

Methodology

*Rating Mortgage Insurance  
Companies in Canada*

DECEMBER 2007



*Insight beyond the rating.*

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All DBRS ratings and research are available in hard-copy format and electronically on Bloomberg and at DBRS.com, our lead delivery tool for organized, Web-based, up-to-the-minute information. We remain committed to continuously refining our expertise in the analysis of credit quality and are dedicated to maintaining objective and credible opinions within the global financial marketplace.



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# Rating Mortgage Insurance Companies in Canada

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The DBRS Mortgage Insurance (MI) rating methodology applies to mortgage insurance companies operating in Canada, including those whose rating is determined on the basis of explicit financial support provided by U.S. parents or affiliates. Mortgage insurance company ratings are primarily being provided for the use of the DBRS Structured Finance Group which requires a minimum financial strength rating on an MI company of AA (low) in order to be regarded as an acceptable form of credit enhancement. U.S. mortgage government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, can also only purchase high ratio mortgages where MI has been purchased from a mortgage insurance company with a financial strength rating of at least AA (low) or its equivalent, establishing a notional floor to the financial strength rating of an MI company.

As monoline insurance companies, mortgage insurance companies are rated primarily on the basis of a deterministic-stochastic model of the expected claims resulting from the rated company's insurance portfolio in comparison to available financial resources with which to make those claim payments. More subjective rating criteria are also considered but they can generally only negatively impact the rating, not enhance it beyond that assigned by the quantitative model.

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## Industry Environment

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### CANADA

The Canadian mortgage insurance industry is dominated by the Canada Mortgage and Housing Corporation (CMHC), a federal crown corporation which at year-end 2006 represented about 70% of insurance in force (C\$291 billion). Until 2006, the only private sector mortgage insurance provider was Genworth Financial Canada (Genworth), which accounted for the remaining 30% of the Canadian mortgage insurance market (C\$132 billion insurance in force at year-end 2006). Following a recent change in federal legislation, the Canadian market is now open to additional licensed competitors. Several U.S.-based mortgage insurance companies have subsequently started mortgage insurance operations in Canada, notably The PMI Group, Inc. (PMI), AIG United Guaranty and Triad Financial Corporation (Triad). Expansion into Canada, which is the second largest mortgage insurance market in the world after the United States, is consistent with the U.S. companies' attempts to grow internationally as the U.S. market has matured and competition has saturated that market.

### UNITED STATES

With the exception of Genworth, which has a long-standing presence in the Canadian market and correspondingly is rated on a stand-alone basis, the operations of those U.S. companies which have chosen to compete in Canada are start-ups. Therefore, the assigned DBRS rating on these operations must reflect the explicit financial support provided by an upstream entity during the start-up period. These ratings are, in turn, entirely based on the financial strength of the upstream entities' domestic U.S. mortgage insurance operating businesses which directly or indirectly provide the required financial support.

There are seven major private sector MI providers in the U.S. market which account for about 75% of the MI in force. The balance of the market is served by government-sponsored MI agencies such as the Federal Housing Administration (FHA) and the Department of Veterans Affairs. The private sector competitors and their size as of the end of 2006 are as follows:

U.S. MI Company	Insurance in force (US\$ billions)
MGIC	178
Genworth	135
Radian Group	120
PMI	111
AIG United Guaranty	103
RMIC	70
Triad	66

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## About Mortgage Insurance

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Mortgage insurance is a risk management product generally purchased by home owners and/or lenders in both Canada and the United States to protect them against a loss related to a payment default by a homeowner. This form of mortgage insurance is generally referred to as primary flow insurance. Mortgage insurance is available for both new home purchases and refinancing of existing homes. To achieve capital relief and liquidity in its mortgage loan portfolio, a mortgage lender must insure mortgages where the mortgage is more than 80% of the value of the collateral property at the inception of the mortgage.

Mortgage insurance is also a credit enhancement option available to mortgage-backed security (MBS) issuers in addition to financial guaranty insurance and over-collateralization. Demand for this use of mortgage insurance is a function of the credit markets and the relative pricing of each credit enhancement alternative. This form of insurance is often referred to as bulk mortgage insurance and represents about one-quarter of the demand for mortgage insurance overall.

The structure of the mortgage insurance industry is quite different between the United States and Canada.

### CANADA

- In Canada, there is a legal requirement for the mortgage loan customers of Office of the Superintendent of Financial Institutions (OSFI)-regulated deposit taking institutions to purchase MI whenever the mortgage loan exceeds 80% of the value of the property (LTV) at origination. This requirement governs the mortgage lending of most chartered banks. The market convention in Canada is that MI premiums are paid at the time that the mortgage is advanced or blended into the monthly interest and principal payments. There is generally no requirement to re-apply or pay for MI coverage when refinancing occurs if the loan amount does not increase at refinance.
- The insurance company covers 100% of the loan plus accrued interest against loss by the lender if the borrower defaults.
- To establish a degree of parity between the CMHC and private MI providers, the government of Canada provides a 90% guarantee of private MI claims. This places the private and public sector mortgage insurers on a more level playing field for the purposes of calculating a lender's risk exposure to MI providers.

### UNITED STATES

- Major housing GSEs, Fannie Mae and Freddie Mac, are charged with maintaining liquidity in the residential mortgage market by purchasing conforming mortgage loans from lenders. However, they will only purchase a mortgage loan where the effective mortgage exposure is limited to no more than 80% of the property value, a requirement which drives most of the market demand for MI. Use of MI also reduces the capital required to be held by lenders against mortgages with LTV in excess of 80%.
- A major source of competition for the U.S. private MI industry is alternative credit enhancement structures such as simultaneous second mortgages or home equity loans, whereby a first mortgage representing 80% LTV is supplemented by a second mortgage which can take the total LTV to in excess of 100%. (The attractiveness of the second mortgage alternative to borrowers is a function of the differential credit spreads for the second mortgage and the general level of interest rates. Tight spreads encourage homeowners to employ the second mortgage option as do low interest rates.)
- U.S. MI premiums, whether paid by the borrower or the lender, are generally established upon underwriting and continue to be paid as long as the insured loan remains outstanding. This is consistent with the long-term fixed rate mortgage market (generally 30-year term and 30-year amortization) which accounts for over 70% of U.S. residential mortgages. Once the LTV falls to 78%, MI in the United States can be cancelled at the borrower's option.
- Unlike in Canada, where MI provides 100% loan coverage, in the United States coverage is limited to a percentage of the loan selected by the insured lender which generally works out to about 15% to 25% of the mortgage or whatever is required to bring the lender's effective exposure down to the



equivalent level of an 80% LTV mortgage. Premiums vary with the coverage percentage. Refinanced mortgages tend to have a lower level of coverage and correspondingly lower premium rates, reflecting a generally lower LTV.

- It is conventional in the U.S. MI industry to enter into excess of loss reinsurance agreements with captive reinsurers of customer-lenders. In 2006, about 50% of primary insurance in force was subject to captive reinsurance agreements. While an incremental policy acquisition expense, the use of captive reinsurers brings the economic interests of the MI company and its lender-customers into alignment, especially with respect to underwriting standards and policies.
- For insurance purposes, a mortgage is deemed to be in default when two monthly payments have been missed. It takes 12 to 36 months for a notice of default (NOD) to become a claim, as alternative cures and loss mitigants such as the sale of the property or rescheduled payments are negotiated with the borrower. Generally speaking, more than 90% of NODs are cured before they become claims. Delinquencies usually peak between the second and fourth year of the loan.

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## Rating Criteria

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In assigning a financial strength rating to a mortgage insurance company, the following criteria are taken into consideration, with Capital Adequacy being the most important in establishing a rating ceiling using a quantitative model of probable claims losses.

Credit rating criteria	Illustrative elements
Capital Adequacy	Deterministic-stochastic model of expected claims from a static portfolio compared with available financial resources, capacity for writing new business
Franchise Strength	Relationships with lender customers, product innovation, market presence, scale and diversification
Earnings	Loss, expense & combined ratios, return on equity, underwriting profits
Financial Condition	Liquidity, debt ratios (holding companies), investment portfolio analysis
Financial Support from Parent or Affiliates	Related parties, explicit and implicit financial support, company structure
Management, Governance and Regulation	Management experience, risk management, strategy, corporate governance, direction, regulatory restrictions and oversight

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## Capital Adequacy

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### STATIC PORTFOLIO ANALYSIS

The starting point for the DBRS credit analysis of a monoline mortgage insurance company is to take the measure of its capital adequacy relative to its exposure to potential claims and loss adjustment expenses. To achieve this measure, DBRS randomly samples a representative portion of the rated mortgage insurance company's portfolio of insured loans and analyzes them under stress scenarios used in DBRS's Structured Finance Canadian or U.S. RMBS model, as appropriate. The analysis of the portfolio under this approach assumes that the existing portfolio goes into a state of runoff where no new business is written (i.e., static analysis). The RMBS model takes into account over 20 mortgage characteristics at the individual loan level, including the seasoning, original and current LTVs, the credit score of the borrower, the documentation requirement, the purpose of the loan, the location of the property and the type of mortgage product being insured (e.g., fixed rate, interest only, adjustable rate), among others. Based on



these loan attributes, the model calculates the expected loss of the portfolio with and without mortgage insurance at each rating level on a static basis. The difference between the expected loss to the lender with and without mortgage insurance is considered to be equivalent to the MI company's exposure (i.e., the projected claim experience).

The capital with which the insurance company is expected to meet these claim obligations and expenses consists of statutory capital reserves and/or shareholder equity, loss reserves, unearned premium reserves in the case of single premium policies, additional premium to be earned assuming a conservative persistency rate, and expected investment income to be earned over the liquidation period. In Canada, policyholder reserves are established by actuaries as part of GAAP accounting and the insurance company is correspondingly subjected to minimum capital requirements based on those reserve estimates. Actual capital available is generally in excess of OSFI minimums.

In the United States, mortgage insurance companies are required by regulation to fund a contingency or statutory capital reserve (a fixed percentage of its earned premiums) to cover losses in the event of an extreme economic or market event.

Based on a comparison of expected losses under the stress scenarios with the capital resources available to meet these claims, DBRS can establish an indicative rating for the insurance company's liability portfolio which is consistent with the DBRS RMBS methodology.

## GOING CONCERN ANALYSIS

From an operating perspective, as opposed to the above liquidation analysis, capital adequacy is also a measure of a company's ability to continue to write new business. The most indicative ratios are the net written premium-to-surplus ratio or the risk-to-capital ratio. A declining trend in either of these ratios suggests that capitalization is getting relatively stronger, which increases the capacity of the insurance company to write new premium and generate incremental earnings and is positive for the financial strength rating.

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## Franchise Strength

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Notwithstanding the indicative rating associated with the insurance company's capital adequacy given the risks inherent in its liability portfolio under a static or liquidation analysis, DBRS corporate ratings must also reflect the risks associated with being a "going concern". In this context, it is important to appreciate those qualities which allow the company to sustain its market position and franchise value.

### CUSTOMERS

Since mortgage insurance is purchased by mortgage lenders, it is important that each insurer have sound relationships with a diversified group of major lenders who find it easy to do business with the company. Having a sophisticated electronic data interchange and facilitating captive reinsurance arrangements with a number of major lenders indicate a favourable market presence. While shared underwriting standards and perspectives are important in developing these relationships, it is equally important that there is no concentration in lender clients which can otherwise point to adverse selection at the expense of proper portfolio diversification.

### PRODUCTS

The success of a mortgage insurance company depends in large part on its ability to underwrite the kinds of mortgage loans which are being written in the market. The ability of a mortgage insurance company to maintain market share is directly related to its ability to underwrite the risks associated with new mortgage product innovations. In recent years, such innovations may have included adjustable rate mortgages, interest



only mortgages, longer amortization periods, and increased sub-prime and Alt-A house purchasers. DBRS must ensure that the company has the ability and the flexibility to underwrite these innovative products while not undermining its ability to generate positive earnings.

## SCALE

The bigger MI companies will benefit from scale economies which tend to be self-propagating. An advantage of scale and possibly longer history is access to both historical and broad loan portfolio performance data which is the basis of strong underwriting performance. As the U.S.-based MI companies attempt to expand internationally, they are enhancing both their scale and earnings diversification while leveraging their underwriting and risk management capabilities, which in the long run supports a higher financial strength rating, albeit with some incremental risk associated with start-up operations in new and untested jurisdictions.

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## Earnings

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DBRS ratings emphasize a company's ability to generate consistent earnings which measure both the profitable success of the company's growth, its efficiency, as well as its ability to internally generate capital. However, DBRS also recognizes that the mortgage insurance industry will from time to time experience a severe earnings slump which in turn reflects the residential real estate cycle, despite the potentially long-tailed liabilities of a mortgage insurer. The inevitability of this slump makes relative financial performance of each company at least as important in assessing creditworthiness as absolute performance through the cycle, which can be as long as ten years.

As with all insurance companies, underwriting profitability in the mortgage insurance industry is measured by the loss ratio (claims and loss adjustment expenses divided by net earned premiums). Underwriting losses are a measure of the quality or the original underwriting model and its application, as well as the company's subsequent skill in mitigating or curing any prospective claim losses. Efficiency is best measured by the expense ratio (general expenses divided by net written premium) which, given new technologies and successful growth strategies, should be on a secular downward trend in a well-managed company. Investment income is a substantial part of any insurance company's earnings. However, because of potential claims volatility, portfolios are invested very conservatively, with little to distinguish competitors. A higher risk investment portfolio would be a negative factor in our rating assessment.

DBRS regards a consistently high return on shareholder equity (ROE) as a key measure of a well-managed insurance company, capturing both profitability and the efficient deployment of shareholder capital. While insurance holding companies may use financial leverage, generally operating companies finance themselves with retained earnings and net written premiums. Returns above approximately 13% in favourable markets would be expected from the highest-rated competitors. A lower ROE risks shareholder disgruntlement, which could lead to unfavourable strategic or financial decisions and potential management discontinuity. DBRS expects that in a cyclical downturn in the residential real estate market, it would not be surprising for a company to experience outright losses as claims would be accelerated by market deterioration. The resulting adverse impact on capital adequacy would be monitored closely.



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## Liquidity and Financial Flexibility

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Insurance companies have a ready source of liquidity in the form of regular premium income. In the absence of large claims, the excess premiums are invested in a portfolio of conservative and liquid financial assets. In a negative mortgage credit environment, there is an increased possibility that capital will be eroded by claims payments and underwriting losses. It is therefore appropriate that there are both sufficient liquid resources and additional sources of capital such as parental support or ready access to the capital markets.

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## Financial Support

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Parental sponsorship of the mortgage insurance subsidiary is an important measure of potential capital support. Even without explicit parental support in the form of a guarantee or a support agreement in the case of a start-up operation, DBRS is always mindful of the strategic importance of any operating subsidiary in the context of a corporate family. Where the MI company is a subsidiary of a financial services holding company, it is important to recognize the parent company's level of diversification as well as its financial condition in terms of access to the capital markets, including its available debt capacity. Included in this analysis is the capacity of regulated operating subsidiaries to pay dividends upstream to the holding company. Under a stress scenario, an undiversified holding company may not have access to dividends with which to meet its own debt service obligations and therefore impair its access to the additional capital required by its operating subsidiary. As such, the parental support can be either a positive or a negative consideration in assigning a financial strength rating to an MI company.

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## Management, Governance and Regulation

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As with all corporate credits, the quality of management is assessed and monitored. The strategic vision of the company or the group is identified and the consistent successful execution of that vision is evaluated as a measure of management quality, effectiveness and focus. The representative experience of senior managers in the mortgage lending or insurance industry is of particular interest to DBRS.

DBRS looks for a strong framework governing the appetite, recognition, assessment and evaluation, and mitigation of risk. Sophisticated product and pricing models are intended to leverage the historical raw loan performance data which accompanies scale. The implementation of these models through appropriate underwriting procedures and the corresponding pricing of risk is made more effective through subsequent monitoring and portfolio management. Compliance with risk management policies such as diversification is monitored at least annually. Consistent favourable changes to actuarial reserve requirements are a measure of conservatism in establishing claim reserves.

Government encourages the private ownership of housing through the tax deductibility of mortgage interest (in the United States) and the sponsorship of mortgage insurance through government agencies. Mortgage insurance was introduced by financial authorities as a risk management tool for mortgage lending institutions seeking capital relief and mortgage loan liquidity in order to facilitate the expansion of mortgage loan credit. Such strong government sponsorship provides a solid basis for industry sales and financial stability.



The insurance industry is generally regulated to ensure that companies have sufficient capital with which to meet future policyholder obligations. A strong and vigilant regulator therefore mitigates the risk of a major financial meltdown.

DBRS also recognizes that rating agencies are an additional source of oversight. The insurance company's franchise is largely a function of a sufficiently high financial strength rating. Therefore, while it is unlikely that an insurance company would ever undertake a project which could undermine the company's financial performance or its conservative risk management profile, DBRS monitors new business development initiatives as part of its review.

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## Derived Ratings

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The financial strength rating of an insurance company is assigned to policyholder obligations which DBRS considers to be the senior-most claim on the resources of an operating insurance company. Generally, policyholder obligations are the only legal claim on the assets of an insurance company.

However, operating insurance companies are often held as regulated subsidiaries of financial service holding companies. This structure creates a publicly-traded shareholder vehicle through which capital, raised in either the debt or equity markets, can be funneled down to the operating entity. The holding company will correspondingly create a requirement to service its debt and equity capital through interest and dividend payments. Depending on the level of available liquid resources at the holding company, and the overall size and diversification of the holding company's portfolio, a secondary albeit subordinated claim of the assets of the operating subsidiary is created by the need for a cash return. Such secondary claim is appropriately notched down from the financial strength rating depending on the financial structure of the holding company on an unconsolidated basis.

Additional layers of capital, such as subordinated debt, hybrid capital instruments and preferred shares, are treated according to the standard DBRS rating methodology.

With respect to the financial support provided by either an affiliate or the parent through a guarantee or a support agreement, the financial strength rating of the guarantor generally flows through to the rating of the supported entity, depending on the nature of the support and the strategic importance of the supported entity to the supporting entity.

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