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# Guideline

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

**No: A Date: July 2003**

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).

The MCT will apply to P&C insurance companies on a trial basis for 2002, in parallel with the existing P&C solvency tests. P&C insurance companies will be required to file the MCT on a compliance basis effective with the first Interim Return due in 2003.

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.

*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%. 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. On an individual company basis, OSFI will consider transitional arrangements for companies that have a Minimum Asset Test (MAT) margin of 10% or more, but do not currently meet the supervisory target level.

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

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**MINIMUM CAPITAL TEST (MCT)<sup>1</sup>  
FOR CANADIAN PROPERTY AND CASUALTY INSURERS**

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

**Overview*****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, and off-balance sheet 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 expanded upon in Tab 2.

***Capital Available***

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; and
  - general and contingency reserves.
2. Subordinated indebtedness and preferred shares whose redemption is subject to regulatory approval.
3. An amount to recognize changes in the market value of investments (Adjustment to Market). The Adjustment to Market is determined by summing the amounts determined in a) and b) below.
  - a) An amount for Investments (other than Real Estate and Other Investments). This is determined by netting the excess for investments having a market value that exceeds their book value against the shortfall for investments having a market value that is less than their book value. A factor of 100% is assigned to a net shortfall to determine the reduction in the Adjustment to Market amount. A factor of 50% is assigned to a net increase to determine the increase in the Adjustment to Market amount.

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- b) An amount for Real Estate and Other Investments. This is determined by netting the total excess for Real Estate and Other Investments having a market value that exceeds their book value against the total shortfall for Real Estate and Other Investments having a market value that is less than their book value. A factor of 100% is assigned to a net shortfall to determine the reduction in the Adjustment to Market amount. A factor of 0% is assigned to a net increase.

***Deductions/Adjustments***

The following amounts are deducted from the total of Capital Available:

- Investments in subsidiaries other than Regulated Financial Institution Subsidiaries (reference Tab 2-5).
- Investments in Affiliates (reference Tab 2-5).
- Deferred Policy Acquisition Expenses that are not eligible for either the 0% capital factor or the 35% capital factor.
- Future Income Tax Debits that are not eligible for the 0% capital factor.
- Goodwill and Other Intangible Assets.
- Other Assets, as defined (reference Tab 2-4), in excess of 1% of Total Assets.

No asset factor is applied to items that are deducted from Capital Available.

***Capital Required***

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

1. Capital for On-Balance Sheet Assets (reference Tab 2).
2. Margins for Unearned Premiums and Unpaid Claims (Policy Liabilities – reference Tab 3).
3. Catastrophe Reserves and Additional Policy Provisions (reference Tab 3).
4. An amount for Reinsurance Ceded to Unregistered Reinsurers (reference Tab 3).
5. Capital for Off-Balance Sheet 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.

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### ***Minimum Requirements***

P&C insurers will be expected to maintain available capital equal to at least the minimum capital requirement. The regulator may prescribe a higher capital requirement, including for an individual P&C insurer, taking into account such factors as operating experience, diversification of the asset or insurance portfolios, and retention limits.

### ***Transitional Provisions***

Insurers are required to file the MCT on a compliance basis effective with the first Interim Return due in 2003.

### ***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 On-Balance Sheet Assets**

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**Definition of Capital**

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

- its permanence;
- its being free of any obligation to make payments from earnings; and
- 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.



**Description of On-Balance Sheet Risks**

The capital required for on-balance sheet assets covers the potential losses resulting from asset default and the related loss of income, and the loss of market value of equities and the related reduction in income. To determine the risk-based capital requirement for on-balance sheet assets, P&C insurers must apply a factor to the balance sheet value of each asset (except assets deducted from Capital Available, refer to Tab 1). The total of these amounts represents the capital required for on-balance sheet assets.

## Counterparty Risk

This Tab applies to both on-balance sheet assets (reference Tab 2) and to off-balance sheet exposures (reference Tab 4).

The three rating categories used for assigning capital factors to on-balance sheet assets, off-balance sheet 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:

- the federal government or an agent of the Crown;
- a provincial or territorial government of Canada or one of its agents;
- a municipality or school corporation in Canada; and,
- 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.

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### Asset/Guarantor Ratings

Rating Agency	Commercial Paper	Bonds & Debentures	Preferred Shares
	<b>(at least as high as)</b>		
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
Canadian Bond Rating Service <sup>2</sup>	A-1 Low	A	P-2

### 3. Not-Investment Grade

Includes any item not included in the Government Grade or Investment Grade categories.

In the case of an on-balance sheet asset, or off-balance sheet exposure, backed by a guarantee (reference Tab 2-6), 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.

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<sup>2</sup> To be used only where CBRS ratings have not been formally withdrawn and superseded by Standard and Poors' ratings.

### Capital Factors For On-Balance Sheet Assets

*0% Capital Factor*

- Cash.
- Obligations<sup>3</sup> 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.
- Deferred/Future Income Tax Debits 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).

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<sup>3</sup> Includes securities, loans and accounts receivable.

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- 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.
- 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, Subsidiaries, Affiliates 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, Subsidiaries, Affiliates and Policyholders, including Instalment Premiums and Other Receivables.
- Real-estate for an insurer’s own use.
- Commercial mortgages.

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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 (per page 40.10 of P&C-1 Instructions: includes investments *other than* term deposits, bonds and debentures, loans, shares, or investment in real estate).

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 (line 86 page 30.71) up to a limit of 1% of Total Assets. Any excess over the limit is included in the amount deducted from Capital Available, on line 07 page 30.70.

Variable Capital Factors

- "Capital Required" for regulated financial institution subsidiaries (reference Tab 2-5).
- 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

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basis, then the factor of the riskiest asset being securitized, or held in the fund, is assigned to the entire investment.

*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).
- New assets, not currently listed, will be categorized according to their inherent riskiness.
- The book value of all items on page 30.71 is equal to the total assets reported on the balance sheet.

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## Investments in Subsidiaries, Affiliates, Partnerships

### *Capital Required*

#### *Regulated Financial Institution Subsidiaries*

As a general rule, P&C insurers that hold a controlling interest in a regulated financial institution will be required to hold capital for that subsidiary in an amount equivalent to the book value of the investment in the subsidiary. However, P&C insurers may recognize surplus capital (i.e., capital in subsidiaries that is in excess of the amount of capital required), based on a calculation using the applicable sectoral test of the Canadian parent insurer's jurisdiction. Surplus capital should be recognized only where it is determined to be available to the parent P&C insurer, on the basis of criteria acceptable to the regulator. Where a P&C insurer owns less than 100% of the subsidiary, it may recognize only its *pro rata* share of the available surplus.

If the regulatory capital requirement exceeds the investment in the subsidiary, the parent P&C insurer must hold capital in an amount equal to the capital required, calculated using the relevant Canadian sectoral test.

#### *Other Subsidiaries and Affiliates*

For other subsidiaries and affiliates, the parent P&C insurer is required to hold capital for that subsidiary or affiliate equivalent to the book value of the investment in that subsidiary or affiliate.

### *Application*

The same treatment applies to subsidiaries and affiliates of the P&C insurer, whether held directly or indirectly.

### *Partnerships*

Investments in partnerships are treated as direct investments by the P&C insurer. The approach is to "look through" the partnership (i.e., apply the same treatment used for subsidiaries and affiliates).



## Capital Treatment For Collateral and Guarantees

This Tab applies to both on-balance sheet assets and to off-balance sheet exposures.

### *Collateral*

Recognition of collateral in reducing the capital required for on-balance sheet assets, or off-balance sheet exposures, is limited to cash or securities meeting the Government Grade or Investment Grade criteria (reference Tab 2-3). Where a rating is not available for the on-balance sheet asset, off-balance sheet 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.

Where the on-balance sheet asset or off-balance sheet exposure, against which the collateral is held, is marked-to-market, the collateral should also be marked-to-market.

### *Guarantees*

Investments (principal and interest) or off-balance sheet 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 affiliate 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, off-balance sheet 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 off-balance sheet 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: On-Balance Sheet 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 balance sheet items, is provided in the chart below.

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

**Example Two: Off-Balance Sheet Exposure (reference Tab 4).**

To record a \$3,000 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 under Structured Settlements on page 30.72.

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 off balance sheet 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)
<b>Structured Settlements:</b>					
<b>Government Grade</b>					
<b>Investment Grade</b>		\$2,000	50%	0.5%	\$5
<b>Not Investment Grade</b>	\$3,000	(\$2,000)	50%	4.0%	\$20
<b>Total</b>					\$25

**Capital Required for Policy Liabilities**

Description of Risks for Policy Liabilities..... 3-1

Margins for Unearned Premiums and Unpaid Claims..... 3-1

Catastrophes..... 3-1

Reinsurance Receivables and Recoverables ..... 3-2

**Description of Risks for Policy Liabilities**

This risk component reflects the insurer’s 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 three parts:

- variation in claims provisions (Unpaid Claims);
- possible inadequacy of provisions for Unearned Premiums; and
- occurrence of catastrophes (Earthquake and Other).

**Margins for Unearned Premiums and Unpaid Claims**

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:

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

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## **Catastrophes**

### *Earthquake*

Refer to the OSFI/IGIF 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 B. Note that the requirements of Appendix B 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 (i.e., Unpaid Claims and Unearned Premiums).

### *Unregistered Reinsurers*

Receivables and Recoverables from Unregistered Reinsurers, on the balance sheet, have a Capital Required amount equal to the amount calculated on page 70.38 of the P&C-1. This calculation will lead to Capital Required of up to 110% of the applicable amounts on the balance sheet, and is reported on the "Reinsurance Ceded to Unregistered Insurers" line on page 30.70.

**Capital Required for Off-Balance Sheet Exposures**

Description of Risks for Off-Balance Sheet Items ..... 4-1

Possible Credit Exposure ..... 4-2

Credit Conversion Factors ..... 4-3

Risk Factors ..... 4-4

**Description of Risks for Off-Balance Sheet Items**

This section applies to counterparty risk exposures not covered by the treatment for on-balance sheet assets.

The risk to a P&C insurer associated with off-balance sheet activities, and the amount of capital required to be held against this risk is:

1. The value of the instrument (Possible Credit Exposure; reference Tab 4-2) at the reporting date;
2. Less: the value of eligible collateral security or guarantees (Collateral and Guarantees; reference Tab 2-6);
3. Multiplied by: a factor reflecting the nature and maturity of the instrument (Credit Conversion Factor; reference Tab 4-3); and
4. 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 Off-Balance Sheet Exposures.



## **Possible Credit Exposure**

The possible credit exposure related to off-balance sheet items varies depending on the type of off-balance sheet instrument.

### ***Structured Settlements***

The possible credit exposure for a Structured Settlement is the current cost of the instrument.

Instruments included in this section are primarily “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.

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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

<b>Residual Maturity</b>	<b>Interest Rate</b>	<b>Exchange Rate</b>	<b>Equity</b>	<b>Other Instruments</b>
<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:

- 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 exposure<sup>4</sup>.
- 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
- 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.

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<sup>4</sup> 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.

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### *Other Off-Balance Sheet Items*

This section includes any other off-balance sheet items 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:

- 1) extending credit in the form of loans or participations in loans, lease financing receivables, mortgages, letters of credit, guarantees or loan substitutes; or
- 2) 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:

- 1) the commitment is scheduled to expire, or
- 2) 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.

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*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 off-balance sheet items, consult with your primary regulator. In addition, insurers should refer to any other applicable Guidelines.

## **Credit Conversion Factors**

Separate credit conversion factors exist for each category of off-balance sheet item.

For Letters of Credit and Other Off-Balance Sheet Items, 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 Off-Balance Sheet Exposures (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 off-balance sheet items 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 notice<sup>5</sup>.

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<sup>5</sup> Other than any notice required under legislation or other court rulings that require notice.

**Capital Factors**

Off-balance sheet exposures are assigned a capital factor ranging from 0% to 8.0%, subject to their counterparty risk rating (reference Tab 2-3). The factors to be applied are:

*0% Factor*

- Off-balance sheet items rated Government Grade.

*0.5% Factor*

- Structured Settlements rated Investment Grade.
- Letters of Credit rated Investment Grade.
- Derivatives rated Investment Grade.

*2.0% Factor*

- “Other Off-Balance Sheet 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 Off-Balance Sheet Items” not rated Government Grade or Investment Grade.

- END -

## **MCT 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 requirement 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 on line 22, Unearned Premiums/Unpaid Claims, of 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:



<b>Risk</b>	<b>Measure of Exposure</b>	<b>Applicable Guaranteed Term</b>
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:

<b>Percentage of Annual Earned Premiums<sup>1</sup></b>		<b>Length of Premium Guarantee Remaining</b>
<b>Individually Underwritten</b>	<b>Other</b>	
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

<sup>1</sup> For travel insurance, annual earned premiums should be considered revenue premiums.

## 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

## 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
<b>Participating</b>	Group	.015%	less than or equal to 1 year
	All other	.030%	all
<b>Non-participating</b>	Adjustable	.030%	all
	<i>Individual</i>	.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.
<b>Non-participating</b>	<i>Group</i>	.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.

## MCT APPENDIX - B

### **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 75%;

"**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>	<b>1<sup>st</sup> Mortgages</b>		<b>2<sup>nd</sup> Mortgages</b>		<b>Variable Payment Mortgage</b>
	<b><u>Conventional High Ratio</u></b>		<b><u>Conventional High Ratio</u></b>		
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.

<b>Completed Policy Duration in Years</b>	<b>Mortgage Insurance Margin per \$100 of Initial Mortgage Amount</b>	
	<b>Homeownership</b>	<b>Others</b>
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
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 under:

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 *Income* (20.30.32.01) plus the *share of net income (loss) of subsidiaries and affiliates* (20.30.41.01) of the Annual Return, while assets are the *Assets Available for Test Purposes* or an equivalent amount.

- 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:

Completed Policy Duration in Years	Unearned Premium Reserve as Percent of Single Premium Term of Policy in Years			
	5 or less	over 5 and less than 10	over 10 and less than 15	over 15 up to 25
0	100.0	100.0	100.0	100.0
1	75.0	80.0	85.0	88.0
2	50.0	60.0	65.0	70.0
3	25.0	40.0	45.0	52.0
4	12.5	20.0	30.0	35.0
5	0.0	10.0	18.0	23.0
6		5.0	10.0	14.0
7		3.0	6.0	8.0
8		2.0	4.0	6.0
9		1.0	2.0	3.0
10		0.0	1.5	2.5
11			1.0	2.0
12			0.50	1.5
13			0.25	1.0
14			0.125	0.50
15			0.000	0.40
16				0.35
17				0.30
18				0.25
19				0.20
20				0.15
21				0.12
22				0.09
23				0.06
24				0.03
25				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 under:

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 25 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
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 under 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.

<b>Mortgage Loan to Original Value</b>	<b>Settlement Option</b>	<b>Factor Applicable to the Mortgage Insurance Margin</b>
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%

- 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
  - 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, data points 20.10.01.01, 20.10.03.01 and 20.10.04.01 to 20.10.09.01, plus any other items that may be approved by the regulator.

## **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 five 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.

**NOTES ON THE DEVELOPMENT OF THE MINIMUM CAPITAL TEST  
(MCT)**

July 2003

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## THE MINIMUM CAPITAL TEST

*Canadian<sup>1</sup> Property and Casualty Insurers (P&C insurers) are required to meet capital adequacy standards prescribed by federal, provincial and territorial regulators (the regulator). The current P&C solvency tests<sup>2</sup> result in a measure of excess of assets available. Although these tests have generally served well, there are a number of differences between them, and they may not always relate capital required to the riskiness of the operations and assets of individual P&C insurers.*

*As a result of a review of these tests, Canadian regulators have developed a Minimum Capital Test (MCT) that is designed to assess the key risks faced by the industry and to harmonize the capital requirements across jurisdictions in Canada. The risk-based approach better reflects the riskiness of individual P&C insurers and is consistent with approaches in other financial sectors. This note provides background to the development of the MCT, an overview of the key features of the test and detailed explanations, where required, of specific items in the Test and new reporting pages.*

### Background

In September 1995, the Canadian Council of Insurance Regulators (CCIR) initiated a process to identify the jurisdictional differences that prevent all Canadian regulators from having one harmonized solvency test. In 1996, the initiative took on a broader mandate to develop an “improved and harmonized test” to incorporate a risk-based capital approach. This included concepts, supported by, among others, the Insurance Bureau of Canada (IBC) Subcommittee on Regulatory Issues, that modifications could be made to the existing P&C solvency tests to incorporate the major elements of risk without altering the underlying methodology or unduly increasing the complexity of the existing solvency tests. The CCIR concurred with the principle that the new test should be kept simple and that it be based on adjustments to the existing tests.

A prototype Minimum Capital Test (MCT) was developed, including sample MCT reporting forms. This was sent to the industry for comment on the concept in November 1997. On the basis of a supportive industry response, the CCIR proceeded to the next phase to assess the impact of the test.

Recognizing the broader mandate for development of the test, and with the support of all jurisdictions in Canada, an MCT Task Force was formed by the CCIR in October 1998 with representatives from the Office of the Superintendent of Financial Institutions (OSFI), Quebec, Alberta, and Ontario. It was agreed that the Task Force would consult with the industry on the impact of the test once the MCT framework was further refined.

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<sup>1</sup> Federally and provincially incorporated insurers.

<sup>2</sup> The Minimum Asset Test (MAT) for Ontario, Alberta, and OSFI, and the Minimum Amount of Assets over Liabilities for Quebec.

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At its autumn 1999 meeting in Charlottetown, the CCIR supported the MCT Task Force's proposal to proceed with industry consultations. The attached MCT represents the Task Force's harmonized solvency test to replace the existing solvency tests. It is intended that the MCT be completed by all P&C insurers on a pilot basis for 2002 (insurers will be asked to re-file their previous year-end results). Insurers will be required to file the MCT on a compliance basis effective with the first Interim Return due in 2003.

### **Modifications to the February 2000 MCT**

In February 2000, the MCT documents, consisting of an Explanatory Note, the draft Test and new reporting exhibits were sent by each participating regulator to the industry for consideration. Following discussions of the feedback from the industry, insurers were asked to complete the Test on a trial basis using year-end 1999 data. The data filed has been a very useful component in assessing the MCT.

Based on industry feedback and the review of the 1999 trial results, the MCT Task Force has made some modifications to the Test. One of the key interests of the industry was to extend the trial period for the test. The MCT Task Force, with the support of their jurisdictions, agreed that the first requirement to file the MCT on a compliance basis would be the first Interim Return due in 2002 (subsequently extended to 2003, see below).

Other changes to the Test relate to the netting of unrealized investment gains and losses, changes to the factor applied to Deferred Policy Acquisition Expenses (DPAE), and amendments to the approach for Actuarial Margins. In addition, Investment Income Due and Accrued will now be reported as one item on line 02 page 30.71 for the purpose of assigning a capital factor. Further details relating to these changes are highlighted in the relevant sections below. Appendix A identifies, by page, where changes were made to the February 2000 draft of the Test.

### **Modifications to the February 2001 MCT**

In February 2001, a second draft of the MCT documents was sent by each participating regulator to the industry for consideration. Following discussions of the feedback from the industry, insurers were asked to again complete the Test on a trial basis using year-end 2000 (and re-filed 1999 data). As with the first trial-run in 1999, the data filed for 2000 has been a very useful component in assessing the MCT.

Based on industry feedback and the review of the 2000 (and re-filed 1999) trial results, the MCT Task Force has made additional modifications to the Test. The industry was interested in extending the trial period for the test to allow for incorporation of the final MCT into their business planning. The MCT Task Force, with the support of their jurisdictions, agreed that the first requirement to file the MCT on a compliance basis will now be effective for the first Interim Return due in 2003. The extension was agreed to on the basis that the test be finalized as planned in 2001, allowing one year for the industry to make the necessary adjustments as requested.

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Other changes to the Test relate to adjustments to actuarial requirements including: a reduction in the factor applied to Unearned Premiums, amendments to the margin requirement for A&S business, the incorporation of additional mortgage insurance requirements (included as Appendix B to replace all existing federal Memorandum for Mortgage Insurance Companies), and a reduction in the factor applied to Other Assets and Instalment Premiums (not yet due). Further details relating to these changes are highlighted in the relevant sections below.

Note that the Test has been reduced to four Tabs (from five). This was done to eliminate redundancy, where possible, and was accomplished by combining parts of former Tabs 1, 2, and 3 into Tabs 1 and 2. Tab 4 was renumbered as Tab 3 and Tab 5 was renumbered as Tab 4. However, the content is largely unchanged as a result of this change. Appendix B identifies, by Tab and by page, where changes have been made to the February 2001 Draft.

### **Modifications to the December 2001 MCT**

In December 2001, following consultations on the second draft of the MCT documents, the “final” version of the MCT was sent by each participating regulator to the industry with a one year notice period to allow for incorporation of the MCT into their business planning. The first requirement to file the MCT on a compliance basis is effective for the first Interim Return due in 2003. Insurers were asked to complete the Test on a trial basis using year-end 2001 (and re-filed 2000 data). Since the December 2001 MCT was issued as the final version, no further changes have been made to the test.

The Office of the Superintendent of Financial Institutions established a supervisory target of no less than 150% MCT for federally regulated P&C insurers. Provincial regulators will take an individual company approach at this time.

Although no change has been made to the requirements for Accident and Sickness Business, more detailed information for calculating the requirements has been added to Appendix A-1. The remaining changes to the Guideline and supporting documents are editorial.

### **Modifications to the November 2002 MCT**

The November 2002 MCT Guideline was revised in July 2003 so that Balance Sheet Assets formerly subject to a 100% capital factor (with the exception of the treatment for regulated financial institution subsidiaries) will be deducted from Capital Available rather than included in Capital Required. The amendment corrects an unintended result, i.e., in the calculation of the ratio of Capital Available to Capital Required, more than 100% would have to be held against these assets, effectively understating the MCT ratio. The deduction treatment is consistent with the approach used in the capital rules for federally regulated life insurers and banks.

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The book value of all assets will continue to be reported on page 30.71, but the capital requirement cells for assets formerly subject to the 100% factor have been shaded. Line 07 has been added to the Capital Available section of page 30.70 for the deduction of these assets.

### **Application**

The MCT applies only to Canadian P&C insurers. A similar risk-based test, adopting many of the MCT principles, has been developed for branches of foreign P&C insurers. The federal test is the Branch Adequacy of Assets Test (BAAT).

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

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## THE MCT FRAMEWORK – PRINCIPAL ELEMENTS

### *Basis of Solvency Test: Capital Adequacy vs. Assets Required*

The basis of the MCT will change from an assets required approach under current P&C solvency tests<sup>3</sup> to a capital adequacy approach. In the current P&C solvency tests, most assets and liabilities are valued on a liquidation basis with adjustments made for some going concern risks. This results in a measure of "excess of assets". Although the current tests have generally served well, they do not relate capital required to several risks assumed. In particular, because investment risk is not addressed, a P&C insurer with a relatively risky investment portfolio could have the same capital requirement as a P&C insurer with a conservative portfolio. Furthermore, the existing margin requirements on outstanding claims represent an effort to incorporate the risk of abnormal adverse claims development. However, it does not distinguish, for example, between the risks of short-term property claims and longer-term liability claims. Finally, off-balance sheet exposures are not explicitly addressed under the current tests.

The MCT framework more closely relates capital requirements to the degree of risk that an individual institution assumes. It starts with equity prepared on a going concern basis (as determined under GAAP), which is then subject to solvency adjustments determined on a quasi-liquidation basis. The MCT results in a measure of "excess of capital". The approach is consistent with the risk-based capital requirements for deposit-taking institutions and life insurers.

### *Primary Differences Between the MCT and Previous Solvency Tests*

The capital adequacy basis of the MCT results in the following primary differences from the previous solvency tests:

- 1) Factors will be applied to all on-balance sheet assets as well as to off-balance sheet exposures of P&C insurers.
- 2) An Investments – Adjustment to Market approach is introduced that allows credit, in Capital Available, for 50% of Net Unrealized Gains on Investments (other than Real Estate and Other Investments), and requires a 100% deduction, from Capital Available, for Net Unrealized Losses on Investments.
- 3) Actuarial margins are determined by individual class, or groups of classes, of insurance.
  - a. For Unpaid Claims, the margins range from 5% to 15%.
  - b. For Unearned Premiums, an 8% margin applies to the greater of the net unearned premiums or 50% of the net written premiums in the last 12 months.

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<sup>3</sup> The Minimum Asset Test (MAT) for Ontario, Alberta and OSFI, and the Minimum Amount of Assets over Liabilities for Quebec.



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In general, increased capital required due to the incorporation of investment risk would be partially or totally offset by lower average margins on policy liabilities.

#### *Capital Available to Capital Required Test*

Capital is required by regulators for a number of reasons, including to maintain a minimum size requirement to operate in an industry, to minimize losses to policyholders, and to establish an adequate buffer that takes into consideration potential risk factors, such as asset default risk, that may cause a company to reach a point where losses to stakeholders may become a concern.

It should be emphasized that the MCT determines the minimum capital required and not necessarily the optimum capital required. Although regulators in different jurisdictions will evaluate the optimal capital levels, this is a separate process from determination of the minimum capital under the harmonized MCT. Each jurisdiction maintains the discretion to assess the optimal levels of capital, and may establish a threshold percentage below which a P&C insurer will be subject to regulatory intervention as appropriate to the jurisdiction's regulatory regime. OSFI established a supervisory target of no less than 150% MCT for federally regulated P&C insurers. Provincial regulators will take an individual company approach at this time.

Because of the variations in approach, the MCT results for P&C insurers cannot be directly compared to the results of the application of risk-based capital adequacy requirements for other types of financial institutions.

#### *Definition of Capital*

The three primary criteria for defining the capital of a financial institution for purposes of measuring capital adequacy are:

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

#### *MCT Capital Not Tiered*

In risk-based capital tests for life insurance companies and deposit-taking institutions, capital is categorized in tiers (core capital and supplementary capital) based on the extent to which they meet the above criteria. Core capital comprises the highest quality capital elements. Supplementary capital elements fall short in meeting either of the first two characteristics listed above, but contribute to the overall strength of a company as a going concern. In addition, the different tiers of capital are subject to various limitations and restrictions established by the regulator.

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Unlike the capital tests used for deposit-taking institutions and life insurance companies, the MCT does not distinguish capital based on tiers. Consideration was given to the tiered system of capital used for life insurers and banks. However, an analysis of the P&C industry demonstrated that its capital structure at this time is much simpler. Where concerns do exist, they can be addressed on an individual insurer basis. Consideration was also given to the objectives of minimizing the complexity of the MCT, in response to the CCIR request, and harmonizing the test across jurisdictions. Accordingly, the adoption of the tiered system was not deemed necessary at this time.

However, the integrity of capital elements is paramount to the protection of policyholders. As a result, permanence, absence of obligation to make fixed payments from earnings, and subordination of legal position to the rights of policyholders and other creditors of the institution will be taken into account in the overall assessment of a P&C insurer's financial condition.

The regulator retains the discretion to adjust P&C capital requirements, including possibly establishing limits or adopting a tiered approach for capital instruments. Such amendments may be considered as experience with the test develops, as the risk profiles of P&C insurers change, or as a result of other future changes affecting the industry.

#### *Unconsolidated Basis for Test*

Historically, very few P&C insurers have had subsidiaries and, as a result, the industry has been subject to unconsolidated capital requirements. The MCT will also apply on an unconsolidated basis. However, the regulator retains the discretion to require consolidated testing.

#### *Continued Use of Existing Reporting Framework*

The MCT relies on the existing P&C reporting framework, amended to reflect specific elements of the risk-based MCT, including the introduction of three new reporting pages and two worksheets:

- 1) Page 30.70: Minimum Capital Test (including explanatory page 30.70A).
- 2) Page 30.71: Capital Required for Balance Sheet Assets (including explanatory Page 30.71A).
- 3) Page 70.38: Reinsurance Ceded to Unregistered Insurers – Total Business.
- 4) Appendix A-1: Worksheet - Capital Required: Accident and Sickness Business.
- 5) Appendix A-2: Worksheet - Capital Required: Off-Balance Sheet Exposures.

Details on how specific elements of the MCT apply are provided in the following section: Notes for the MCT Reporting Pages and Worksheets.

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## NOTES FOR THE MCT REPORTING PAGES AND WORKSHEETS

The MCT introduces three new reporting pages and two worksheets. To assist in completing pages 30.70 and 30.71, explanatory pages will be included in the P&C-1. While some figures for this schedule will come from other areas of the P&C-1, P&C insurers may have to further break down some of the information from existing pages. The most important cross-check is that the total book value on page 30.71, line 89, is equal to page 20.10, line 89, column one of the P&C-1.

Details for a number of items requiring further explanation are discussed below.

### PAGE 30.70: MINIMUM CAPITAL TEST

#### *Capital Available (reference MCT Tab 1)*

#### *Line 05 ... Investments – Adjustment to Market*

Currently, the federal, Ontario and Alberta solvency tests give credit for approximately 100% of the excess of market value over book value of investments; Quebec gives none.

The general concept of the MCT recognizes the going concern principle. However, the MCT must also take into account the market value of certain assets and certain costs that would be incurred in realizing this value. The MCT calls for the provision of a credit for 50% of unrealized gains on the basis that:

- i. unrealized gains on assets will be subject to income tax when realized;
- ii. commissions, selling fees, etc. will be payable;
- iii. there is uncertainty related to the time lapse between when the market value is reported and the time at which the value is realized;
- iv. liquidity risk might prevent the holder from selling the securities quickly at market value;
- v. the capital factor for on-balance sheet assets is applied to the book value of the asset and, therefore, understates the capital that would otherwise be required for assets having a market value that exceeds book value; and
- vi. it is consistent with the objective to minimize the complexity of the test.

In the February 2001 draft, the approach for applying and reporting unrealized gains and losses was changed. Amendments were made to include all of this reporting on line 05 Investments – Adjustment to Market. The value, which the PricewaterhouseCoopers' P&C Pro-1 software will calculate, is determined by summing two amounts. The first amount for Investments (other than Real Estate and Other Investments) is determined by netting the excess for investments having a market value that exceeds their book value against the shortfall for investments having a market value that is less than their book value. A factor of 100% is assigned to a net shortfall to determine the reduction in the Adjustment to Market amount. A

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factor of 50% is assigned to a net increase to determine the increase in the Adjustment to Market amount.

The second amount, for Real Estate and Other Investments, is determined by netting the total excess for Real Estate and Other Investments having a market value that exceeds their book value against the total shortfall for Real Estate and Other Investments having a market value that is less than their book value. A factor of 100% is assigned to a net shortfall to determine the reduction in the Adjustment to Market amount. A factor of 0% is assigned to a net increase.

***Line 07 ... Less: Assets with a Capital Requirement of 100%***

Assets that would otherwise be subject to a factor of 100% on Page 30.71, are deducted from Capital Available (reference MCT Tab 1).

***Capital (reference MCT Tab 2)***

***Line 20 ... Capital for On-Balance Sheet Assets (reference MCT Tab 2)***

Consistent with the approach in other financial institution sectors, a factor is applied to the book value of a P&C insurer's assets. The factors reflect the risks inherent in the various asset classes. The overall capital charge will depend on the portfolio composition of each insurer. The addition of this element to the capital test responds to the CCIR and the P&C industry's support for a risk-based capital approach. Full details are provided below in the section for completing page 30.71.

***Line 22 ... Unearned Premiums/Unpaid Claims (reference MCT Tab 3-1)***

The CCIR Actuarial Sub-Committee (ASC) developed a modified approach to the requirements for additional margin(s) on Unearned Premiums and Unpaid Claims. Margins on Unpaid Claims and Unearned Premiums is the sum of the margins determined based on and insurer's Accident and Sickness, Mortgage, and all other classes of insurance business. The selective claims ratio approach under the previous solvency tests will no longer exist.

For the purposes of the MCT, the actuarial risk faced by a P&C insurer is divided into the following three parts:

- variation in claims provisions (Unpaid Claims);
- possible inadequacy of unearned premium provisions (Unearned Premiums); and
- occurrence of Catastrophes (Earthquake and Other).

Ideally, the liability for Unpaid Claims carried on an insurer's balance sheet will be sufficient to cover the amount necessary to settle claims and related expenses that have occurred and have not been completely paid. Likewise, the level of provisions for unearned premiums for a given fiscal year should be sufficient to cover the costs of insurance contracts that are in effect

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at the end of a given year. However, in the event that this is not the case, margins exist to cover insufficient provisions for unpaid claims and unearned premiums.

The fact that appointed actuaries include margins they deem appropriate, either implicitly or explicitly, in the amount of provisions maintained by an insurer was taken into account in determining the margins. From a regulatory perspective, the MCT 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 mainly intended to cover expected variations.

The margins included in the MCT for unearned premiums and unpaid claims have been developed from the perspective that the test must serve to determine, at a given date, the capital required for an insurer to continue its operations, while taking into account all the risk elements that the insurer is facing.

Using the basic principles of loss reserving, the approach is based on an analysis of the loss development for each major line of business over a predetermined period of time. Factors developed by this approach reflect the inherent variability and uncertainty in unpaid claims and in the expected claims component of the unearned premiums. At the same time, the principle to minimize the complexity of the calculations is maintained.

### ***Classes of Insurance Excluding Mortgage and Accident and Sickness Insurance***

In the February 2000 MCT release, it was noted that the ASC had determined that the variability in disbursements that must be covered by unearned premium provisions at the end of a given year is largely subject to the same factors as the variability in unpaid claims provisions. In keeping with the MCT simplicity principle, the ASC, therefore, recommended that the same margins be applied to the net amount at risk (i.e., net of reinsurance, Salvage and Subrogation, and Self Insured Retentions), for both Unearned Premiums and Unpaid Claims. Upon further review of data, the ASC recommended adjustments that resulted in the application of a 10% factor being applied to net Unearned Premiums for all lines of business (as opposed to the 5%, 10%, and 15% range proposed in February 2000). The factor applies to the greater of the net Unearned Premiums or 50% of the net written premiums in the last 12 months. The factors applied to Unpaid Claims were not changed. As a result of further consideration of the 2000 and 1999 revised results, the MCT Task Force agreed to lower the factor on Unearned Premiums to 8%. This level is approximately the weighted average of the actual margin requirements across lines of business as opposed to a simple average used to determine the 10% factor.

The risk component, as determined above, reflects the insurer's risk profile by individual class, or groups of classes, of insurance. The margins are described under Tab 3-1 of the MCT. The 15% factor on the "All Others" category is also based on the fact that the classes of insurance covered (e.g., Surety) are subject to greater variability and risk. The margins apply to insurers that underwrite direct business and to reinsurers.

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### *Mortgage Insurance*

The factor for the Margins on Unpaid Claims is the same as the “Other” factor above (15%).

The factor for unearned mortgage insurance premiums ranges from 0% to 100% depending on the term of the policy (in years) and the completed policy duration in years (see Appendix B of the MCT). These requirements currently apply only to federal insurers.

### *Accident and Sickness*

The factor for unearned accident and sickness premiums ranges from 12% to 40%, depending on the type of coverage and length of premium guarantee remaining.

The factor for unpaid claims ranges from 2% to 10%, depending on the length of benefit period remaining and the duration of the disability. See Appendix A-1 of the MCT and the P&C-1 Instructions for instructions on calculating the margin requirements.

### ***Line 24 ... Catastrophes, including additional policy provisions (reference MCT Tab 3-1)***

The ASC distinguished between two categories of catastrophes for the purpose of assessing the risk associated with policy liabilities under the MCT. The first is earthquake risk and the second covers all other catastrophes (such as windstorms or hailstorms).

### *Earthquake Insurance*

The margin required for earthquakes is based on OSFI/IGIF earthquake exposure guidelines, which result in similar treatment of earthquake exposures. Because earthquake risk is dealt with as an appropriation of capital, the resulting reserves are included directly in the Capital Required portion of the test on page 30.70.

Furthermore, historical experience demonstrates that the amount of claims paid by insurers for catastrophes other than earthquakes represents a relatively small amount each year compared to the potential amounts for losses that would be caused by a major earthquake in Canada. Although no explicit margin is incorporated in the MCT, the potential variability of costs associated with these other catastrophes is deemed to be incorporated in the margin for unearned premiums on the applicable lines of business.

### *Mortgage Insurance*

Additional Policy Provisions for mortgage insurance ranging from 0% to 6%, depending on the original term of the policy and the completed policy duration, are to be included in the Catastrophe requirement (see Appendix B of the MCT).

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***Line 26 ... An amount for Reinsurance Ceded to Unregistered Reinsurers (reference MCT Tab 3-2)***

Existing jurisdictional differences in the use of letters of credit (LOCs), and the definition of "registered" vs. "unregistered" insurers has led to differing amounts of "reserve required for reinsurance ceded to unregistered insurers" (pages 70.30 and 70.35 of the P&C-1). To achieve MCT harmonization, jurisdictional differences were addressed. This resulted in the introduction of a new reporting page, Page 70.38 Reinsurance Ceded to Unregistered Insurers - Total Business. This page is a consolidation of former pages 70.30 and 70.35, and reflects the harmonized approach for the treatment of Letters of Credit and Reinsurance of Out-of-Canada business as discussed below.

*LOCs*

Under the MCT, the maximum percentage for LOCs will be reduced from 15% to 10% to reflect the reduction in the overall margin on unearned premiums and unpaid claims. (The maximum LOC limit was originally set to match the margin percentage.) In addition, the percentage limit will apply on an aggregate basis for all jurisdictions. The existing \$3.5 million limit will be eliminated in all jurisdictions.

*Registered vs. Unregistered Reinsurers*

Under the MCT, federal and provincial P&C insurers will be subject to the same capital adequacy test. Therefore, all jurisdictions have agreed to recognize each other's P&C insurers as "registered" for reinsurance purposes (which may require changes to Regulations). This would result in similar treatment to that currently in force in the provinces whereby federally incorporated property and casualty reinsurers are automatically recognized by provincial regulators.

With respect to reinsurance of out-of-Canada business only, reinsurers regulated in an OECD country would be recognized as "registered" on the basis of financial soundness, provided that the reinsurance agreements are recognized by the regulatory agencies of the countries in question. This approach, subject to conditions to be agreed to by all jurisdictions, is similar to the treatment of reinsurance of out-of-Canada business that is applicable to federal life insurance companies.

These agreements to achieve harmonization would include the proviso that the regulator would retain the authority to disqualify such reinsurance if not satisfied with the financial condition of the reinsuring company.

***Line 28 ... Capital for Off-Balance Sheet Exposures (reference MCT Tab 4)***

See separate section below: Worksheet for Capital Required for Off-Balance Sheet Exposures (Appendix A-2).

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## **PAGE 30.71: CAPITAL REQUIRED FOR BALANCE SHEET ASSETS**

The concept of requiring capital for asset default risk comes from the concern for the protection of the initial capital invested for the asset. This requirement is satisfied by applying a factor to the book value of the asset to obtain the "capital required" for the asset.

This exhibit is used to determine the risk-based capital requirement associated with on-balance sheet assets by assigning factors to each asset item on the Balance Sheet. For details on the factors, refer to Tab 2-4 of the MCT.

Note that, consistent with the February 2001 revisions to the reporting of unrealized investment gains and losses, the amounts reported for the Excess of Book Value over Market Value of Investments, are now reflected in the value determined on Line 05 Investments – Adjustment to Market on page 30.70. The combined effect replaces the calculation(s) generated by the Investment Valuation Reserve (Federal and Ontario), which will no longer be in effect.

In determining the factors, the assets' inherent riskiness with respect to the P&C business was considered. In addition, a comparison to the factors applied in the capital tests for deposit-taking institutions and life insurers was conducted. In so doing, the analysis reflects the fact that the nature of assets and liabilities is different between sectors, as is the portfolio mix. Accordingly, a key objective was to ensure relative consistency of the assignment of capital factors among the various classes of assets within the MCT.

Detailed explanations for a number of selected lines are provided below. In addition, refer to the attached page 30.71A that provides, where possible, cross-references for completion of page 30.71.

### ***Investment Income Due and Accrued***

A 2% factor is applied to all investment income due and accrued.

### ***Line 51 ... Facility Association and the PRR (Plan de répartition des risques)***

A nominal factor of 0.5% is applied to reflect the fact that, although the risk is acknowledged to be low, it is not equivalent to the 0% afforded only to Government Grade risks under the MCT.

### ***Line 54 ... Instalment Premiums (not yet due)***

A factor of 0% is applied to reflect the fact that these receivables are not yet due, and therefore carry no credit risk.



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***Lines 57 to 63 ... Reinsurance Receivables and Recoverables***

The Capital Required for Unregistered Reinsurance is shown on page 30.70 and calculated on page 70.38. The calculations on page 70.38 will lead to the inclusion of up to 110% of the amounts on the balance sheet in the Capital Required section of the MCT.

However, receivables and recoverables from registered insurers are assigned a factor on page 30.71. The risk of default for recoverables from registered reinsurers (lines 60 & 61) arises from both credit risk and mis-estimation of actuarial risk. The first relates to the risk that the reinsurer will fail to pay the insurer what it is owed. The second relates to the risk associated with assessing the amount of required provisions.

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 (i.e., unpaid claims and unearned premiums).

***Lines 76, 77 & 78***

***... Deferred Policy Acquisition Expenses (DPAE): Premium Taxes***

***... Deferred Policy Acquisition Expenses (DPAE): Commissions***

***... Deferred Policy Acquisition Expenses (DPAE): Other***

Analysis conducted by the ASC suggests that some of these costs are recoverable under normal circumstances, therefore, the reporting for DPAE is split into three separate components. The approach, introduced as part of the February 2001 MCT, is as follows:

0% factor - applies to the book value of DPAE: Premium Taxes

35% factor - applies to the book value of DPAE: Commissions - net of an adjustment for Unearned Commissions (refer to MCT Tab 2-4, 35% factor)

Deduct - DPAE: Other  
from  
Capital  
Available

***Line 80 ... Future Income Taxes: Discounted Reserves and Unrealized Gains***

Future income tax debits arising from discounting of claims provisions for tax purposes continue to require no capital, provided they are recoverable from income taxes paid in the three immediately preceding fiscal years. Unrealized Gains have been added to this item on the basis that credit for market value excess has been reduced from 100% to 50%, provided they are recoverable from income taxes paid in the three immediately preceding fiscal years.

The method of reporting income tax debits on this line depends on an insurer's home jurisdiction. Federally incorporated institutions must report income tax debits using the Future

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Income Tax method (CICA Handbook - Income Taxes: Section 3465). Provincially incorporated companies must report income tax debits using any basis allowable to them, currently the Deferred Income Tax method (see CICA Handbook-Superseded Accounting Recommendations - Corporate Income Tax: Sections 3470 and 3471), or the Future Income Tax method. For fiscal years beginning on or after January 1, 2002, the Future Income Tax method will be required under the CICA Handbook.

***Line 81 ... Future Income Taxes: Other***

Includes future income tax debits that are not eligible for the 0% capital factor. The Book Value amount is deducted from Capital Available, line 07 Page 30.70.

The method of reporting income tax debits on this line is dependent upon an insurer's home jurisdiction (see *Line 80* for more information).

***Line 85 ... Other Assets: Goodwill and Other Intangibles***

The Goodwill and Other Intangibles portion of Other Assets (per page 50.50 of the P&C-1) is deducted from Capital Available (line 07 Page 30.70), as these amounts are not expected to be recoverable for the purpose of meeting obligations on a going-concern basis.

***Line 86 ... Other Assets (net of Goodwill and Other Intangibles)***

A factor of less than 100% is applied to Other Assets (net of Goodwill and Other Intangibles) to reflect the fact that a portion of these assets could be recoverable for the purpose of meeting obligations on a going-concern basis. Capital required is equal to the lesser of:

- a. Total Other Assets (per page 50.50 of P&C-1 Instructions) net of Goodwill and Other Intangibles (recorded on line 85), and,
- b. 1% of Total Assets.

multiplied by 35%.

The amount by which Other Assets (net of Goodwill and Other Intangibles) exceeds 1% of Total Assets, is deducted from Capital Available, line 07 Page 30.70.

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**PAGE 70.38: REINSURANCE CEDED TO UNREGISTERED INSURERS - TOTAL BUSINESS**

This page is a consolidation of former pages 70.30 and 70.35, and reflects the harmonized approach for the treatment of Letters of Credit and Reinsurance of Out-of-Canada business.

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**APPENDIX A-1:****WORKSHEET - CAPITAL REQUIRED FOR ACCIDENT AND SICKNESS BUSINESS**

The MCT adopts an approach for Accident and Sickness Insurance that is consistent with the approach used in the Life sector.

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.

Insurers should refer to Appendix A-1: Capital Required: Accident and Sickness Business in the MCT, which includes a worksheet to calculate these margins. The total requirement is included in the amount reported on line 22, Unearned Premiums/Unpaid Claims, of Page 30.70.

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**APPENDIX A-2:****WORKSHEET - CAPITAL REQUIRED: OFF-BALANCE SHEET EXPOSURES**

Consistent with the risk-based capital approach applied in other financial sectors, the MCT introduces a capital requirement for off-balance sheet exposures of a P&C insurer (reference MCT Tab 4). This requirement applies to exposures not covered by the treatment for on-balance sheet assets. This Worksheet, formerly called reporting page 30.72, is used to calculate this requirement, which is entered on line 28 of page 30.70.

The approach recognizes that the face amount of an off-balance sheet instrument does not necessarily reflect the amount of the credit risk. To approximate exposure, the face amount of the instrument, net of any collateral or guarantee, is multiplied by a credit conversion factor. The resulting amount is then assigned a capital factor appropriate to the counterparty (reference Tab 4-4 of the MCT).

A similar approach to that used for on-balance sheet assets applies in a number of cases for off-balance sheet items; for example, with respect to the determination of the counterparty risk categories (reference Tab 2-3) and the approach for determination of eligible collateral and guarantees (reference Tab 2-6).

Off-Balance Sheet Exposure for the purpose of the MCT is divided into four types:

1. Structured Settlements;
2. Letters of Credit;
3. Derivatives; and
4. Other Off-Balance Sheet Items.

Tab 4 of the MCT provides details for completing the Worksheet for Capital Required for Off-Balance Sheet Exposures (Appendix A-2 of the MCT).

For further clarification, P&C insurers should consult with their primary regulator.

**- END -**

**APPENDIX A**  
**EXPLANATORY NOTES TO THE MCT**  
**DRAFT #2 (Dated: February 2001)**

**Summary of changes made to the MCT - Draft #1 (Dated: February 2000)**

<b>MCT Page(s):</b>	<b>Change</b>
<b>1 &amp; 3</b>	Changed the years for which the MCT will apply on a <i>trial</i> basis (years ending 2000 and 2001) and the effective compliance date (first Interim Return due in 2002).
<b>3 &amp; 7</b>	Introduced an <i>Investments – Adjustment to Market</i> approach to recognize <i>Net Unrealized Investment Gains and Losses</i> in <b>Capital Available</b> .
<b>10</b>	Changed ratings in the <i>Commercial Paper</i> column of the <b>Asset/Guarantor Ratings</b> table to make them consistent across agencies.
<b>15</b>	Added <i>Deferred Policy Acquisition Expenses: Premium Taxes</i> under the <b>0% Capital Factor</b> .
<b>15 &amp; 18</b>	References to <i>Deferred Income Tax Debits</i> have been changed to <i>Deferred/Future Income Tax Debits</i> .
<b>16</b>	Added <i>Investment Income Due and Accrued</i> under the <b>2% capital factor</b> .
<b>17</b>	Added <b>35% Capital Factor</b> for <i>Deferred Policy Acquisition Expenses: Commissions</i> .
<b>17</b>	Removed the <b>50% Capital Factor</b> for <i>Deferred Policy Acquisition Expenses: Commissions &amp; Premium Taxes</i> .
<b>18</b>	Substituted 35% for 50% in <i>Deferred Policy Acquisition Expenses</i> that are not eligible to be included in the <b>100% Capital Factor</b> .
<b>18</b>	Removed <i>Investment Income Due and Accrued</i> from the <b>General</b> section.
<b>22</b>	Changed the approach to the application of <i>margins on unearned premiums</i> (to the greater of net unearned premiums or 50% of net written premiums in the last 12 months) and changed the <i>margins on unearned premiums</i> (10% for all, see first column in the table).
<b>Page 30.70</b>	<b>Change</b>
line 05	Changed line from <i>50% of Excess MV over BV of Investments (other than Real Estate and Other Investments)</i> to <i>Investments – Adjustment to Market</i> .
<b>Page 30.71</b>	<b>Change</b>
line 02	Added line for <i>Investment Income Due and Accrued</i> . Note deletion of Footnote 1 to reflect the change in this approach, and resulting re-numbering of footnotes.
lines 40 & 41	Deleted lines for <i>Excess of Book Value over Market Value of Investments</i> (now netted on line 05, page 30.70).
lines 76 & 77	Added line 76 and changed line 77 to reflect the splitting of <i>DPAE: Commissions and Premium Taxes</i> (formerly line 77). Note the change to new Footnote 4 referencing the 35% Capital Factor.
Title above lines 80 & 81	Title changed from <i>Deferred Income Tax Debits</i> to <i>Deferred/Future Income Tax Debits</i> .

**APPENDIX B  
EXPLANATORY NOTES TO THE MCT - DECEMBER 2001**

**Summary of changes made to the MCT - Draft #2 (Dated: February 2001)**

<b>MCT Page(s):</b>	
<b>Tab 1</b>	<b>Change</b>
<b>1 &amp; 4</b>	Changed the years for which the MCT will apply on a <i>trial</i> basis (years ending 2001 and 2002) and the effective <b>compliance date</b> (first Interim Return due in 2003).
<b>2</b>	Added reference to Appendix A: Additional Requirements for <b>Mortgage Insurance</b> .
<b>3</b>	Inserted Capital Available section of former Tab 2-2 into <b>Capital Available</b> section.
<b>4</b>	Inserted Capital Required section of former Tab 2-2 into <b>Capital Required</b> section.
<b>Tab 2</b>	<b>Change</b>
<b>6</b>	Updated <b>Table of Contents</b> for Tab 2.
<b>8</b>	Inserted former Tab 3-1; Description of <b>On-Balance Sheet Risks</b> .
<b>8</b>	Inserted reference to <b>Other Assets</b> being a net value for reporting purposes on page 30.71.
<b>10</b>	Updated the <b>Asset/Guarantor Ratings</b> table to reflect Standard and Poors' take-over of Canadian Bond Rating Service and the migration of most of CBRS's ratings to S&P (see footnote to the Asset/Guarantor Ratings table in Tab 2-4).
<b>11</b>	Inserted former Tab 3-2; Capital Factors for <b>On-Balance Sheet Assets</b> .
<b>11</b>	Added <b>Instalment Premiums (not yet due)</b> under the 0% capital factor.
<b>13</b>	Added <b>Other Assets net of Intangibles and Goodwill</b> under the 35% Capital Factor.
<b>14</b>	Added <b>Other Assets</b> that are not eligible for the 35% capital factor under the 100% capital factor.
<b>15</b>	Inserted former Tab 3-3; <b>Investments in Subsidiaries, Affiliates, Partnerships</b> .
<b>16</b>	Inserted former Tab 2-4; Capital Treatment for <b>Collateral and Guarantees</b> .
<b>Tab 3</b>	<b>Change</b>
<b>19</b>	Former Tab 4, Capital Required for <b>Policy Liabilities</b> , renumbered as Tab 3.
<b>21</b>	Margin on <b>Unearned Premiums</b> reduced to 8% from 10% for all lines of business.
<b>21</b>	Inserted reference to the P&C-2 Instructions for calculating the margin requirements for <b>A&amp;S business</b> .
<b>21</b>	Inserted instructions for the treatment of <b>mortgage insurance</b> , including a reference to Appendix B for additional requirements for this line of business.

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<b>21</b>	Inserted a reference to Appendix B under the <b>Catastrophes</b> section.
<b>Tab 4</b>	<b>Change</b>
<b>23</b>	Former Tab 5, Capital Required for <b>Off-Balance Sheet Exposures</b> , renumbered as Tab 4.
<b>Appendix A-1</b>	Added Appendix: <b>Worksheet for Margin Required for Accident and Sickness Insurance</b> .
<b>Appendix A-2</b>	Moved former page 30.72 to Appendix and renamed it: <b>Worksheet for Capital Required for Off-Balance Sheet Exposure</b> .
<b>Appendix B</b>	Added Appendix: <b>Additional Requirements for Mortgage Insurance</b> .
<b>Page 30.70</b>	<b>Change</b>
line 89	Changed wording of line 89 to <b>Excess Capital Available over Capital Required</b> (line 09 minus line 29) from Excess Capital (line 09 minus line 29).
<b>Page 30.71</b>	<b>Change</b>
line 54	Added line for <i>Instalment Premiums (not yet due)</i> , with a 0% capital factor.
lines 85 & 86	Added line 85 and changed line 86 to reflect the splitting of <b>Other Assets</b> into Goodwill and Other Intangibles (line 85) with a 100% capital factor; and Other Assets (line 86) with a reference to Note 4.
<b>Page 30.72</b>	Moved to Appendix A-2 and renamed: <b>Worksheet for Capital Required for Off-Balance Sheet Exposure</b> .



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**APPENDIX C**  
**EXPLANATORY NOTES TO THE MCT - NOVEMBER 2002**

As the December 2001 MCT was issued as the final version of the test, only minor amendments were made to the November 2002 version. Below is a summary of the changes.

**Summary of changes made to the MCT - (Dated: December 2001)**

<b>MCT Page(s):</b>	
<b>Pre-amble</b>	<b>Change</b>
<b>2</b>	Inserted details on the MCT Supervisory Target.
<b>Appendix A-1</b>	Added more detailed information for the calculation of requirements for Accident and Sickness Business.

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**APPENDIX D**  
**EXPLANATORY NOTES TO THE MCT - JULY 2003**

**Summary of changes made to the MCT - (Dated: November 2002)**

<b>MCT Page(s):</b>	
<b>Tab 1</b>	<b>Change</b>
<b>3</b>	Inserted a Deduction section and reference to those assets to be deducted from Capital Available, that formerly were assigned a 100% capital factor on page 30.71.
<b>4</b>	Removed reference to the fact that the MC T applied on a trial basis for 2002.
<b>Tab 2</b>	<b>Change</b>
<b>8</b>	Under Description of On-Balance Sheet Risks, included reference that factors are not applied to assets deducted from Capital Available.
<b>13</b>	Under 35% capital factor, changed references to the application of a 100% capital factor re any excess, to treat as a deduction from Capital Available. Deleted 100% Capital Factor section (items were moved to Tab 1 as deductions from Capital Available).
<b>13</b>	Removed 100% Capital Factor section (items moved to Tab 1 as deductions from Capital Available).
<b>Page 30.70</b>	<b>Change</b>
<b>line 07</b>	Added new line entitled Less: Assets with a Capital Requirement of 100% (i.e. assets formerly subject to a 100% capital factor).
<b>Page 30.71</b>	<b>Change</b>
<b>lines 33, 78, 81, 85</b>	Shaded cell in column (03) to reflect deduction of these assets on line 07 Page 30.70).

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