



Guideline

**Subject: Minimum Capital Test (MCT)¹
For Federally Regulated Property and Casualty Insurance Companies**

No: A Date: December 2010

Introduction

Subsection 515(1) of the Insurance Companies Act requires Federally Regulated Property and Casualty Insurance Companies (P&C insurance companies) to maintain adequate capital. The MCT Guideline is not made pursuant to subsection 515(2) of the Act. However, the minimum and supervisory target capital standards set out in this Guideline provide the framework within which the Superintendent assesses whether a P&C insurance company maintains adequate capital pursuant to subsection 515(1). Notwithstanding that a P&C insurance company may meet these standards, the Superintendent may direct the company to increase its capital under subsection 515(3).

This guideline outlines the capital framework, using a risk-based formula for minimum capital required, and defines the capital that is available to meet the minimum standard. The MCT determines the minimum capital required and not necessarily the optimum capital required.

¹ This harmonized test for federally and provincially incorporated insurers has been approved by the Canadian Council of Insurance Regulators (CCIR).



**Minimum Capital Test (MCT)
For Canadian Property and Casualty Insurers**

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Overview and Capital Available

The Minimum Capital Test (MCT) for Canadian Property and Casualty Insurers

This section provides an overview of the MCT for Canadian Property and Casualty Insurers (P&C insurers). More detailed information on specific components of the calculation is contained under subsequent tabs.

Risk-Based Capital Adequacy Framework

The risk-based capital adequacy framework assesses the riskiness of assets, policy liabilities, structured settlements, letters of credit, derivatives and other exposures, by applying varying factors. P&C insurers are required to meet a capital available to capital required test. The definition of capital to be used for this purpose is described below and is calculated on a consolidated basis. For capital purposes, the consolidated entity includes the parent company and all subsidiaries that carry on business that the parent could carry on directly as per the Insurance Companies Act (e.g. P&C insurance and ancillary businesses such as agencies, brokerages and mutual funds). It is understood that it is the nature of the subsidiary's business which determines if it should be consolidated and not where the subsidiary conducts its business. All other investments in subsidiaries are considered "non-qualifying" for capital purposes and are excluded from capital available and capital required calculations.

MCT Supervisory Target for Federally Regulated P&C Insurance Companies

Federally regulated P&C insurance companies are required, at a minimum, to maintain an MCT ratio of 100%². OSFI believes that each institution should establish a target capital level that provides a cushion above minimum requirements, both to cope with volatility in markets and economic conditions, innovations in the industry, consolidation trends and international developments, and to provide for risks not explicitly addressed in the calculation of policy liabilities or the MCT. Such risks include systems, data, strategic, management, fraud, legal and other operational and business risks. An adequate target capital level provides additional capacity to absorb unexpected losses beyond those covered by the minimum MCT and to address capital needs through ongoing market access.

OSFI expects each institution to establish a target capital level, and maintain ongoing capital, at no less than the supervisory target of 150% MCT. However, the Superintendent may, on a case-by-case basis, establish in consultation with an institution an alternative supervisory target level based upon an individual institution's risk profile.

Institutions are required to inform OSFI immediately if they anticipate falling below the supervisory target capital level and to lay out their plans, for OSFI approval, to return to their

² Mortgage insurers are expected to maintain core capital (capital available as defined for MCT purposes, but excluding subordinated debt) sufficient to cover 100% of capital required. This requirement currently applies only to federally regulated insurers.

target level. OSFI will consider any unusual conditions in the market environment when evaluating institutions' performance against their target level.

Audit Requirement

Property and Casualty insurers are required to engage their auditor appointed pursuant to section 337 of the *Insurance Companies Act* to report annually on the MCT prepared as at fiscal year end, in accordance with the relevant standards for such assurance engagements, as promulgated by the Canadian Auditing and Assurance Standards Board (AASB).

Capital Available

Capital available is determined on a consolidated basis as described above.

The three primary considerations for defining the capital of a P&C insurer for purposes of measuring capital adequacy are:

- i.) its permanence;
- ii.) its being free of any obligation to make payments from earnings; and
- iii.) its subordinated legal position to the rights of policyholders and other creditors of the institution.

The integrity of capital elements is paramount to the protection of policyholders. These considerations will be taken into account in the overall assessment of a P&C insurer's financial condition.

Capital available includes instruments with residual rights that are subordinate to the rights of policyholders and which will be outstanding over the medium term. It also includes an amount to reflect changes in the market value of investments.

Capital Available is restricted to the following, subject to requirements of the regulator:

1. Equity
 - shares treated as equity under GAAP;
 - contributed surplus;
 - retained earnings;
 - reserves;
 - general and contingency reserves; and
 - consolidated non-controlling interests (see note below).
2. Subordinated indebtedness and preferred shares whose redemption is subject to regulatory approval.
3. Certain components of Accumulated Other Comprehensive Income:
 - Accumulated net after-tax unrealized gains(losses) on available-for-sale equity securities;
 - Accumulated net after-tax unrealized gains (losses) on available-for-sale debt securities; and,
 - Accumulated net after-tax foreign currency gains (losses), net of hedging activities.

Note: Consolidated non-controlling interests:

- Companies will generally be permitted to include in capital available, non-controlling interests in operating subsidiaries that are consolidated for MCT purposes, provided that the capital in the subsidiary is not excessive in relation to the amount necessary to carry on the subsidiary's business, and the level of capitalization of the subsidiary is comparable to that of the insurance company as a whole.
- If a subsidiary issues capital instruments for the funding of the company 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 company in order for it to qualify as capital on consolidation. This can only be achieved by the subsidiary using the proceeds of the issue to purchase a similar instrument from the parent. Since subsidiaries cannot buy shares in the parent property and casualty company, it is likely that 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.

Deductions/Adjustments

The following amounts are deducted/adjusted from the total of capital available:

- Amounts receivable and recoverable from unregistered reinsurers to the extent that they are not covered by deposits or letters of credit held as security from assuming reinsurers (reference Tab 3-2).
- Interests in non-qualifying (non-consolidated) subsidiaries and associates.
- Interests in joint ventures with more than a 10% ownership interest.
- Loans to non-qualifying (non-consolidated) subsidiaries, associates and joint ventures with more than a 10% ownership interest considered as capital.
- Deferred policy acquisition expenses that are not eligible for either the 0% capital factor or the 35% capital factor.
- Adjustment to own-use property valuations³:
 - Subtract unrealized fair value gains (losses) reflected in retained earnings at conversion to IFRS; and
 - Add accumulated net after tax revaluation losses in excess of gains that are reflected in retained earnings for accounting purposes.
- Net after-tax impacts of shadow accounting.
- Future income tax assets that are not eligible for the 0% capital factor.

³ No adjustments are required for "investment properties" as fair value gains (losses) are allowed for capital purposes.

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- Goodwill and other intangible assets.
 - Other assets, as defined (reference Tab 2-3), in excess of 1% of total assets.
 - Accumulated net after-tax fair value gains (losses) arising from changes in a company's own credit risk.

 - IFRS phase-in adjustment:
 - Institutions may elect to phase in the impact of IFRS 1 when calculating regulatory capital. The election is irrevocable and its impact on regulatory capital must be disclosed.

Although FRFI's should be taking steps in advance of conversion to IFRS to minimize the impact of IFRS 1, the phase-in period for regulatory capital purposes begins at the date of conversion to IFRS and must be completed by the quarter ending on or after December 31, 2012. Phase-in is made on a straight-line basis.

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

Capital Treatment for Investments in and Loans to Subsidiaries, Associates and Joint Ventures

The capital available treatments for investments in subsidiaries, associates and joint ventures are as follows:

1. Consolidated Subsidiaries (e.g. P&C insurance and ancillary businesses such as agencies, brokerages and mutual funds)

The assets and liabilities of these investments are fully consolidated in the parent company's regulatory financial statements and are included in capital available. The assets and liabilities of these investments are therefore subject to asset factors and liability margins in the parent's MCT.

2. Joint Ventures with less than or equal to 10% ownership interest

Where an insurer holds less than or equal to 10% ownership in a joint venture, the investment (valued using the equity method) is included in capital available. The investment (valued using the equity method) is subject to the asset factor applicable to common shares.

3. Non-Qualifying (non-consolidated) Subsidiaries

Interests in non-qualifying subsidiaries are excluded from capital available. Loans to, or other debt instruments issued to non-qualifying subsidiaries, if they are considered as capital in the non-qualifying subsidiaries are also excluded from capital available of the P&C insurer. Loans to, or other debt instruments issued to non-qualifying subsidiaries that are **not** considered capital, are subject to an asset factor of 35% or higher for higher risk loans. Insurers should contact their regulator to discuss higher asset factors. Receivables from non-qualifying subsidiaries will attract an asset factor of 4% or 8% depending on how long the balances are outstanding.

4. Associates

An enterprise is an associate of another enterprise if both are subsidiaries of the same other enterprise or if each of them is controlled by the same person or enterprise. In addition, if one enterprise exerts significant influence over another, the two enterprises are associated. The notion of significant influence is defined in accordance with Canadian GAAP.

Interests in associates are excluded from capital available. Loans to, or other debt instruments issued to associates, if they are considered as capital in the associates are also excluded from capital available of the P&C insurer. Loans to, or other debt instruments issued to associates that are **not** considered capital are subject to an asset factor of 35% or higher for higher risk loans. Insurers should contact their regulator to discuss higher asset factors. Receivables from associates will attract an asset factor of 4% or 8% depending on how long the balances are outstanding.

5. Joint Ventures with more than a 10% ownership interest

Interests in joint ventures with more than 10% ownership are excluded from capital available. Loans to, or other debt instruments issued to joint ventures with more than a 10% ownership interest, if they are considered as capital in the joint ventures with more than a 10% ownership interest are also excluded from capital available of the P&C insurer. Loans to, or other debt instruments issued to joint ventures with more than a 10% ownership interest that are **not** considered capital are subject to an asset factor of 35% or higher for higher risk loans. Insurers should contact their regulator to discuss higher asset factors. Receivables from joint ventures with more than a 10% ownership interest will attract an asset factor of 4% or 8% depending on how long the balances are outstanding.

Types of exposures a P&C insurer might have with non-qualifying (non-consolidated) subsidiaries, associates and joint ventures:

Exposure	Capital treatment
Common or preferred shares (non-qualifying subsidiaries and associates) including share of accumulated earnings / losses less dividends received based on equity accounting	Excluded from capital available
Ownership interests (> 10% joint venture)	Excluded from capital available
Ownership interests (\leq 10% joint venture)	Included in capital available with an asset factor of 15% applied to the ownership interest
Loans or other debt instruments (bonds, debentures, mortgages, etc) considered as capital	Excluded from capital available
Loans or other debt instruments (bonds, debentures, mortgages, etc) not considered as capital	Included in capital available with an asset factor of 35% or higher applied (higher asset factor can be applied on a case by case basis to higher risk loans)
Receivables	Included in capital available with an asset factor of 4% or 8% depending how long the balances are outstanding

Capital Required

Capital required is based on the same consolidation methodology as is used in determining capital available.

A P&C insurer's minimum capital requirement is the sum of:

- i.) Capital for assets (reference Tab 2).
- ii.) Margins for unearned premiums, premium deficiencies and unpaid claims (policy liabilities – reference Tab 3).
- iii.) Catastrophe reserves and additional policy provisions (reference Tab 3).
- iv.) Margin for reinsurance ceded to unregistered reinsurers (reference Tab 3).
- v.) Capital for structured settlements, letters of credit, derivatives and other exposures (reference Tab 4).

Notwithstanding the stated requirements, in any case where the regulator believes that the capital treatment is inappropriate, a specific capital charge would be determined.

Application

The test applies to Canadian P&C insurers.

Interpretation of Results

The MCT measures the capital adequacy of a P&C insurer. It is one of several indicators that the regulator uses to assess financial condition and should not be used in isolation for ranking and rating insurers.

Capital Required for Assets

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Description of Asset Risks

The capital required for assets covers 1) the potential losses resulting from asset default and the related loss of income, and 2) the loss of market value of equities and the related reduction in income. To determine the risk-based capital requirement for assets, P&C insurers must apply a factor to the balance sheet value of each asset. For loans, the factors are applied to amortized cost. (No asset factors are applied to assets deducted from capital available, refer to Tab 1). The total of these amounts represents the capital required for asset risks.

Counterparty Risk

This Tab applies to assets (reference Tab 2) and to structured settlements, letters of credit, derivatives and other exposures (reference Tab 4).

The three rating categories used for assigning capital factors to assets, structured settlements, letters of credit, derivatives and other exposures, or where appropriate, collateral and guarantees, are:

1. Government Grade

Government obligations include securities issued by, loans made to, or securities or loans guaranteed by, and accounts receivable from:

- i.) the federal government or an agent of the Crown;
- ii.) a provincial or territorial government of Canada or one of its agents;
- iii.) a municipality or school corporation in Canada; and,
- iv.) the central government of a foreign country where:
 - the security is rated AAA or, if not rated,
 - the long-term sovereign credit rating of that country is AAA.

2. Investment Grade

A security is treated as investment grade if its rating (excluding securities that are included in the government grade category) meets or exceeds the rating listed in the table below. If a rating is not available, or where the rating of the security, or guarantor, is less than the rating listed in the table, it will be assigned a not-investment grade factor.

A P&C insurer wishing to use the rating of another rating agency should seek the approval of the regulator.

Asset/Guarantor Ratings

Rating Agency	Commercial Paper	Bonds & Debentures	Preferred Shares
	(at least as high as)		
Moody's Investor Service	P-1	A	Aa
Standard and Poor's Corporation	A-	A	AA
Dominion Bond Rating Service	R-1 (low)	A	Pfd-2

3. Not-Investment Grade

Includes any item not included in the government grade or investment grade categories.

In the case of an asset or exposure backed by a guarantee (reference Tab 2-5), the long-term issuer credit rating or, in the case of a government, the long-term sovereign risk rating, of the guarantor is used to determine the risk category. In all cases, when a credit rating is not available, the relevant not-investment grade factor is applied.

Asset Factors*0% Capital Factor*

- Cash.
- Obligations⁴ of federal, provincial, territorial and municipal governments, and school corporations in Canada.
- 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.
- Obligations of AAA-rated central governments and central banks, or obligations of organizations with the guarantee of the central government.
- Obligations backed by a government grade guarantor 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.
- Future income tax assets arising from discounting of claims reserves for tax purposes, or from unrealized capital gains, that are recoverable from income taxes paid in the three immediately preceding fiscal years.
- Income tax receivables.
- Deferred policy acquisition expenses: premium taxes.
- Instalment premiums (not yet due).

0.5% Capital Factor

- Term deposits, bonds, and debentures (including commercial paper), rated investment-grade, that mature or are redeemable in less than one year.
- Unearned premiums recoverable from registered insurers (reference Tab 3-2).
- Receivables from registered insurers (reference Tab 3-2).
- Accounts receivable from the Facility Association and the Plan de répartition des risques ("P.R.R.").

2% Capital Factor

- Term deposits, bonds, and debentures (including commercial paper), rated investment grade, that mature or are redeemable in one year or more.
- Investment income due and accrued.

⁴ Includes securities, loans and accounts receivable.

-
- Unpaid claims and adjustment expenses recoverable from registered insurers (reference Tab 3-2).

4% *Capital Factor*

- Term deposits, bonds, and debentures (including commercial paper), rated not-investment grade, that mature or are redeemable in less than one year.
- Investment grade preferred shares.
- Accounts receivable, outstanding less than 60 days, from agents, brokers, non-qualifying subsidiaries associates, joint ventures and policyholders, including instalment premiums and other receivables.
- First mortgages on one- to four-unit residential dwellings.

8% *Capital Factor*

- Term deposits, bonds, and debentures (including commercial paper), rated not-investment grade, that mature or are redeemable in one year or more.
- Accounts receivable, outstanding 60 days or more, from agents, brokers, non – qualifying subsidiaries associates, joint ventures and policyholders, including instalment premiums and other receivables.
- Real-estate for an insurer’s own use (excluding any unrealized fair value gains (losses) resulting from the conversion to IFRS, or subsequent unrealized fair value gains (losses) due to revaluation).
- Commercial mortgages.

10% *Capital Factor*

- Other loans.

15% *Capital Factor*

- Common shares.
- Preferred shares rated not-investment grade.
- Investments in real estate (not for an insurer’s own use).
- Mortgages secured by undeveloped land (i.e., 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.
- Other recoverables (mainly salvage and subrogation) on Unpaid Claims.
- Other investments, excluding derivative-related amounts (per page 40.80 of P&C-1 Instructions: includes investments *other than* term deposits, bonds and debentures,

loans, shares, or investment in real estate). Capital requirements for derivative-related amounts included in other investments are set out in Tab 4 and are reported on page 30.70, with capital required for structured settlements, letters of credit, derivatives and other exposures.

- Investments in joint ventures with less than or equal to 10% ownership.

35% Capital Factor

- Deferred Policy Acquisition Expenses: Commissions, net of an adjustment for Unearned Commissions (note that 35% is applied to this calculated net value and not to the book value entered on page 30.71). If the net value is negative, report zero on page 30.71 (i.e., any excess adjustment for Unearned Commission cannot be recognized as capital).
- Other Assets (page 30.71) to a limit of 1% of Total Assets. Any excess over the limit is included in the amount deducted from Capital Available, on page 30.70.
- Loans or other debt instruments (bonds, debentures, mortgages, etc) not considered capital in non-qualifying (non-consolidated) subsidiaries, associates and joint ventures with more than a 10% ownership interest.

Variable Capital Factors

- Investments in securitized assets, mutual funds or other similar assets must be broken down by type of investment (bond, preferred shares, etc., as per the P&C-1 Instructions), reported on the applicable line, and assigned the appropriate capital factor relating to the investment. If these investments are not reported on a prorated basis, then the factor of the riskiest asset being securitized, or held in the fund, is assigned to the entire investment.

Derivatives

- Capital requirements for derivatives are set out in Tab 4.

General

- Where information is not available to determine the grade of the counterparty, the counterparty is deemed to be not-investment grade.
- Where information is not available to determine the redemption/maturity of an asset, P&C insurers must use the category with the highest capital factor for that asset (i.e., use the “deposits, bonds and debentures, expiring or redeemable in more than one year” category where that information is not available for a particular asset).
- The total reported on page 30.71 is equal to the total assets reported on the balance sheet.

Capital Treatment for Collateral and Guarantees

This Tab applies to assets, and to structured settlements, letters of credit, derivatives and other exposures.

Collateral

Recognition of collateral in reducing the capital required for assets, structured settlements, derivatives and other exposures is limited to cash or securities meeting the government grade or investment grade criteria (reference Tab 2-2). Where a rating is not available for the asset, exposure, or counterparty where applicable, no reduction in capital required is permitted.

Any collateral must be held throughout the period for which the asset is held or for which the exposure exists. Only that portion of an obligation that is covered by eligible collateral will be assigned the weight given to the collateral.

Guarantees

Investments (principal and interest) or exposures that have been explicitly, irrevocably and unconditionally guaranteed by a guarantor whose long-term issuer credit rating or, in the case of a government, the long-term sovereign credit rating, satisfies the government grade or investment grade rating criteria, may attract the capital factor allocated to a direct claim on the guarantor where the effect is to reduce the risk. Guarantees provided by a parent or an associate are not eligible for this treatment on the basis that guarantees within a corporate group are not considered to be a substitute for capital.

Where a rating is not available for the investment, exposure, or guarantor where applicable, no reduction in capital required is permitted.

To be eligible, guarantees should cover the full term of the instrument and be legally enforceable.

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 capital factor of the guarantor (see examples below).

Example One: Asset (reference Tab 2)

To record a \$100,000 investment grade bond due in 10 years that has a government guarantee of 90%, the insurer would report a book value of \$90,000 ($\$100,000 \times 90\%$) on the government grade line and a book value of \$10,000 ($\$100,000 - \$90,000$) on the investment grade line on page 30.71 under term deposits, bonds and debentures, expiring or redeemable in more than one year. The capital required on the government grade line is \$0 ($\$90,000 \times 0.0\%$). The capital required on the investment grade line is \$200 ($\$10,000 \times 2.0\%$) for a total capital requirement of \$200. An example of the calculation, assuming no other assets, is provided in the chart below.

	Factor (%)	Book Value	Capital Required
Investments:			
Term Deposits, Bonds And Debentures:			
- Expiring or redeemable in more than one year:			
Government Grade	0.0%	\$90,000	\$0
Investment Grade	2.0%	\$10,000	\$200
Not Investment Grade	8.0%		
Total		\$100,000	\$200

Example Two: Type 1 Structured Settlement (reference Tab 4).

To record a \$3,000 Type 1 structured settlement rated not investment grade, backed by collateral or a guarantee of \$2,000 from an investment grade counterparty, the insurer would report a possible credit exposure of \$3,000 and collateral and guarantees of negative \$2,000 on the not investment grade line, and collateral and guarantees of \$2,000 on the investment grade line in Appendix A-4.

The capital required on the not investment grade line is \$20 ($(\$3,000 - \$2,000) \times 50\% \times 4\%$). The capital required on the investment grade line is \$5 ($\$2,000 \times 50\% \times .5\%$) for a total capital requirement of \$25. An example of the calculation, assuming no other exposures, is provided in the chart below.

	Possible Credit Exposure (01)	Collateral and Guarantees (02)	Credit Conversion Factor (%) (03)	Capital Factor (%) (04)	Capital Required (05)
Structured Settlements:					
Government Grade					
Investment Grade		\$2,000	50%	0.5%	\$5
Not Investment Grade	\$3,000	(\$2,000)	50%	4.0%	\$20
Total					\$25

Capital Required for Policy Liabilities

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Margins for Unearned Premiums, Unpaid Claims and Premium Deficiencies 3-1

Catastrophes 3-1

Reinsurance Receivables and Recoverables 3-2

Description of Risks for Policy Liabilities

This risk component reflects the insurer’s consolidated risk profile by individual classes of insurance and results in specific margin requirements on policy liabilities. For the MCT, the risk associated with policy liabilities is divided into four parts:

- i.) variation in claims provisions (unpaid claims);
- ii.) possible inadequacy of provisions for unearned premiums;
- iii.) possible inadequacy of provisions for premium deficiencies; and
- iv.) occurrence of catastrophes (earthquake and other).

Margins for Unearned Premiums, Unpaid Claims and Premium Deficiencies

Given the uncertainty that balance sheet provisions will be sufficient to cover the anticipated liabilities, margins are added to cover the potential shortfall. The margins establish a balance between the recognition of varying risks associated with different classes of insurance and the administrative necessity to minimize the test’s complexity.

From a regulatory perspective, these margins are included to take into account possible abnormal negative variations in the amounts calculated by actuaries, given the fact that the margins added by actuaries in their valuation are primarily intended to cover expected variations.

Margins on unpaid claims and unearned premiums are applied to the net amount at risk (i.e., net of reinsurance, salvage and subrogation, and self insured retentions) by class of insurance. The unearned premiums margin is applied to the greater of the net unearned premiums or 50% of the net written premiums in the last 12 months. The margins are as follows:

Class of Insurance	Margin on Unearned Premiums	Margin on Unpaid Claims
Personal property & commercial property	8%	5%
Automobile - Liability & personal accident	8%	10%
Automobile – Other	8%	5%
Liability	8%	15%
Accident and Sickness	See Appendix A-1	See Appendix A-1
Mortgage (federal companies only)	See Appendix A-3	15%
All others	8%	15%

A margin of 8% applies to premium deficiencies.

Minimum Gross Capital Level

Insurers are required to calculate their “Margins for Unearned Premiums, Unpaid Claims and Premium Deficiencies” as if none of the liabilities had been ceded (i.e. on a gross basis) and multiply the resulting gross margins by 25%. The greater of the 25% gross margins and the insurer’s net margins has to be reported as the capital required for “Unearned Premiums/Unpaid Claims/Premium Deficiencies”.

Catastrophes

Earthquake

Refer to the OSFI / l’Autorité des marchés financiers earthquake exposure sound practices guidelines.

Nuclear

Insurers issuing nuclear risk policies are required to record an additional provision of 100% of net premiums written, less commissions. In the absence of meaningful statistical data on the severity and frequency of losses, the regulator considers it appropriate for insurers to reverse this provision after twenty years.

Mortgage Insurance

Refer to the “additional policy provisions” section of Appendix A-3. Note that the requirements of Appendix A-3 currently apply only to federal insurers.

Reinsurance Receivables and Recoverables

Registered Reinsurers

The risk of default for recoverables from reinsurers arises from both credit and actuarial risk. Credit risk relates to the risk that the reinsurer will fail to pay the insurer what it is owed. Actuarial risk relates to the risk associated with assessing the amount of the required provision.

The capital factor applied to recoverables from registered reinsurers is treated as a combined weight under the MCT, reflecting both the credit risk and the risk of variability or insufficiency of Unpaid Claims and Unearned Premiums. A 2% capital factor is to be applied to Unpaid Claims recoverable from registered reinsurers and a 0.5% capital factor is to be applied to Unearned Premiums recoverable and to all receivables from registered reinsurers.

Unregistered Reinsurers

The capital deduction and margin requirement for receivables and recoverables from unregistered reinsurers are calculated on page 70.38 of the P&C-1.

Amounts receivable and recoverable from unregistered reinsurers, as reported on the balance sheet, are deducted from capital available to the extent that they are not covered by deposits and letters of credit held as security from assuming reinsurers. Amounts payable to assuming reinsurers may be deducted from amounts receivable and recoverable only where there is a legal and contractual right of offset. The deduction is calculated on page 70.38 of the P&C-1, and reported on the “assets with a capital requirement of 100%” line on page 30.70.

The margin for unregistered reinsurance is calculated on page 70.38 and reported on the “Reinsurance Ceded to Unregistered Insurers” line on page 30.70. The margin is 10% of “Unearned premiums ceded to assuming insurer” and “Outstanding losses recoverable from assuming insurer”. The margin requirement for each unregistered reinsurer may be reduced to a minimum of 0 by letters of credit and by deposits held as security that are in excess of the amount of ceded reserves, divided by 1.5.

The limit on the use of letters of credit to obtain credit for unregistered reinsurance is 30% of “Unearned Premiums Ceded to Assuming Insurer” and “Outstanding losses recoverable from assuming insurer”. Letters of credit for unregistered reinsurance are considered a direct credit substitute and are subject to a 0.5% capital factor as per Tab 4-4. Appendix A-4 “*Margin Required for Structured Settlements, Letters of Credit, Derivatives and Other Exposures*” can be used to calculate the capital charge on letters of credit.

Capital Required for Structured Settlements, Letters of Credit, Derivatives and Other Exposures

Description of Risks for Structured Settlements, Letters of Credit, Derivatives and Other Exposures 4-1

Possible Credit Exposure 4-2

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Risk Factors 4-4

Description of Risks for Structured Settlements, Letters of Credit, Derivatives and Other Exposures

This section applies to counterparty risk exposures not covered by the treatment for assets.

The risk to a P&C insurer associated with structured settlements, letters of credit, derivatives and other exposures and the amount of capital required to be held against this risk is:

- i.) The value of the instrument (Possible Credit Exposure; reference Tab 4-2) at the reporting date;
- ii.) Less: the value of eligible collateral security or guarantees (Collateral and Guarantees; reference Tab 2-4);
- iii.) Multiplied by: a factor reflecting the nature and maturity of the instrument (Credit Conversion Factor; reference Tab 4-3); and
- iv.) Multiplied by: a factor reflecting the risk of default of the counterparty to a transaction (Credit Risk; reference Tab 4-4).

Refer to Appendix A-2, Worksheet for Capital Required for Derivatives, Structured Settlements, Letters Of Credit, And Other Items.

Possible Credit Exposure

The possible credit exposure related to structured settlements, letters of credit, derivatives and other exposures varies depending on the type instrument.

Structured Settlements

The possible credit exposure for a structured settlement is the current cost of the instrument.

Instruments included in this section are “Type 1” structured settlements that are not recorded as liabilities on the balance sheet. For details on the types of structured settlements, refer to Special Topics, section IV of the Instructions to the P&C-1, and for federal insurers, to Guideline D5; Accounting for Structured Settlements.

Letters of Credit

The possible credit exposure for a letter of credit is the face value of the instrument.

Letters of credit may include, for example:

- i.) LOCs serving as direct credit substitutes backing financial claims where the risk of loss to the insurer is directly dependent on the creditworthiness of the counterparty.
- ii.) LOCs acting as transaction-related contingencies associated with the ongoing business activities of a counterparty. The risk of loss to the reporting institution depends on the likelihood of a future event that is independent of the creditworthiness of the counterparty.

Derivatives

The possible credit exposure 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. Insurers 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. Instruments traded on exchanges are excluded where they are subject to daily receipt and payment of cash variation margins.

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

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

Derivative “Add-On” Factors

Residual Maturity	Interest Rate	Exchange Rate	Equity	Other Instruments
<i>One year or less</i>	0.0%	1.0%	6.0%	10.0%
<i>Over one year</i>	0.5%	5.0%	8.0%	12.0%

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 remaining maturities of more than one year that also meet the above criteria, the add-on factor is subject to a floor of 0.5%.

The notional principal amount is:

- i.) the stated notional amount, except where the stated notional amount is leveraged or enhanced by the structure of the transaction. In these cases, insurers must use the actual or effective notional amount when determining potential future exposure⁵.
- ii.) nil, where the credit exposure on single currency floating/floating interest rate swaps would be evaluated solely on the basis of their marked-to-market value; or
- iii.) for contracts with multiple exchanges of principal, the sum of the remaining payments.

Contracts not covered by columns 2 – 4 in the above table are to be treated as “other instruments” for the purpose of determining the add-on factor.

Other Exposures

This section includes any other exposures not covered above. Some examples are provided below.

Commitments

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

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

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

⁵ For example, if a stated notional amount is based on a specified parameter (e.g., LIBOR), but has actual payments calculated at two-times that parameter, the amount for potential future credit exposure is based on twice the stated notional amount.

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:

- i.) the commitment is scheduled to expire, or
- ii.) the insurer 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 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 preferential factor, this would be recognized as collateral and the factor would be reduced accordingly.

Guarantees Provided in Securities Lending

In securities lending, insurers can act as principal to the transaction by lending their own securities or as agent by lending securities on behalf of clients. When the insurer lends its own securities, the risk factor is the factor related to the instrument lent. When the insurer, acting as agent, lends securities on behalf of a client and guarantees that the securities lent will be returned or the insurer will reimburse the client for the current market value, the credit risk is based on the counterparty credit risk of the borrower of the securities.

For details on how to record these and other such exposures, consult with your primary regulator. In addition, insurers should refer to any other applicable Guidelines.

Credit Conversion Factors

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

For letters of credit and other exposures, the weighted average of the credit conversion factors, described below, for all of these instruments held by the insurer, should be entered in the appropriate cell in the Worksheet for Derivatives, Structured Settlements, Letters Of Credit, And Other Items (Appendix A-2).

100% Factor

- Guarantees, letters of credit, or other equivalent irrevocable obligations serving as financial guarantees. Generally, these are considered direct credit substitutes where the risk of loss to the insurer is directly dependent on the creditworthiness of the counterparty.
- Commitments that mature in one year or more, and the insurer cannot cancel or withdraw the commitment at any time without notice and where their drawdown is certain.
- Derivatives such as forwards, futures, swaps, purchased options (including options purchased over the counter) and other similar derivative contracts, including:
 - i.) Interest rate contracts (single currency interest rate swaps; basis swaps; forward rate agreements and products with similar characteristics; interest rate futures; interest rate options purchased, and similar derivative contracts based on specific parameters as well as on indices, etc.).
 - ii.) Equity contracts (forwards; swaps; purchased options; and similar derivative contracts based on specific parameters as well as on indices, etc.).
 - iii.) 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 as well as on indices, etc.).
 - iv.) Precious metals (except gold) and other commodity contracts (forwards; swaps; purchased options; and similar derivative contracts based on specific parameters as well as on indices, etc.).
 - v.) Other derivative contracts based on specific parameters as well as on indices (such as catastrophe insurance options and futures).
- Forward asset purchases including a commitment to purchase a loan, security or other asset at a specified future date, usually on prearranged terms.
- Sale and repurchase agreements.
- All other exposures not reported elsewhere (provide details).

50% Factor

- Structured settlements that are not recorded as liabilities on the balance sheet (refer to Section IV, Special Topics of the P&C-1, and for federal insurers to Guideline D5; Accounting for Structured Settlements).
- Performance-related and non-financial guarantees such as performance-related standby letters of credit (e.g., representing obligations backing the performance of non-financial or specific commercial contracts or undertakings and not general financial obligations). Performance-related guarantees specifically exclude items relating to non-performance of financial obligations.
- Commitments that mature in one year or more, and the insurer cannot cancel or withdraw the commitment at any time without notice and where their drawdown is uncertain.

0% Factor

- Commitments that mature in less than one year and other commitments where the insurer has full discretion to unconditionally cancel or withdraw the commitment at any time without notice⁶.

⁶ Other than any notice required under legislation or other court rulings that require notice.

Capital Factors

Structured settlements, letters of credit, derivatives and other exposures are assigned a capital factor ranging from 0% to 8.0%, subject to their counterparty risk rating (reference Tab 2-2). The factors to be applied are:

0% Factor

- Exposures rated government grade.

0.5% Factor

- Structured settlements rated investment grade.
- Letters of credit issued by investment grade Canadian chartered banks and received from unregistered reinsurers or policyholders (for self insured retention). Refer to Appendix A-4
- Derivatives rated investment grade.

2.0% Factor

- “Other Items” rated investment grade.

4.0% Factor

- Structured settlements not rated government grade or investment grade.
- Letters of credit not rated government grade or investment grade.
- Derivatives not rated government grade or investment grade.

8.0% Factor

- “Other Items” not rated government grade or investment grade.

- END -

Appendix A-1: Capital Required: Accident and Sickness Business

Accident and sickness requirements determined by actuaries in their valuations are primarily intended to cover expected variations in these requirements based on assumptions about mortality and morbidity. Margins on unearned premium and unpaid claims for accident and sickness insurance are included in the MCT to take into account possible abnormal negative variations in actual requirements.

The unearned premium margin is calculated by applying a factor to annual earned premiums. Generally, the factor varies with the length of the premium guarantee remaining. The unpaid claims margin is calculated by applying a factor to the unpaid claims experience relating to prior years. Generally, the factor varies with the length of benefit period remaining.

This appendix includes a worksheet for calculating the margin required for accident and sickness business. Instructions for completing the worksheet are included in the section below. The total requirement calculated on the worksheet is included in the amount reported in unearned premiums/unpaid claims on Page 30.70.

Instructions for Completing the Worksheet

Mortality/morbidity risk for accident and sickness insurance is the risk that assumptions about mortality and morbidity will be wrong.

To compute the mortality/morbidity component a factor is applied to the measure of exposure to risk. The resulting values are added to arrive at the unearned Premium and unpaid Claims margins requirement.

The factors used in deriving the risk component vary with the guaranteed term remaining in the exposure measure. The measure of the exposure to risk is as follows:

Risk	Measure of Exposure	Applicable Guaranteed Term
Disability Income, New Claims Risk	Annual net earned premiums	the length of the premium guarantee remaining
Disability Income, Continuing Claims Risk	Disability income net reserves relating to claims of prior years	the length of the benefit period remaining
Accidental Death and Dismemberment	Net amount at risk = the total net face amount of insurance less policy reserves (even if negative)	the period over which the mortality cost cannot be changed (limited to the remaining period to expiry or maturity)

1) Disability Income Insurance

The additional risks associated with non-cancellable guaranteed premium business should be recognized. As well, increased volatility is characteristic of disability income insurance, as compared to medical and dental expense reimbursement business.

Unearned Premium Margin

The unearned premium component relates to claims arising from the current year's coverage, and includes the risks of incidence and claims continuance. The factor applied to the measure of exposure is as follows:

Percentage of Annual Earned Premiums ¹		Length of Premium Guarantee Remaining
Individually Underwritten	Other	
12%	12%	less than or equal to 1 year
20%	25%	greater than 1 year, but less than or equal to 5 years
30%	40%	greater than 5 years

Unpaid Claims Margin

The unpaid claims component covers the risk of claims continuance arising from coverage provided in prior years. The factor applies to disability income claim reserves related to claims incurred in prior years, including the portion of the provision for incurred but unreported claims. The factor applied to the measure of exposure is as follows:

Duration of Disability			Length of Benefit Period Remaining
less than or equal to 2 years	greater than 2 years but less than or equal to 5 years	greater than 5 years	
4.0%	3.0%	2.0%	less than or equal to 1 year
6.0%	4.5%	3.0%	greater than 1 year but less than or equal to 2 years
8.0%	6.0%	4.0%	greater than 2 years or lifetime

¹ For travel insurance, annual earned premiums should be considered revenue premiums.

2) Accidental Death and Dismemberment

To compute the components for accidental death and dismemberment, the following factors are applied to the net amount at risk:

Type		Factor	Guaranteed Term Remaining
Participating	Group	.015%	less than or equal to 1 year
	All other	.030%	all
Non-participating <i>Individual</i>	Adjustable	.030%	all
	All other	.015%	less than or equal to 1 year
		.030%	greater than 1 year but less than or equal to 5 years
		.060%	greater than 5 years, whole life, and all life insurance continued on disabled lives without payment of premiums.
Non-participating <i>Group</i>	All	.015%	less than or equal to 1 year
		.030%	greater than 1 year but less than or equal to 5 years
		.060%	greater than 5 years, whole life, and all life insurance continued on disabled lives without payment of premiums.

For participating business without meaningful dividends, and participating adjustable policies where mortality adjustability is not reasonably flexible, the factors for all other non-participating business should be used.

If current premium rates are significantly less than the maximum guaranteed premium rates, the guarantee term used is that applicable to the current rates.

Additional adjustments are accorded group insurance. They are as follows:

- The above factors may be multiplied by 50% for any group benefit that carries one of the following features: 1) a "guaranteed no risk", 2) deficit repayment by policyholders, or 3) "hold harmless" agreement where the policyholder has a legally enforceable debt to the insurer.
- No component is required for "Administrative services only" group cases where the insurer has no liability for claims.

Only "all cause" policies solicited by mail should be included in this section for automobile and common carrier accidental death and dismemberment. Specific accident perils accidental death and dismemberment in policies solicited by mail, and "free" coverages on premium credit card groups, should be included in the "Other Accident and Sickness Benefits" section.

3) **Other Accident and Sickness Benefits**

Unearned Premium Margin

The component requirement is 12% of annual earned premiums.

Unpaid Claims Margin

The component requirement is 10% of the provision for incurred but unpaid claims relating to prior years. The use of prior years avoids a double component requirement for incurred but unpaid claims arising from coverage purchases by premiums paid in the current year.

Special Policyholder Arrangements

For group insurance deposits in excess of liabilities, excluding the liability for such deposits, may reduce the component requirement on any policy to a minimum of zero. Such deposits must be: made by policyholders; available for claims payment (e.g., claim fluctuation and premium stabilization reserves, and accrued provision for experience refunds); and returnable, net of applications, to policyholders on policy termination.

Appendix A-2: Worksheet-Capital Required:Accident and Sickness Business

Please click on this link to view the [Worksheet](#).

Appendix A-3: Capital Required: Mortgage Insurance

This appendix currently applies only to federal insurers. It replaces all existing federal memoranda on the subject of capital requirements for mortgage insurance policies on classes of loans defined in Section 2 of this appendix.

1. Definitions

In this Appendix,

"commercial loan" means a loan on a property used primarily for commercial purposes;

"conventional loan" means a loan where the ratio of the initial mortgage amount to the lower of the appraised value or sale price, as at the date of the loan, does not exceed 80%;

"high-ratio loan" means a loan that is not a conventional loan;

"home-ownership loan" means a loan on a residential property with 1 to 4 units (inclusive), without regard to owner occupation;

"industrial loan" means a loan on a property used primarily for industrial purposes;

"initial mortgage amount" in respect of a mortgage that is not a first mortgage, means the total amount of the outstanding balance of the first mortgage, and the amount of the other mortgage at the date of commencement of risk under the policy;

"multiple residential loan" means a loan on a property with more than 4 units used primarily for residential purposes;

"variable payment mortgage" means a mortgage on which the payments to be made by the borrower increase in some pre-determined manner and which the regulator has agreed may be included under this definition.

2. Classes of Loans

The following classes of loans are hereby defined:

<i>Type of Property</i>	1st Mortgages		2nd Mortgages		Variable Payment Mortgage
	Conventional / High Ratio		Conventional / High Ratio		
Home-ownership	HCI	HH1	HC2	HH2	HV1
Multiple residential	MC1	MH1	MC2		
Commercial	CC1	CH1	CC2		
Industrial	IC1	IH1	IC2		

Note that the first letter denotes the type of property. The second letter denotes the type of mortgage. The suffix denotes the ranking of the mortgage.

3. Mortgage Insurance Margin

- a) A company shall, in respect of its mortgage insurance business covered by this Appendix, maintain a mortgage insurance margin as stipulated below, adjusted for:
 - i) various classes of mortgages by factors prescribed in paragraph (b);
 - ii) various settlement options by factors prescribed in section 8;
 - iii) the margin for commitments likely to result into policies in the following 60 days; and
 - iv) the investment income discount factor prescribed in paragraph (c).

This margin replaces the unearned premium margin required in the Minimum Capital Test (MCT) for Canadian property and casualty insurance companies.

Completed Policy Duration in Years	Mortgage Insurance Margin per \$100 of Initial Mortgage Amount	
	Homeownership	Others
0	\$0.616	\$1.10
1	\$0.711	\$1.10
2	\$0.694	\$1.07
3	\$0.644	\$0.98
4	\$0.496	\$0.87
5	\$0.346	\$0.73
6	\$0.194	\$0.54
7	\$0.106	\$0.33
8	\$0.051	\$0.10
9	\$0.030	Nil
10	Nil	Nil

The “Others” category consists of multiple residential, commercial and industrial loans.

- b) The following adjustment factors will apply to the mortgage insurance margin for various classes of mortgages:

<u>Class</u>		<u>Factors</u>
HC1	<u>Homeownership conventional 1st mortgages</u>	
	Maximum loan to value ratio up to 50%	.04
	Maximum loan to value ratio over 50% to 65%	.08
	Maximum loan to value ratio over 65% to 75%	.10
HH1	<u>Homeownership high ratio 1st mortgages</u>	
	Maximum loan to value ratio over 75% to 80%	.30
	Maximum loan to value ratio over 80% to 85%	.60
	Maximum loan to value ratio over 85% to 90%	.90
	Maximum loan to value ratio over 90% to 95%	1.20
	Maximum loan to value ratio over 95% to 100%, and	
	Average credit score greater than or equal to 700	1.35
	Average credit score between 680 and 699	1.40
	Average credit score between 660 and 679	1.45
	Average credit score less than 660	1.75
MCI	Multiple residential conventional 1st mortgages	1.00
MH1	Multiple residential high ratio 1st mortgages	1.50
MC2	Multiple residential conventional 2nd mortgages	1.00
CCI	Commercial conventional 1st mortgages	1.00
CHI	Commercial high ratio 1st mortgages	1.50
CC2	Commercial conventional 2nd mortgages	1.50
ICI	Industrial conventional 1st mortgages	1.00
IH1	Industrial high ratio 1st mortgages	1.50
IC2	Industrial conventional 2nd mortgages	1.50

For homeownership second mortgages, the factor used should be 90% of the first mortgage factor.

For homeownership variable payment mortgage, the factor used should be 110% of the non-variable payment factor.

- c) The above requirements shall be adjusted by application of an investment income factor defined as follows:

The income factor = $1 - 2.5(x - .05)$ where x denotes the investment yield of the company per unit of assets during the previous 12 months. The investment income factor shall not be less than 0.875.

For the purposes of calculating the yield, the investment income will be calculated as the net investment income plus the share of net income (loss) of subsidiaries, associates and joint ventures found on page 20.30 of the Annual Return, while assets are the total investments and the interests in subsidiaries, associates and joint ventures found on page 20.10 of the Annual Return.

- d) A company shall also maintain, a margin on the basis prescribed herein in respect of commitments likely to result into policies in the following 60 days. As regards the balance of commitments, the company will have to satisfy the regulator that capital would be available at the time when policies are likely to be issued. Companies will be required to justify the factors used in the calculations.
- e) Notwithstanding anything to the contrary stated herein, the mortgage insurance margin required pursuant to this section shall not be less than 0.15% of the initial mortgage amount on the total business of the company.

4. Unearned Premiums

- a) A company shall maintain unearned premiums on the scales prescribed below, unless OSFI is satisfied that there is sufficient historical loss emergence data to reliably identify the loss emergence pattern. For business insured prior to January 1, 2009, the difference between the two amounts, on an after-tax basis, is to be deducted from capital available.

Completed Policy Duration in Years	Unearned Premium Reserve as Percent of Single Premium Policy Reserve in Years					
	5 or less	over 5 and less than 10	over 10 and less than 15	over 15 up to 25	over 25 up to 30	over 30 up to 40
0	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1	75.00%	80.00%	85.00%	88.00%	88.50%	89.00%
2	50.00%	60.00%	65.00%	70.00%	70.50%	71.00%
3	25.00%	40.00%	45.00%	52.00%	52.50%	53.00%
4	12.50%	20.00%	30.00%	35.00%	35.50%	36.00%
5	0.00%	10.00%	18.00%	23.00%	23.50%	24.00%
6		5.00%	10.00%	14.00%	16.00%	16.50%
7		3.00%	6.00%	8.00%	12.00%	12.25%
8		2.00%	4.00%	6.00%	8.00%	8.25%
9		1.00%	2.00%	3.00%	5.00%	5.50%
10		0.00%	1.50%	2.50%	3.00%	3.50%
11			1.00%	2.00%	2.50%	2.75%
12			0.50%	1.50%	2.00%	2.10%
13			0.25%	1.00%	1.50%	1.70%
14			0.125%	0.50%	1.00%	1.30%
15			0.000%	0.40%	0.50%	0.90%
16				0.35%	0.45%	0.70%
17				0.30%	0.40%	0.65%
18				0.25%	0.35%	0.50%
19				0.20%	0.30%	0.40%
20				0.15%	0.25%	0.35%
21				0.12%	0.22%	0.32%
22				0.09%	0.19%	0.29%
23				0.06%	0.16%	0.26%
24				0.03%	0.13%	0.23%
25				0.00%	0.10%	0.20%
26					0.08%	0.18%
27					0.06%	0.16%
28					0.04%	0.14%
29					0.02%	0.12%
30					0.00%	0.10%

Completed Policy Duration in Years	Unearned Premium Reserve as Percent of Single Premium Policy Reserve in Years					
	5 or less	over 5 and less than 10	over 10 and less than 15	over 15 up to 25	over 25 up to 30	over 30 up to 40
31						0.09%
32						0.08%
33						0.07%
34						0.06%
35						0.05%
36						0.04%
37						0.03%
38						0.02%
39						0.01%
40						0.00%

- b) Renewable policies, other than for homeownership, subject to the first premium not less than 1.25% (1% for conventional loans) of the initial sum insured and a renewal premium of not less than 0.25% of the sum insured issued for an initial term (or a renewal term) not exceeding 5 years:
- i) The unearned premiums shall be maintained in accordance with the scale for policies over 5 and less than 10 years in (a) above; and
 - ii) The unearned premiums in respect of any renewal premium shall be calculated pro-rata over the greater of the following periods:
 - a. the renewal period; and
 - b. three years.

5. Additional Policy Provisions

A company shall maintain additional policy provisions as follows:

Completed Policy Duration in Years	Additional Policy Reserve as Per Cent of Single Premium Original Term of the Policy			
	Up to 5 yrs	Over 5 to 10 yrs	Over 10 to 15 yrs	Over 15 to 40 yrs
1	2.0	3.0	4.0	4.0
2	1.0	2.0	4.0	4.0
3	0.5	1.0	3.5	4.0
4		1.0	3.0	5.5
5		0.5	3.0	6.0
6		0.5	2.0	5.0
7		0.0	1.0	3.5
8			1.0	2.0

Completed Policy Duration in Years	Additional Policy Reserve as Per Cent of Single Premium Original Term of the Policy			
	Up to 5 yrs	Over 5 to 10 yrs	Over 10 to 15 yrs	Over 15 to 40 yrs
9			1.0	1.5
10			1.0	1.5
11			0.0	1.0
12				1.0
13				0.5
14				0.5
15				0.5
16				0.5
17				0.5
18				0.5
19				0.5
20				0.0
21				0.0
22				0.0
23				0.0
24				0.0
25				0.0

Note: For the purposes of this paragraph, the term of a policy for term 10 to 15 years described in paragraph 4(b) shall be treated as 10 years.

These factors are derived based on the assumption that the premium rates charged are adequate. Should these rates change over time, additional policy provisions factors will have to be readjusted. The regulator should be advised whenever a company is making a material change to its rates charged.

6. Other Policy Durations

Factors for Calculating Requirements of:

- a) mortgage insurance margin;
- b) Unearned Premiums; and
- c) Additional Policy Provisions

at policy durations other than those specified in this Appendix shall be obtained by simple interpolation.

7. Premium Deficiency

A company shall maintain a premium deficiency calculated as set out below for the different grouping of policies.

The premium deficiency in respect of a grouping of policies shall be the excess, if any, of:

- a) the sum of the future claims and adjustment expenses, future servicing expenses and reinsurance costs;
over
- b) the unearned premiums.

8. Optional Settlement Clause

- a) The mortgage insurance margin required (as specified in section 3) will be adjusted for the settlement option specified in the mortgage insurance policy by the following proportion.

Mortgage Loan to Original Value	Settlement Option¹	Factor Applicable to the Mortgage Insurance Margin
0 to 80%	10%	73%
0 to 85%	15%	80%
0 to 90%	20%	84%
0 to 95%	25%	100%
0 to 50%	100%	100%
Over 50% to 65%	100%	100%
Over 65% to 75%	100%	100%
Over 75% to 80%	100%	105%
Over 80% to 85%	100%	110%
Over 85% to 90%	100%	115%
Over 90% to 95%	100%	140%
Over 95% to 100%	100%	150%

- b) A company may in respect of homeownership loans issue policies with 100% coverage, subject to the following conditions:
 - i) The company shall include in all such policies a clause giving the company the option to pay claims on a deficiency basis without being required to settle the claim on the basis of the company taking over title to the mortgaged property; and

¹ Settlement Option - the percentage refers to the maximum claim measured as a percentage of the original loan amount. For example, a 25% settlement option on a \$200,000 mortgage means that the insurer is liable for up to the first \$50,000 of the lender's loss.

-
- ii) At any time when the real estate holdings of a company exceed 25% of its total invested assets, the company shall settle claims on such policies only on a deficiency basis, unless the company has received written permission from the regulator permitting it to settle such claims on the basis of taking over title to the mortgaged property.
 - c) For the purpose of this section invested assets will include those that are required to be reported in the Annual Return, plus any other items that may be approved by the regulator.
 - d) For proportional coverage², the factor used to adjust the mortgage insurance margin is obtained by multiplying the proportional coverage percentage by the applicable factor from the above table for a 100% settlement option. For example, a factor of 55% (50% times 110%) would apply for proportional coverage on a mortgage with an original loan to value ratio of 85%.

9. Date of Recognition of Claim

Provision for losses in respect of mortgages in default will be made on the earlier of:

- a) the date three months after the date of the first default; and
- b) the date when the claim is submitted to the company.

10. Policies Under Which Premium Credits for Existing Policies are Given

For the purposes of this appendix, the unearned premiums and additional policy provisions shall be maintained based on the premium ignoring credits, if any, allowed for an existing policy.

² Proportional Coverage Option - refers to the percentage of a lender's loss that is payable by the insurer. For example, with a 50% proportional coverage option, the insurer is liable for 50% of the lender's loss.

Appendix A-4: Worksheet – Capital Required: Structured Settlements, Letters of Credit, Derivatives and Other Exposures

(\$000)

	Possible Credit Exposure	Collateral and Guarantees	Credit Conversion Factor (%)	Capital Factor (%)	Capital Required Col. (01-02)x03x04
	(01)	(02)	(03)	(04)	(05)
Structured Settlements:					
Government Grade			50%	0.0%	
Investment Grade			50%	0.5%	
Not Investment Grade			50%	4.0%	
Letters of Credit issued:					
Government Grade.			Note	0.0%	
Investment Grade			Note	0.5%	
Not Investment Grade			Note	4.0%	
Derivatives:					
Government Grade			100%	0.0%	
Investment Grade			100%	0.5%	
Not Investment Grade			100%	4.0%	
Other Exposures:					
Government Grade			Note	0.0%	
Investment Grade			Note	2.0%	
Not Investment Grade			Note	8.0%	
Letters of credit received / held:	Face Value			Capital Factor (%)	Capital Required Col. (01)x(04)
	(01)	(02)	(03)	(04)	(05)
Unregistered reinsurers				0.5%	
Policyholders (SIR)				0.5%	
Total					