union to return to compliance with the established target.

2.2.2.3 Excess capital cushion

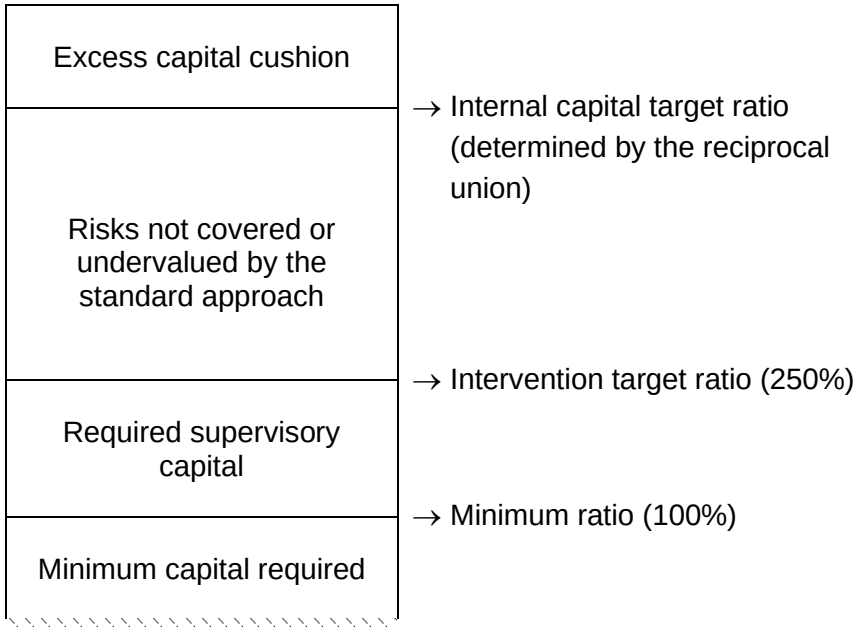
In addition, the AMF expects reciprocal unions to hold a level of capital in excess of the level of capital underlying the internal capital target ratio. This capital may be needed in order to:

- take into account the variable nature of the MCT ratio and the possibility that it will fall below their internal capital target ratio under their routine operating conditions due, among other reasons, to normal market volatility and insurance experience;
- maintain or attain a credit rating;
- innovate by, for example, developing new products;
- be prepared for global industry-wide change, including standard-setting developments such as changes in accounting and actuarial standards.

2.2.2.4 Graphic representation

The AMF's expectations are illustrated in the diagram below.

Minimum ratio, intervention target ratio and internal capital target ratio



2.3 Own risk and solvency assessment

So that the reciprocal union establishes its internal capital target in a prudent and forward-looking manner, the AMF expects the reciprocal union to set up an own risk and solvency assessment mechanism adapted to its nature, size and complexity.

This assessment plays an important role in the evaluation of the risks that the members of the reciprocal union are required to support. Among other things, it allows directors of the union to use reliable assumptions to establish a stable and sufficient level of premiums and contribution to ensure the union's sustainability.

2.3.1 Description of mechanism

The mechanism must allow the reciprocal union to identify all material risks, whether they are easily quantifiable or not, and assess them based on its capital. The mechanism should also enable the reciprocal union to measure individual risks that are less material but which could become material when aggregated with other risks.

An own risk and solvency assessment mechanism is a set of iterative processes designed to assess, in an ongoing and forward-looking manner, a reciprocal union's material risks and the capital required to support them. This tailored alignment of risks with capital is key to and an indispensable part of a reciprocal union's integrated risk management.

In concrete terms, this mechanism may be seen as a set of activities carried out jointly, iteratively and consistently according to a process with risk appetite as the starting point. It includes all steps of a normal risk management process, from risk identification and monitoring through the deployment of the business strategy and an analysis of risk conduct, particularly in extreme scenarios. The analysis must include dependencies or inter-relations that cause some risks and potential impacts to be greater. Reciprocal unions should document underlying assumptions, processes and key considerations with regard to drivers, the assessment, measurement and mitigants in place for each material risk. The results of this analysis could trigger a reconsideration of the appetite for certain risks, coming full circle back to the beginning of the iterative process.

2.3.2 Additional capital raising

Based on the various crisis or extreme scenarios considered in setting its internal capital target, a reciprocal union should be able to anticipate and set up a capital raising strategy for situations in which risks could cause the capital to fall below the internal capital target.

This process is especially important in that reciprocal unions should not assume that capital will be easily accessible when they need it but should consider instead the fact that, in certain circumstances, access to capital could become more difficult. As a result, a reciprocal union should act prospectively and raise additional capital in anticipation of such adverse circumstances.

The reciprocal union should also analyze the various characteristics of its assets and liabilities and their potential impact on its solvency, taking into account the volatility of, and the potential changes in, its assets and liabilities, among other things. When it reduces its risks or obligations through reinsurance or securitization, the reciprocal union should ensure that it captures all risks related to such transactions.

Chapter 3. Capital available

This chapter establishes requirements for the adequacy and appropriateness of capital resources used to meet capital requirements, having regard to their ability to meet reciprocal unions' obligations to the persons in the reciprocal union and creditors and to absorb losses in periods of stress. This includes the determination of the criteria for assessing the quality of capital components for inclusion in capital available and the composition of capital available, focusing on the predominance of highest quality capital.

Capital quality refers to a reciprocal union's ability to absorb losses both in the normal course of its business and in a crisis or liquidation. This guideline distinguishes between different categories of capitalization instruments based on their nature and compliance with the criteria and limits applicable to them.

3.1 Capital components

Capital available is determined on a consolidated basis, but in agreement with Section 1.1.2, which provides for the deconsolidation of non-qualifying subsidiaries[10].

The four primary considerations underlying the qualifying criteria of the capital available components of a financial institution for the purpose of measuring capital adequacy are:

- its availability: the extent to which the capital element is fully paid in and available to absorb losses;
- its permanence: the period for, and the extent to which, the capital element is available;
- absence of encumbrances and mandatory servicing costs: the extent to which the capital element is free from mandatory payments or encumbrances;
- subordination: the extent to which and the circumstances under which the capital element is subordinated to the rights of policyholders and other creditors of the institution in an insolvency or winding-up.

The integrity of capital elements is paramount to the protection of policyholders. Therefore, these considerations will be taken into account in the overall assessment of a reciprocal union's financial condition.

Capital available is defined as the sum of the following components: category A capital, category B capital, and category C capital.

3.1.1 Category A capital

- retained earnings;
- earthquake and general contingency reserves;

[10] See Section 3.4 for the definition of "non-qualifying subsidiary".

- accumulated other comprehensive income.

Retained earnings and other comprehensive income include interim profit or loss.

For an instrument to be included in capital available under category A, it must meet all of the criteria listed in Annex 1.

3.1.2 Category B capital

- instruments issued by the reciprocal union that meet category B criteria listed in Annex 2 and do not meet the criteria for classification as category A, subject to applicable limits;
- surplus (share premium) resulting from the issuance of instruments meeting category B criteria.

For an instrument to be included in capital available under category B, it must meet all of the criteria listed in Annex 2.

Purchase for cancellation of category B capital instruments is permitted at any time with the prior approval of the AMF. For further clarity, a purchase for cancellation does not constitute a call option at the initiative of the issuer as described in the qualifying criteria for category B capital instruments laid down in Annex 2.

Tax and regulatory event calls are permitted during an instrument's life subject to the prior approval of the AMF and provided the reciprocal union was not in a position to anticipate such an event at the time of issuance.

Stopper arrangements that stop payments on category B instruments are permissible provided the stopper does not impede the full discretion the reciprocal union must have at all times to cancel distributions on the category B instrument, nor must it act in a way that could hinder the recapitalization of the reciprocal union pursuant to qualifying criterion #13 of Annex 2. For example, it would not be permitted for a stopper on a category B instrument to:

- attempt to stop payment on another instrument where the payments on the other instrument were not also fully discretionary;
- prevent distributions for a period that extends beyond the point in time that distributions on the category B instrument are resumed;
- impede the normal operation of the reciprocal union or any restructuring activity, including acquisitions or disposals.

A stopper may also act to prohibit actions that are equivalent to a payment, such as the reciprocal union undertaking a discretionary repurchase of an instrument.

Where an amendment or variance of a category B instrument's terms and conditions affects its recognition as capital available under this guideline, such amendment or variance will only be permitted with the prior approval of the AMF.[11]

Reciprocal unions are permitted to "re-open" offerings of capital instruments to increase the principal amount of the original issuance provided that call options will only be exercised, with the prior approval of the AMF, on or after the fifth anniversary of the closing date of the latest re-opened tranche of securities.

Defeasance options may only be exercised on or after the fifth anniversary of the closing date with the prior approval of the AMF.

3.1.3 Category C capital

- instruments issued by the reciprocal union that meet category C criteria listed in Annex 3, but do not meet the category A or B criteria, subject to an applicable limit;
- surplus (share premium) resulting from the issuance of instruments meeting the category C criteria.

For an instrument to be included in capital available under category C, it must meet all of the criteria listed in Annex 3.

Category C capital instruments must not contain restrictive covenants or default clauses that would allow the holder to trigger acceleration of repayment in circumstances other than the insolvency, bankruptcy, winding-up or liquidation of the issuer.

Purchase for cancellation of category C capital instruments is permitted at any time with the prior approval of the AMF. For further clarity, a purchase for cancellation does not constitute a call option at the initiative of the issuer as described in the qualifying criteria for category C capital instruments laid down in Annex 3.

Tax and regulatory event calls are permitted during an instrument's life subject to the prior approval of the AMF and provided the reciprocal union was not in a position to anticipate such an event at the time of issuance.

Where an amendment or variance of a category C instrument's terms and conditions affects its recognition as capital available under this guideline, such amendment or variance will only be permitted with the prior approval of the AMF.[12]

Reciprocal unions are permitted to "re-open" offerings of capital instruments to increase the principal amount of the original issuance provided that call options will only be

[11] Any modification of, addition to, or renewal or extension of the term of an instrument issued to a related enterprise may be subject to the provisions of the Act regarding transactions with natural persons or groups that are restricted parties with respect to the reciprocal union.

[12] Any modification of, addition to, or renewal or extension of the term of an instrument issued to a related enterprise may be subject to the provisions of the Act regarding transactions with natural persons or groups that are restricted parties with respect to the reciprocal union.

exercised, with the prior approval of the AMF, on or after the fifth anniversary of the closing date of the latest re-opened tranche of securities.

Defeasance options may only be exercised on or after the fifth anniversary of the closing date with the prior approval of the AMF.

3.1.3.1 Amortization

Category C capital instruments are subject to straight-line amortization in the final five years prior to maturity.

Hence, as these instruments approach maturity, redemption or retraction, such outstanding balances are to be amortized based on the following schedule:

Years to maturity	Included in capital
5 years and more	100%
4 years and less than 5 years	80%
3 years and less than 4 years	60%
2 years and less than 3 years	40%
1 year and less than 2 years	20%
Less than 1 year	0%

For instruments issued prior to January 1, 2015, where the terms of the instrument include a redemption option that is not subject to prior approval of the AMF, amortization should begin five years prior to the effective dates governing such options. For example, a 20-year debenture that can be redeemed at the reciprocal union`s option at any time on or after the first 10 years would be subject to amortization commencing in year 5. Further, where a subordinated debt was redeemable at the reciprocal union`s option at any time without the prior approval of the AMF, the instrument would be subject to amortization from the date of issuance. For greater certainty, this would not apply when redemption requires the AMF's approval as is required for all instruments issued pursuant to the qualifying criteria found in Annex 3.

Amortization should be computed at the end of each fiscal quarter based on the "years to maturity" schedule above. Thus, amortization would begin during the first quarter that ends within five calendar years to maturity. For example, if an instrument matures on October 15, 2020, 20% amortization of the issue would occur on October 16, 2015 and be reflected in the December 31, 2015 regulatory return. An additional 20% amortization would be reflected in each subsequent December 31 return.

3.1.4 Consolidated qualifying non-controlling interests

Reciprocal unions are permitted to include in capital available qualifying non-controlling interests in subsidiaries that are consolidated for MCT purposes, provided that:

- the capital instruments meet the qualifying criteria under categories A, B and C;
- the capital in the subsidiary is not excessive in relation to the amount necessary to carry on the subsidiary's business;
- the level of capitalization of the subsidiary is comparable to that of the reciprocal union as a whole.

If a subsidiary issues capital instruments for the funding of the reciprocal union or that are substantially in excess of its own requirements, the terms and conditions of the issue, as well as the intercompany transfer, must ensure that investors are placed in the same position as if the instrument were issued by the reciprocal union directly in order for it to qualify as capital available upon consolidation. This can only be achieved by the subsidiary using the proceeds of the issue to purchase a similar instrument from the reciprocal union. This treatment will only be applicable to the subordinated debt. In addition, to qualify as capital for the consolidated entity, the debt held by third parties cannot effectively be secured by other assets, such as cash, held by the subsidiary.

3.2 Capital composition limits

The inclusion of capital instruments qualifying under category B and category C criteria is subject to the following limits:

- The sum of capital instruments meeting the qualifying criteria under category B and category C will not exceed 40% of total capital available, excluding accumulated other comprehensive income.
- Capital instruments meeting the qualifying criteria under category C will not exceed 7% of total capital available, excluding accumulated other comprehensive income.

Category B and category C capital exceeding the allowable limits will be subject to the following treatment for capital available purposes:

- In cases where capital instruments qualifying under one of either category B or C exceed the limits, the capital in excess of the limits will not be considered in the calculation of capital available. In cases where capital instruments both under category B and category C are in excess of the prescribed limits, the greater value of the two excess amounts will be excluded from capital available. In doing so, reciprocal unions must first fully exclude excess capital under category C, followed by excess capital under category B.
- Under certain exceptional circumstances and subject to the AMF's approval, a reciprocal union may be permitted to continue to include such excess amounts in capital available temporarily, upon providing the AMF with a satisfactory plan outlining its strategy to achieve compliance with the limits as soon as possible. Typically, only those excesses arising after issuance and as a result of operating losses or extraordinary events beyond the control of management will normally be eligible for temporary inclusion in capital available. In most other circumstances, excesses resulting from, for example:

- purchases or redemptions of capital instruments;
- new issuances of capital instruments within the same fiscal quarter;
- foreseeable events;

could not be included in capital available.

3.3 Regulatory adjustments to capital available

3.3.1 Deductions

The following amounts must be deducted from the capital available:

- interests in non-qualifying subsidiaries[13], associates and joint ventures[14] in which the reciprocal union holds more than a 10% ownership interest (reference Section 3.4);
- loans or other forms of lending provided to non-qualifying subsidiaries, associates and joint ventures in which the reciprocal union holds more than a 10% ownership interest which are considered as capital (reference Section 3.4);
- amounts receivable and recoverable from unregistered reinsurance contracts held to the extent that they are not covered by amounts payable to assuming reinsurers or by acceptable collateral from assuming reinsurers (reference Section 4.4.2);
- self-insured retentions (SIR), included in other recoverables on liability for incurred claims, where the AMF requires acceptable collateral to ensure collectability of recoverables, and no collateral has been received (reference Section 4.5);
- the earthquake premium reserve (EPR) not used as part of financial resources to cover earthquake risk exposure (reference Section 4.6);
- any asset for insurance acquisition cash flows that appears as a balance sheet asset;

13 See Section 3.4 for the definition of “non-qualifying subsidiary”.

14 Interests in limited partnerships that are reported using the equity method of accounting are subject to the same capital treatment as joint ventures.

- unamortized insurance acquisition cash flows[15] other than those arising from commissions[16] and premium taxes. This deduction is gross of any associated income tax and does not apply to the class of title insurance contracts;
- accumulated other comprehensive income on cash flow hedges. The amount of cash flow hedge reserve that relates to the hedging of items that are not fair valued on the balance sheet (including projected cash flows) must be derecognized in the calculation of capital available. This includes items that are not recognized on the balance sheet but excludes items that are fair valued on the balance sheet. Positive amounts should be deducted from capital available and negative amounts should be added back. This treatment specifically identifies the element of the cash flow hedge reserve that is to be derecognized for prudential purposes. It removes the element that gives rise to artificial volatility in capital available, as in this case the reserve only reflects one half of the picture (the fair value of the derivative, but not the changes in fair value of the hedged future cash flow);
- accumulated unrealized gains and losses that have resulted from changes in the fair value of a reciprocal union's financial liabilities that are due to changes in the reciprocal union's own credit risk. In addition, with regard to derivative liabilities, all accounting valuation adjustments arising from the reciprocal union's own credit risk should also be deducted on an after-tax basis. The offsetting between valuation adjustments arising from the reciprocal union's own credit risk and those arising from its counterparties' credit risk is not permitted.
- goodwill and other intangible assets:
  - Goodwill related to consolidated subsidiaries and subsidiaries deconsolidated for regulatory capital purposes and the proportional share of goodwill in joint ventures subject to the equity method of accounting must be deducted from

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15 Unless insurance acquisition cash flows are recognized as expenses by applying paragraph 59(a) of IFRS 17, the balance of unamortized insurance acquisition cash flows at the end of a reporting period must be determined using one of the following methods.

If using the general measurement method (GMM):

- taking the insurance acquisition cash flows allocated to the group of contracts for the purpose of calculating the contractual service margin (CSM) or the loss component at the date of initial recognition, and
- subtracting the portion of the insurance acquisition cash flows that was amortized under paragraph B125 of IFRS 17.

If using the premium allocation approach (PAA):

- taking the insurance acquisition cash flows paid at initial recognition of the group of contracts,
- adding any amount arising from the derecognition of an asset for insurance acquisition cash flows applying paragraph 28C of IFRS 17,
- adding the cumulative amount of insurance acquisition cash flows paid since the date of initial recognition, and
- subtracting the portion of insurance acquisition cash flows that was amortized under paragraph B125 of IFRS 17.

The balance of unamortized insurance acquisition cash flows cannot be negative.

16 Excludes contingent commissions and other commissions that are not readily identified as exclusively relating to and varying with premiums and therefore are not recoverable.

capital available. The full amount reported on the balance sheet is to be deducted.

- The full amount of all other intangible assets[17] must be deducted from capital available. This includes intangible assets related to consolidated subsidiaries and subsidiaries deconsolidated for regulatory capital purposes, and the proportional share of intangible assets in joint ventures subject to the equity method of accounting.

- for future business, when the general measurement model (GMM) is used, the difference (if positive) between:

  - the amount of aggregate reinsurance contracts held that are assets that correspond to underlying future business, other than underlying future business that has been assumed through reinsurance contracts issued;
  - the amount of aggregate reinsurance contracts held that are liabilities that correspond to underlying future business, other than underlying future business that has been assumed through reinsurance contracts issued.

No risk factor is applied to items that are deducted from capital available.

3.3.2 Additions

CSM for title insurance contracts:

- The net of reinsurance amount of CSM for the class of title insurance contracts must be added to the reciprocal union's capital available.

3.3.3 Adjustments

The following amounts must be reversed from the total of capital available:

- owner-occupied property:[18]

  - for owner-occupied property accounted for using the cost model and where the deemed value of the property was determined at conversion to IFRS by using fair value, unrealized fair value gains (losses) must be reversed from the reciprocal union's reported retained earnings for capital adequacy purposes. The amount determined at conversion is an on-going deduction from capital available and can only be changed as a result of a sale of owner-occupied properties (owned at the time of IFRS conversion) and the resulting realization of actual gains (losses);
  - accumulated revaluation losses in excess of gains accounted for using the revaluation model must be reversed from retained earnings. Revaluation gains

17 This includes computer software intangibles.

18 No adjustments are required for investment properties, as fair value gains (losses) are allowed for capital purposes.

must be reversed from accumulated other comprehensive income included in capital available.

3.4 Interests in and loans to subsidiaries, associates and joint ventures

The equity method of accounting is used for all interests of a reciprocal union in non-qualifying subsidiaries, associates and joint ventures[19]. These interests remain unconsolidated for MCT purposes.

Under this guideline, a non-qualifying subsidiary is a dissimilar regulated financial institution, such as a bank, trust company, savings company or insurer of persons, or any subsidiary other than a subsidiary:

- that is a P&C insurer;
- that carries on only activities similar to those the reciprocal union is authorized to carry on;
- whose principal activity is the purchase, management, sale or leasing of immovables;
- whose principal activity is the offering of shares in investment portfolios, the making of loans and investments, factoring, leasing, the offering of computing services or actuarial advisory services;
- whose principal activity is complementary to the distribution of certain insurance products such as travel assistance, legal assistance and road assistance;
- whose activities are those of a firm within the meaning of the *Act respecting the distribution of financial products and services* (CQLR, chapter D-9.2) or that offers financial products and services outside Québec; or
- that operates a residential and long-term care centre.

3.4.1 Qualifying consolidated subsidiaries

The assets and liabilities of these subsidiaries are fully consolidated in the reciprocal union's regulatory financial statements and are included in the calculation of capital available and required; they are therefore subject to risk factors and liability margins in the reciprocal union's MCT.

3.4.2 Joint ventures with less than or equal to 10% ownership interest

Where a reciprocal union holds less than or equal to a 10% ownership interest in a joint venture, the investment is included in capital available. The investment is reported under capital required for equity risk and is subject to the risk factor applicable to investments in common shares (reference Section 5.3).

[19] Interests in limited partnerships that are reported using the equity method of accounting are subjects to the same capital treatment as joint ventures.

3.4.3 Non-qualifying subsidiaries, associates and joint ventures with more than a 10% ownership interest

Interests in non-qualifying subsidiaries, associates and joint ventures in which the reciprocal union holds more than a 10% ownership interest are excluded from capital available. Loans or other forms of lending provided to these entities are also excluded from capital available of the reciprocal union if they are considered as equity in the entity.

Loans or other forms of lending provided to these entities that are not considered as equity in the entity are subject to a risk factor of 45% (or higher for higher risk loans). Reciprocal unions should contact the AMF to discuss higher risk factors.

Insurance receivables from registered reinsurers that are associates of the reciprocal union will attract a risk factor of 0.7%. Other receivables from these entities will attract a risk factor of 5% or 10% depending on how long the balances are outstanding (reference Section 6.1.3).

3.4.4 Ownership interest in a limited partnership

Investments of the reciprocal union held and managed by a limited partnership on behalf of the reciprocal union are treated as direct investments of the reciprocal union, provided that the reciprocal union can demonstrate to the AMF's satisfaction that these investments are not used to capitalize such a partnership under the laws and regulations governing it. Consequently, the capital required for such investments is calculated using a "look-through" approach to the underlying assets held by the limited partnership, by applying the risk factors in Chapters 4 and 5 to the limited partnership investments.[20]

[20] In such circumstances, requirements regarding limited partnerships using the equity method of accounting do not apply.

Chapter 4. Insurance risk

4.1 Description of insurance risk

Insurance risk is the risk arising from the potential for claims or payouts to be made to policyholders or beneficiaries. Exposure to this risk results from the present value of losses being higher than the amounts originally estimated.

Insurance risk includes uncertainties around:

- the ultimate amount of net cash flows from premiums, commissions, claims, payouts, and related settlement expenses;
- the timing of the receipt and payment of these cash flows.

The “insurance risk” component of the MCT reflects the reciprocal union’s consolidated risk profile by individual classes of insurance and results in specific margin requirements for insurance risk. For the MCT, the risk associated with insurance exposure is divided into four parts:

- liability for incurred claims (i.e., reserving risk associated with variation in claims provisions);
- unexpired coverage (i.e., underwriting risk including catastrophe risk, other than earthquakes);
- unregistered reinsurance;
- earthquakes.

4.2 Diversification credit within insurance risk

The risk factors for each line of business contain an implicit diversification credit based on the assumption that reciprocal unions have a well-diversified portfolio of risks for a given portfolio of business.

4.3 Margins for liability for incurred claims and unexpired coverage

Given the uncertainty that insurance contract liabilities will be sufficient to cover future claims, margins are added to cover the potential shortfall.

From the AMF’s perspective, these margins are included to take into account possible unexpected negative variations in the provision amounts, given the fact that the margins added by actuaries in their valuations are primarily intended to cover expected variations.

4.3.1 Margin for liability for incurred claims

The margin for liability for incurred claims[21] is calculated by class of insurance, by multiplying the best estimate of the liability for incurred claims for insurance contracts issued less the best estimate of the asset for incurred claims for reinsurance contracts held, by the applicable risk factors, then by multiplying the total for all classes of insurance by 1.10.

Margin for liability for incurred claims	=	1.10 x the sum for all classes of insurance of the risk factor x (best estimate of the liability for incurred claims for insurance contracts issued less the best estimate of the asset for incurred claims for reinsurance contracts held)

where:

Best estimate of the liability for incurred claims for insurance contracts issued	=	Liability for incurred claims for insurance contracts issued (net of salvage and subrogation) excluding the associated risk adjustment[22]
Best estimate of the asset for incurred claims for reinsurance contracts held	=	Asset for incurred claims for reinsurance contracts held excluding the associated risk adjustment

The applicable insurance risk factors for determining the margins for liability for incurred claims are as follows:

[21] Liability for incurred claims includes the costs directly attributable to the performance of insurance contracts.

[22] The term “risk adjustment”, as used in this guideline, refers to risk adjustment for non-financial risk.

Class of insurance	Risk factor Net liability for incurred claims
Personal property	15%
Commercial property	10%
Aircraft	20%
Automobile – Liability	10%
Automobile – Personal accident	10%
Automobile – Other	15%
Boiler and machinery	15%
Credit	20%
Credit protection	20%
Fidelity	20%
Hail	20%
Legal expense	25%
Liability	25%
Other approved products	20%
Surety	20%
Title	15%
Marine	20%

For funds withheld reinsurance contracts, the liability or asset for incurred claims must be increased by the amount of funds held, if any. For insurance contracts issued, the amount of funds held by the ceding reciprocal union is added back to the liability for incurred claims of the assuming reinsurer. For reinsurance contracts held, the amount of funds held is added back to the asset for incurred claims of the ceding reciprocal union.

Groups of retroactive reinsurance contracts held, recognized on the balance sheet as an asset for remaining coverage, are included in the calculation of the margin for liability for incurred claims (reference Section 4.3.1) instead of the calculation of the margin for unexpired coverage (reference Section 4.3.2), when the underlying insurance contract issued is recognized as a liability for incurred claims.

4.3.2 Margin for unexpired coverage

The margin for unexpired coverage is calculated by class of insurance, by multiplying the applicable risk factors by the greater of net unexpired coverage and 30% of net premiums

received (i.e., premiums received net of associated reinsurance premiums paid) in the past 12 months.

The net unexpired coverage is calculated as follows:

Net unexpired coverage	=	{Unexpired coverage for insurance contracts issued} - {Unexpired coverage for reinsurance contracts held}

Insurance contracts issued in accordance with paragraphs 25 to 28 of the IFRS 17 standard are recognized for calculation of the unexpired coverage in this guideline, unless otherwise specified. To determine the unexpired coverage for insurance contracts issued, only insurance contracts that have the earliest of:

- the date the coverage begins, and
- the date on which the first payment of the premium is due,

on or prior to the reporting date should be considered recognized. In other words, this means that only insurance contracts that individually meet the recognition criteria (a) or (b) set out in paragraph 25 of IFRS 17, by the reporting date, are to be treated as insurance contracts issued for purposes of the MCT's requirements for unexpired coverage.

4.3.2.1 Unexpired coverage for insurance contracts issued

The unexpired coverage for insurance contracts issued is determined using one of the following two methods, depending on whether the general measurement model (GMM) or the premium allocation approach (PAA) is used to calculate the liability for remaining coverage (LRC) for a group of insurance contracts issued.

Groups of insurance contracts issued measured using the GMM

Unexpired coverage for insurance contracts issued (using the GMM)	=	Estimate of future cash flows for insurance contracts issued (excluding premium, reinsurance commissions[23] and acquisition expenses cash flows) adjusted for the time value of money[24]

The estimate of future cash flows includes expenses directly attributable to fulfilling insurance contract obligations, but excludes risk adjustments.

[23] Reinsurance commissions to be excluded from the calculation are those not meeting the definition of insurance acquisition cash flows set out in Appendix A of IFRS 17. Reinsurance commissions are defined in section 4.3.2.2.

[24] See IFRS 17 paragraphs 33-36.

Group of insurance contracts issued measured using the PAA

Unexpired coverage for insurance contracts issued (using the PAA)	=	{LRC excluding the loss component + unamortized insurance acquisition cash flows[25] + unamortized reinsurance commissions[26] + premiums receivable[27]} x expected loss ratio (ELR) + costs

The costs in the unexpired coverage for insurance contracts issued (using PAA) are expenses directly attributable to fulfilling insurance contract obligations. These costs may be implicitly included in the ELR, explicitly added, or a combination of implicit and explicit. The unexpired coverage for insurance contracts issued (using PAA) excludes any risk adjustment and may be adjusted for the time value of money.

For a reinsurance contract issued, all underlying insurance contracts within the contract boundary, including underlying insurance contracts that have not yet been issued, must be included in the determination of the unexpired coverage for insurance contracts issued. This includes both the group of issued insurance contracts measured using the GMM and the PAA to determine the LRC.

- For the GMM, these underlying insurance contracts will be reflected in the estimate of future cash flows for insurance contracts issued.
- For the PAA, these underlying insurance contracts will be reflected in the premiums to be received, whether outstanding or not yet due, including instalment premiums.

4.3.2.2 Unexpired coverage for reinsurance contracts held

The unexpired coverage for reinsurance contracts held applies to the unexpired portion of underlying insurance contracts issued. It is determined using one of the following two methods, depending on whether the GMM or PAA is used to calculate the asset for remaining coverage (ARC) for a group of reinsurance contracts held.

[25] If the reciprocal union chooses to expense its insurance acquisition cash flows, per IFRS 17 paragraph 59 (a), the remaining amount of unamortized insurance acquisition cash flows will be zero. Otherwise, unamortized insurance acquisition cash flows are calculated in accordance with Footnote 18 of this guideline.

[26] Reinsurance commissions to be excluded from the calculation are those not meeting the definition of insurance acquisition cash flows set out in Appendix A of IFRS 17. Reinsurance commissions are defined in section 4.3.2.2.

[27] Whether outstanding or not yet due, including instalment premiums.

Groups of reinsurance contracts held measured using the GMM

Unexpired coverage for reinsurance contracts held (using the GMM)	=	(Estimate of future cash flows from reinsurance contracts held (excluding premium and reinsurance commission cash flows that are due)[28] + estimate of future cash flows from future reinsurance contracts held), adjusted for the time value of money

The estimate of future cash flows excludes the risk adjustments. The estimate of future cash flows from reinsurance contracts held and future reinsurance contracts held refers to the portion of such contracts that covers the unexpired portion of the underlying insurance contracts issued. These cash flows include expected losses recoverable, net of expected future reinsurance costs.

For example, an insurance contract written on October 1 would have reinsurance coverage for three months under an existing January to December reinsurance contract held. The remaining portion (i.e., nine months) of the insurance contract issued would be covered under a future reinsurance contract held.

Groups of reinsurance contracts held measured using the PAA

Unexpired coverage for reinsurance contracts held (using the PAA)	=	{(ARC excluding the loss recovery component + unamortized reinsurance commission[29]) + premiums to be paid[30] for reinsurance contracts held + expected premiums payable for future reinsurance contracts held} x ELR[31] - (premiums payable[32] for reinsurance contracts held net of associated reinsurance commissions receivable[33] + expected premiums payable for future reinsurance contract held net of expected associated reinsurance commissions receivable)

28 Premium and reinsurance commission cash flows on risk attaching proportional reinsurance contracts held are considered due and therefore are zero.

29 The reinsurance commission is the ceding commission (or a portion of the ceding commission) paid by the reinsurer to the ceding reciprocal union, which is not contingent on claims of the underlying contracts and generally includes a total provision for broker/agent commissions, insurance premium taxes and other acquisition and servicing expenses.

30 Whether outstanding or not yet due.

31 The ELR for the unexpired coverage for reinsurance contracts held (using the PAA) in section 4.3.2.2 is the ELR for the ceded calculations that relates to the portion of such contracts that covers the unexpired portion of the underlying insurance contracts issued. It can therefore differ from the ELR in section 4.3.2.1 for calculating the unexpired coverage for insurance contracts issued (using the PAA).

32 Not yet due. Expected premiums payable and associated reinsurance commissions receivable on risk attaching proportional reinsurance contracts held are considered due; therefore, the amount of expected premiums payable for these contracts is zero.

33 Not yet due. Expected premiums payable and associated reinsurance commissions receivable on risk attaching proportional reinsurance contracts held are considered due; therefore, the amount of expected premiums payable for these contracts is zero.

Unamortized reinsurance commission is equal to the reinsurance commission amount used for the measurement of the ARC, and includes ceding commissions that are received, and yet to be amortized. The unexpired coverage for reinsurance contracts held (using the PAA) excludes any risk adjustmentand may be adjusted for the time value of money.

The applicable insurance risk factors for determining the margins for unexpired coverage are as follows:

Class of insurance	Risk factor Net unexpired coverage
Personal property	20%
Commercial property	20%
Aircraft	25%
Automobile – Liability	15%
Automobile – Personal accident	15%
Automobile – Other	20%
Boiler and machinery	20%
Credit	25%
Credit protection	25%
Fidelity	25%
Hail	25%
Legal expense	30%
Liability	30%
Other approved products	25%
Surety	25%
Title	20%
Marine	25%

4.4 Risk mitigation and risk transfer mechanisms - reinsurance

The risk of default for amounts recoverable from reinsurers arises from both credit and actuarial risk. Credit risk relates to the risk that the reinsurer will fail to pay the ceding reciprocal union what it is owed. Actuarial risk relates to the risk associated with the misassessment of the amount of the required provision.

4.4.1 Registered reinsurance

The risk factor applied to premiums associated with unexpired coverage on reinsurance contracts held[34] and the asset for incurred claims recoverable from the assuming reinsurer on reinsurance contracts held is treated as a combined weight under the MCT, reflecting both the credit risk and the actuarial risk (reference Section 6.1.3).

The balance sheet values used to calculate the risk requirement for the premium amounts associated with unexpired coverage for reinsurance contracts held and the asset for incurred claims recoverable from the assuming reinsurer, arising from registered reinsurance contracts held, may be reduced to a minimum of zero by:

- the funds held by the ceding reciprocal union for its exclusive benefit (e.g., funds withheld reinsurance) to secure the payment to the ceding reciprocal union by the reinsurer of the reinsurer's share of any loss or liability for which the reinsurer is liable under the reinsurance contract held; and
- any other liabilities of the ceding reciprocal union due to the reinsurer for which the ceding reciprocal union has a legal and contractual right of setoff against the amount recoverable from the reinsurer.

Total reinsurance contract held assets by reinsurer cannot be negative. Acceptable collateral posted by a reinsurer under a registered reinsurance contract held may be recognized provided the conditions under Section 4.4.2.3 are met.

4.4.2 Unregistered reinsurance

4.4.2.1 Deduction from capital available

Rather than being applied a risk factor to cover the risk of default of the reinsurers, amounts receivable and recoverable from unregistered reinsurance contracts held, as reported for regulatory purposes, are deducted from capital available to the extent that they are not covered by premiums payable to assuming reinsurers or acceptable collateral. Acceptable collateral is defined as guarantee instruments from assuming reinsurers and funds held to secure payment from assuming reinsurers. Section 4.4.2.3 outlines further conditions for using collateral to obtain credit for unregistered reinsurance contracts held. Amounts payable to assuming reinsurers may be deducted from amounts receivable and recoverable only where there is a legal and contractual right of setoff against the assuming reinsurer.

For each of the unregistered reinsurance contracts held, the amount to be deducted from available capital is the result of the following calculation where the result is positive:

[34] The concept of premiums associated with unexpired coverage on reinsurance contracts held is defined in part A of Section 4.4.2.1.

$$A + B + C – D – E – F$$

where:

A: is the amount of premiums associated with unexpired coverage, including any loss-recovery component, on reinsurance contracts held.

Premiums associated with unexpired coverage on reinsurance contracts held are determined using one of the following two methods, depending on whether the GMM or the PAA is used to calculate the ARC for a group of reinsurance contracts held.

Groups of reinsurance contracts held measured using the PAA

Premiums associated with unexpired coverage for reinsurance contracts held (using the PAA)	=	ARC on reinsurance contracts held + unamortized reinsurance commission[35] + premiums payable to the assuming reinsurer

Groups of reinsurance contracts held measured using the GMM

If the CSM of a group of reinsurance contracts held represents a net cost on purchasing reinsurance,[36] then:

Premiums associated with unexpired coverage for reinsurance contracts held (using the GMM)	=	Expected cash inflow from reinsurer + risk adjustment + CSM + unamortized reinsurance commission

If the CSM of a group of reinsurance contracts held represents a net gain of purchasing reinsurance, then:

Premiums associated with unexpired coverage for reinsurance contracts held (using the GMM)	=	Expected cash inflow from reinsurer + risk adjustment - CSM + unamortized reinsurance commission

35 Unamortized reinsurance commission is equal to the amount used for the measurement of the ARC, and includes ceding commissions that are received, and yet to be amortized.

36 A group of reinsurance contracts held representing a net cost may include the aggregate of groups of contracts within a portfolio that have not been included in the group of contracts with a net gain for accounting purposes (i.e., the groups for which there is no significant possibility of a net gain and the remaining contracts).

B: is the asset for incurred claims on reinsurance contracts held from the assuming reinsurer.

C: is the amount of cash outflows associated with the funds held collateral that are included in (A) and (B) above.

D: is the amount of premiums payable and non-owned deposits or other assets held as security from the assuming reinsurer as a guarantee instrument for reinsurance.

E: is the amount of funds held to secure payment from the assuming reinsurer.

F: is the amount of acceptable letters of credit held as security from the assuming reinsurer.

4.4.2.2 Required margin

The margin for unregistered reinsurance is calculated in the unregistered reinsurance exhibit of the MCT Returns and reported on the "Reinsurance Held with Unregistered Insurers" line on the MCT calculation page of the Returns. The reciprocal union must present, in the same exhibit, all reinsurance arrangements held with unregistered insurers, including captive fronting arrangements.[37]

The margin is 20% of premiums associated with the unexpired coverage on unregistered reinsurance contracts held, of the asset for incurred claims recoverable from the assuming reinsurer under such contracts and cash outflows for funds withheld (the sum of amounts A, B and C in Section 4.4.2.1). The margin requirement for each unregistered reinsurance contract held may be reduced to a minimum of zero by premiums payable to the reinsurer and acceptable collateral (the sum of amounts D, E and F in Section 4.4.2.1) that are in excess of the amounts of premium associated with the unexpired coverage on unregistered reinsurance contracts held, asset for incurred claims recoverable from the assuming reinsurer under such contracts and cash outflows for funds held (the sum of amounts A, B and C in Section 4.4.2.1).

4.4.2.3 Collateral

A ceding reciprocal union is given credit for an unregistered reinsurance contract held where the reciprocal union obtains and maintains a valid and enforceable guarantee interest that has priority over any other security interest in assets of an unregistered reinsurer that are held in Canada, to secure the payment to the ceding reciprocal union by the reinsurer of the reinsurer's share of any loss or liability for which the reinsurer is liable under the reinsurance contract held.

The collateral used to obtain credit for a specific unregistered reinsurance contract held must materially reduce the risk arising from the credit quality of the reinsurer. In particular, the instruments used may not be related party obligations of the unregistered reinsurer (i.e., obligations of the reinsurer itself, its parent, or one of its subsidiaries or associates). With respect to the above three sources available to obtain credit, this implies that:

[37] A captive fronting arrangement means any insurance contract entered into with a policyholder and subsequently reinsured in whole by the insurer to an entity within the same group as the policyholder.

- to the extent that a ceding reciprocal union is reporting obligations due from a related party of the reinsurer as assets in its annual return, the ceding reciprocal union is precluded from taking credit for funds held to secure payment from the unregistered reinsurer;
- reinsurer's assets located in Canada in which a ceding reciprocal union has a valid and perfected first priority security interest under applicable law may not be used to obtain credit if they are obligations of a related party of the unregistered reinsurer;
- a letter of credit is not acceptable if it has been issued by a related party of the unregistered reinsurer.

Collateral must be available to the reciprocal union for a period of not less than the remaining term of the liabilities covered by the reinsurance contracts held in order to be valid towards obtaining credit for unregistered reinsurance. In cases where an arrangement contains a renewal provision for the ceding reciprocal union to maintain collateral for a part or the whole of the remaining term of the liabilities covered by the reinsurance contracts held (e.g., additional fees or higher interest rate), the renewal provision should be included when determining the ceded reserves.

Letters of credit held as guarantee against unregistered reinsurance are considered a direct credit substitute and are subject to risk factors based on the credit rating of the issuing/confirming bank and the term of the liabilities covered by the reinsurance contracts held (reference Section 6.2). Where a letter of credit is issued or confirmed by a related enterprise of a ceding reciprocal union, no reduction in capital required is permitted.

Guarantee instruments other than letter of credits, such as non-owned deposits, held as guarantee against unregistered reinsurance, are subject to the same risk factors as those applied to similar assets owned by the reciprocal union (reference Sections 5.3 and 6.1).

Capital requirements for collateral associated with unregistered reinsurance are calculated on an aggregate basis using applicable risk factors, on the total amount of acceptable collateral from each reinsurer.

However, acceptable collateral that is greater than the unregistered reinsurance requirements is considered excess collateral and is not subject to capital requirements. Where appropriate, the total amount of capital required for the collateral is pro-rated in order to exclude capital otherwise required on the excess portion of collateral.

Two steps are required to compute excess collateral and arrive at a reduction in capital required for excess collateral.

Step 1: Computation of excess collateral

Reinsurance ceded under unregistered reinsurance contracts held	Amount ($)
Premiums associated with the unexpired coverage for reinsurance contracts held	100
Asset for incurred claims recoverable from assuming reinsurer	500
Cash outflows for funds withheld	100
20% margin on premiums associated with the unexpired coverage, asset for incurred claims recoverable and cash outflows for funds withheld	140
Unregistered reinsurance exposure	**840**
Collateral required to reduce margin required to 0 (100 + 500 + 100) x 120%	840
Premums payable and non-owned deposits	1,000
Funds held	100
Letters of credit	100
Total collateral	**1,200**
Excess collateral (no capital required on this amount) 1,200 – 840	**360**

The amount of excess collateral should be calculated separately for each individual reinsurer and then added together.

Step 2: Reduction in capital required for excess collateral

Using the above example, the ratio of 0.30 (360/1,200) should be applied to the total amount of capital required for collateral, in order to calculate the capital requirement for collateral excluding the excess portion. The calculation is provided in the following table.

	Collateral amount (01)	Risk factor (02)	Total capital required (03) = (01) x (02)	Proportional allocation of excess collateral (04)	Reduction in capital required for excess collateral (05) = (03) x (04)
Letters of credit (AA rating ≤1 year)	$100	0.25%	$0.25		
Non-owned deposits (AAA bonds ≤1 year)	$500	0.25%	$1.25		
Non-owned deposits (AA bonds >1 year ≤5 years)	$500	1.00%	$5.00		
Funds held (demand deposits)	$100	0.25%	$0.25		
Total	**$1,200**		**$6.75**	**0.30**	**$2.03**

The capital requirements for acceptable collateral, less the excess, are reported as part of capital required for credit risk (reference Chapter 6).

Letters of credit

The limit on the use of letters of credit to obtain capital credit for unregistered reinsurance is 30% of reinsurance contracts held assets (the sum of A and B in Section 4.4.2.1). This limit is applied in the aggregate and not against individual reinsurance exposures.

Non-owned deposits from reinsurers received as security

Deposits from reinsurers received under unregistered reinsurance contracts held and that are “not owned” by the reciprocal union, including deposits held in trust on behalf of reinsurers, are not to be reported on the reciprocal union's balance sheet. Details of these deposits must also be reported in the unregistered reinsurance exhibit of the MCT Returns.

Non-owned deposits held as security on behalf of an unregistered reinsurer must be valued at market value as at the end of the statement year, including the amount of investment income due and accrued respecting these deposits.

Funds held as security against unregistered reinsurance

Cash and securities received to secure payment from unregistered reinsurance contracts held that have been co-mingled with the reciprocal union's own funds should be reported on the reciprocal union's balance sheet in the appropriate asset categories and will be subject to the corresponding risk factors. Funds held include the reinsurance premiums withheld by the ceding reciprocal union, as specified in the reinsurance contract held. Details of funds held must be reported in the unregistered reinsurance exhibit of the MCT Returns. The reinsurance contract held must clearly provide that, in the event of the ceding reciprocal union's or reinsurer's insolvency, the funds held must form part of the property of the ceding reciprocal union's general estate.[38]

In order for a ceding reciprocal union to obtain credit for funds held under a funds withheld reinsurance contract held, the contract must not contain any contractual provision that would require payment of funds held to the reinsurer, other than those funds that, together with other forms of acceptable collateral, if any, are in excess of the ceded contract liabilities and the margin required for unregistered reinsurance, before all subject contracts have expired and all claims settled. (e.g., an acceleration clause). Furthermore, the ceding reciprocal union may not provide non-contractual or implicit support, or otherwise create or sustain an expectation that any funds held could be paid to the reinsurer, other than those funds that, together with other forms of acceptable collateral, if any, are in excess of the ceded contract liabilities and the margin required for unregistered reinsurance, before all subject contracts have expired and all claims settled.

4.5 Self-insured retentions

Self-insured retentions (SIRs) represent the portion of a loss that is payable by the policyholder. In some cases, SIRs may be included in the policy declaration or in an endorsement to the policy, stipulating that the policy limit applies in excess of the SIR.

To admit SIRs recoverable for regulatory capital purposes, the AMF must be satisfied with the collectability of recoverables, and may require collateral to ensure collectability. For example, collateral may be required when it is deemed that there is an excessive concentration of SIRs owed by any one debtor.

Letters of credit and other acceptable securities may be used as collateral for SIRs. Collateral used may not be related party obligations of the policyholder (i.e., obligations of the policyholder itself, its parent, or one of its subsidiaries or associates); in such cases, no reduction in capital required is permitted.

Letters of credit for SIRs are considered a direct credit substitute and are subject to a risk factor based on the credit rating of the issuing/confirming bank and the term of the SIR liabilities (subject to the provision for excess guarantees) (reference Section 6.2). Risk factors for collateral other than letters of credit are the same as those applied to similar assets owned by the reciprocal union (reference Chapters 5 and 6).

[38] This requirement only applies to reinsurance contracts held that came into force on or after January 1, 2018, or that have been renewed after that date.

4.6 Earthquake risk exposure

The quantification of earthquake risk exposure for regulatory capital purposes is an integral part of risk insurance assessment. The framework to be used for assessing reciprocal unions' capacity and financial preparedness to meet contractual obligations that may arise from a major earthquake is set out in the sections below.

By definition, the amount of earthquake reserves includes the Earthquake Premium Reserve (EPR) and the Earthquake Reserve Component (ERC) and is added to total capital requirements for the purposes of the MCT as the target capital requirement. The earthquake reserve is to be set using the following formula:

Earthquake Reserves at target level = (EPR + ERC) x 1.25

where:

ERC (Section 4.6.5) = {Earthquake Risk Exposure (Section 4.6.3} - {Financial Resources (Section 4.6.4)}

ERC ≥ 0

In the case where the EPR is not used as part of financial resources to cover the earthquake risk exposure, i.e., the reciprocal union has enough financial resources to cover its earthquake risk exposure without the voluntary reserve, the EPR can be deducted from capital available instead of being added to total capital requirements.

4.6.1 Earthquake exposure data

The data required to run earthquake models go beyond the data traditionally used to rate insurance contracts. As a result, improving data consistency, accuracy and completeness is one area where a reciprocal union's efforts can significantly reduce the uncertainty inherent in earthquake exposure measurement. Access to quality earthquake exposure data facilitates the management of this risk, and in particular through risk transfer, pricing and monitoring against limits as well as catastrophe modeling.

4.6.1.1 Data integrity and verification

A reciprocal union must commit to obtaining consistent, accurate and complete data for the purpose of estimating its exposure to earthquake risk. It needs to understand and place a high priority on the quality of data and its timely collection. Data quality needs to be considered within the context of the assumptions and requirements of the earthquake model(s) used. If necessary, new processes should be put in place to improve data quality.

Responsibilities for the accuracy of data should be clearly defined, both within the reciprocal union and in dealing with outside parties. For example, intermediaries such as brokers and agents are often responsible for data collection. In such a case, the reciprocal union should ensure that data collection meets the reciprocal union's quality standards.

As data quality is often impacted by a trade-off between completeness and accuracy, the reciprocal union should implement a quality control process around data collection and entry, including the adoption of criteria to measure data completeness and accuracy. Processes may include:

- scoring data quality at the time of underwriting;
- conducting remediation of sources providing inadequate data;
- developing and implementing safeguards to prevent or reduce data entry errors;
- investing in technology to improve data quality.

4.6.1.2 Data verification

Reciprocal unions must have processes in place to verify that their database is accurately reflecting all the data received. While the quality of individual risk data is often the key driver of overall data quality, an aggregate analysis and assessment of the overall data quality of a portfolio/group of risks may be the most appropriate approach when the reciprocal union has limited access to the underlying contract processing system.

4.6.1.3 Data limitations

The reciprocal union also needs to understand the data limitations and the scope of possible errors in the data. While complete and explanatory data are the objective, it will be difficult or impossible to achieve this in practice. The reciprocal union must therefore understand the possible impact of data limitations on the results projected by the model and make prudent adjustments to the model estimates.

Data should be subject to periodic review by individuals independent of those responsible for data collection and data quality. While the reciprocal union may use reinsurance brokers for this independent review, this work should extend beyond the regular review of data prior to submission to reinsurers to include a specific report that acknowledges that their work is being done to support the reciprocal union's compliance with this guideline. Although less frequent, external review of the reciprocal union's data management, quality and reporting can add value by providing independent benchmarking.

These reviews should cover the completeness and accuracy of the exposure data as well as the processes applied and the steps taken to achieve the desired quality level. In this regard, documentation of the testing and sign-off from the reviewers should be obtained. Testing, the goal of which should be to reduce errors and erroneous entry and transcription, could include:

- aggregating data by occupancy, type of construction and geocode of insured buildings and reviewing statistics such as the percentage of data with known attributes, the amount of bulk coding and the most frequently observed values;
- comparing year-to-year earthquake exposure changes;
- using historical loss experience to identify specific portfolio coding issues and behaviour against model construction and assumptions;

- running data quality sensitivity tests as a regular part of the portfolio risk analysis process and incorporating them into decision-making.

The portfolio exposure data and model results should be updated as appropriate.

4.6.2 Use of earthquake models

The probable maximum loss (PML) refers to an amount that the total value of losses caused by a potential earthquake is unlikely to exceed, or, put another way, the threshold dollar value of losses beyond which losses caused by a major earthquake are unlikely.

Reciprocal unions with material exposure to earthquake risk are required to use models to estimate their PML. Earthquake models include models licensed from various commercial vendors and maintained in-house or run by third parties on behalf of the reciprocal union or can be an internal estimation technique or model developed by the reciprocal union. Whichever model or estimation technique is used, the methodology chosen by the reciprocal union must meet the AMF's expectations.

Prudent use of catastrophe models to measure earthquake exposure risk is an important component of earthquake exposure risk management due to the high inherent uncertainty associated with catastrophe modeling. It is therefore critical that all users of the output of catastrophe models be aware of this uncertainty and consider using other risk management techniques, such as risk limits, risk transfer and risk avoidance.[39] In this context, references to these alternatives are as important as the guidance on the use of catastrophe models.

4.6.2.1 Use of models

The AMF expects reciprocal unions to utilize sound earthquake models as part of their earthquake exposure management. Considering that the earthquake-related PMLs are derived from a complex set of variables and related assumptions, catastrophe models are an essential tool in providing a systematic approach to such estimates.

However, while earthquake models continue to be refined as new information and data emerge, they still present significant limitations and a high degree of inherent uncertainty. This uncertainty is demonstrated by the material differences observed when model estimates are compared with actual events and with the wide range of results from model to model. Nevertheless, when users appropriately consider model limitations and uncertainties, they provide a valid basis for PML estimation.

4.6.2.2 Sound practices for use

Earthquake models are available through a variety of means. They may be licensed from various commercial vendors and maintained in-house or run by third parties, such as a reinsurance broker, on behalf of the reciprocal union. It is also possible for a reciprocal

[39] For example, by using concentration limits by geography.

union to develop its own model. In any event, in order to ensure that earthquake models are appropriately used, reciprocal unions are expected to:

- adequately document their use, including how the use of earthquake models fits within their earthquake risk management process, including PML estimates and, where applicable, how models are used to monitor exposure accumulations and make underwriting decisions;
- understand current modelling alternatives and why the model used is appropriate for their insurance portfolio;
- have adequately qualified employees or a mandatary to appropriately run the models on a regular basis when earthquake models are used in-house;
- have a sound understanding of the key assumptions, methodologies and limitations underlying the model used, including:
    - how each setting impacts PML estimates. In this regard, reciprocal unions will need to justify, where applicable, why selected assumptions established and recommended in the model have been altered;
    - ability to handle related factors such as demand surge following a catastrophe, earthquake-related fires and business interruption;
    - how changes in portfolio characteristics influence PML variability;
    - modelled losses versus non-modelled losses;
- understand inherent model uncertainty and how this is addressed in determining capital adequacy and related reinsurance arrangements;
- ensure that the data and data granularity are appropriate for the model;
- be able, when more than one model is used and they produce materially different results, to explain the key reasons for the differences and their efforts to carry out the necessary adjustments, if any, to the parameterization of the particular model chosen as the basis for PML.

4.6.2.3 Model versions

While the use of an earthquake model is important, it represents only one element in a reciprocal union's risk management framework for earthquake exposure. While models continue to be refined, they retain inherent uncertainty. To better assess this uncertainty, reciprocal unions should consider the use of more than one model.

Reciprocal unions should implement material updates to commercially available models in a timely manner. More specifically, it is expected that within one year of the release of any material change in a model, the revised model will be used, or an explanation provided otherwise. Reciprocal unions are to identify in their documentation the model and version they are using.

When using vendor software to determine its PML, it is important for a reciprocal union to understand the model as well as its purpose, functionalities and limitations. The model documentation should provide sufficient detail to understand the mathematical basis, model methodology, parameters, limitations and specific reciprocal union modelling refinements and changes used.

Where an earthquake model has been developed in-house, it is expected to be updated on a regular basis and periodically tested for functionality and reasonableness of results against other commercially available models.

4.6.2.4 Model validation

Model validation provides important information on the performance of models.

An important element of this process is to ensure that the model properly captures risks based upon actual events. This analysis should demonstrate that, over a sufficient historical period, the model-based measurement of capital is consistent with actual losses.

To the extent that insufficient data exist to validate the model, an alternative solution should be found and developed to carry out a prudent and suitable validation of the model. For example, the reciprocal union could compare major historical earthquake events with the losses produced by similar events in the model and assess any divergences. Given the limited number of earthquakes in Québec and more broadly in Canada, it may be helpful to consider the lessons learned from earthquake events in other parts of the world.

The reciprocal union could also compare the cost of modelled tail losses with market prices for equivalent reinsurance coverage. This test is not a validation of the model per se but, rather, may serve as a starting point for further investigation. An outcome might be that the risk is treated more conservatively by the market than the model would show.

The adjustments and refinements of model parameters, including loadings for non-modelled risks and costs, should be robust and be reflected in the model validation.

As well, the model validation process should be well documented, and should clearly identify any limitations of the model or the data. As necessary, material deficiencies and major shortcomings should be indicated and should be discussed in terms of mitigation.

4.6.3 Measurement of earthquake risk exposure

Gross PML, which is the PML amount **after** deductibles but **before** catastrophic and other reinsurance protection, is used for calculating earthquake risk exposure for regulatory purposes. In this section, PML refers to a dollar amount that includes adjustments for data quality, non-modelled exposures and model uncertainty.[40]

While models are an essential tool for assisting reciprocal unions in the management of their earthquake exposures, they are limited in their capabilities. This creates a significant

[40] The PML amount corresponds to the worldwide exposure.

degree of uncertainty in their results. As such, while reciprocal unions are required to develop PML estimates in accordance with this principle, they are also encouraged to consider other exposure limitation techniques, such as concentration limits by geography and restrictions regarding building occupancy and construction type.

4.6.3.1 Model approach

Data quality

The reciprocal union needs to understand the possible impact of data limitations on the results projected by a model and to make prudent adjustments to the model estimates. While upward PML adjustments may be necessary for offsetting some data shortcomings, it should be understood that a large adjustment to the PML for overcoming such a deficiency is not a substitute for appropriate quality data capture and processing at source.

Non-modelled exposures and risks

Many risks cannot be adequately considered, or are difficult to adequately consider, within an earthquake model. Accordingly, the AMF expects reciprocal unions to take an inventory of exposures and risks relevant to their business and identify those that are not included in the model used. These non-modelled exposures and risks may include:

- exposure growth between the date of the data and the end of the relevant period of exposure;
- business interruption;
- other insurance classes, such as automobile and marine insurance;
- claims settlement expenses;
- insufficient insurance;
- guaranteed replacement costs;
- increased risk of seismic shock after a major earthquake;
- blanket coverage and coverage extensions or clauses, such as debris removal.

These exposures and risk factors may be relatively small individually, however, their accumulation may be significant and need to be considered as part of a reciprocal union's PML.

Model uncertainty

Models calculate PML by converting, from a given location, estimates of ground motion to damage levels, leading to secondary uncertainty. Most vendor models now automatically recognize this uncertainty in generating results. There are other factors and sets of assumptions in the earthquake models that are in a continuous process of being updated and refined. When considering its PML as estimated by the model as a measure of the potential financial impact of an earthquake on the reciprocal union, the reciprocal union

needs to consider factoring in a margin of safety to reflect the uncertainty of these additional assumptions.

Exposure to multiple regions

PMLs have historically and to date been based on the larger of the PMLs for British Columbia or Québec, the two provinces with the greatest exposure to earthquake risk, to ensure compliance with capital requirements. Although this approach is acceptable for reciprocal union s operating in only one of these provinces, it ignores earthquake exposure elsewhere, which can have a material impact on the modelled tail losses. The traditional approach could therefore understate the PML for reciprocal union s. The AMF therefore expects reciprocal unions to take account of risk which may result from exposure to more than one region.

Calculation of exposure

The AMF expects reciprocal unions to meet a test of financial preparedness for a 500 year return period country-wide earthquake event. This requirement can be determined as follows:

$$\text{Country-wide PML500} = (\text{East Canada PML500}^{1.5} + \text{West Canada PML500}^{1.5}$$

where:

- *East Canada PML500* refers to a one in 500 year Eastern Canada event, which represents the 99.8th percentile of the exceeding probability curve plus appropriate adjustments for data quality, model uncertainty, non-modelled business, etc., using exceeding probability curves based only on earthquake risk exposure in Eastern Canada;
- *West Canada PML500* refers to a one in 500 year Western Canada event, which represents the 99.8th percentile of the exceeding probability curve plus appropriate adjustments for data quality, model uncertainty, non-modelled business, etc., using exceeding probability curves based only on earthquake risk exposure in Western Canada.

4.6.3.2 Standard approach

Reciprocal unions should use the standard formula for calculating their PML if:

- the reciprocal union does not use an earthquake model for calculating its PML; or
- an earthquake risk exposure estimation technique or model is not to the AMF's satisfaction.

The standard formula is therefore defined as:

$$\text{Country-wide PML} = \text{MAX (East Canada PTIV, West Canada PTIV)}$$

where:

PTIV: is the property total insured value for earthquake risk exposure after applicable policyholder deductibles, which includes building, contents, outbuildings, additional living expenses and business interruption.

4.6.4 Financial resources

A reciprocal union must have adequate financial resources to cover its earthquake risk exposure calculated in Section 4.6.3. Financial resources that can be used to support the reciprocal union's earthquake risk exposure include:

- capital and surplus:
  - Reciprocal unions can count up to a maximum of 10% of capital and surplus as part of their financial resources to cover their earthquake risk exposure. This maximum limit is subject to the AMF's discretion and can be lowered to an amount less than 10% of capital and surplus.
  - The amount of capital and surplus corresponds to a maximum of 10% of total equity as at the end of the reporting period being filed.
- earthquake premium reserve:
  - The earthquake premium reserve (EPR) is the voluntary accumulation of earthquake premiums. This amount must not exceed the country-wide PML500.
  - In the case where the earthquake coverage premium is implicitly included in an overall contract premium, the reciprocal union should be able to demonstrate the reasonableness of the premium allocation specifically attributed to earthquake coverage. As an example, in the case of catastrophic reinsurance coverage not specific to earthquake risk, an allocation of the premium amount must be made and the reasonableness of the reinsurer's premium allocation must be demonstrated.
  - Any earthquake premium contributed to the EPR must remain in the EPR unless there is a material decrease in the exposure. The AMF reserves the right to require information on any decrease in the ERC.
  - Should an earthquake occur and trigger claims, reciprocal unions would establish an incurred claims provision including claims adjustment expenses. The EPR component would be reduced by an amount equal to this provision.
  - Any reduction in the EPR should be brought back into unappropriated surplus immediately.
  - The EPR is a component of the reserves amount reported on the balance sheet.

- reinsurance coverage:

  - While most reciprocal union s will use a catastrophe reinsurance treaty, other reinsurance, such as a surplus, quota share or excess of loss (per risk or aggregate) treaty may provide substantial coverage for some reciprocal unions. When a reciprocal union includes non-catastrophe reinsurance in its determination of available financial resources, it needs to be prepared to demonstrate that it has appropriately considered per event limits and other circumstances, terms and conditions that could exhaust coverage provided by these other types of reinsurance. In the case of whole account excess of loss reinsurance, reciprocal unions may need to use a full stochastic model.
  - The estimated reinsurance coverage available should be based on reinsurance contracts held in force on the day immediately following the end of the financial reporting period and should be equal to an amount of reinsurance collectable for a loss of the size of the PML, net of retention (e.g., contracts in force on July 1 for MCT calculations as on June 30).

- capital market financing:

  - A reciprocal union can enter into innovative financing transactions designed to hedge its risk for a catastrophic event. In some cases, these are standby capital market financing facilities that become operative when a catastrophe occurs. Prior supervisory approval from the AMF is required before these instruments can be recognized as a financial resource in the calculation of the earthquake risk formula.

4.6.5 Earthquake reserve component

The earthquake reserve component (ERC) is an additional component used to cover a reciprocal union's earthquake risk exposure not covered by the financial resources. The formula to compute the ERC is as follows:

ERC = Country-wide PML500 - capital and surplus - reinsurance coverage - capital market financing - EPR

- Should an earthquake occur and trigger claims, reciprocal unions would establish an incurred claims provision including unpaid claims adjustment expenses. The ERC component would be reduced after the EPR, by an amount equal to this provision.
- Any reduction in the ERC should be brought back into unappropriated surplus immediately.
- The ERC is a component of the reserves amount reported on the balance sheet.

4.7 Other classes

Mortgage insurance

Consult the AMF.

Chapter 5. Market risk

Market risk arises from potential changes in rates or prices in various markets such as for interest rates, foreign exchange rates, equities, real estate, and other market risk exposures. Exposure to this risk results from trading, investing, and other business activities, which create on- and off-balance sheet positions.

Investments in mutual funds or other similar assets must be broken down by type of investment (bonds, preferred shares, common shares, etc.) and assigned the appropriate risk factor relating to the investment. If the information available on an investment is not broken down, then the factor of the riskiest asset held in the fund is assigned to the entire investment.

5.1 Interest rate risk

Interest rate risk represents the risk of economic loss resulting from market changes in interest rates and the impact on interest rate sensitive assets and liabilities. Interest rate risk arises due to the volatility and uncertainty of future interest rates.

Assets and liabilities whose value depends on interest rates are affected. Interest rate sensitive assets include fixed income assets. Interest rate sensitive liabilities include those for which the values are determined using a discount rate.

To compute the interest rate risk margin, a duration and an interest rate shock factor are applied to the fair value of interest rate sensitive assets and liabilities. The interest rate risk margin is the difference between the change in the value of interest rate sensitive assets and the change in the value of interest rate sensitive liabilities, taking into account the change in the value of recognized interest rate derivative contracts, as appropriate.

The components used to calculate the interest rate risk margin are as follows.

5.1.1 Interest rate sensitive assets

The interest rate sensitive assets to be included in the calculation of the interest rate margin requirement are those for which their fair value will change with movements in interest rates. Although certain assets, for example loans and bonds held to maturity, may be reported on the balance sheet on an amortized cost basis, their economic value, and changes in that value, are to be considered for interest rate risk margin purposes. Interest rate sensitive assets include the following:

- term deposits and other similar short-term securities (excluding cash);
- bonds and debentures;
- commercial paper;
- loans;
- mortgages (residential and commercial);
- mortgage-backed and asset-backed securities (MBS and ABS);

- preferred shares;
- interest rate derivatives held for other than hedging purposes;
- insurance contracts assets;
- reinsurance contracts held assets.

Assets in mutual funds and other similar assets that are interest rate sensitive are to be included in the determination of the fair value of the reciprocal union's total interest rate sensitive assets.

Other assets, such as cash, investment income due and accrued, common shares and investment properties, are not to be included in the determination of the value of interest rate sensitive assets. Such assets are assumed for interest rate risk margin determination purposes to be insensitive to movements in interest rates.

5.1.2 Interest rate sensitive liabilities

The interest rate sensitive liabilities to be included in the calculation of the interest rate risk margin are those for which their fair value will change with movements in interest rates. The following liabilities are considered sensitive to interest rates and are to be included:

- insurance contracts liabilities for incurred claims;
- insurance contracts liabilities for remaining coverage;
- reinsurance contracts held liabilities.

The reciprocal union must obtain the AMF's approval in order to consider other liabilities in the calculation of the interest rate risk margin.

5.1.3 Allowable interest rate derivatives

Interest rate derivatives are those for which the cash flows are dependent on future interest rates. They may be used to hedge a reciprocal union's interest rate risk and as such may be recognized in the determination of the margin required for interest rate risk, subject to the conditions below.

Only plain-vanilla interest rate derivatives that clearly serve to offset fair value changes in a reciprocal union's capital position due to changes in interest rates may be included in the interest rate risk calculation. Plain-vanilla interest rate derivative instruments are limited to the following:

- interest rate and bond futures;
- interest rate and bond forwards;
- single-currency interest rate swaps.

Other interest rate derivatives, including interest rate options, caps and floors are not considered plain-vanilla and may not be recognized in the determination of the interest rate risk margin.

Reciprocal unions must understand the interest rate hedging strategies that they have in place and be able to demonstrate to the AMF, upon request, that the underlying hedges decrease interest rate risk exposure and that the addition of such derivatives does not result in overall increased risk. For example, reciprocal unions are expected to be able to demonstrate that they have defined the hedging objectives, the class of risk being hedged, the nature of the risk being hedged and the hedge horizon and have considered other factors, such as the cost and liquidity of hedging instruments. In addition, the ability to demonstrate an assessment, retrospectively or prospectively, of the performance of the hedge would be appropriate. If the reciprocal union cannot demonstrate that the derivatives result in decreased overall risk, then additional capital may be required. Reciprocal unions that are in this situation should contact the AMF for details.

Derivatives used for hedging a reciprocal union's interest rate risk are subject to credit risk requirements. Refer to Section 6.2 for further details.

5.1.4 Duration of interest rate sensitive assets and liabilities

Reciprocal unions are required to calculate the duration of the interest rate sensitive assets and liabilities for the purpose of the interest rate risk capital requirement calculation. The duration of an asset or a liability is a measure of the sensitivity of the value of the asset or liability to changes in interest rates.[41] [42] More precisely, it is the percentage change in an asset or liability value given a change in interest rates.

The calculation of duration for an asset or liability will depend on the duration measure chosen and whether the cash flows of the asset or liability are themselves dependent on interest rates. Modified duration is a duration measure in which it is assumed that interest rate changes do not change the expected cash flows. Effective duration is a duration measure in which recognition is given to the fact that interest rate changes may change the expected cash flows.

A reciprocal union may use either modified duration or effective duration to calculate the duration of its assets and liabilities. However, the duration methodology chosen should apply to all interest rate sensitive assets and liabilities under consideration and the same methodology must be used consistently from year to year (i.e., "cherry-picking" is not permitted).

The cash flows associated with interest rate derivatives are sensitive to changes in interest rates and therefore the duration of an interest rate derivative must be determined using effective duration. In particular, if a reciprocal union has interest rate derivatives on its

41 An asset or liability for which future cash flows are not adjusted to reflect the time value of money has a duration of zero.

42 The duration of the LRC is a weighted average of its components including the CSM. Under the GMM approach, the CSM component of the LRC is normally insensitive to interest rates. As a result, the duration of the CSM is zero.

balance sheet that lie within the scope of Section 5.1.3, then it must use effective duration for all of its interest rate sensitive assets and liabilities.

The portfolio duration (modified or effective) can be obtained by calculating the weighted average of the duration of the assets or the liabilities in the portfolio.

The dollar duration of an asset or liability is the change in dollar value of an asset or liability for a given change in interest rates.

5.1.4.1 Modified duration

Modified duration is defined as the approximate percentage change in the present value of cash flows for a 100 basis point change in the annually compounded yield rate, assuming that expected cash flows do not change when interest rates change.

Modified duration can be written as:

$$\text{Modified duration} = \frac{1}{(1+\text{yield}/k)} \times \frac{\sum t \times PVCF_t}{k \times \text{Market Value}}$$

where:

k: number of periods, or payments, per year (e.g., k = 2 for semi-annual payments and k = 12 for monthly payments)

yield: periodically compounded yield to maturity of the cash flows

$PVCF_t$: present value of the cash flow at time t discounted at the yield rate

5.1.4.2 Effective duration

Effective duration is a duration measure in which recognition is given to the fact that interest rate changes may change the expected cash flows. Although modified duration will give the same estimate of the percentage fair value change for an option-free series of cash flows, the more appropriate measure for any series of cash flows with an embedded option is effective duration.

Effective duration is determined as follows:

$$\text{Effective duration} = \frac{\text{fair value if yields decline} - \text{fair value if yields increase}}{2 \times (\text{initial price}) \times (\text{change in yield in decimal})}$$

Denoting:

Δy: change in yield in decimal

V_0: initial fair value

V_-: fair value if yields decline by Δy

V_+: fair value if yields increase by Δy

Then, effective duration is as follows:

$$\frac{V_- - V_+}{2 \times (V_0) \times (\Delta y)}$$

5.1.4.3 Portfolio duration

The duration of a portfolio of interest rate sensitive assets or liabilities is to be determined by calculating the weighted average of the duration of the assets or liabilities in the portfolio. The weight is the proportion of the portfolio that a security comprises. Mathematically, a portfolio's duration is calculated as follows:

$$w_1D_1 + w_2D_2 + w3D3 + \ldots + w_KD_K$$

where:

w_i: fair value of security i / fair value of the portfolio

D_i: duration of security i

K: number of securities in the portfolio

5.1.4.4 Dollar fair value change

Modified and effective duration are related to percentage fair value changes. The interest rate risk capital requirements depend on determining the adjustment to the fair value of interest rate sensitive assets and liabilities for dollar fair value changes. The dollar fair value change can be measured by multiplying duration by the dollar fair value and the number of basis points (in decimal form). In other words:

Dollar fair value change = Dollar fair value change = duration x dollar fair value x interest rate change (in decimal)

5.1.5 Duration of allowable interest rate derivatives

Effective duration is the appropriate measure that should be used when assets or liabilities have embedded options. For portfolios with eligible plain-vanilla interest rate derivatives, reciprocal unions should be using effective dollar duration[43] because they are hedging the dollar interest rate risk exposure.

[43] Effective dollar duration is the fair value change in dollars for a unit change in the yield (per one percentage point or per one basis point).

Example 5-1: Effective dollar duration of a swap

Assuming a reciprocal union has a longer duration for its interest rate sensitive assets and a shorter duration for its interest rate sensitive liabilities, the current dollar duration position of the reciprocal union, prior to taking into consideration any interest rate derivatives, is effectively as follows:

Effective dollar duration of the reciprocal union	=	dollar duration of assets – dollar duration of liabilities	> 0

The reciprocal union enters into a single-currency interest rate swap in which it pays fixed-rate and receives floating-rate. The dollar duration of a swap for a fixed-rate payer can be broken down as follows:

Effective dollar duration of a swap for a fixed-rate payer	=	effective dollar duration of a floating-rate bond – effective dollar duration of a fixed-rate bond

Assuming the dollar duration of the floater is near zero, then:

Effective dollar duration of a swap for a fixed-rate payer	=	0-effective dollar duration of a fixed-rate bond

The dollar duration of the swap position is negative; therefore, adding the swap position reduces the reciprocal union's dollar duration of assets and moves the reciprocal union's overall dollar duration position closer to zero.

5.1.6 Interest rate risk margin

The interest rate risk margin is determined by measuring the economic impact on the reciprocal union of a Δy change in interest rates. The Δy interest rate shock factor is 1.25% ($\Delta y = 0.0125$).

(A) The estimated change in the interest sensitive asset portfolio for an interest rate increase of Δy is determined as follows:

Dollar fair value change of the interest rate sensitive asset portfolio	=	(Duration of interest rate sensitive asset portfolio) x Δy x (Fair value of interest rate sensitive asset portfolio)

(B) The change in the interest rate sensitive liabilities for an interest rate increase of Δy is determined as follows:

Dollar fair value change of the interest rate sensitive liabilities	=	(Duration of interest rate sensitive liabilities) x Δy x (Fair value of interest rate sensitive liabilities)

(C) The change in the allowable interest rate derivatives for an interest rate increase of Δy is determined as follows:

Effective dollar duration of the allowable interest rate derivatives portfolio	=	Sum of the effective dollar duration of the allowable interest rate derivatives for a Δy increase in interest rates

(D) The capital requirement for an interest rate increase of Δy is determined as the greater of zero and A - B + C.

(E) Steps A through C are repeated for an interest rate decrease of Δy (i.e., $-\Delta y$) and the capital requirement for an interest rate decrease of Δy is the greater of zero and A - B + C.

(F) The interest rate risk margin is then determined as the maximum of D or E.

5.2 Foreign exchange risk

The foreign exchange risk margin is intended to cover the risk of loss resulting from fluctuations in currency exchange rates and is applied to the entire business activity of the reciprocal union.

5.2.1 General requirements

Two steps are necessary to calculate the foreign exchange risk margin. The first is to measure the exposure in each currency position. The second is to calculate the capital requirement for the portfolio of positions in different currencies.

The foreign exchange risk margin is 10% of the greater of:

- the aggregate net long positions in each currency, adjusted by effective allowable foreign exchange rate hedges if any are used;
- the aggregate net short positions in each currency, adjusted by effective allowable foreign exchange rate hedges if any are used.

Effective allowable foreign exchange rate hedges are limited to plain-vanilla foreign currency derivatives such as futures and forward foreign currency contracts and currency swaps.

Assets in mutual funds and other similar assets that are denominated in a foreign currency are to be included in the calculation to determine the capital requirement for each currency position. In cases where a claim liability is recorded in Canadian dollars but the settlement of the claim will be made in a foreign currency, the liability must be included in the foreign exchange risk margin.

5.2.2 Foreign exchange risk margin

Step 1: Measuring the exposure in a single currency

The net open position for each currency is calculated by summing:

- the net spot position, defined as all asset items less all liability items denominated in the currency under consideration, including accrued interest and accrued expenses if they are subject to exchange rate fluctuations;
- the net forward position (i.e., all net amounts under forward foreign exchange transactions, including currency futures and the principal on currency swaps), valued at current spot market exchange rates or discounted using current interest rates and translated at current spot rates;
- guarantees (and similar instruments) that are certain to be called and are likely to be irrecoverable;
- net future income/expenses not yet accrued but already fully hedged (at the discretion of the reporting institution); and
- any other item representing a profit or loss in foreign currencies.

Adjustments

For reciprocal unions with foreign operations, those items that are currently deducted from capital available in calculating the MCT ratio and are denominated in the corresponding currency may be excluded from the calculation of net open currency positions, to a maximum of zero.

For example:

- goodwill and other intangibles;
- interests in non-qualifying subsidiaries, associates and joint ventures;
- non-allowable foreign exchange rate hedges that are not considered in capital available.

Carve-out

A reciprocal union with a net open long position in a given currency may reduce the amount of the net exposure, to a maximum of zero, by the amount of a carve-out, which is equivalent to a short position of up to 25% of the liabilities denominated in the corresponding currency.

Step 2: Calculating the capital requirement for the portfolio

The nominal amount (or net present value) of the net open position in each foreign currency calculated in Step 1 is converted at a spot rate into Canadian dollars. The gross capital requirement is 10% of the overall net open position, calculated as the greater of:

- the sum of the net open long positions; and
- the absolute value of the sum of the net open short positions.

Example 5-2

A reciprocal union has $100 of assets and $50 of liabilities and the spot exchange rate is 1.000.

- the net spot position, defined as assets less liabilities, is a long position of $50;
- the carve-out, using 25% of liabilities, is:

  = 25% x $50

  = $12.50
- therefore, the foreign exchange risk margin is:

  = 10% x MAX[44] ((net spot position - carve-out), 0)

  = 10% x MAX (($50 – $12.50), 0)

  = 10% x $37.50

  = $3.75

5.2.2.1 Allowable foreign currency hedges

Foreign currency derivatives are those for which the cash flows are dependent on future foreign exchange rates. They may be used to hedge a reciprocal union's foreign exchange risk and as such, may be recognized in the determination of the capital requirement for foreign exchange risk, subject to the following requirements.

Only effective hedges that offset the changes in fair value of the hedged item may be included in the foreign exchange risk calculation. The reciprocal union must be able to demonstrate to the AMF the effectiveness of its foreign exchange hedges.

Reciprocal unions with foreign currency derivatives on their balance sheet must be able to demonstrate that the addition of such derivatives does not result in increased risk. If they cannot demonstrate that the derivatives do not result in increased risk, then the AMF may require additional capital.

Only plain-vanilla foreign currency derivatives may be recognized in the calculation of the foreign exchange capital requirement. Plain-vanilla foreign currency derivative instruments are limited to the following:

- futures foreign currency contracts;

[44] The carve-out can be used to reduce the net open long currency position to a minimum of zero.

- forward foreign currency contracts;
- currency swaps.

Other foreign currency derivatives, including options on foreign currencies, are not considered plain-vanilla and are not to be recognized in the determination of the foreign exchange risk margin.

Derivatives used for hedging a reciprocal union's foreign exchange risk are subject to credit risk requirements. Refer to Section 6.2 for further details.

5.2.2.2 Measurement of forward currency positions

Forward currency positions should be valued at current spot market exchange rates. It would not be appropriate to use forward exchange rates since they partly reflect current interest rate differentials. Reciprocal unions that base their normal management accounting on net present values are expected to use the net present values of each position, discounted using current interest rates and translated at current spot rates, for measuring their forward currency positions.

5.2.2.3 Accrued and unearned interest income and expenses

Accrued interest, accrued income and accrued expenses should be treated as a position if they are subject to exchange rate fluctuations. Unearned but expected future interest, income or expenses may be included, provided the amounts are certain and have been fully hedged by allowable forward foreign exchange contracts. Reciprocal unions must be consistent in their treatment of unearned interest, income and expenses and must have written policies covering the treatment. The selection of positions that are only beneficial to reducing the overall position will not be permitted for capital purposes.

5.2.2.4 Unregistered reinsurance

A separate component calculation must be performed for each group of liabilities ceded to a reinsurer under an unregistered reinsurance contract held that is backed by a distinct pool of assets, where the defining characteristic of the pool is that any asset in the pool is available to pay any of the corresponding liabilities.

Each calculation should take into consideration the ceded liabilities, the assets supporting them, and deposits placed by the reinsurer to cover the capital requirement for the ceded liabilities, if the deposits are in a currency different from the currency in which the ceded liabilities are payable to policyholders.

If some of the assets supporting the liabilities ceded under an unregistered reinsurance contract held are held by the ceding reciprocal union (e.g., funds held), the reciprocal union's corresponding liability should be treated as an asset in the calculation of the open positions for the ceded business.

Excess deposits placed by an unregistered reinsurer within a pool of supporting assets may be used to reduce the foreign exchange risk requirement for the corresponding ceded

business to a minimum of zero. Any requirements not covered by excess deposits must be added to the ceding reciprocal union's own requirement.

5.3 Equity risk

Equity risk is the risk of economic loss due to fluctuations in the value of common shares and other equity securities.

5.3.1 Common shares and joint ventures

A 30% risk factor applies to investments in common shares and joint ventures in which a reciprocal union holds less than or equal to 10% ownership interest.

5.3.2 Futures, forwards and swaps

Equity futures, forwards, and swaps attract a 30% risk factor, which is applied to the market value of the underlying equity security or index. Where a swap exchanges a return on an equity security or index for a return on a different equity security or index, a 30% risk factor applies to the market value of both equity securities and indices for which the returns are being exchanged.

Example 5-3

A reciprocal union has entered into a one-year swap during which it will pay the 3-month Canadian Dollar Offered Rate (CDOR) plus fees, and receive the total return on a notional index of equities that was worth $100 at the time of inception. The index of equities is currently worth $110. A 30% equity risk capital charge will apply to $110 for the long position in the index, but no capital will be required on the short position in the bond because such a position is not subject to a capital charge.

In addition to the capital requirements set out in this section, futures, forwards, and swaps are subject to credit risk requirements. Refer to Section 6.2 for further details.

5.3.3 Short positions

The capital requirements for short positions in common shares, equity futures, forwards, and swaps that do not wholly or partially offset a long equity position are determined by assuming the instrument is held long and then applying the corresponding risk factor. Common shares, futures, forwards, and swaps eligible for offset recognition and the corresponding capital treatment are described in Section 5.3.4.

5.3.4 Recognition of equity hedges

Equity futures, forwards, and swaps, as well as common shares can be used to wholly or partially hedge an equity exposure. Reciprocal unions may recognize qualifying equity hedges in the calculation of the capital requirements in accordance with Sections 5.3.4.1 and 5.3.4.2.

Reciprocal unions must document the equity hedging strategies employed and demonstrate that the hedging strategies decrease the overall risk. The documentation must be available for review, upon request. If the reciprocal union cannot demonstrate, to the AMF's satisfaction, that the hedging strategies result in decreased overall risk, then additional capital above that calculated per Sections 5.3.4.1 and 5.3.4.2 may be required, at the discretion of the AMF.[45]

For hedges to qualify, the instruments which make them up must be issued by an entity that:

- issues obligations which attract a 0% factor under Section 6.1.3; or
- is rated A- or higher (including clearing houses rated A- or higher).

5.3.4.1 Identical equity securities or indices

Long and short positions in exactly the same underlying equity security or index may be considered to be offsetting so that the capital requirements are calculated for the net exposure only. Individual instruments of portfolios that qualify for the capital treatment under Section 5.3.4.2 cannot be carved out of the portfolios to receive the capital treatment of Section 5.3.4.1.

Only common shares and plain-vanilla equity futures, forwards, and swaps can obtain the capital treatment under this section. Options and other exotic equity derivatives do not qualify for this treatment.[46]

5.3.4.2 Closely linked equity securities or indices

A portfolio of common shares and equity futures, forwards, and swaps can be used to partially hedge the equity exposure of another portfolio of similar instruments. When the instruments contained in both portfolios are closely linked, instead of following the capital requirements set out in Sections 5.3.1, 5.3.2, and 5.3.3, reciprocal unions may calculate the capital requirements for the combined portfolios in the following manner:

(1- Correlation Factor) x 1.5 × MIN (market value of the portfolio of hedging instruments, market value of the portfolio of instruments being hedged)

The capital requirements set out above are capped at 60% of the minimum market value of both portfolios.

The difference between the market value of the two portfolios is not considered a hedged position and is subject to a 30% risk factor.

[45] A reciprocal union may contact the AMF to discuss the adequacy of its documentation and/or risk assessment to assess the likelihood or amount of potential additional capital that may be required.

[46] An example of an exotic derivative would be one that has a discontinuous payoff structure.

The Correlation Factor (CF) is derived by using:

$$CF = A \times (B/C)$$

where:

A: represents the historical correlation between the returns on the portfolio of instruments being hedged and the returns on the portfolio of hedging instruments

B: represents the minimum of (standard deviation of returns on the portfolio of instruments being hedged, standard deviation of returns on the portfolio of hedging instruments)

C: represents the maximum of (standard deviation of returns on the portfolio of instruments being hedged, standard deviation of returns on the portfolio of hedging instruments)

The historical correlations and standard deviations must be calculated on a weekly basis, covering the previous 52-week period. The returns on each portfolio of hedging instruments used to calculate the components of the CF must be determined by assuming that the portfolio is held long. The returns on each portfolio must be measured net of additional capital injections, and must include the returns on each component of the portfolio. For example, the returns on both the long and short legs of a total return swap included in a portfolio must be reflected in the calculation of the CF.

The CF for the previous 52 weeks is required to be calculated for each of the past four quarters. The correlation factor is the lowest of the four CFs calculated and is used to calculate capital requirements.

In order for the portfolios to obtain the capital treatment set out in this section, the following conditions must be met:

- the instruments in both portfolios are limited to exchange-traded common shares, and plain-vanilla equity futures, forwards, and swaps where the underlying asset is an exchange-traded common share or an equity index. Options and other exotic equity derivatives do not qualify for this treatment. Portfolios that contain instruments other than those specified in this section will be subject to the capital treatment under Sections 5.3.1, 5.3.2, and 5.3.3;
- the CF is determined at the portfolio level. Individual instruments cannot be carved out of the portfolios and receive the capital treatment as per Section 5.3.4.1;
- the portfolios that are part of a hedging strategy must have been established at least two years prior to the reporting date. In addition, the hedging strategy and the active management strategy on which both portfolios are based must not have changed in the past two years prior to the reporting date.[47] Portfolios that have been established

[47] For the purposes of this section, the hedging strategy and active management strategy together are deemed to be unchanged if the ex-ante equity risk profile of the combined portfolios is maintained. For

for at least two years but have undergone a change in the hedging strategy or active management strategy will attract a 30% risk factor.

Example 5-4

Suppose a portfolio of instruments is valued at $200 and is paired with another portfolio of instruments as part of a qualifying equity hedge. Assuming that the second portfolio is worth $190 and that the correlation factor between the two portfolios is 0.95, the total capital charge for both portfolios will be $190 x 5% x 1.5 + $10 x 30% = $17.25.

Portfolios recently established

Portfolios that were established less than two years prior to the reporting date attract the following capital treatment:

- no recognition of the equity hedge in the first year following the establishment of the portfolios (i.e., a 30% factor is applied to both portfolios); and
- in the second year, the sum of:
  - T x capital requirements for the combined portfolios using the correlation factor approach described in this section[48]; and
  - (1-T) x capital requirements without recognition (as set out above).

  where T equals 20%, 40%, 60%, and 80% in the first, second, third, and fourth quarter, respectively, of the second year following the establishment of the portfolios.

Example 5-5

Two portfolios (as part of an equity hedge), each equal to $100, are established on April 1, 2016. On March 31, 2017, the capital charge for both portfolios will be (30% x $100 + 30% x $100) = $60. On June 30, 2017, assuming that the Correlation Factor is 0.90, the combined portfolios will be subject to a capital charge of (20% × 10% x 1.5 x $100 + 80% x 30% x 2 x $100) = $51.

5.4 Real estate risk

Real estate risk is the risk of economic loss due to changes in the value of a property or in the amount and timing of cash flows from investments in real estate.

example, the ex-ante equity risk profile is maintained if the combined beta is continuously targeted to be 0 (the hedging strategy), and if instrument selection is continuously based on the price-earnings ratio (the active management strategy).

48 For the purposes of this calculation, the CF must be determined based on actual portfolio returns (i.e., portfolio returns up to the reporting date). Projected (simulated) returns cannot be used. The CF must be determined as the lowest of available 52 week CF given the actual history of portfolio returns. During the second year, the number of available 52 week CF will increase from one to four as time elapses.

Risk factor	Real estate
10%	Owner-occupied properties
20%	Held for investment purposes

For owner-occupied properties, the risk factor is applied to the value using the cost model, excluding any unrealized fair value gains (losses) resulting from the conversion to IFRS, or subsequent unrealized fair value gains (losses) due to revaluation.

5.5 Right-of-use assets

The risks associated with right-of-use assets are related to fluctuating market lease rates and contingent changes in the amount and timing of cash flows arising from early cancellation penalties and the costs associated with renegotiating or finding a new lease.

A 10% risk factor is applied to right-of-use assets, determined in accordance with applicable accounting principles and associated with leased properties occupied by the reciprocal union and with leased assets that fall into the “Other assets” category, for example, equipment.

A 20% risk factor is applied to right-of-use assets, determined in accordance with applicable accounting principles and associated with leases on properties used for investment purposes.

5.6 Other market risk exposures

Other market risk exposures include assets that fall into the “Other assets” category, for example, equipment, that are exposed to asset value fluctuations that may result in the value realized upon disposal being less than the balance sheet carrying value. A 10% risk factor applies to other assets as part of the total capital requirements for market risk.

Chapter 6. Credit risk

Credit risk is the risk of loss arising from a counterparty's potential inability or unwillingness to fully meet its contractual obligations due to the reciprocal union. Exposure to this risk occurs any time funds are extended, committed, or invested through actual or implied contractual agreements. Components of credit risk include loan loss/principal risk, pre-settlement/replacement risk and settlement risk. Counterparties covered by this guideline include issuers, debtors, borrowers, brokers, policyholders, reinsurers and guarantors.

All on- and off-balance sheet exposures are subject to a specific risk factor that either:

- corresponds to the external credit rating of the counterparty or issuer; or
- represents a prescribed factor determined by the AMF.

To determine the capital requirements for balance sheet assets, factors are applied to the balance sheet values or other specified values of these assets. To determine the capital requirements for off-balance sheet exposures, factors are applied to the exposure amounts determined according to Section 6.2. Collateral and other forms of credit risk mitigators may be used to reduce the exposure. No risk factors are applied to assets deducted from capital available (reference Section 3.3.1). The resulting amounts are summed to arrive at the credit risk capital requirements.

6.1 Capital requirements for balance sheet assets

For the purpose of calculating the capital requirements for credit risk, balance sheet assets should be valued at their balance sheet carrying amounts, with the following exceptions:

- loans carried at fair value through profit or loss, or through other comprehensive income, or fair value hedge accounting, which should be valued at amortized cost;
- the balance sheet values must be gross of IFRS 9 Stage 1 and Stage 2 impairment amounts;
- off-balance sheet exposures, which should be valued in accordance with Section 6.2.

6.1.1 Use of ratings

Many of the risk factors in this guideline depend on the external credit rating assigned to an asset or an obligor. In order to use a factor that is based on a rating, a reciprocal union must meet all of the conditions specified below.

Reciprocal unions may recognize credit ratings from the following rating agencies for MCT purposes:

- DBRS;
- Moody's Investors Service;

- Standard and Poor's (S&P);
- Fitch Rating Services.
- Kroll Bond Rating Agency (KBRA).

A reciprocal union must choose the rating agencies it intends to rely on and then use their ratings for MCT purposes consistently for each type of asset or obligation. Reciprocal unions are not authorized to select the assessments provided by different rating agencies with the sole intent to reduce their capital requirements.

Any rating used to determine a factor must be publicly available, i.e., the rating must be published in an accessible form and included in the rating agency's transition matrix. Ratings that are made available only to the parties to a transaction do not satisfy this requirement.

If a reciprocal union is relying on multiple rating agencies and there is only one assessment for a particular claim, that assessment should be used to determine the capital requirement for the claim. If there are two assessments from the rating agencies used by a reciprocal union and these assessments differ, the reciprocal union should apply the risk factor corresponding to the lower of the two ratings. If there are three or more assessments for a claim from a reciprocal union's chosen rating agencies, the reciprocal union should exclude one of the ratings that corresponds to the lowest risk factor, and then use the rating that corresponds to the lowest risk factor of those that remain (i.e., the reciprocal union should use the second-highest rating from those available, allowing for multiple occurrences of the highest rating).

Where a reciprocal union holds a particular securities issue that carries one or more issue-specific assessments, the capital requirement for the claim will be based on these assessments. Where a reciprocal union's claim is not an investment in a specifically rated security, the following principles apply:

- In circumstances where the borrower has a specific rating for an issued debt security, but the reciprocal union's claim is not an investment in this particular security, a rating of BBB- or higher on the rated security may only be applied to the reciprocal union's unrated claim if this claim ranks pari passu or senior to the rated claim in all respects. If not, the credit rating cannot be used and the reciprocal union's claim must be treated as an unrated obligation.
- In circumstances where the borrower has an issuer rating, this assessment typically applies to senior unsecured claims on that issuer. Consequently, only senior claims on that issuer will benefit from a BBB- or higher issuer assessment. Other unassessed claims on the issuer will be treated as unrated. If either the issuer or one of its issues has a rating of BB+ or lower, this rating should be used to determine the risk factor for an unrated claim on the issuer.
- Short-term assessments are deemed to be issue-specific. They can only be used to determine capital requirements for claims arising from the rated security. They

cannot be generalized to other short-term claims, and in no event can a short-term rating be used to support a risk factor for an unrated long-term claim.

- Where the capital requirement for an unrated exposure is based on the rating of an equivalent exposure to the borrower, foreign currency ratings should be used for exposures in foreign currency. Canadian currency ratings, if separate, should only be used to determine the capital requirements for claims denominated in Canadian currency.

The following additional conditions apply to the use of ratings:

- External assessments for one entity within a corporate group may not be used to determine the risk factor for other entities within the same group. This condition does not apply to assets held with a credit union that is a member of a federation within the meaning of the *Act respecting financial services cooperatives* (CQLR, chapter C-67.3).[49]
- No rating may be inferred for an unrated entity based on assets that the entity possesses.
- In order to avoid the double counting of credit enhancement factors, reciprocal unions may not recognize credit risk mitigation if the credit enhancement has already been reflected in the issue-specific rating.
- A reciprocal union may not recognize a rating if the rating is at least partly based on unfunded support (e.g., guarantees, credit enhancement or liquidity facilities) provided by the reciprocal union itself or one of its associates.
- Any assessment used must take into account and reflect the entire amount of credit risk exposure a reciprocal union has with regard to all payments owed to it. In particular, if a reciprocal union is owed both principal and interest, the assessment must fully take into account and reflect the credit risk associated with repayment of both principal and interest.
- Reciprocal unions may not rely on unsolicited ratings in determining the risk factor for an asset, except where the asset is a sovereign exposure and a solicited rating is not available.

6.1.2 Variable credit risk factors

Various risk factors are applied to invested assets depending on the external credit ratings and the remaining term to maturity as outlined below.

[49] To qualify for this exception, the reciprocal union must refer to a rating assigned to a financial services cooperative by a rating agency duly recognized under this guideline, which rating should be closely linked to the evaluation of the quality of the financial condition and the risk assessment of the credit unions that are members of the federation. If more than one financial services cooperative is assessed, the reciprocal union must apply the risk factor corresponding to the lowest rating.

Investments in mutual funds or other similar assets must be broken down by type of investment (bonds, preferred shares, etc.) and assigned the appropriate risk factor relating to the investment. If the information available on an investment is not broken down, then the factor of the riskiest asset held in the fund is assigned to the entire investment.

6.1.2.1 Long-term obligations

- Long-term obligations, including term deposits, bonds, debentures and loans that are not eligible for a 0% risk factor, and that are not Québec municipal bonds, have risk factors according to the following table:

Rating	Remaining term to maturity		
	One year or less	Greater than 1 year up to and including 5 years	Greater than 5 years
AAA	0.25%	0.5%	1.25%
AA+ to AA-	0.25%	1%	1.75%
A+ to A-	0.75%	1.75%	3%
BBB+ to BBB-	1.5%	3.75%	4.75%
BB+ to BB-	3.75%	7.75%	8%
B+ to B-	7.5%	10.5%	10.5%
Unrated	6%	8%	10%
Below B-	15.5%	18%	18%

- Bonds of Québec municipalities only [50] have risk factors according to the following table:

Rating	Remaining term to maturity		
	One year or less	Greater than 1 year up to and including 5 years	Greater than 5 years
AAA	0.125%	0.25%	0.625%
AA+ to AA-	0.125%	0.5%	0.875%
A+ to A-	0.375%	0.875%	1.5%
BBB+ to BBB-	0.75%	1.875%	2.375%
BB+ to BB-	1.875%	3.875%	4%
B+ to B-	3.75%	5.25%	5.25%
Unrated	3%	4%	5%
Below B-	7.75%	9%	9%

- Long-term obligations generally have an original term to maturity at issue of 1 year or more.
- Remaining term to maturity denotes the number of years from the reporting date until the maturity date.
- The reciprocal union may use effective maturity as an option for determining risk factors for investments in long-term obligations subject to a determined cash flow schedule. The following formula may be used to calculate effective maturity:

$$\text{Effective maturity (M)} = \frac{\sum t \times CF_t}{\sum CF_t}$$

where CF_t denotes the cash flows (principal, interest payments and fees) contractually payable by the borrower in period t.

- In cases where a reciprocal union elects not to calculate an effective maturity or if it is not feasible to do so using the above formula, the reciprocal union is required to use the maximum remaining time (in years) that the borrower is permitted to fully discharge its contractual obligation (principal, interest and fees) under the terms of the loan agreement. Normally, this would correspond to the nominal maturity or term to maturity of the instrument;

[50] For other municipal bonds, refer to the risk factors of the other long-term obligations.

- Where information is not available to determine the redemption/maturity of an asset, reciprocal unions must use the “Greater than 5 years” category for that asset.

6.1.2.2 Short-term obligations

- Short-term obligations, including commercial paper, that are not eligible for a 0% risk factor, have risk factors assigned according to the following table:

Rating	Factor
A-1, F1, P-1, R-1 or equivalent	0.25%
A-2, F2, P-2, R-2 or equivalent	0.5%
A-3, F3, P-3, R-3 or equivalent	2%
Unrated	6%
All other ratings, including non-prime and B or C ratings	8%

- Short-term obligations generally have an original term to maturity at issue of no more than 365 days.

6.1.2.3 Asset-backed securities

The category of asset-backed securities encompasses all securitizations, including mortgage-backed securities and collateralized mortgage obligations, as well as other exposures that result from stratifying or tranching an underlying credit exposure. For exposures that arise as a result of asset securitization transactions, reciprocal unions should refer to Chapter 6 (Dispositions relatives à la titrisation) of the AMF’s *Capital Adequacy Guideline* (French only) published for financial services cooperatives, to determine whether there are functions provided (e.g., credit enhancement or liquidity facilities) that require capital for credit risk.

National Housing Act (NHA) mortgage-backed securities

National Housing Act (R.S.C. 1985, c. N-11) (the “NHA”) mortgage-backed securities that are guaranteed by the Canada Mortgage and Housing Corporation (CMHC) receive a 0% risk factor to recognize the fact that obligations incurred by the CMHC are legal obligations of the Government of Canada.

Other asset-backed securities

The capital requirements for all other asset backed securities are based on their external credit ratings. In order to use external credit ratings to determine a capital requirement, the reciprocal union must comply with all of the operational requirements for the use of ratings found in the AMF’s *Capital Adequacy Guideline* published for financial services cooperatives.

For asset-backed securities (other than resecuritizations) rated BBB or higher, the capital requirement is the same as the requirement specified in Section 6.1.2.1 for a long-term obligation having the same rating and maturity as the asset-backed security. If an asset-backed security is rated BB, the reciprocal union may recognize the rating only if it is a third-party investor in the security. The credit risk factor for an asset-backed security (other than a resecuritization) rated BB in which the reciprocal union is a third-party investor is 300% of the requirement for a long-term obligation rated BB having the same maturity as the security.

The credit risk factors for short-term asset-backed securities (other than resecuritizations) rated A-3 or higher are the same as those in Section 6.1.2.2 for short-term obligations having the same rating.

The credit risk factor for any resecuritization rated BBB or higher is 200% of the risk factor applicable to an asset-backed security having the same rating and maturity as the resecuritization.

The credit risk factor for all other asset-backed security not mentioned above (including unrated securities) is 60%.

6.1.2.4 Preferred shares

- Preferred shares risk factors should be assigned according to the following table:

Rating	Factor
AAA, AA+ to AA-, Pfd-1, P-1 or equivalent	3%
A+ to A-, Pfd-2, P-2 or equivalent	5%
BBB+ to BBB-, Pfd-3, P-3 or equivalent	10%
BB+ to BB-, Pfd-4, P-4 or equivalent	20%
B+ or lower, Pfd-5, P-5 or equivalent or unrated	30%

6.1.3 Fixed credit risk factors

0% Risk factor

- Cash held on the reciprocal union's own premises.
- Obligations of federal, provincial and territorial governments in Canada.[51]
- Obligations of agents of the federal, provincial or territorial governments in Canada whose obligations are, by virtue of their enabling legislation, direct obligations of the parent government.

[51] Including securities, loans and accounts receivable.

- Obligations of sovereigns rated AA- or higher and their central banks.[52]
- Obligations that have been explicitly, directly, irrevocably and unconditionally guaranteed by a government Grade entity eligible for a 0% risk factor including, for example, residential mortgages insured under the NHA or equivalent provincial mortgage insurance program, and NHA mortgage-backed securities that are guaranteed by the Canada Mortgage and Housing Corporation.
- Any deductions from capital, including goodwill, intangible assets and interests in non-qualifying subsidiaries, associates, and joint ventures with more than 10% ownership interest.

0.25% Risk factor

- Demand deposits, certificates of deposit, drafts, cheques, acceptances and similar obligations that have an original maturity of less than three months, and that are drawn on regulated deposit-taking institutions subject to the solvency requirements of the Basel Framework.[53]

0.70% Risk factor

- Insurance receivables from registered reinsurers that are not included in premiums associated with the unexpired coverage on reinsurance contracts held or asset for incurred claims recoverable.
- Accounts receivable from the Facility Association Residual Market and Uninsured Automobile Fund.

2.5% Risk factor

- Investment income due and accrued.
- Premiums associated with the unexpired coverage on reinsurance contracts held from registered reinsurers (reference Section 4.4.1).
- Asset for incurred claims recoverable on reinsurance contracts held from registered reinsurers (reference Section 4.4.1).

4% Risk factor

- First mortgages on one- to four-unit residential dwellings.

[52] Sovereign obligations rated lower than AA- may not receive a factor of 0%, and are instead subject to the factor requirements in Section 6.1.2.

[53] Where the maturity of the asset is longer than three months, the risk factor related to the credit rating of the regulated deposit-taking institution would apply instead.

5% Risk factor

- Accounts receivable, not yet due and outstanding less than 60 days, from agents, brokers, non-qualifying subsidiaries, associates, joint ventures and policyholders, including other receivables.[54]
- Instalment premiums outstanding less than 60 days.

10% Risk factor

- Accounts receivable, outstanding 60 days or more, from agents, brokers, non-qualifying subsidiaries, associates, joint ventures and policyholders, including instalment premiums and other receivables.[55]
- Commercial mortgages and other residential mortgages that do not qualify as first mortgages on one- to four-unit residential dwellings.
- Other investments not specified in this section or Section 5.6 as part of other market risk exposures, excluding derivative-related amounts. Capital requirements for derivative-related amounts included in other investments are set out in Section 6.2.
- Other assets not specified in this section or Section 5.6 as part of other market risk exposures, excluding other investments.

15% Risk factor

- Mortgages secured by undeveloped land (e.g., construction financing), other than land used for agricultural purposes or for the production of minerals. A property recently constructed or renovated will be considered as “under construction” until it is completed and 80% leased.

20% Risk factor

- Other recoverables (mainly salvage and subrogation) on the liability for incurred claims.
- SIR recoverables not deducted from capital (reference Section 4.5).
- Assets held for sale (other than financial).[56]

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54 Includes receivables from unregistered insurers for reinsurance contracts issued.

55 Includes receivables from unregistered insurers for reinsurance contracts issued.

56 1) Alternatively, assets classified as held for sale may be re-consolidated (look-through approach) at the option of the reciprocal union. If this method is selected, any write-down made as a result of re-measuring the assets classified as held for sale at the lower of carrying amount and fair value less costs to sell should be reflected in the MCT after re-consolidation. Any asset within a consolidated group that is deducted from capital available for MCT purposes should continue to be deducted from capital when it becomes an asset held for sale.

2) If the reciprocal union has elected to apply a 20% risk factor to assets held for sale instead of using the look-through approach, associated liabilities held for sale should be subject to the usual MCT treatment of liabilities as per Chapter 4.

45% Risk factor

- Loans or other forms of lending (bonds, debentures, mortgages, etc.) provided to non-qualifying (non-consolidated) subsidiaries, associates and joint ventures with more than a 10% ownership interest which are not considered as capital.

6.2 Capital requirements for off-balance sheet exposures

The capital required for off-balance sheet exposures such as structured settlements, letters of credit or non-owned deposits, derivatives and other exposures is calculated in a manner similar to the on-balance sheet assets in that the credit risk exposure is multiplied by a counterparty risk factor to arrive at the capital required. However, unlike most assets, the face amount of an off-balance sheet exposure does not necessarily reflect the true credit risk exposure. To approximate this exposure, a credit equivalent amount is calculated for each exposure. This amount, net of any collateral or guarantees, is then multiplied by a credit conversion factor. For letters of credit and non-owned deposits, the credit equivalent amount is the face value. The determination of the counterparty credit risk categories and the approach for determining the eligibility of collateral and guarantees is the same as it is for other assets. For letters of credit and non-owned deposits, the counterparty credit risk is found under Section 4.4.2.3.

The risk to a reciprocal union associated with structured settlements, letters of credit, non-owned deposits, derivatives and other exposures and the amount of capital required to be held against this risk is:

- the credit equivalent amount of the instrument at the reporting date;
- less: the value of eligible collateral securities or guarantees (reference Section 6.3);
- multiplied by: a factor reflecting the nature and maturity of the instrument (Credit Conversion Factors); and
- multiplied by: a factor reflecting the risk of default of the counterparty to a transaction (Risk Factors).

6.2.1 Credit equivalent amount

The credit equivalent amount related to off-balance sheet exposures varies according to the type of instrument.

6.2.1.1 Structured settlements

The credit equivalent amount for a “Type 1” structured settlement is the current replacement cost of the settlement, which is gross of the coverage provided by Assuris.

“Type 1” structured settlements are not recorded as liabilities on the balance sheet and have the following characteristics:

- An annuity is purchased by a reciprocal union that is named as the owner. There is an irrevocable direction from the reciprocal union to the annuity underwriter to make all payments directly to the claimant.
- Since the annuity is non-commutable, non-assignable and non-transferable, the reciprocal union is not entitled to any annuity payments and there are no rights under the contractual arrangement that would provide any current or future benefit to the reciprocal union.
- The reciprocal union is released by the claimant indicating settlement of the claim amount.
- The reciprocal union remains liable to make payments to the claimant in the event and to the extent the annuity underwriter fails to make payments under the terms and conditions of the annuity and the irrevocable direction given.

Under this type of structured settlement arrangement, the reciprocal union is not required to recognize a liability to the claimant, nor is it required to recognize the annuity as a financial asset. However, the reciprocal union is exposed to some credit risk by guaranteeing the obligation of the annuity underwriter to the claimant and, consequently, must set aside additional capital.

For details on the types of structured settlements, reciprocal unions should refer to Special Topics, Section IV of the Instructions to the P&C Returns.

6.2.1.2 Derivatives

The credit equivalent amount for derivatives is the positive replacement cost (obtained by marking to market) plus an amount for potential future credit exposure (an “add-on” factor).

Derivatives include forwards, futures, swaps, purchased options, and other similar contracts. Reciprocal unions are not exposed to credit risk for the full face value of these contracts (notional principal amount), only to the potential cost of replacing the cash flow (on contracts showing a positive value) if the counterparty defaults. The credit equivalent amounts are assigned the risk factor appropriate to the counterparty in order to calculate the capital requirement.

The credit equivalent amount depends on the maturity of the contract and the volatility of the underlying instrument. It is calculated by adding:

- the total replacement cost (obtained by marking to market) of all contracts with positive values; and
- an amount for potential future credit exposure (or “add-on”). This is calculated by multiplying the notional principal amount by the following “add-on” factors.

Residual Maturity	Interest Rate (01)	Exchange Rate and Gold (02)	Equity (03)	Precious Metals except Gold (04)	Other Instruments (05)
One year or less	0%	1%	6%	7%	10%
One year to five years	0.5%	5%	8%	7%	12%
Over five years	1.5%	7.5%	10%	8%	15%

Notes

- Instruments traded on exchanges do not require capital for counterparty credit risk where they are subject to daily margining requirements.
- For contracts with multiple exchanges of principal, the factors are to be multiplied by the number of remaining payments in the contract.
- For contracts that are structured to settle outstanding exposures following specified payment dates, and where the terms are reset so that the market value of the contract is zero on these specified dates, the residual maturity is considered to be the time until the next reset date. In the case of interest rate contracts with residual maturities of more than one year and that also meet the above criteria, the add-on factor is subject to a floor of 0.5%.
- Contracts not covered by columns 01 to 04 in the above table are to be treated as “Other Instruments” for the purpose of determining the “add-on” factor.
- No potential credit exposure would be calculated for single currency floating/floating interest rate swaps; the credit exposure on these contracts would be evaluated solely on the basis of their mark-to-market value.
- The add-ons are based on effective rather than stated notional amount. In the event that the stated notional amount is leveraged or enhanced by the structure of the transaction, reciprocal unions must use the actual or effective notional amount when determining potential future exposure. For example, a stated notional amount of $1 million with payments calculated at two times LIBOR would have an effective notional amount of $2 million.
- Potential credit exposure is to be calculated for all over-the-counter (OTC) contracts (with the exception of single currency floating/floating interest rate swaps), regardless of whether the replacement cost is positive or negative.

No add-on for potential future exposure is required for credit derivatives. The credit equivalent amount for a credit derivative is equal to the greater of its replacement cost or zero.

6.2.1.3 Other exposures

Commitments

A commitment involves an obligation (with or without a material adverse change clause or similar clause) of the reciprocal union to fund its customer in the normal course of business should the customer seek to draw down the commitment. This includes:

- extending credit in the form of loans or participations in loans, lease financing receivables, mortgages or loan substitutes; or
- purchasing loans, securities, or other assets.

Normally, commitments involve a written contract or agreement and a commitment fee or some other form of consideration.

The maturity of a commitment should be measured from the date when the commitment was accepted by the customer, regardless of whether the commitment is revocable or irrevocable, conditional or unconditional, until the earliest date on which:

- the commitment is scheduled to expire; or
- the reciprocal union can, at its option, unconditionally cancel the commitment.

Repurchase and reverse repurchase agreements

A securities repurchase (repo) is an agreement whereby a transferor agrees to sell securities at a specified price and repurchase the securities on a specified date and at a specified price. Since the transaction is regarded as a financing transaction for accounting purposes, the securities remain on the balance sheet. Given that these securities are temporarily assigned to another party, the factor accorded to the asset should be the higher of the factor of the security and the factor of the counterparty to the transaction (net of any eligible collateral).

A reverse repo agreement is the opposite of a repo agreement, and involves the purchase and subsequent sale of a security. Reverse repos are treated as collateralized loans, reflecting the economic reality of the transaction. The risk is therefore to be measured as an exposure to the counterparty. Where the asset temporarily acquired is a security that attracts a lower factor, this would be recognized as collateral and the factor would be reduced accordingly.

Guarantees provided in securities lending

In securities lending, reciprocal unions can act as principal to the transaction by lending their own securities or as agent by lending securities on behalf of customers. When the reciprocal union lends its own securities, the risk factor is the higher of:

- the risk factor related to the instruments lent; or

- the risk factor for an exposure to the borrower of the securities. The exposure to the borrower may be reduced if the reciprocal union holds eligible collateral (reference Section 6.3.1). Where the reciprocal union lends securities through an agent and receives an explicit guarantee of the return of the securities, the reciprocal union may treat the agent as the borrower subject to the conditions in Section 6.3.2.

When the reciprocal union, acting as agent, lends securities on behalf of a client and guarantees that the securities lent will be returned or the reciprocal union will reimburse the client for the current market value, the reciprocal union should calculate the capital requirement as if it were the principal to the transaction. The capital requirements are those for an exposure to the borrower of the securities, where the exposure amount may be reduced if the reciprocal union holds eligible collateral (reference Section 6.3.1).

For details on how to record these and other such exposures, contact the AMF.

6.2.2 Credit conversion factors

Separate credit conversion factors exist for structured settlements, letters of credit, non-owned deposits, derivatives and other exposures.

For other exposures, the weighted average of the credit conversion factors, described below, for all of these instruments held by the reciprocal union, should be used.

100% Conversion factor

- Direct credit substitutes (general guarantees of indebtedness and guarantee-type instruments, including standby letters of credit and non-owned deposits serving as financial guarantees for, or supporting, loans and securities).
- Derivatives such as forwards, futures, swaps, purchased options (including options purchased over the counter) and other similar derivative contracts, including:
    - interest rate contracts (single currency interest rate swaps, basis swaps, forward rate agreements and derivative contracts with similar characteristics, interest rate futures, interest rate options purchased, and similar derivative contracts based on specific parameters or on indices, etc.);
    - equity contracts (forwards, swaps, purchased options, and similar derivative contracts based on specific parameters or on indices, etc.);
    - exchange rate contracts (gold contracts, cross-currency swaps, cross-currency interest rate swaps, outright forward foreign exchange contracts, currency futures, currency options purchased, and similar derivative contracts based on specific parameters or on indices, etc.);
    - precious metals (except gold) and other commodity contracts (forwards, swaps, purchased options, and similar derivative contracts based on specific parameters or on indices, etc.);
    - other derivative contracts based on specific parameters or on indices (such as catastrophe insurance options and futures).

- Forward agreements (contractual obligations) to purchase assets.
- Sale and repurchase agreements.
- All other exposures not contemplated elsewhere (provide details).

50% Conversion factor

- Structured settlements that are not recorded as liabilities on the balance sheet (refer to Type 1 characteristics and to Section IV, Special Topics, of the Instructions to the P&C Returns).
- Transaction-related contingencies (for example, warranties and standby letters of credit related to a particular transaction).
- Commitments with an original maturity exceeding one year.

20% Conversion factor

- Commitments with an original maturity of one year or less.

0% Conversion factor

- Commitments that are unconditionally cancellable at any time without prior notice.[57]

6.2.3 Risk factors

Off-balance sheet exposures are assigned a risk factor consistent with Section 6.1. All criteria in Section 6.1 around the use of ratings are applicable to off-balance sheet exposures.

Risk factors for structured settlements, which are considered long-term exposures, are based on the credit rating of the counterparty from which the annuity is purchased.

The risk factors to be applied are:

Rating	Factor
Rated A- or higher	2%
Rated BBB+ to B-	8%
Unrated	10%
Below B-	18%

[57] Other than any notice required under legislation or court rulings that require notice.

If the structured settlement is not rated by one of the four rating agencies listed in Section 6.1.1, a reciprocal union may use a credit rating from another reputable rating agency. The use of an alternative rating agency must comply with all the criteria around the use of ratings specified in Section 6.1.1, including a consistent use of the same rating agency in order to assign a risk factor based on the credit rating of the annuity underwriter.

6.3 Capital treatment of collateral and guarantees

6.3.1 Collateral

A collateralized transaction is one in which:

- a reciprocal union has a credit exposure or potential credit exposure; and
- the credit exposure or the potential credit exposure is hedged in whole or in part by collateral posted by a counterparty or by a third party on behalf of the counterparty.

Recognition of collateral in reducing the capital requirements is limited to cash or securities rated A- or higher. Any collateral must be held throughout the period for which the exposure exists. Only that portion of an exposure that is covered by eligible collateral will be assigned the risk factor given to the collateral, the uncovered portion retains the risk factor of the underlying counterparty. Only collateral securities with a lower risk factor than the underlying exposure will lead to reduced capital requirements. All criteria in Section 6.1 around the use of ratings are applicable to collateral. Where a rating is not available for the collateral asset, exposure, or counterparty where applicable, no reduction in capital required is permitted.

The effects of collateral may not be double counted. Therefore, reciprocal unions may not recognize collateral on claims for which an issue-specific rating is used that already reflects that collateral.

Collateral securities used to reduce capital requirements must materially reduce the risk arising from the credit quality of the underlying exposure. In particular, collateral used may not be related party obligations of the issuer of the underlying exposure (i.e., obligations of the underlying counterparty itself, its parent, or one of its subsidiaries or associates).

6.3.2 Guarantees

Investments (principal and interest) or exposures that have been explicitly, directly, irrevocably and unconditionally guaranteed by a guarantor whose long-term issuer credit rating is A- or higher, may attract the risk factor allocated to a direct claim on the guarantor where the desired effect is to reduce the risk exposure. Thus, only guarantees issued by entities with a lower risk factor than the underlying counterparty will lead to reduced capital requirements.[58]

[58] Letters of credit for which a company is the beneficiary are included within the definition of guarantees and receive the same capital treatment.

Where the recovery of losses on a loan, financial lease agreement, security or exposure is partially guaranteed, only the part that is guaranteed is to be weighted according to the risk factor of the guarantor (see following examples). The uncovered portion retains the risk factor of the underlying counterparty.

All criteria in Section 6.1 around the use of ratings remain applicable to guarantees. Where a rating is not available for the investment, exposure, or guarantor where applicable, no reduction in capital required is permitted.

A reciprocal union may not recognize a guarantee provided by a related enterprise (parent, subsidiary or associate). This treatment follows the principle that guarantees within a corporate group are not a substitute for capital.

The effects of credit protection may not be double counted. Therefore, no capital recognition is given to credit protection on claims for which an issue-specific rating is used that already reflects that protection.

To be eligible, a guarantee must cover the full term of the exposure, i.e., no recognition will be given to a guarantee if there is a maturity mismatch,[59] and be legally enforceable.

6.3.2.1 Additional requirements for guarantees

The following conditions must be satisfied in order for a guarantee to be recognized:

- on the qualifying default/non-payment of the counterparty, the reciprocal union may in a timely manner pursue the guarantor for any monies outstanding under the documentation governing the transaction. The guarantor may make one lump sum payment of all monies under such documentation to the reciprocal union, or the guarantor may assume the future payment obligations of the counterparty covered by the guarantee. The reciprocal union must have the right to receive any such payments from the guarantor without first having to take legal action in order to pursue the counterparty for payment;
- the guarantee is an explicitly documented obligation assumed by the guarantor;
- except as noted in the following sentence, the guarantee covers all types of payments the underlying obligor is expected to make under the documentation governing the transaction, for example notional amount, margin payments, etc. Where a guarantee covers payment of principal only, interest and other uncovered payments should be treated as an unsecured amount in accordance with Section 6.1.

[59] A maturity mismatch occurs when the residual maturity of the credit protection is less than that of the underlying exposure.

6.3.3 Examples

Example 6-1: Credit risk exposure

To record a $100,000 bond rated AAA due in 10 years that has a government guarantee of 90%, the reciprocal union would report a balance sheet value of $90,000 ($100,000 x 90%) in the 0% risk weighted category and a balance sheet value of $10,000 ($100,000 - $90,000) in the AAA category under “Term Deposits, Bonds and Debentures - Expiring or redeemable in more than five years”. The capital required in the 0% risk weighted category is $0 ($90,000 x 0.0%). The capital required in the AAA category is $125 ($10,000 x 1.25%) for a total capital requirement of $125.

An example of the calculation, assuming no other assets, is provided in the table below:

	Risk factor (%)	Balance sheet value	Capital required
Investments:			
Term Deposits, Bonds and Debentures:			
Expiring or redeemable in more than five years:			
0% Risk factor	0%	$90,000	$0
Rating: AAA	1.25%	$10,000	$125
Total		**$100,000**	**$125**

Example 6-2: Type 1 structured settlement

To record a $300,000 Type 1 structured settlement rated BBB+ to B-, backed by collateral or by a guarantee of $200,000 from a counterparty rated A- or higher, the reciprocal union would report a credit equivalent amount of $300,000 and collateral and guarantees of negative $200,000 in the BBB+ to B- category, and collateral and guarantees of $200,000 in the A- or higher category.

The capital required in the BBB+ to B- category is $4,000 (($300,000 - $200,000) x 50% x 8%). The capital required in the A- or higher category is $500 ($200,000 x 50% x 0.5%) for a total capital requirement of $4,500.

An example of the calculation, assuming no other exposures, is provided in the following table.

	Credit equivalent amount	Collateral and guarantees	Credit conversion factor (%)	Risk factor (%)	Capital required
Structured settlements					
0% Risk factor					
Rating: A- or higher		$200,000	50%	0.5%	$500
Rating: BBB+ to B-	$300,000	($200,000)	50%	8%	$4,000
Total					**$4,500**

Chapter 7. Operational risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. The definition includes legal risk[60] but excludes strategic and reputation risk.

Exposure to operational risk results from either day-to-day operations or a specific, unanticipated event.

7.1 Operational risk formula

The two risk drivers used to determine the operational risk margin are capital required and premiums, subject to a cap.

$$\text{Operational risk margin} = \text{MIN}\{30\%\ CR_0, (8.50\%\ CR_0 + 2.50\%\ P_d + 1.75\%\ P_a + 2.50\%\ P_p + 2.50\%\ P_\Delta)\}$$

where:

- CR_0: is the total capital required for the reporting period, before the operational risk margin and diversification credit
- P_d: is the direct premiums received in the past 12 months for insurance contracts issued
- P_a: is the premiums received in the past 12 months for reinsurance contracts issued arising from third party reinsurance
- P_p: is the premiums paid in the past 12 months for reinsurance contracts held arising from third party reinsurance
- P_Δ: is the growth in gross premiums received in the past 12 months above a 20% threshold

7.2 Components of operational risk margin

7.2.1 Capital required

A portion of the operational risk margin is based on total capital required, reflecting the overall riskiness of a reciprocal union. An 8.50% risk factor applies to total capital required, before the operational risk margin and diversification credit.

7.2.2 Premium volume

The following risk factors apply to insurance premiums:

- 2.50% for direct premiums received for insurance contracts issued;

[60] Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

- 1.75% for premiums received for reinsurance contracts issued arising from third party reinsurance;
- 2.50% for premiums paid for reinsurance contracts held arising from third party reinsurance.

The 2.50% risk factor for direct premiums received and 1.75% risk factor for premiums received from third party reinsurance contracts issued capture a reciprocal union's operational risk exposure on new business and renewals.

The 2.50% risk factor for premiums paid arising from third party reinsurance contracts held captures the operational risk remaining with the ceding reciprocal union. While the reciprocal union cedes a portion of its insurance risk exposure through reinsurance, the operational risk remains with the ceding reciprocal union. Because the capital requirements for insurance liabilities (reference Section 4.3) are calculated on the net amount of risk (net of reinsurance), the portion of operational risk requirement calculated as 8.50% of capital required does not account for the operational risk on the entire business of the reciprocal union.

7.2.3 Year-over-year premium growth beyond a threshold

Rapid growth, which is linked to the acquisition of another entity, the acquisition of a block of business through assumption reinsurance, new lines of business or changes to existing products or underwriting criteria, can create additional pressures on people and systems. Reciprocal unions with premium growth beyond a 20% threshold are subject to additional capital requirements for operational risk.

The premium growth requirement is calculated using gross premiums received, i.e., direct premiums received for insurance contracts issued plus premiums received for reinsurance contracts issued. A 2.50% risk factor applies to the total amount of gross premiums received in the past 12 months above the 20% growth threshold compared to the gross premiums received for the same period in the previous year. For example:

- assume that as a result of rapid growth, gross premiums received increase by 50% from $100 to $150;
- then, the amount above the 20% increase ($30) is subject to an additional risk factor of 2.50%.

In the case of an acquisition, the total gross premiums received for a prior reporting period (before the acquisition) is the sum of the gross premiums received by the two separate entities, i.e., the sum of the acquiring and the acquired entities' gross premiums received. For example:

- Assume that in Year T reciprocal union A, with gross premiums received of $100 for the 12 months period ending December 31, Year T-1, acquired insurer B with gross premiums received of $50 for the same period
- After the acquisition, the reciprocal union reported a total of $225 in gross premiums received for the 12 months period ending December 31, Year T.

- The capital requirement for operational risk associated with rapid growth in premiums would be calculated as follows:

  2.50% x [$225 – (($100 + $50) x 1.2)] or 2.50% x $45 = $1.13

7.2.4 Cap on operational risk margin

A 30% cap serves to dampen the operational risk margin. The 30% cap is calculated in relation to total capital required, before the operational risk margin and diversification credit.

Chapter 8. Diversification credit

Because losses arising across some risk categories are not perfectly correlated with each other, a reciprocal union is not likely to incur the maximum probable loss at a given level of confidence from each type of risk simultaneously. Consequently, an explicit credit for diversification is permitted between the sum of credit and market risk requirements and the insurance risk requirement so that the total capital required for these risks is lower than the sum of the individual requirements for these risks.

8.1 Risk aggregation and diversification credit

The diversification credit is calculated using the following formula:

$$\text{Diversification credit} = A + I - \sqrt{A^2 + I^2 + 2 \times R \times A \times I}$$

where:

A: is the asset risk margin, which is the sum of capital required for:

- credit risk, including requirements for balance sheet assets, off-balance sheet exposures and collateral for unregistered reinsurance and SIRs;
- market risk, including interest rate risk, foreign exchange risk, equity risk, real estate risk and other market risk exposures.

I: is the insurance risk margin, which is the sum of capital required for:

- liability for incurred claims;
- unexpired coverage;
- unregistered reinsurance exposure;
- earthquake risk exposure.

R: is the correlation factor between *A* and *I*, determined as 50% for the diversification credit calculation.

Annex 1. Qualifying criteria for category A capital instruments[61]

For an instrument to be included in capital available under category A, it must meet all of the following criteria:

1. The instrument represents the most subordinated claim in liquidation of the reciprocal union.
2. The investor is entitled to a claim on the residual assets that is proportional with its share of issued capital, after all senior claims have been paid in liquidation (i.e., has an unlimited and variable claim, not a fixed or capped claim).
3. The principal is perpetual and never repaid outside of liquidation (setting aside discretionary repurchases or other means of effectively reducing capital in a discretionary manner that is allowable under relevant law and subject to the prior approval of the AMF).
4. The reciprocal union does not, in the sale or marketing of the instrument, create an expectation at issuance that the instrument will be bought back, redeemed or cancelled, nor do the promotional material and statutory or contractual terms provide any feature that might give rise to such expectation.
5. Distributions are paid out of distributable items (retained earnings included). The level of distributions is not in any way tied or linked to the amount paid in at issuance and is not subject to a contractual cap (except to the extent that a reciprocal union is unable to pay distributions that exceed the level of distributable items or to the extent that distribution on senior ranking capital must be paid first).
6. There are no circumstances under which the distributions are obligatory. Non-payment is, therefore, not an event of default.
7. Distributions are paid only after all legal and contractual obligations have been met and payments on more senior capital instruments have been made. This means that there are no preferential distributions, including in respect of other elements classified as the highest quality issued capital.
8. It is in the form of issued capital that takes the first and proportionately greatest share of any losses as they occur. Within the highest quality capital, each instrument absorbs losses on a going concern basis proportionately and pari passu with all the others.
9. The paid-in amount is recognized as equity capital (i.e., not recognized as a liability) for determining balance sheet solvency.

[61] The application of the criteria should preserve the quality of the instruments by requiring that they are deemed fully equivalent to common shares in terms of their capital quality as regards loss absorption and do not possess features that could cause the condition of the reciprocal union to be weakened as a going concern during periods of market stress.

10. It is directly issued and paid-in[62] and the reciprocal union cannot directly or indirectly have funded the purchase of the instrument.

11. The paid-in amount is neither secured nor covered by a guarantee of the issuer or related enterprise[63] or subject to any other arrangement that legally or economically enhances the seniority of the claim.

12. It is only issued with the approval of the members of the issuing reciprocal union, either given directly by the members or, if permitted by applicable law, given by the Board of Directors, the mandatary or by other persons duly authorized by the members.

13. It is clearly and separately disclosed on the reciprocal union's balance sheet, prepared in accordance with the relevant accounting standards.

62 Paid-in capital generally refers to capital that has been received with finality by the reciprocal union, is reliably valued, fully under the reciprocal union's control and does not directly or indirectly expose the reciprocal union to the credit risk of the investor.

63 A related enterprise can include a subsidiary or any other affiliate. A holding company held by the reciprocal union is also a related enterprise irrespective of whether it forms part of the consolidated insurance group.

Annex 2. Qualifying criteria for category B capital instruments

For an instrument to be included in capital available under category B, it must meet all of the following criteria:

1. The instrument is issued and paid-in in cash or, subject to the prior approval of the AMF, in other means.
2. The instrument is subordinated to policyholders, general creditors, and subordinated debt holders of the reciprocal union.
3. The instrument is neither secured nor covered by a guarantee of the issuer or related entity or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis the reciprocal union's policyholders and creditors.[64]
4. The instrument is perpetual, i.e., there is no maturity date and there are no step-ups[65] or other incentives to redeem.[66]
5. The instrument may be callable at the initiative of the issuer only after a minimum of five years:
    i. To exercise a call option, a reciprocal union must receive prior approval from the AMF.
    ii. A reciprocal union must not do anything that creates an expectation that the call will be exercised.
    iii. A reciprocal union must not exercise the call unless:
        a) It replaces the called instrument with capital of the same or higher quality, including through an increase in retained earnings, and the replacement of this capital is done at conditions which are sustainable for the income capacity of the reciprocal union;[67]
        b) It demonstrates that its capital position is above the internal capital target ratio after the call option is exercised.
6. Any repayment of principal (e.g., through repurchase or redemption) must require approval of the AMF, and reciprocal unions should not assume or create market expectations that such approval will be given.
7. The dividend/coupon payments must be discretionary.

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64 Further, where a reciprocal union uses a special purpose vehicle to issue capital to investors and provides support, including overcollateralization, to the vehicle, such support would constitute enhancement in breach of criterion #3 above.

65 A step-up is defined as a call option combined with a pre-set increase in the initial credit spread of the instrument at a future date over the initial dividend (or distribution) rate after taking into account any swap spread between the original reference index and the new reference index. Conversion from a fixed rate to a floating rate (or vice versa) in combination with a call option without any increase in credit spread would not constitute a step-up.

66 Other incentives to redeem include a call option combined with a requirement or an investor option to convert the instrument if the call is not exercised.

67 Replacement issuances can be concurrent with, but not after, the instrument is called.

i. The reciprocal union must have full discretion at all times to cancel distributions/ payments.[68]

ii. Cancellation of discretionary payments must not be an event of default or credit event;

iii. The reciprocal union must have full access to cancelled payments to meet obligations as they fall due;

iv. Cancellation of distributions/payments must not impose restrictions on the reciprocal union except in relation to distributions to the persons in the reciprocal union.

8. Dividends/coupons must be paid out of distributable items.

9. The instrument cannot have a credit sensitive dividend feature, i.e., a dividend/coupon that is reset periodically based in whole or in part on the credit standing of the reciprocal union or the group to which it belongs.[69]

10. The instrument cannot contribute to liabilities exceeding assets if such a balance sheet test forms part of applicable insolvency law.

11. Other than preferred shares, category B instruments included in capital available must be classified as equity per relevant accounting standards.

12. Neither the reciprocal union nor a related enterprise over which the reciprocal union exercises control or significant influence can have purchased the instrument, nor can the reciprocal union directly or indirectly have funded the purchase of the instrument.

13. The instruments cannot have any features that hinder recapitalization, such as provisions that require the issuer to compensate investors if a new instrument is issued at a lower price during a specified timeframe.

14. If the instrument is not issued directly by the reciprocal union (e.g., it is issued out of an SPV), proceeds must be available immediately without limitation to the reciprocal union in a form that meets or exceeds all of the criteria for inclusion specified under category B. For greater certainty, the only assets the SPV may hold are intercompany instruments issued by the reciprocal union or a related enterprise with terms and conditions that meet or exceed the above category B criteria. Put differently, instruments issued to the SPV have to fully meet or exceed all of the eligibility criteria under category B as if the SPV itself was an end investor – i.e., the

[68] A consequence of full discretion at all times to cancel distributions/payments is that "dividend pushers" are prohibited. An instrument with a dividend pusher obliges the issuing reciprocal union to make a dividend/coupon payment on the instrument if it has made a payment on another (typically more junior) capital instrument or share. Such an obligation is inconsistent with the requirement for full discretion to cancel distributions/payments at all times. Furthermore, the term "cancel distributions/payments" means to forever extinguish these payments. It does not permit features that require the reciprocal union to make distributions/payments in kind at any time.

[69] Reciprocal unions may use a broad index as a reference rate in which the issuing reciprocal union is a reference entity; however, the reference rate should not exhibit significant correlation with the reciprocal union's credit standing. If a reciprocal union plans to issue capital instruments where the margin is linked to a broad index in which the reciprocal union is a reference entity, the reciprocal union should ensure that the dividend/coupon is not credit-sensitive.

reciprocal union cannot issue a lower quality capital or senior debt instrument to an SPV and have the SPV issue higher quality capital instruments to third-party investors so as to receive recognition as qualifying capital under category B.

Annex 3. Qualifying criteria for category C capital instruments

For an instrument to be included in capital available under category C, it must meet all of the following criteria:

1. The instrument is issued and paid-in in cash or, with the prior approval of the AMF, in other means.
2. The instrument is subordinated to policyholders and general creditors of the reciprocal union.
3. The instrument is neither secured nor covered by a guarantee of the issuer or related entity or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis the reciprocal union's policyholders and/or general creditors.
4. Maturity:
    i. minimum original maturity of at least five years;
    ii. recognition in capital available in the remaining five years before maturity will be amortized on a straight line basis;
    iii. there are no step-ups[70] or other incentives to redeem.
5. The instrument may be callable at the initiative of the issuer only after a minimum of five years:
    i. To exercise a call option, a reciprocal union must receive prior approval from the AMF.
    ii. A reciprocal union must not do anything that creates an expectation that the call will be exercised. [71]
    iii. A reciprocal union must not exercise a call unless:
        a) It replaces the called instrument with capital of the same or higher quality, including through an increase in retained earnings, and the replacement of this capital is done at conditions which are sustainable for the income capacity of the reciprocal union;[72]
        b) It demonstrates that its capital position is above the internal capital target ratio after the call option is exercised.

[70] A step-up is defined as a call option combined with a pre-set increase in the initial credit spread of the instrument at a future date over the initial dividend (or distribution) rate after taking into account any swap spread between the original reference index and the new reference index. Conversion from a fixed rate to a floating rate (or vice versa) in combination with a call option without any increase in credit spread would not constitute a step-up.

[71] An option to call the instrument after five years but prior to the start of the amortization period will not be viewed as an incentive to redeem as long as the reciprocal union does not do anything that creates an expectation that the call will be exercised at this point.

[72] Replacement issuances can be concurrent with, but not after, the instrument is called.

6. The investor must have no rights to accelerate the repayment of future scheduled payments (interest or principal), except in bankruptcy, insolvency, wind-up or liquidation.

7. The instrument cannot have a credit sensitive dividend feature, i.e., a dividend/coupon that is reset periodically based in whole or in part on the credit standing of the reciprocal union or the group to which is belongs.[73]

8. Neither the reciprocal union nor a related enterprise over which the reciprocal union exercises control or significant influence can have purchased the instrument, nor can the reciprocal union directly or indirectly have funded the purchase of the instrument.

9. If the instrument is not issued directly by the reciprocal union (e.g., it is issued out of an SPV), proceeds must be available immediately without limitation to the reciprocal union in a form that meets or exceeds all of the criteria for inclusion specified under category C. For greater certainty, the only assets the SPV may hold are intercompany instruments issued by the reciprocal union or a related enterprise with terms and conditions that meet or exceed the above category C criteria. Put differently, instruments issued to the SPV have to fully meet or exceed all of the eligibility criteria under category C as if the SPV itself was an end investor – i.e., the reciprocal union cannot issue a lower quality capital or senior debt instrument to an SPV and have the SPV issue higher quality capital instruments to third-party investors so as to receive recognition as qualifying capital under category C.

[73] Reciprocal unions may use a broad index as a reference rate in which the issuing reciprocal union is a reference entity; however, the reference rate should not exhibit significant correlation with the reciprocal union's credit standing. If a reciprocal union plans to issue capital instruments where the margin is linked to a broad index in which the reciprocal union is a reference entity, the reciprocal union should ensure that the dividend/coupon is not credit-sensitive.