Methodology

Rating Canadian Public Pension Funds & Related Exclusive Asset Managers

MAY 2014

PREVIOUS RELEASE: JUNE 2013
DBRS is a full-service credit rating agency established in 1976. Privately owned and operated without affiliation to any financial institution, DBRS is respected for its independent, third-party evaluations of corporate and government issues, spanning North America, Europe and Asia. DBRS’s extensive coverage of securitizations and structured finance transactions solidifies our standing as a leading provider of comprehensive, in-depth credit analysis.

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.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to DBRS Methodologies</td>
<td>4</td>
</tr>
<tr>
<td>Rating Canadian Public Pension Funds &amp; Related Exclusive Asset Managers</td>
<td>5</td>
</tr>
<tr>
<td><strong>Overview</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>Background</strong></td>
<td>5</td>
</tr>
<tr>
<td>Pension Funds</td>
<td>5</td>
</tr>
<tr>
<td>Exclusive Asset Managers</td>
<td>6</td>
</tr>
<tr>
<td>Legislated Framework</td>
<td>6</td>
</tr>
<tr>
<td>Pension Funds</td>
<td>6</td>
</tr>
<tr>
<td>Exclusive Asset Managers</td>
<td>6</td>
</tr>
<tr>
<td>Plan Sponsors and Demographics of a Plan’s Membership</td>
<td>7</td>
</tr>
<tr>
<td>Management Framework</td>
<td>7</td>
</tr>
<tr>
<td>Financial Resources</td>
<td>8</td>
</tr>
<tr>
<td>Funding Status</td>
<td>8</td>
</tr>
<tr>
<td>Liabilities</td>
<td>9</td>
</tr>
<tr>
<td>Legal Issues</td>
<td>10</td>
</tr>
<tr>
<td>Appendix 1: Liquidity for Canadian Public Pension Funds</td>
<td>11</td>
</tr>
</tbody>
</table>
Introduction to DBRS Methodologies

• DBRS publishes rating methodologies to give issuers and investors insight into the rationale behind DBRS’s rating opinions.
• In general terms, DBRS ratings are opinions that reflect the creditworthiness of an issuer, a security or an obligation. DBRS ratings assess an issuer’s ability to make timely payments on outstanding obligations (whether principal, interest, preferred share dividends or distributions) with respect to the terms of an obligation. In some cases (e.g., non-investment grade corporate issuers), DBRS ratings may also address recovery prospects for a specific instrument given the assumption of an issuer default.
• DBRS rating methodologies include consideration of historical and expected business and financial risk factors as well as industry-specific issues, regional nuances and other subjective factors and intangible considerations. Our approach incorporates a combination of both quantitative and qualitative factors.
• The considerations outlined in DBRS methodologies are not exhaustive and the relative importance of any specific consideration can vary by issuer. In certain cases, a major strength can compensate for a weakness and, conversely, a single weakness can override major strengths of the issuer in other areas. DBRS may use, and appropriately weight, several methodologies when rating issuers that are involved in multiple business lines.
• DBRS operates with a stable rating philosophy; in other words, DBRS strives to factor the impact of a cyclical economic environment into its ratings wherever possible, which minimizes rating changes due to economic cycles. Rating revisions do occur, however, when more structural changes, either positive or negative, have occurred, or appear likely to occur in the near future.
• DBRS also publishes criteria which are an important part of the rating process. Criteria typically cover areas that apply to more than one industry. Both methodologies and criteria are publicly available on the DBRS website and many criteria are listed below under “Rating the Specific Instrument.”
Rating Canadian Public Pension Funds & Related Exclusive Asset Managers – Overview

• This methodology applies to Canadian public pension funds and related exclusive asset managers covered by DBRS. Although the universe of rated entities in the sector is still limited, large Canadian public funds and their exclusive public assets managers share characteristics that provide considerable resilience to their credit profiles and that have so far allowed most of these entities rated by DBRS to achieve AAA ratings. Where a Canadian pension plan or exclusive asset manager exhibits material weakness with respect to one or more of the six broad categories of major rating considerations that are outlined below, a rating below AAA may be appropriate.

• Key strengths include relationships with large pension plans backed by large and solid government or government-related sponsors, low debt burdens, access to substantial asset base and liquidity position, as well as prudent management and governance frameworks.

• This methodology does not apply to private pension funds and private asset managers.

OVERVIEW
DBRS rating methodologies consider a broad array of quantitative and qualitative factors that are both industry- and entity-specific. In the case of Canadian public pension funds and related exclusive asset managers, DBRS groups the major rating considerations into six broad categories:

(1) Legislated Framework
(2) Plan Sponsors and Demographics of a Plan’s Membership
(3) Management Framework
(4) Financial Resources
(5) Funding Status
(6) Liabilities

These risk categories form the basic analytical framework for all public pension funds and their exclusive asset managers, with each underlying risk factor assessed by DBRS in a uniform fashion across debt issuers in order to ensure consistency among ratings.

BACKGROUND
This rating methodology applies to Canadian public pension funds, which administer the pension plans of public sector employees and control their assets (pension funds), and to the special entities that are sometimes entrusted with the management of their assets under a legislated and exclusive mandate (exclusive asset managers). The two groups share important rating fundamentals, including access to substantial investments to repay their debt, but they also have significant differences, such as the limitations of their respective mandates and their responsibility toward accumulated pension benefits.

Pension Funds
As the administrator of a pension plan, the pension fund is generally in charge of providing services to plan members; for general management requirements, such as plan valuations; and for investing plan assets. Accordingly, the pension fund is entrusted to establish investment policies, collect and invest plan assets and report to the plan’s sponsor. However, key responsibilities exclude plan design, amendments to plan structure, rate setting or deciding whether to file actuarial valuations early, which is generally handled by a plan’s sponsor.
**Exclusive Asset Managers**

Exclusive asset managers are organizations that are mandated through legislation to manage the assets of one or more public pension plans on an exclusive basis. The constituting act generally entitles the exclusive asset manager to receive the excess contributions of the plan (current contributions less benefit payments) and entrusts it with the responsibility, among other things, to establish investment policies in consultation with plan sponsors, invest plan assets and report on results. In contrast to pension funds, however, exclusive asset managers are not responsible for administering the underlying plans, providing services to plan members or for accumulated pension benefit liabilities.

**LEGISLATED FRAMEWORK**

Existing legislation and regulations defining the operating framework of pension funds and exclusive asset managers constitute an important component of the rating review, as they establish the powers and responsibilities of each organization. Control over plan assets and the exclusive mandate to manage them are key considerations for this part of the rating assessment, as DBRS seeks to gain comfort that the plan assets will remain available to the fund in order to service current and future debt obligations. The stability of the framework is also assessed and is viewed as an indication of the independence between the plan sponsor and the pension fund or its exclusive asset manager. Accordingly, changes in key legislation or regulations by public authorities leading to erosion in operating discipline or autonomy could have an adverse impact on the rating. For rated Canadian pension funds and exclusive asset managers, country risk is not viewed as relevant given their location in Canada, the high credit quality and stability of Canada and the geographic diversification of invested assets.

**Pension Funds**

For AAA-rated Canadian pension funds, employee participation in the plan should be mandatory and plan assets under management are expected to be highly captive as these entities are organizations specifically created through legislation for the purpose of administering the underlying pension plan and its assets. However, DBRS notes that some pension funds may also have the authority to manage external funds not belonging to the underlying public pension plan. In such situations, if there is no legislation or long-term agreements tying the assets to the pension fund and allowing the pension fund to leverage those assets as if they were its own, the assets would not be seen as captive and could not be considered as backing recourse debt outstanding.

Features of the legislated framework aimed at limiting leverage and fostering the long-term sustainability of pension plans are also viewed positively. In particular, Canadian pension plans are restricted under the Income Tax Act to borrow only for investment in real properties. They are also generally subject to a mandatory corrective mechanism activated when regulatory filings reveal a funding deficiency, according to which plan sponsors are required to adjust member contributions and/or pension benefits in order to address funding deficiencies within a pre-determined timeframe. These safeguard mechanisms are viewed by DBRS as an important feature for AAA ratings. They are designed to protect a plan’s long-term viability by preventing sustained erosion in the funding position and remove the subjectivity potentially involved in determining when and by how much to increase contribution rates and/or reduce benefits, fostering independence between the pension fund and the sponsor.

**Exclusive Asset Managers**

The stability and clarity of the investment management mandate are also key considerations when evaluating the legislative framework of public asset managers, as it determines the captivity of the assets under their management. For AAA-rated exclusive asset managers, DBRS expects the management mandate to be exclusive, comprehensive and unequivocally allocated to the manager for an unlimited period of time, resulting in a highly captive asset base. The fact that exclusive asset managers of public pension funds are organizations specifically created by governments for the sole purpose of managing plan assets generally results in considerable stability in the legislative framework, making the risk of any material adverse change to the legislation very remote.
PLAN SPONSORS AND DEMOGRAPHICS OF A PLAN’S MEMBERSHIP

The analysis of a plan’s contributor(s), namely the employer sponsor and the plan members, relates directly to the underlying strength and resilience of the contribution flows of a pension plan. DBRS seeks to gain comfort that the contributions are mandatory and sufficient to meet the pension plan’s benefit obligations and that the sponsor and plan members have the ability to sustain higher contribution, if needed.

DBRS forms an opinion of the quality of a plan’s sponsor and members, which generally share responsibility for the funding of the plan and potential future contribution increases necessary to address deficiencies. With respect to the sponsor of major public pension plans associated with AAA-rated pension funds, DBRS takes considerable comfort in the fact that these entities are major governments with taxing powers, relatively stable operations and solid credit profiles, or public sector entities with strong ties to major governments. The absence of such characteristics would result in weaker ratings. An in-depth look at the sponsor also provides insight into the growth prospects and affluence of the active plan members who make regular contributions to the plan. DBRS notes that membership of public pension plans is generally relatively stable due to the nature of government activities, enhancing the stability of contribution flows.

The demographics of a plan’s membership are another important factor in DBRS’s review of public pension plans. A higher ratio of active-to-retired members and a lower average age lend strength to a pension plan, as it points to greater flexibility to absorb funding deficiencies through increased contribution rates and/or slower benefit accrual for active employees. In contrast, the ability of an older membership to close a shortfall will be much less, as retired members do not contribute to inflows and their accrued benefits are usually protected.

MANAGEMENT FRAMEWORK

The management framework of a public pension fund or exclusive asset manager deserves considerable attention as part of the rating process due to its broad influence over investment performance, asset stability, transparency, leverage and overall financial prudence. This involves a review of the entity’s organizational structure, senior management team and major policies and procedures pertaining, among other things, to remuneration, investment activities, liquidity management, leverage and risk management.

With regard to governance, DBRS focuses on the independence and effectiveness of the board, the experience and proficiency of the senior management team and key committees, the allocation of responsibilities across the organization and the existence of an adequate process to develop and amend key policies and procedures.

Investment management is another important area of interest. DBRS focuses on the decision-making process, investment strategies and the general track record of the public pension fund or exclusive asset manager. Historical investment performance is a good starting point, including return and return volatility by major asset class, as well as performance relative to targets and benchmarks. DBRS seeks to gain an understanding of how return targets are set internally, how they are expected to be achieved and whether these objectives are appropriate given market conditions and the plan’s ability to take on risk. A look at the fund’s current and targeted asset mix is particularly useful, as it gives a sense of potential return volatility and risk appetite, with asset allocation monitored by asset class, geographic areas, currencies and counterparty credit risk. Rated pension funds and exclusive asset managers are expected to have the necessary structure, procedures and policies to implement the investment strategy and meet return objectives. When reviewing the management framework, DBRS also expects to see a high degree of independence between the sponsor and the pension fund or the exclusive asset manager in day-to-day operations.

While risk taking is an inherent part of investment activities, DBRS expects rated pension funds and exclusive asset managers to have a strong risk management culture and robust systems, processes and procedures for measuring, monitoring, managing and reporting risk exposures. Prudent management of major risks (market, credit and operational) is critical for pension funds and exclusive asset managers as
it allows them to achieve more steady returns without undue risk of loss. Particular attention is paid to 
the independence of the risk management functions, the adequacy of policies and procedures related to 
setting return targets and risk budgets and the mechanisms for quantifying and tracking risk levels. DBRS 
also looks at key limits or thresholds for various risk exposures, scenario analysis techniques utilized and 
the evolution of risk taking relative to returns over time in an effort to determine whether the pension 
fund or exclusive asset manager strikes a reasonable balance between risks and rewards.

**FINANCIAL RESOURCES**

This section focuses on the financial flexibility and strength of the pension fund or exclusive asset manager 
as reflected in its net asset position, current and projected cash flows (contributions less benefit payouts) 
and liquidity position. Net asset (gross investment assets less amounts payable, outstanding debt and other 
investment-related liabilities) is a particularly important indicator of financial strength and is assessed on 
the basis of its stability and level in relation to recourse debt obligations and, for pension funds, pension 
obligations, which typically have longer average terms to maturity than debt. Size is also viewed positively 
in the assessment as it generates administrative and management efficiencies and facilitates portfolio and 
risk diversification.

The analysis of projected contribution and benefit payment flows of an underlying pension plan is also 
critical to assessing the financial flexibility of a plan as it helps DBRS understand the growth trend of the 
plan’s assets and the ease with which the plan could recover from a potential funding shortfall. In contrast 
to a mature plan with benefit payments exceeding contributions, a younger plan has a relatively broader 
base of active members and contributions over which to spread contribution rate increases. Additionally, 
strong contribution inflows result in a longer investment horizon and a more stable source of liquidity 
that can assist in meeting short-term financial obligations.

Irrespective of the maturity of the pension plan, the volume of net contributions and the overall size of 
the investment portfolio managed by the pension fund or the exclusive asset manager, DBRS expects rated 
entities to maintain liquidity cushions adequately sized relative to expected and unexpected needs (e.g., 
derivatives), and to have strict policies in place for their management. DBRS’s emphasis on liquidity will 
be particularly high when the rated entity is actively involved in short-term financing activities or transac-
tions potentially subject to collateral calls, such as commercial paper issuance or heavy use of repurchase 
agreements or derivatives. As such, public pension funds and their exclusive asset managers issuing com-
mercial paper are required to maintain adequate back-up liquidity either in the form of a committed line 
of credit or high-quality liquid assets, as explained in Appendix 1 below.

**FUNDING STATUS**

The funding status of the underlying public pension plan warrants considerable attention. It provides 
insight into the long-term viability of the plan, the adequacy of current contribution rates and the growth 
prospects of the assets available to eventually repay outstanding debt. DBRS recognizes that pension 
plans may face sizeable deficiencies for an extended period of time owing to their exposure to volatile 
investment returns and changing actuarial assumptions. Furthermore, accrued benefits are very long-term 
liabilities that provide plans with considerable time to address challenges. Nonetheless, DBRS expects 
plan sponsors to be responsive to material funding erosions and to take credible actions in order to 
prevent the build-up of excessive deficiencies and restore balance within a reasonable timeframe. As 
such, even for pension plans with strong fundamentals, a funding deficiency exceeding 30% of pension 
liabilities would likely attract considerably more scrutiny from DBRS, taking into consideration the rea-
sonableness of key actuarial assumptions.

The assessment of the funding status focuses on the reasonableness of key actuarial assumptions, the 
affordability of any potential funding deficiency in light of current contribution levels and the financial 
health of the plan sponsor. For example, a deficiency would likely be less alarming to DBRS if the 
discount rate used to value plan liabilities was notably below sector standards or current contribution
rates were significantly lower than in other comparable plans. In Canada, pension plans are required to file actuarial valuations with pension authorities at least every three years, although plan sponsors have the option of filing earlier for strategic reasons. These actuarial valuations are conducted by independent firms and often updated annually by major public pension plans between regulatory filings. The assumptions employed for regulatory filings tend to differ somewhat across plans, especially for the discount rate, which may be influenced by the maturity of the plan and the level of risk taking deemed adequate for the plan. This may affect valuations and distort inter-plan comparisons, highlighting the importance of understanding the key actuarial assumptions and their historical cycle.

Valuations on a solvency basis contrast a plan’s assets at market value to pension liabilities accrued as of a certain date. This approach assumes wind-up of the plan and is viewed by DBRS as rather conservative for public pension plans, though still providing valuable insight into upcoming changes in contribution rates and/or benefits. Going concern is the other broadly used funding basis and while it is somewhat distorted by the smoothing of investment returns generally permitted under pension legislation, it is viewed by DBRS as more relevant for public pension plans as it adopts a long-term view on the plan, allowing for more gradual corrective measures to take place when needed. Whether solvency or going concern valuation is used, it is important to keep in mind the long-term nature of pension liabilities. Except in extreme cases, any deficiency emerging in an active pension plan with reasonably sound demographics would likely take numerous years and possibly decades to trigger cash flow problems and is only a threat to the plan if allowed to deteriorate indefinitely.

The funding status of a pension plan is also an important factor in the assessment of its exclusive asset manager, as a financially compromised plan would entail considerable uncertainty regarding the prospects of the asset base backing the rated debt. In contrast to pension funds, exclusive asset managers generally have no direct responsibility for the plan’s pension liabilities or for potential funding shortfalls, as deposits received from the plan generally give rise to something closer to equity than a liability. As a result, DBRS may tolerate more sizeable funding imbalances in the contributor pension plans, especially if the term of the rated debt is relatively short, but notes that the future of the exclusive asset manager and its contributory pension plan remain closely linked.

**LIABILITIES**

The financial obligations of pension funds and exclusive asset managers fall into two main categories for DBRS’s analytical purposes. The first category includes the pension benefit obligations of rated pension funds, as well as the financial obligations related to the funds entrusted to rated exclusive asset managers by public pension plans. These liabilities are generally long term in nature and analyzed in relation to gross assets and the ability of plan sponsors to make up for deficiencies, with liabilities expected to be fully backed by assets over the long term, as discussed in the Funding Status section above. Fortunately, pension liabilities are extremely long term in nature, with a duration generally exceeding that of outstanding debt instruments, which provides considerable time for sponsors and plans to correct any funding challenges. DBRS notes that the pension obligations are acutely sensitive to actuarial assumptions, especially the discount rate, and must be analyzed with an appreciation of the position of this key variable within its historical cycle. The obligations related to the contributions received by exclusive asset managers tend to be less volatile and are often viewed as near equity, as exclusive asset managers have no legal obligations for the accrued benefits accumulated in the contributor pension plan.

The second category of liabilities reviewed by DBRS relates to financial obligations assumed through investment activities, especially debt, which can be with recourse to the pension fund, the exclusive asset manager or to specific assets, as is the case for mortgages or borrowings of non-guaranteed subsidiaries. Because it has more implications for the rated organization, recourse debt warrants the most attention in the rating review. Typically issued through a financing subsidiary and guaranteed by the pension fund or exclusive asset manager, recourse debt is assessed in relation to the pension fund’s or exclusive asset manager’s net assets, which ultimately back the obligations. For an AAA rating, recourse debt is generally
expected by DBRS not to exceed 10% of net assets, leaving considerable room for cyclical fluctuations in asset values. Non-recourse debt is less significant to the credit rating as its recourse is limited to a specific asset or group of assets and those assets are subtracted from the total portfolio value when assessing the level of resources backing recourse debt. Should a non-recourse loan be in default, lenders could only realize on the asset(s) provided as security with no impact on the balance of the portfolio. Nevertheless, because an investor may at times be inclined to inject funds into a project in difficulty (even if not legally required) to save a strategic investment, the purpose and extent of the use of non-recourse debt are tracked by DBRS in order to identify unduly aggressive use of such debt that could potentially add volatility to an investment portfolio.

DBRS notes that Canadian registered pension plans are restricted under the Income Tax Act to borrow only for investment in real properties, which tends to reduce appetite for debt and prevents plans from leveraging traditionally more volatile investments.

Adequate debt policies should also be in place, especially with respect to the use of leverage within the organization, recourse and non-recourse borrowing limits and the types and terms of financing instruments favoured. Other financial instruments giving rise to potentially large liabilities, such as derivatives and repurchase agreements, should also be properly supervised and are factored into the rating assessment. This is the case for repurchase agreements, which are often used for short-term funding purposes, and derivatives, which help hedge risks and/or create synthetic exposure to various types of assets. The use of these instruments is seen as a natural part of investment management and generally does not cause concern, although excessive reliance on them may be viewed negatively by DBRS given the generally short term to maturity of repurchase agreements and the potential squeeze on cash flows resulting from derivative collateral calls in volatile market conditions.

LEGAL ISSUES
As mentioned previously, recourse debt is generally issued through a special-purpose subsidiary. In order for the rating assigned to the notes to reflect the high credit quality of the parent, an unconditional and irrevocable guarantee is also provided on the notes (not on the issuer). However, in order for DBRS to flow through the credit profile of the guarantor to the notes, the guarantee must meet specific requirements outlined in DBRS Criteria: Guarantees and Other Forms of Explicit Support.

Another legal issue considered by DBRS in its analysis is the ranking of rated debts in relation to the obligation to plan members or contributions from pension plan depositors. Since most Canadian public pension funds and exclusive asset managers were created a long time ago with no expectation that borrowing activities would eventually be undertaken by these entities, their constituting documents rarely address the treatment of counterparty obligations relative to pension obligations or the obligations of an exclusive asset manager toward its depositor(s) under a wind-up scenario. A legal opinion is typically obtained by the issuer from an external counsel on the ranking of guaranteed obligations. While such views are valued by investors, DBRS puts limited emphasis on them as part of its rating assessments given the absence of legal certainty pertaining to this issue. More importantly, a wind-up is viewed by DBRS as a very remote possibility, given the large and sound position of the investment portfolio, the generally healthy financial profile of participating employers and the very long-term nature of pension and depositor obligations.
Appendix 1: Liquidity for Canadian Public Pension Funds

By their nature, most pension funds in Canada have an exceptionally high degree of liquidity, with large bases of unencumbered high-quality securities that can be monetized through repurchase agreements or asset sales very quickly.

For these funds, DBRS defines “highly liquid assets” as unencumbered debt securities of any duration issued or guaranteed by sovereign governments rated AAA or R-1 (high). For Canadian pension funds, DBRS will also consider any debt issued or guaranteed by one of the Canadian provinces or Schedule I banks rated R-1 (high) for inclusion within the highly liquid asset definition. If DBRS does not rate a sovereign, it will still be acceptable for inclusion within the definition of highly liquid assets, if the debt has been rated AAA (or the equivalent rating) by at least one publicly available nationally recognized statistical rating organization or external credit assessment institution. However, DBRS reserves the right not to rely on other agencies in this way if their risk opinions, methodologies or sector outlooks are meaningfully inconsistent with the views of DBRS.

When a pension fund is a commercial paper issuer, DBRS will assess the need for bank line support on a case-by-case basis, by considering the following issues:

- The level of liquidity on the balance sheet relative to the size of the commercial paper program. As a general rule, the fair value of highly liquid assets should, at all times, be at least 1.5 times the size of the maximum authorized limit for the commercial paper program.
- The rating given to the pension fund (higher-rated entities generally have better ability to access the market in a stressed environment). In most cases, DBRS is only satisfied with relying on balance sheet liquidity for support when the rating of the pension fund in question is R-1 (high).
- Whether the commercial program is of such a large size that some bank line support would be prudent, notwithstanding the level of liquid assets maintained by the pension fund.
- Whether the issuing organization is aware of the importance of supporting its commercial paper program and is highly likely to access its sources of liquidity when needed.
- Whether the fair value of highly liquid assets on the issuer’s balance sheet demonstrates high volatility.
- Whether there are any special circumstances that could add liquidity stress that should be taken into consideration, such as pension payment holidays or actuarial considerations.

Where there are concerns with any of these areas, DBRS standards may require the need of some bank line support as an alternate form of liquidity.

For further discussion on the relationship between short- and long-term ratings and more detail on liquidity factors, please refer to the DBRS policy Short-Term and Long-Term Rating Relationships and DBRS Criteria: Commercial Paper Liquidity Support Criteria for Corporate Non-Bank Issuers.