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IN LABOUR ISSUES

Pensions in Manitoba:

What's Working, What's Not,
What's a Solution and What's Not

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**Pensions in Manitoba: What's Working,
What's Not, What's a Solution and What's Not**

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About the Author

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Pensions In Manitoba: What's Working; What's Not; What's a Solution; and What's Not

As is the case in the rest of Canada, Manitoba's workplace based retirement income system reflects the failure of the system originally envisaged in the 1960s when the Canada Pension Plan was created and Old Age Security was expanded.

That system envisaged retirement incomes based on three components which came to be known as the "three-legged stool" of Canadian retirement income policy:

- Old Age Security (OAS) supplemented by the income tested Guaranteed Income Supplement (GIS), a universal monthly pension payable to every Canadian over the age of 65, regardless of their labour market experience;
- The Canada Pension Plan (CPP), an employment-related adjusted career average earnings-based pension plan designed to replace 25% of earnings up to the average industrial wage; and
- Workplace based pension plans or retirement savings plans which would be employer-sponsored and either partially or wholly funded by employer contributions.

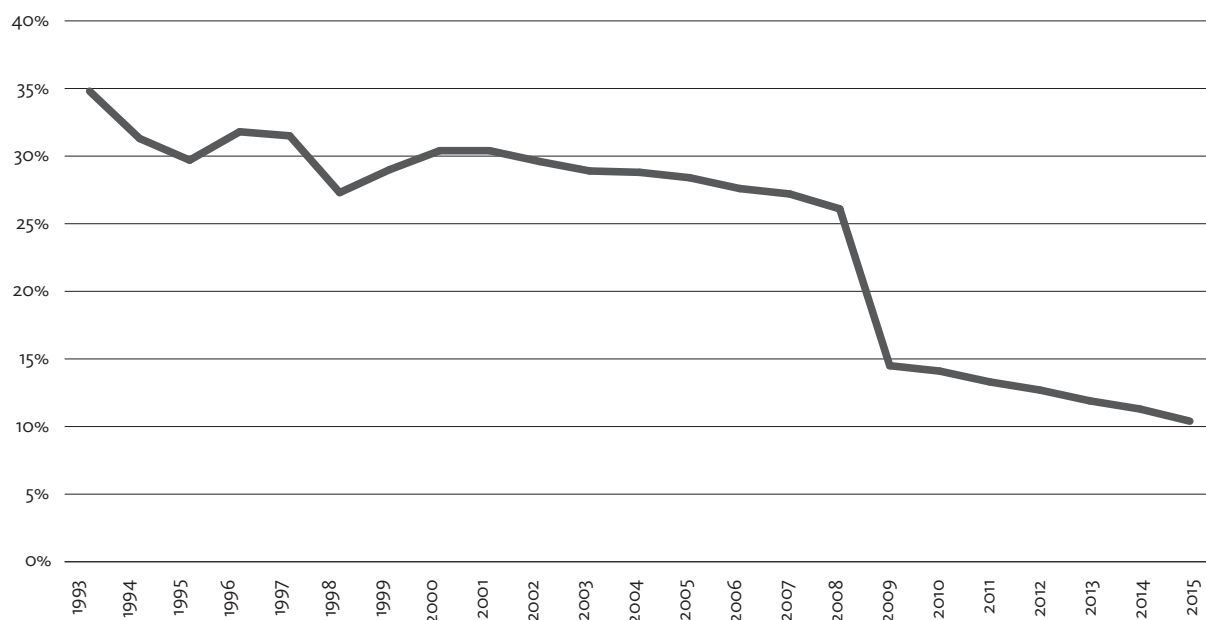
As the system evolved over subsequent decades, two of the three components performed exactly as expected.

OAS/GIS has been credited with a dramatic reduction in the rate of poverty among Canadian seniors.

The CPP grew to maturity over the 25 years after its inception in 1966 and survived a concerted effort by conservative forces in the late 1980s to force its conversion into a defined contribution plan along the lines of the Chilean model created by Augusto Pinochet in the 1970s. When it became clear that initial assumptions about labour force growth that underpinned the plan's pay-as-you-go funding were not going to materialize, CPP premiums were increased to provide for steady-state funding over a 75-year time horizon. The Canada Pension Plan Investment Board, created at the same time to manage CPP assets now manages an asset base of nearly \$280 billion, making it one of the largest sovereign wealth funds in the world.

The workplace based retirement income system, on the other hand, has fallen far short of the expectations of its 1960s era designers. Governments generally followed through on their implied commitment to provide robust pension plans as part of their employees' compensation, creating final average earnings based defined benefit pension plans designed to deliver a retirement income,

FIGURE 1 Percentage of Private Sector Employees in a DB Pension Plan Manitoba — 1993 to 2015



SOURCE: CANSIM 282-0012 and CANSIM 280-0008 (custom tabulation)

TABLE 1 Manitoba Employees' Pension Participation

| | Private | Public | Total |
|---------------|---------|---------|---------|
| DB plans | 40,215 | 127,427 | 167,642 |
| - % DB | 10% | 77% | 30% |
| DC plans | 59,635 | 19,534 | 79,169 |
| - % DC | 15% | 12% | 14% |
| TOTAL Pension | 99,850 | 146,961 | 246,811 |
| - % Pension | 26% | 89% | 45% |

SOURCE: 2015 — CANSIM 280-0008 and custom tabulation

when combined with CPP, equal to roughly 70% of pre-retirement earnings — a widely-accepted retirement income target. And, generally speaking, those plans have been maintained throughout.

In the private sector, the situation was quite different. At the national level, workplace-based pension plans never covered more than 35% of private sector employees. And over the years, there has been a steady decline in pension plan coverage in general, and in defined benefit pension plan coverage in particular.

In Manitoba in 2015, 89% of public sector workers were covered by a pension plan: approximately 77% in defined benefit plans and approximately 12% in defined contribution plans. DC plan coverage has increased only modestly — from 5.6% to 11.9% — since the mid-1990s.

As of 2015, by contrast, only 26% of private sector workers were covered by either a DB or a DC plan. Of that 26%, nearly two thirds is accounted for by membership in DC plans. Roughly one Manitoban in ten employed in

TABLE 2 Pension Plans Registered Manitoba

| | Public Sector | Private Sector | Total | Defined Contribution | Defined Benefit |
|--------------------------------------|---------------|----------------|-----------|----------------------|-----------------|
| Members | 129,042 | 68,719 | 197,761 | 59,613 | 138,148 |
| Plans | 47 | 324 | 371 | 302 | 69 |
| Assets (\$ million) | \$22,870 | \$5,088 | \$27,958 | \$2,139 | \$25,819 |
| Average plan membership | 2,746 | 212 | 533 | 197 | 2,002 |
| Average assets per plan (\$ million) | \$486.6 | \$15.7 | \$75.4 | \$7.1 | \$374.2 |
| Average assets per member (\$) | \$177,229 | \$74,041 | \$141,373 | \$35,881 | \$186,894 |

the private sector belongs to a defined benefit pension plan.¹

Defined benefit pension plan coverage for Manitoba employees in the private sector has been declining steadily for decades, as Figure 1 shows.

Table 1 breaks down the Statistics Canada data for people employed in Manitoba.

Even that weak performance overstates the long-term prospects for single employer sponsored defined benefit coverage in the private sector. A substantial proportion of the approximately 10% that belong to defined benefit pension plans in the private sector do not belong to the single-employer-sponsored pension plan envisaged in the 1960s. They are members of multi-employer plans operated on behalf of trade unions, largely in the construction, retail and hospitality sectors, a structure that shields them from the general trend in DB coverage in the private sector. Furthermore, an unknown but certainly significant proportion of those who belong to traditional employer-sponsored plans are members of plans that have been closed to new members, with new employees covered by DC arrangements.

The result is that employees in Manitoba live in two different worlds. Employees in the public sector generally participate in high-quality defined benefit pension plans, a benefit enjoyed

by only about 10% of private sector workers. Of the other 90%, about 15% belong to registered employer sponsored defined contribution plans. The rest — 75% — are essentially on their own in the Registered Retirement Savings Plan system.

The data referred to above show pension coverage for people who are employed in Manitoba, regardless of where in Canada the plan is registered. As a result, the data include Manitobans who belong to plans that are registered at the Federal level or in other provinces.

Another way to look at the Manitoba pension system is through plans that are registered in and regulated by the Province of Manitoba. These membership statistics are not directly comparable to those presented above because they include people who belong to Manitoba-registered plans but who are employed in other provinces and exclude people who work in Manitoba but belong to plans registered in other provinces. With those limitations in mind, however, the most recent statistics (2015) for pension plans registered Manitoba are revealing as shown in Table 2.²

Although there are far more plans in the private sector than in the public sector, their average size is less than 7.8% of the size of the average public sector plan and their average asset base is only 3.2% of that of the average public sector plan.

Why is the Private Sector Retirement Income System So Weak?

At the outset, it is important to note that both nationally and in Manitoba, the retirement income system in the private sector has never been particularly strong. Nationally, workplace based retirement income systems have never covered more than 35% of employees in the private sector, peaking in 1977. In Manitoba, reported coverage peaked in 1992 at 43%.

However, even given that weak overall picture, the decline since the peak coverage rates reported in the data has been precipitous in Manitoba, roughly 25% for DB and DC plans combined.

For defined benefit coverage, the decline has been much more precipitous.

There is No Single Reason for the Decline
Changes in industrial structure have made a difference. In relative terms, sectors in which pension coverage tended in the past to be high, such as manufacturing and the resource sector, have seen employment decline since the 1970s, both as a share of total employment and in absolute terms. Sectors which have historically had lower coverage rates — in the services sector for example — have seen employment increase.

Pension coverage has also traditionally been identified with union representation. Consequently, as union density in the private sector has declined across Canada and in every province, so has the likelihood that an employee in the private sector will be covered by a pension plan.

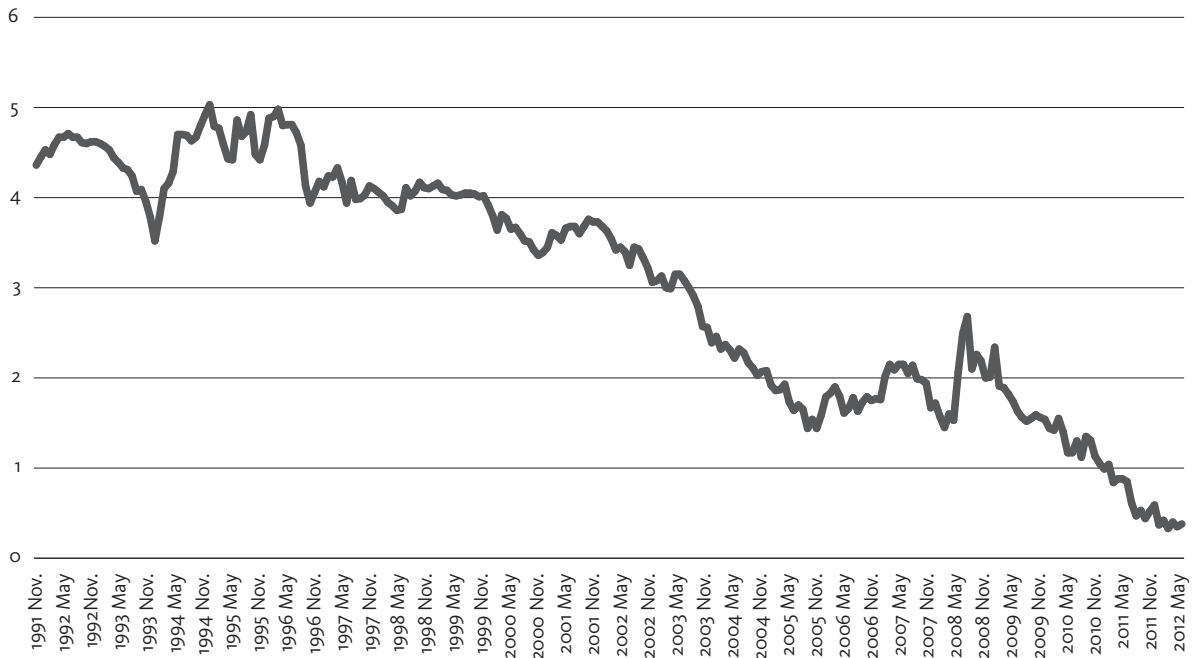
Pension Coverage Has Become More Expensive for Employers

Economically, the long-term decline in real interest rates in Canada has tended to reduce investment returns on pension plan assets. Figure 2 shows market returns on Government of Canada real-return bonds or their equivalent from November 1991 to October 2012.³

Demographic change has also had a significant impact. Since the 1970s, when the basic structure of the private sector pension system was put in place, average life expectancies at age 65 have improved substantially, for both women and men, as shown in Figure 3.

These long-term changes have had a profound effect on the economics of pension plans. For defined benefit plans, their combined effect has been to increase funding costs. Lower interest rates and greater life expectancies serve to increase the as-

FIGURE 2 Long-Term RRB Yield November 1991 to October 2012



set base required at retirement to pay for earned pension benefits. Lower interest rates and investment returns have the effect of reducing the share of that asset base covered by investment earnings and correspondingly increasing the share that must be covered by going concern contributions.

Even without the defined benefit plan’s guarantee, these changes have had an impact on defined contribution plans as well. Accumulated cash balances in DC plans are lower for any given level of contribution and converting those cash balances to annuities on retirement has become extremely expensive.

In the 1970s, the generally expected rate of inflation in Canada ranged from 6–8%. Since the early 1990s in Canada, the rate of inflation has remained very close to the Bank of Canada’s inflation target of 2%. That has had a fundamental effect on the economics of flat benefit and career average pension plans, making them much more expensive.

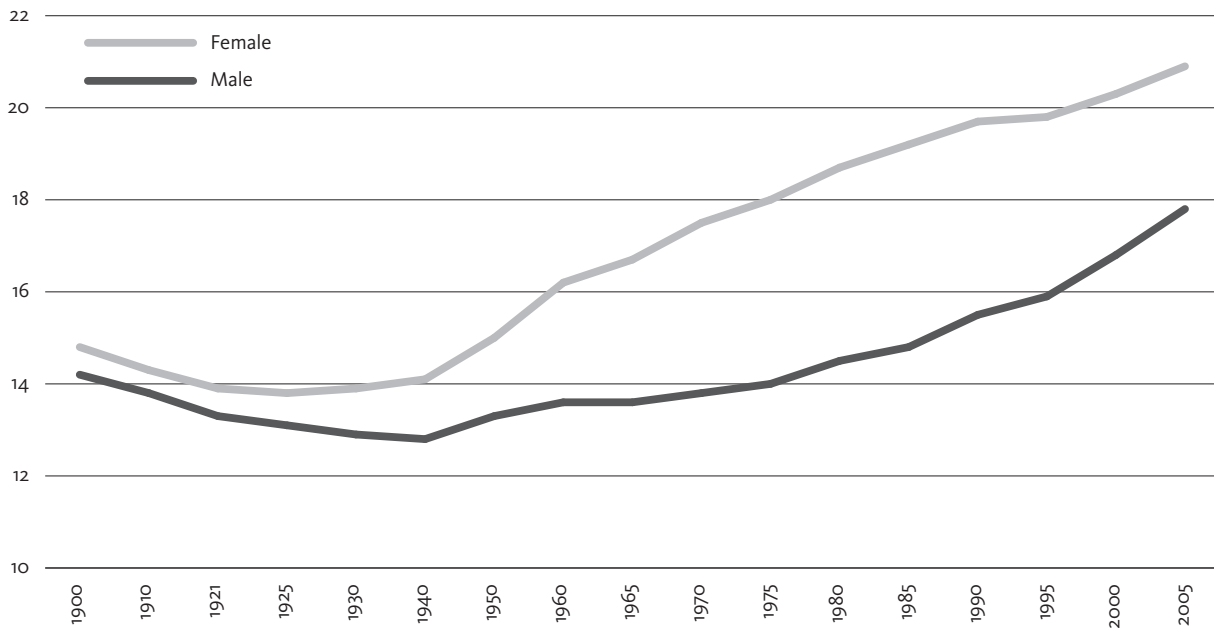
Because past service benefits are not automatically adjusted for inflation and pensions

are typically not automatically indexed in these plans, sponsors are not required to fund in advance for increases in pensions in response to inflation. Higher rates of inflation tend to coincide with higher rates of nominal investment returns, making funding for these plans less expensive for plan sponsors.

During the benefit accrual period, the absence of automatic inflation adjustment enables plan sponsors to avoid funding in advance for expected benefit increases, thus lowering their current costs. Post-retirement, in plans without automatic indexing, retired members are in effect subsidizing the benefit accruals of active members.

The regulatory system has also had an impact. In response to several high-profile cases in which companies shut their doors leaving their employees with underfunded pensions, pension funding regulations in the 1980s were tightened up across Canada. In addition to requiring normal “going concern” funding based on long-term best estimates of investment returns, plans were

FIGURE 3 Life Expectancy at Age 65: Canada 1900 to 2005



required to provide enhanced funding intended to increase the funding available to pay for benefits in the event of a plan windup, referred to as “solvency” funding. The key feature of solvency funding rules was a requirement to use current market-based interest rates in the valuation of pension benefits.⁴

For the first decade, those requirements had little impact on pension finances. The market interest rates which were required for solvency valuations were, for most plans, well above the rates used in going concern valuations. That began to change in the early 2000s, however, and by mid-decade, funding for many pension plans in the private sector began to be driven by solvency funding requirements. These requirements forced sponsors of DB plans to increase contributions. In addition, because the interest rates used in solvency valuations are fixed at the rate applicable on the effective date of the valuation, the rates and the resulting valuations have been quite volatile as market interest rates have fluctuated.

Investment markets have also been very challenging, both because returns have become more

volatile and because public investment markets have become dominated by very large pension and sovereign wealth funds. The much smaller funds in the private sector have been finding it extremely difficult to compete, both because investment management fees are higher for smaller funds and because the investment opportunity set is much narrower for smaller funds than for large funds. For example, most large funds in Canada invest directly in real estate properties, an option that is simply not available to smaller funds.

Changes in accounting requirements have also had an impact. Accounting rules introduced in the 1990s required plan sponsors to report liabilities for pensions under defined benefit pension plans on their balance sheets, and to value those liabilities at market interest rates. In lower interest rate environments such as have prevailed since the early 2000s, mature pension plans have had a significant impact on corporate balance sheets and consequently on the perceived financial health of the company.

The rapid globalization of financial markets as well as markets for goods and services has also

had an impact. In many countries, pensions are provided through the state rather than through individual employers, putting Canadian employers who are exposed to international competition at a disadvantage.

In addition to these pressures on the employer side of the private sector pension system, it has become increasingly clear that the system is not adequately serving the interests of plan members either.

Very few private sector pension plans deliver benefits that are linked to the rate of inflation, so that even in a relatively low interest rate environment, retired plan members can look forward to a steadily declining relative contribution from their private pension plan to their standard of living in retirement.

More important, because private pension benefits are not portable from employer to employer, a private sector defined benefit pension plan will only deliver the implied pension promise to employees who spend an entire career working for the same employer. That profile has never applied to more than a small minority of private sector employees, with the result that the clear majority of employees — even if they belong to a pension plan — never qualify for an adequate retirement benefit. Instead, if they are lucky enough to belong to a pension plan, the likely result is a cash commuted value transfer to a locked-in RRSP, not a lifetime pension.

And as far as DC plans are from providing for an adequate, efficiently delivered retirement income, RRSPs are even further from doing so.

Weren't RRSPs Supposed to be the Alternative for Employees Who Don't Have Workplace Based Pension Plans?

When Canada's retirement income system was designed in the 1960s, it was expected that employers would shoulder much of the responsibility for the third leg of the Canadian retirement income stool. For those who did not have a pen-

sion plan, tax deferred savings through an RRSP was expected to fill the gap.

To say the least, it has not worked out that way. Just as critics of Canada's pension policy reliance on tax-deferred individual savings have argued, the data show that Canadians' RRSP participation is positively related to income — the higher your income, the more likely you are to have an RRSP and more you are likely to contribute to it.

Just as critics of the use of a tax deduction rather than a tax credit to encourage RRSP contributions pointed out, RRSP contributions are positively related to income. The higher your income, the more you benefit from a given contribution to an RRSP.

Contrary to the anticipated role of RRSPs as a substitute for pension plan coverage, you are more likely to contribute to an RRSP and are likely to contribute more if you are a member of a pension plan than if you are not.

The evidence shows that many Canadians use RRSPs not as a vehicle for retirement saving but as a supplement to unemployment insurance in times of economic stress. Significant numbers of Canadians withdraw substantial amounts from RRSPs prior to retirement.

A recent study published by Statistics Canada confirmed these trends.⁵ It also found that, from 2000 to 2013, participation in RRSPs and contributions to RRSPs declined and withdrawals from RRSPs prior to retirement increased.

When you consider the economics of RRSP savings, it is not hard to see why Canadians are having trouble seeing RRSPs and other tax deferred savings plans like the Harper Government initiated Pooled Registered Pension Plans as a solution to their retirement income problems. It is hard enough to find the disposable income to put into an RRSP in the first place. The extraordinarily high fees that Canadians pay for the management of their RRSP savings makes that saving harder to justify. Canadians pay the highest mutual fund fees in the world. And those

TABLE 3 Investment Fees

| Size of Pension Fund | Investment Fees for Large-cap Equities |
|----------------------|--|
| Individual Account | 250–300 bp* |
| \$10 million | 60 bp |
| \$1 billion | 42 bp |
| \$10 billion | 28–35 bp |

high fees go straight to the bottom line of their retirement savings.

Comparing the accumulation of a balanced investment portfolio (60% equities, 40% fixed income) over a working lifetime invested in typical Canadian mutual funds with investment in low-fee exchange traded funds, roughly 45% of the retirement savings invested in the portfolio ends up in the hands of mutual fund managers rather than in the hands of the original saver.⁶

Whereas in the United States, fees for equity mutual funds of 1% are considered high and

a matter of public policy concern,⁷ as the table below indicates, in Canada fees in the 2.5% to 3% (250 to 300 basis point — bp) range are typical.⁸

Although the numbers are demoralizing for the ultimate destination of retirement savings at times of normal investment returns as were assumed in the 45% calculation referred to above, when typical investment returns are lower as they have been in recent years, fees can often put after-fees retirement savings returns into negative territory, making mutual fund investments look bad relative even to stuffing cash in a mattress.

Public Sector DB Plans — the Push to Convert to DC

In their calls for conversion of defined benefit pension plans covering Canadian public sector workers, Canada's conservative think tanks routinely cite examples from the United States and frightening statistics about funding deficits as evidence that public sector workers' pension plans are unsustainable and should be abandoned.

The comparisons with the United States are wildly inappropriate. Most government agencies' pension plans in the United States are not required to meet any funding requirements. They are exempt from ERISA, the American pension regulatory regime; in general, their funding strategies are set by the government plan sponsor. Valuations of these plans are typically based on unrealistically high assumptions about investment returns. That is generally not true of public sector pension plans in Canada. The only major public service pension plan in Canada that is exempt from pension regulation is the Federal public service plan.

While Canadian public employees' pensions suffered along with every other financial institution in the 2008–09 global financial system collapse, public sector pension plans in general have recovered financially since then and are at or near fully funded status on a going concern basis.

If that is the case, then, where do the frightening numbers about public sector plans' funding deficits being bandied around by critics of public sector pension plans come from. A look behind the news releases and op-ed columns from organizations like the Fraser Institute and the CD Howe Institute reveals that the funding deficits used as the basis for their unsustainability claims flow directly from economic assumptions chosen to inflate the costs of public employees' benefits. Instead of valuing these plans based on generally accepted assumptions about the long-term returns likely to be generated by the assets invested in the plans, these studies value benefits as if the assets will earn only what long-term government bonds earn — implicitly assuming that all of the assets in the plans will be invested indefinitely in government bonds earning current historically low interest rates — and that pensions at retirement will be provided by purchasing annuities at market prices. For the typical public sector plan, that means assuming a nominal rate of return in the 3% to 3.5% range as opposed to expected market returns on plan assets in the 5.5% to 6% range.

Such assumptions are guaranteed to lead to estimates of substantial funding shortfalls. As

a rough rule of thumb, each percentage point change in the assumed rate of return on assets will change the estimated liabilities — the projected future costs of the benefits — by between 20% and 25%. The lower the return assumption, the higher the estimated costs. For example, compared with an expected long-term return of 5.5%, a 3.5% return will yield an estimate of liabilities that is between 44% and 56% higher. The implicit assumption is that the plans will be wound up immediately and the benefits cashed out immediately in the form of

annuities purchased at rates typically charged to individuals.

The economic sustainability crisis in public sector pension plans is a fiction. The real sustainability crisis confronting public sector pension plans is political.

And ironically, it is not the failure of public sector defined benefit pension plans that threatens their future, it is their success. The impetus behind the pressure to convert public sector defined benefit pension plans is the conspicuous failure of pension plans for private sector workers.

DB vs. DC

There are two fundamental reasons why defined benefit pension plans win out over defined contribution plans in any objective comparison: risk and return.

Risk

In a defined contribution plan, all of the risk is borne by the individual plan member. In a defined benefit plan, risks are pooled across all plan members, and across all generations of plan members. In fact, technically, a defined contribution plan isn't a pension plan at all; it is a locked-in savings plan.

Risk pooling isn't just better for plan members. It is also more efficient. Basic insurance principles hold that the larger a group over risk is pooled, the lower the cost of insuring against the risk. If you buy life insurance as an individual, the premium will always be substantially higher than the premium for a plan that insures a group. That's because the additional cost incurred when an plan member dies before reaching the average life expectancy in the population will be offset against the lower cost incurred when another plan member outlives his or her life expectancy. A retirement pension or annuity is essentially an upside-down insurance policy. Upside down

in that whereas with life insurance, the insurer benefits from longer-than-expected lifetimes, with a pension plan, the plan or annuity provider benefits from shorter-than-expected lifetimes.

In a defined contribution plan, an individual reaching retirement has a choice: to convert the DC cash balance to an annuity at prohibitively high individual annuity purchase rates or live directly off the cash balance — essentially placing a bet that he or she will not outlive that cash balance.

The cost implications are significant. One way to look at the cost is to compare the cost of funding a pension at retirement based in a defined benefit pension plan with the cost of purchasing an individual annuity at the point of retirement. Because the pension plan covers a relatively large group, it can confidently fund retirement pension plans to an average life expectancy based on the going concern funding assumptions for the plan. We compared the cost of providing a pension of \$2,500 per month in a normally funded defined benefit pension plan with the cost of providing the same benefit through annuities purchased at published Canadian annuity rates.⁹

The cost at age 65 of providing a benefit of \$2,500 per month in a pension plan would

be \$360,000. The cost of providing the same amount in the annuity market would be between \$463,000 and \$495,000 for a male — a range of 28% to 37% more. For a female, the cost of providing the benefit would be between \$516,000 and \$541,000 — a range of 43% to 50% more. A gender-neutral blended average would show an additional cost in the range of 35% to 43%.

Another way to think about the difference is to consider the implications of a retiring member's personal life-expectancy bet. In a defined benefit pension plan, the plan would fund to the average life expectancy — in our example, 20.2 years at age 65. For the individual, the odds are 50/50 that he or she will outlive his or her savings. Based on Statistics Canada's life expectancy data, to achieve 50/50 chance of outliving savings, a male retiree would need a cash balance 18% higher than a pension plan would require, and would require 29% more to reduce the probability of outliving his savings to 25%. To achieve 50/50, a female retiree would need a cash balance 18% higher than male in the first place, and would further require 13% more than that to reduce the probability of running out of savings to 25% and 20% more to reduce it to 10%.

Measured at the point of retirement, it is far more expensive to provide a given retirement income via a DC plan than via a DB plan.

Returns

That, however, is only the beginning of the DC plan's disadvantage relative to a DB plan, because it does not take into account the advantage enjoyed by DB plans over DC plans in investment earnings.

An extensive study comparing the investment returns of large defined benefit and large defined contribution plans in North America by CEM Benchmarking, the leading provider of performance measurement data for the industry found a significant advantage in returns net

of fees for DB plans relative to DC plans.¹⁰ The study looked at the returns of DC and DB plans over a 16-year period. The results are summarized in Table 3.

Thanks to the effect of compound interest, the difference between the two types of plans is significant. In total, over the 16-year period studied, \$100 invested in a DB plan at the beginning of the period would have generated an investment return of \$238 for a total value at the end of the period of \$328. The same amount invested in a DC plan would have generated an investment return of \$158 for a total value at the end of the period of \$258. Investment earnings over the period would have been 50.6% higher in the DB plan than in the DC plan.

It also means for example, that to reach a given target for assets at retirement, the contribution rate over a working lifetime of 35 years would have to be 35% higher in a DC plan than in a DB plan.

The composition of the return differentials is also interesting. Only 0.17% of the return differential is attributable to value added over plan benchmarks — better manager performance on an asset class by asset class basis. That is partly offset by higher costs of 0.06% in the DB plans, attributable to the fact that DB plans tend to invest in a wider range of asset classes, some of which cost more to manage. Nearly 90% of the return differential is attributable to the plans' policy returns — the mix of assets invested in each type of plan. Because DC plans must manage their money in the interests of individual plan members, they tend to invest with a shorter-term focus with a greater emphasis on liquidity, which in turn results in lower investment returns. For example, DB plans invest heavily in assets like real estate and infrastructure, which generate higher returns because they cannot be liquidated in the short term.

The significance of this finding is that the lower returns of DC plans are not problems that

TABLE 4 DB Versus DC Return and Value Added

| | 16-Year Average Ending 2012 | | |
|-------------------|-----------------------------|-------|------------|
| | DB | DC | Difference |
| Total Return | 7.62% | 6.11% | 1.51% |
| - Policy Return | 7.04% | 5.70% | 1.34% |
| Gross Value Added | 0.58% | 0.41% | 0.17% |
| - Costs | 0.47% | 0.41% | 0.06% |
| Net Value Added | 0.11% | 0.00% | 0.11% |

SOURCE: CEM

could be fixed up by hiring better asset managers, they are inherent in the fundamentals of DC plans vs. DB plans.

It is important to note as well that these returns and costs are those of large plans. For an individual RRSP investor, the comparison is materially worse. Even ignoring the reality that individual investors will generally not have access to the best asset managers, which tend to be focused on large institutional investors with substantial sums to invest, investment management fees alone would make the comparison that much worse. Based on typical mutual fund management fees that average 2.5% for a blend of fixed income and equity portfolio, individual RRSP contributions would have to be nearly double — 97% higher — to match an age-65 target for retirement savings.

Putting the returns differential together with the impact of an annuity purchase on a DC plan's retirement income offering, to achieve an equivalent retirement income, DC contributions would have to be 83% higher than for the corresponding DB plan.¹¹

In the RRSP comparison, a contribution rate of 16.2% of pay would be required to match a DB benefit based on a 6% contribution. The contribution rate would be 2.7 times the DB rate.

Or to look at the comparison from the other end of the retirement income telescope, for the same contribution rate, the benefit achievable under a DC plan would be only 55% of the benefit achievable under a DB plan.

The Economics of DB to DC Conversion in the Public Sector.

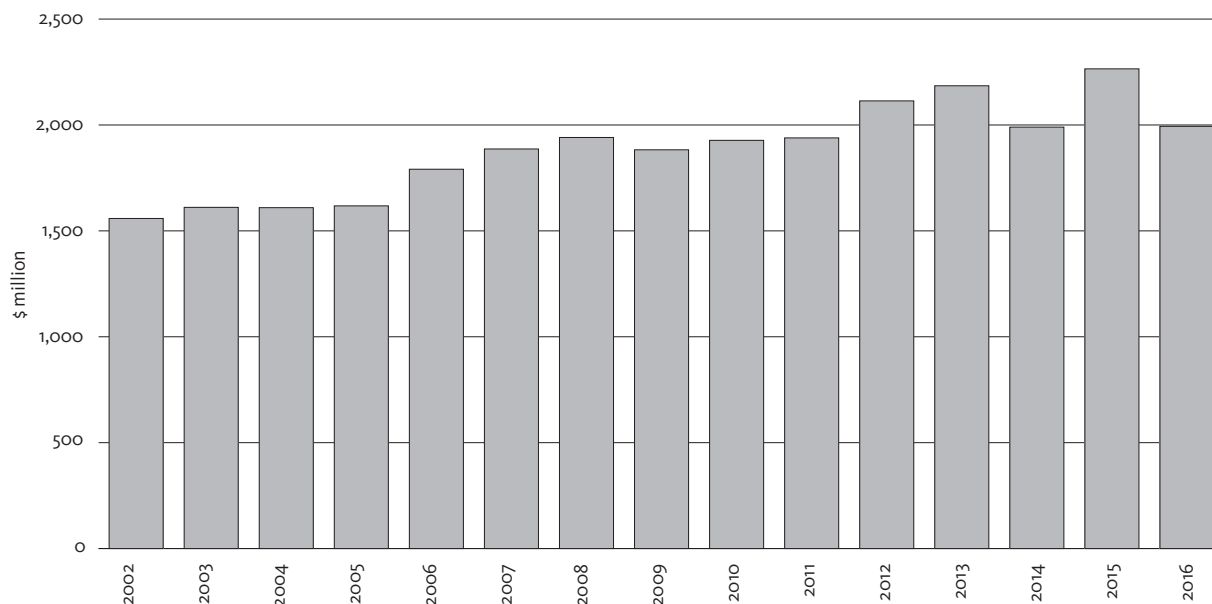
It is clear from the above examples that conversion from DB to DC would result in a substantial cut in retirement benefits payable to public sector employees in Manitoba — an estimated cut in the monthly benefit of at least 45% for the same contribution rate.

Whether or not conversion would save money for the government would depend on the terms under which the conversion takes place and the collective bargaining response of the representatives of employees experiencing a significant reduction in their retirement benefits. Under Canadian pension benefits law, the sponsor of a converting plan continues to be responsible for all of the benefits accrued up to the date of conversion. That would be true even if every employee were forced into the DC plan on the conversion date. That means that the government would be responsible for the funding of a portion of the initial DB obligation until the last beneficiary of a benefit in the DB plan dies.

In practice, DC conversions will generally close the DB plan to new members, and enroll all employees hired after the date of conversion in the DC plan.

This means that following a conversion, the government would be responsible for benefits provided for in the DB plan for decades following the date of conversion. In addition, the cost of providing those frozen benefits will tend to increase over time. Without any younger low-cost

FIGURE 4 DB Pension Plan Liability Frozen Saskatchewan Public Service Plan 2002 to 2016



SOURCE: Annual Reports

new entrants to the plan, average benefit costs will increase as the plan ages. In addition, as a plan ages, prudent risk management demands that assets be invested more conservatively than would be the case in an active going concern plan, thereby reducing the proportion of the ultimate cost of benefits that will be covered by investment returns and increasing the proportion that will have to be covered by increased contributions from the plan sponsor. So frozen benefits will continue to be a government responsibility for a considerable period of time, and the cost of providing those benefits will go up.

Even the long-term gains supposedly generated by DB to DC conversion are open to question. First, in the long-term, there will be no savings resulting from converting a DB plan funded as a going concern at a given contribution rate. In the long term, the only way DC costs can be lower than DB costs for the government is if the DC contribution rate is reduced relative to the DB rate. While anything is theoretically possible in collective bargaining, the possibility that the government might at some point in the future

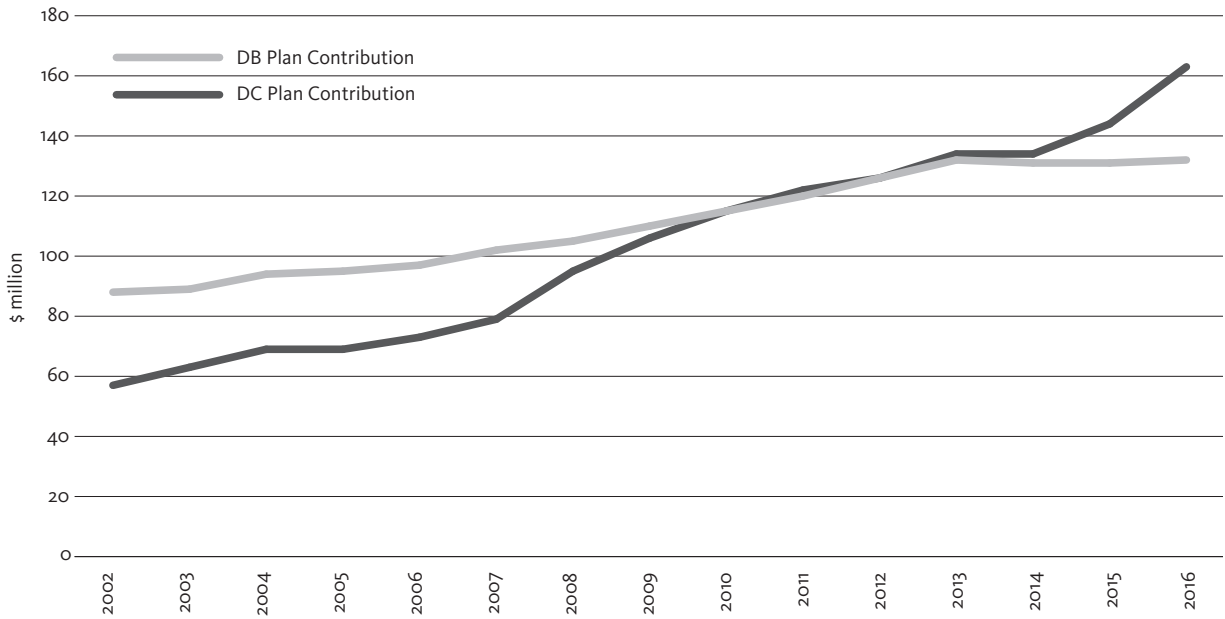
be able to reduce its contributions to a DC plan is quite remote. The opposite outcome is more likely. A conversion decision based on the implicit assumption that employees would accept a cut in benefits of 45% without a corresponding demand for increased contributions from the government would be a highly-risky decision, to say the least.

The only major conversion from DB to DC in the public sector in Canada offers a cautionary tale.

The Government of Saskatchewan converted the pension plan for its employees from a defined benefit plan to a defined contribution plan, effective in 1977. Employees hired in 1977 and later went into a DC plan; employees hired prior to 1977 remained in the DB plan.

As of 2002, 25 years after the DC conversion, the liability in the Saskatchewan public service DB plan — all of which was unfunded — was still \$1.56 billion. Over the ensuing 13 years, that liability continued to grow, reaching a peak of \$2.27 billion in 2015 before declining slightly in 2016. The government’s annual financial con-

FIGURE 5 Contributions to Saskatchewan Public Service Plans DB vs. DC 2002 to 2016



tribution to the plan in 2002 — 25 years after it was closed to new entrants — was more than \$87.5 million. That contribution has continued to grow throughout the period between 2002 and 2016, reaching \$131.4 million. The government’s annual contribution to the DC plan that replaced the DB plan for hires after 1977 was just over \$56 million in 2002.

It only reached the level of the annual cost for the DB plan in 2010, after which it essentially tracked the DC plan contributions until plan mergers added to DC plan’s contribution base in 2015.

Figure 4 shows the evolution of the DB plan’s liabilities from 2002 to 2016.

Figure 5 compares the province’s contributions to the frozen DB plan and the active DC plan over the period 2002 to 2016.

Although the data for the frozen Saskatchewan Teachers Superannuation Plan (closed to new members in 1980) are not readily available, the annual report for the year ended June 30 2016 shows a situation far more extreme than that for the public service plan.

That report shows a funding deficit for the frozen plan of \$5,952 million. At 36 years after the plan was frozen to new entrants, has liabilities for pensions of \$6,329 million and assets of 376.8 million.

As the discussion makes clear, in the long term, conversion from DB to DC does not deliver savings for a government and may, depending on the response of employees to a substantial reduction in their expected retirement incomes, lead to cost increases as pressure mounts to increase contributions.

The Saskatchewan experience demonstrates that conversion from DB to DC for public service plans does not deliver savings to the government in the short and medium term either. 40 years after Saskatchewan converted the plan for its employees from DB to DC, the government still faces a liability for future benefits in the DB plan of nearly \$2 billion and is still making contributions more than \$130 million per year.

Furthermore, as the plan ages, the cost of benefits accruing in the closed plan increase substantially, for two reasons. First, as the average time

between benefit accrual and pension payment shrinks, so does the contribution of investment earnings to the funding of benefits. Second, as a plan ages, prudent management demands that investment assumptions become more conservative, increasing the estimates of future liabilities.

Saskatchewan is not an isolated example.

A path-breaking study of DB to DC conversions among public sector employees' pension plans across North America by Robert Brown, Canada's leading academic actuary, found that the experience of Saskatchewan is like the experience of the other jurisdictions in North America that have done such conversions.¹²

The paper's conclusions are so directly on point with respect to potential DC conversions in the public sector in Manitoba that it is worth quoting them in total, verbatim.¹³

1. The perceived advantages to closing DB pension plans in the private sector do not translate directly into the public sector. While the shareholders of private corporations are primarily focused on profits, the shareholders of public corporations have other needs to consider. While private corporations are able to off-load costs without being concerned about who has to pick them up, public sector employers who off-load costs in many cases are off-loading costs that have to be picked up in some other form by their shareholders, i.e., governments and ultimately taxpayers. Canadians unable to save enough directly or through workplace pensions while they are working become a burden in retirement for taxpayers.

Several U.S. states that have looked at converting DB plans to DC have concluded that it would cost considerably more to maintain similar benefits. Two states that had converted to DC at least partially converted back because of concerns over how little income they were producing for retirees (Nebraska and West Virginia).

2. A DC plan can be designed that will be better than most of those existing in Canada today, but experience and modelling show that it will still be a more expensive way of producing retirement income than a large, well-run DB plan. This would also require changes to the tax laws and most provincial pension legislation.
3. Our modelling has shown us that for an efficient \$10-billion DB plan, converting to individual-account DC arrangements to provide the same value of pension benefit would increase the ongoing cost of the plan by about 77 per cent and increase the required contribution rates accordingly. The portion of the final benefit coming from investment returns would drop from 75 per cent to 45 per cent. Using a pooled DC pension arrangement would still increase the plans costs substantially but the ongoing cost increase for the new DC plan would be reduced from 77 per cent to 26 per cent.
4. In addition to bearing perpetually increased costs for the new DC plan, the post-transition plan sponsor (often government) would face an increase in financial risk coming from the closed DB plan that would run parallel to the new DC plan for many decades. Over the first few decades, while these increased risks would be large, government could choose to bear higher costs for the closed DB plan rather than higher risks. This could be achieved by partially de-risking the closed plan's investment portfolio, but doing so would increase the cost of running the closed plan by about 38 per cent for those first few decades after the transition.
5. If the motivation for a conversion to DC is to reduce costs, then it should be noted that shifting to DC actually increases the cost of delivering a comparable pension benefit.¹⁴

6. If the motivation for a conversion to DC is to reduce the government's exposure to the financial risks associated with sponsorship of the pension plan, then it should be noted that other plan design options are available for reducing or transferring risk that do not require sacrificing the plan's investment efficiency. Many of Canada's large public sector plans have already employed features such as joint sponsorship and/or contingency of non-core benefits in order to share and reduce risk. From this starting point, governments cannot benefit a second time by shifting again risks that have already been transferred to members. It is not clear that many Canadians appreciate this evolution.

7. If the motivation for a conversion to DC is to address an existing unfunded liability, then it should be noted that converting to DC does nothing to address the past-service unfunded liability that a plan may have accumulated. Converting to DC makes the management of a legacy-unfunded liability more risky and difficult. It also does not freeze the existing liability. In several of the cases that we examined, the past-service unfunded liability continued to grow for decades after the conversion. Ultimately, a conversion to DC will lead to a situation where the past unfunded liabilities have been extinguished and no new unfunded liabilities can be created. However, it would typically take about a century to get to that state. Extra costs and risks would be borne in the interval and the extra costs associated with the loss of investment efficiency would go on as long as the DC plan exists.

The specific cases explored in the paper of North American jurisdictions that either converted from DB to DC or considered conversion and rejected it are instructive.¹⁵

- The State of Alaska closed its DB plans in 2006. Between 2006 and 2014, the unfunded liability in the closed plans grew from \$5.7 to \$6.2 billion to \$11.9 billion, despite increases in employer contributions.
- Michigan closed its DB plan in 1997 and offered existing employees the option to convert their past service. At the time it was 108% funded. By 2012 the funded ratio had dropped to 60.3% and it had an unfunded liability of \$6.2 billion. In 2011, a study showed that the average employee who elected to switch to DC in 1997 had a cash balance sufficient to buy a benefit of \$9,000 per year, compared with an average DB benefit of \$30,000.
- West Virginia converted from DB to DC in 1991 for new hires and 4,500 employees switched to the DC plan. A finding in 2008 that fewer than 10% of employees over age 60 had a balance in excess of \$100,000, with many having less than one year of the benefit they would have received under the DB plan led the state to switch back to a form of DB.
- Nebraska abandoned a DC plan that had been in effect since the 1960s and established a DB plan to replace it.
- Minnesota, Wisconsin, Nevada, Texas (teachers) and New York City all studied conversion from DB to DC and rejected the idea on the basis that it would be too costly to the employers and too ineffective in delivering retirement income to their employees.

In the paper, Brown et al. modelled the implications for plan finances of a DB to DC conversion, with the following summary results.¹⁶

The modelling shows that, in the most optimistic scenario of a pooled DC plan with an assumed investment efficiency loss of only 20%, the

TABLE 5 DB to DC Conversion

| | Status Quo Valuation Assumption (%) | Pooled DC Plan, 20% Investment Efficiency Loss (%) | Individual Accounts DC Plan, 46% Investment Efficiency Loss (%) |
|--|-------------------------------------|--|---|
| Nominal Investment Return | 6.5 | 5.2 | 3.5 |
| Required Long-term Contribution Rate (Entry Age Normal Cost, integrated) | 15.75 | 19.86 | 27.85 |
| Relative to Final Pension Payouts: | | | |
| Employer Contributions | 12.5 | 16 | 22.5 |
| Employee Contributions | 12.5 | 16 | 22.5 |
| Investment Returns | 75 | 68 | 55 |

required long-term contribution rate increases from 15.75% to 19.86% of payroll — an increase of 4.11% of payroll for a cost increase of 26% relative to a DB plan. For conversion to a system of individual DC accounts, where the empirically estimated efficiency loss is 46%, the required contribution rate increases to 27.85% of payroll — an increase of 12.1% for a cost¹⁷ increase of 77%. The key driver of the cost differential is evident in the data in the lower half of the table. In the DB plan, 75% of the cost of benefits is covered by investment returns; in the individual DC account scenario, only 55% of the cost is covered by investment returns.

The Brown report underlines the findings from the analysis in this paper — that from the perspective of an individual plan member, con-

version from DB to DC transfers from the entity most able to bear risk and to manage it effectively and efficiently to the entity — the individual plan member — that is least able to bear and manage risk. From the perspective of an employer, it is providing far less value to its employees for the same amount of money or more.

The Brown paper goes on to provide some modelling insights into the comparative cost of closed and open DB plans.

Based on conservative assumptions about the changes in prudent asset mix arising from closing a DB plan, the paper estimates that the ongoing cost of running a DB plan as a closed plan would increase by 38% relative to the cost of running the same plan as a going concern.¹⁸

Defined Benefit Pension Plans and the Economy

In recent years, Canada's financial authorities have drawn attention to the important role that Canadian pension plans play in Canada's financial system. In a 2016 report, the Bank of Canada noted that:

The ability of the Big Eight [pension plans] to withstand acute stress is important for the financial system, as well as for their beneficiaries. They can rely on both the structural advantages of a long-term investment horizon and stable contributions.¹⁹

The significance of these observations is reflected in the findings of a study of the broader economic impact of large defined benefit pension plans in Canada conducted by the Boston Consulting Group in 2013. That study found that:

- Pension benefits are an important source of income in the economy. Defined benefit pension plans in Canada paid out between \$68 and \$72 billion in benefits in 2011 and 2012; those payments make up a significant proportion of total income — 6% in larger cities; 9% in smaller towns.
 - Of that amount, between \$56 and \$63 billion flow back into the economy in the

form of increased consumer spending, of which \$7 billion is paid in sales and property taxes and \$7–9 billion in personal income taxes.

- Defined benefit plans generate savings elsewhere in the retirement income system. Retired Canadians receiving benefits from defined benefit pension plans are far less likely (10–15%) to be receiving general-revenue-funded Guaranteed Income Supplement payments than those who do not receive DB benefits (45–50%).²⁰

Although the detailed results in the Boston Consulting Group study were based on the finances of Ontario-based public sector defined benefit pension plans and their impact on communities in that province, similar results would be expected for Manitoba.

The five largest public sector DB plans in Manitoba, collectively, paid out more than \$1.31 billion in benefits during 2016, a significant contribution (approximately 2% of provincial GDP) to provincial economic activity. Most of that amount flows back into the economy in the form of consumer spending and government revenue.

Public Sector Pension Plans in Manitoba

Of the five major public sector pension plans in Manitoba, two — *CSSF* (Civil Service Superannuation Fund) and *TRAF* (Teachers Retirement Allowance Fund) — have not been fully funded in advance as would normally be required under the Manitoba Pension Benefits Act. In general, the approach to funding has been to set employee contributions at a percentage of pay which, if matched by the employer, would be sufficient to fund the benefits provided for in the plan. That has not been the case for the employer share. Prior to 2001 the employer share was provided entirely on a pay-as-you-go basis — employers contributed to the fund each year only the amount required to cover their share of the cost of the benefits paid out in that year. In 2001, the provincial government agreed to establish future benefit payment trust funds in both the *CSSF* and the *TRAF*. Although these funds were held in trust for the payment of pension benefits in the future, they were not considered to constitute funding in advance. In 2008, the government agreed to make both trusts irrevocable. As a result, while the trust funds are not technically the property the pension funds, they are managed by the funds and cannot be used for

any purpose other than the payment of the benefits provided for in the plans.

In effect, the trust funds amount to a partial funding in advance of the provincial government's share of the cost of the benefits in the plans.

As a result, while *CSSF* and *TRAF* are still not governed by the funding rules in the Pension Benefits Act, the trust fund mechanism has served to improve the finances of the plans.

However, the continuation of pay-as-you-go funding for the government's share of the cost of the benefits and the use of the trust fund mechanism for partial advance funding makes it difficult to compare the plans' finances with those of other pension plans.

For valuation purposes, the liabilities are divided into two categories: liabilities which are pre-funded by the employee contributions to the fund; and liabilities which will be paid out on a pay-as-you-go basis as the benefits are paid out.

Both plans' financial statements show substantial unfunded liabilities, representing the share of future benefit payments for which the provincial government is responsible on a pay as you go basis. That amount is only partially offset by the balances in the two major trust accounts

TABLE 6 Selected Manitoba Public Sector Pension Plans — Assets and Liabilities

| Plan | Year | Pre-funded Benefits | | | Pay-as-you-go Benefits | | |
|-------|------|-----------------------------------|-------------|--------------|------------------------|------------------|-----------------|
| | | Net Assets Available for Benefits | Liabilities | Funded Ratio | Unfunded Liability | Pay-go Liability | Unfunded Pay-go |
| CSSF | 2016 | 4,840 | 5,177 | 94% | 337 | 3,938 | 1,860 |
| TRAF | 2016 | 3,903 | 3,802 | 102% | -101 | 3,756 | 1,436 |
| MMEPP | 2015 | 616 | 614 | 100% | 0 | 0 | 0 |
| WCEBP | 2015 | 4,351 | 4,204 | 103% | 0 | 0 | 0 |
| HEPP | 2015 | 6,458 | 6,246 | 103% | 0 | 0 | 0 |

established to hold funds to cover future pay-as-you-go obligations.

While the effect of this approach is to facilitate a comparison of the effective funded status of Manitoba plans with that of other plans, it also gives rise to some confusions. First, and probably most important from a political perspective, the fact that employers have not been pre-funding their share of the costs of the plans makes it look as if the employers are facing unexpected future funding obligations when in fact those obligations simply reflect matching contributions that were not made in the past.

Second, whereas in the early years of the existence of these plans, the pay-as-you-go cost of covering the employer share would have been less than the employees' contributions, as these plans mature and more members begin to receive retirement benefits, the employer pay-as-you-go contribution will tend to increase relative to the employees' funding contributions. This makes it look as if the employer — the government — is paying more of the cost of the plan than the employees. In fact, however, the funding is based on cost-sharing. The differences arise from the differences in the timing of payments between funding in advance and funding on a pay as you go basis.

Third, under this approach to funding, the plan has no exposure to gains or losses from investments as they relate to the that part of the unfunded liability obligation that is not offset by the trust account balances. Because valuation interest rates tend to be conservative relative

to market expectations, under normal circumstances, one would expect a plan to experience investment gains more often than investment losses. This means that, compared with a plan that is fully funded in advance, Manitoba plans benefit from only a portion of the investment upside. Over the long-term, this would make benefits provided in these plans more expensive than those provided by plans that are fully funded in advance.

Tables 6 and 7 summarize the relevant financial position metrics for the major Manitoba public sector pension plans: the Civil Service Superannuation Fund (CSSF); the Teachers Retirement Allowances Fund (TRAF); the Manitoba Municipal Employees Pension Plan Trust Fund (MMEPP); the Winnipeg Civic Employees' Benefits Program (WCEBP); and the Manitoba Health Employees Pension Plan (HEPP).

The two major plans covering municipal employees — MMEPP and WCEBP — had small surpluses at the end of 2015.

The two provincially sponsored plans had unfunded pay as you go liabilities totaling just \$3,296 million as of the end of 2016 (a total unfunded liability of \$7,724 million offset by trust fund balances of \$4,398 million).

On the contribution side, in CSSF, matching employers contributed \$16.8 million; employees of matching employers contributed \$16.8 million; employees of non-matching employers contributed \$148.7 million. Pay as you go contributions from CSSF non-matching employers came to \$155.7 million transferred from the trust

TABLE 7 Selected Manitoba Public Sector Pension Plans — Employee and Employer Contributions

| Plan | Year | Contributions | | | | | Source |
|-------|------|---|---|---|---------------------------------------|---------------------------------|---------------|
| | | Employee Going Concern Payments to Fund | Employer Going Concern Payments to Fund | Employer Pay as you go Payments from Trust Fund | Employer Pay as you go Direct Payment | Employer Payments to Trust Fund | |
| CSSF | 2016 | 165.8 | 16.8 | 155.7 | 78.8 | 98.4 | Annual Report |
| TRAF | 2016 | 117.1 | 0 | 184.3 | 0 | 112.2 | Annual Audit |
| MMEPP | 2015 | 15 | 15 | 0 | | 0 | Annual Audit |
| WCEBP | 2015 | 52 | 25 | 0 | | 0 | Annual Audit |
| HEPP | 2015 | 163.4 | 163.6 | 0 | | 0 | Annual Audit |

fund. The employer contributed \$98.4 million to the trust fund. As a result, in 2016 an excess of pension payments over employer contributions led to a draw-down of the trust fund of approximately \$76.9 million.

In TRAF, there is no employer going concern contribution; employees contributed \$117.1 million; and the employer’s pay as you go contribution was \$184.3 million transferred from the trust fund. The employer contributed \$98.4 million to the trust fund, for a net draw-down of \$85.9 million.

In the municipal sector, in Winnipeg the data for 2015 show a partial contribution holiday on the employer side with employees contributing \$52 million and employers \$25 million. In MMEPP, contributions matched at \$15 million each side. In the multi-employer HEPP, employer and employee contributions are matched, at \$163 million.

In summary, from an actuarial perspective, the major public sector pension plans in Manitoba are in relatively good financial health. The only one of the four showing a funding deficit is the CSSF, which is funded at 94%. However, to the point made earlier about Manitoba’s mixture of funding in advance and pay-as-you-go funding, it appears as if the province faces an unfunded liability of over \$3.25 billion arising from the

fact that over time, the provincial government has not been contributing its share of the cost of pension benefits as they were earned.

In the context of the DB to DC conversion issue, it is important to note that conversion would not extinguish the unfunded liabilities in these plans, even if conversion took place on the most extreme basis of freezing future benefit accruals. The provincial government would continue to be responsible for pay-as-you-go payments until the last current beneficiary has died as well as making the now-required matching contributions to the replacement DC plan.

In the more typical conversion scenario — closing the DB plan to new members — the unmatched benefit liability and the associated pay-as-you-go payments would continue to grow for decades. That growth would be disproportionate because of the lower expected investment returns in a closed plan. And as the workforce turns over, matching contributions to the DC plan would continue to increase.

These comments, of course, do not apply to the health care sector and municipal plans. The HEPP as a multi-employer plan, is a jointly trustee cost and risk-shared plan with a small going concern surplus as of the end of 2015.

In Summary — Why DC Conversion Makes No Sense

For public employees in Manitoba, DC conversion would be a disaster. It would result in dramatically reduced retirement benefits and a transfer of significant investment and longevity risk from a large, viable group to employees as individuals — the most costly and inefficient locus for risk management.

For an employer in the public sector, conversion of a DB pension plan to DC makes no sense. The economic pressures that have led private sector employers to abandon their employee retirement income options generally do not apply to public sector employers.

It would deliver a dramatically lower retirement benefit with no corresponding reduction in long-term funding costs. From a human re-

sources management perspective, it results in a significant reduction in the value to the employee of the total compensation package with no long-term savings for the employer.

It exposes the government as employer to the possibility — indeed the likelihood — that the degradation of its retirement income benefit will give rise to demands for increased DC contributions or a future conversion back to DB.

In the short- and medium-term, it would drive costs up substantially as the government finds itself in the position of continuing to fund an increasingly costly legacy DB plan at the same time as it is contributing at the former going concern funding rate for new employees.

Options for the Future of Pension Plans in Manitoba

Pension Plans in the Public Sector

Over the past few years, governments across Canada have taken steps to strengthen the finances of the public-sector pension plans under their jurisdiction. Although on an actuarial basis, the major pension plans for public sector workers in Manitoba are financially healthy, the structure of the two large plans sponsored by the provincial government makes these plans vulnerable. In addition, the failure of the current government to address the financial consequence to the province from calls to convert Manitoba's major public service pension plans from DB to DC keeps alive the threat of financial disaster posed by DC conversion and stands as an obstacle to changes that could put these plans on a more solid footing.

Manitoba plans are already well ahead of the game in meeting emerging financial and demographic pressures. All the major plans are designed on the basis that member contributions will finance 50% of the costs of benefits. With one exception — the CSSF — all the major plans reported a going concern actuarial funding surplus as of the end of 2015.

The most obvious issue with respect to Manitoba's public service pension plans flows from the fact that previous governments had chosen to

fund the government's share of the costs of benefits under the provincial civil service and teachers plans on a pay-as-you-go basis in contrast to the employees' share which is funded in advance in accordance with normal funding rules. The effect of paying for benefits on a pay-as-you-go basis rather than funding them in advance is to delay paying for benefits earned to date to the date in the future when those benefits are paid.

In the past 25 years, most provincial governments have moved to full funding in advance for the public-sector pension plans under their jurisdiction. Those that have not done so have acted to increase funding of their share of the cost of those plans. In Manitoba, the previous government began to address this issue as it relates to the CSSF and TRAF through the establishment of separate trusts to fund future pay as you go benefit payments. As of the most recent actuarial evaluation, the assets in the CSSF trust fund are estimated to be sufficient to fund 58% of the government's future pay as you go obligations. The assets in the TRAF trust are sufficient to fund 62% of the government's future pay as you go obligations.

The leading provincial jurisdictions in Canada have addressed these issues in a variety of ways, but the point of departure for all has been,

either legislatively or by policy, to make public sector pension plans subject to general pension plan going concern funding rules. In cases where benefits had previously been partially paid for on a pay as you go basis, provincial governments in general paid down initial unfunded liabilities either by transferring non-marketable debentures to the pension funds or paying off those deficits over an extended period, or a combination of both approaches.

The Manitoba Government should address the uncertainty surrounding the future of the province's DB pension plans for public employees by reaffirming its commitment to the future of these plans and by instituting a program to transition to full funding in advance for all benefits.

Pension Plans in the Private Sector

Across Canada — including Manitoba — employment based retirement income plan coverage has been in decline in the private sector for at least 30 years. That decline has been most extreme for defined benefit pension plans, as DB plans have disappeared entirely or been replaced by defined contribution retirement savings arrangements, either for all members after previous DB plans have been frozen or for new hires as pre-existing DB plans have been closed to new members. Even the current low coverage share for DB plans understates the situation facing the traditional employer sponsored DB plan. A significant proportion of employees counted as members of DB plans are members of (usually) union-sponsored multi-employer plans typically in the construction and service sectors.

There is no evidence that the collapse of the traditional DB plan in the private sector can be reversed. In fact, with large numbers of current DB plan members in closed plans, we already know that DB plan coverage will continue to decline as members of these closed plans retire and are replaced by new hires who belong to DC plan.

Growing acceptance of that reality is fundamentally what lies behind the consensus that emerged quickly in 2016 in favour of improving and strengthening the Canada Pension Plan.

Consequently, legislative and regulatory change with respect to pension plans should not be based on an implicit assumption that there is a pent-up desire on the part of employers in the private sector to offer pension plans to their employees, if only the regulations were relaxed. That is simply not going to happen. Instead, legislative and regulatory change should be aimed at arresting the ongoing decline by strengthening the plans that remain and the ability of members to protect the integrity of plans that they rely on for their needs in retirement.

Five key areas call out for change: funding; conversion from DB to DC; expanding regulation to DC arrangements that are currently not subject to regulation; the transition from DC balances to retirement incomes; and governance.

Funding

When a defined benefit pension plan runs into financial difficulty, it is generally because actuarial assumptions have been unrealistically aggressive or because there has been an asymmetry between the management of plan finances in strong financial markets and in weaker financial markets.

With respect to actuarial funding assumptions, legislation should be changed to strengthen regulatory oversight. In general, regulators have relied on actuaries' professional standards to keep assumptions in line with expected plan experience, but in the exceptional cases in which plans weaken, experience losses relative to actuarial assumptions often play a role. Those exceptional cases are the cases that regulations are intended to address.

With respect to the asymmetry problem, two changes would be appropriate, one Federal and one provincial.

At the Federal level, income tax regulations have limited the accumulation of surplus assets in pension plans to 15% of the estimated liabilities. The 2008 financial sector collapse indicated clearly that even a 15% funding cushion could be woefully inadequate under extreme economic circumstances. That limit should be increased.

The benefits from a larger funding cushion should be reflected in provincial regulation as well. Provincial regulation should prohibit contribution holidays in plans where the funded ratio is below the CRA limit.

Furthermore, regulations with respect to the amortization of unfunded liabilities should be strengthened to provide that experience gains during the amortization period be applied by reducing the time period over which payments must be made rather than reducing the amount to be amortized, as is often the case now.

These changes would have the effect of strengthening the resilience of Manitoba's defined benefit pension plans to adverse economic circumstances.

With respect to solvency funding requirements, a re-think of the entire system is needed, taking the issue back to first principles.

Most important, it must be recognized that in every pension jurisdiction in Canada except the Province of Alberta, pension funding deficits continue to be an obligation of the plan sponsor even if that sponsor has been making the legally permitted amortization payments to pay down those deficits.²¹ That means, in effect, that from the member's perspective, pension solvency and plan sponsor solvency are the same thing.

The practical implication of this distinction is that the significance of a funding deficiency in a defined benefit pension plan depends critically on the financial condition of the plan sponsor. A large funding deficit in a plan sponsor that has a low probability of becoming insolvent itself is an order of magnitude less significant than the same deficit in a plan sponsored by an employer with a high risk of insolvency. A focus exclusively

on plan solvency, without reference to the insolvency risk of the plan sponsor, misses the point.

Solvency funding requirements should be modified to take into account differences in the probability that a plan's sponsor will become insolvent.

Furthermore, in recognition of the reality that plan solvency only becomes an issue for plan members in the event of employer insolvency, solvency funding rules should be flexible enough to permit solvency deficits to be underwritten by any employer obligation that has priority under Canadian bankruptcy and insolvency law.

Conversion From DB to DC

In the current regulatory regime in Manitoba, conversion of a pension plan from defined benefit to defined contribution can be accomplished through a simple plan amendment. As must be clear from the discussion earlier in this paper, this treatment makes no sense. A DC plan is not an amended DB plan; it is a completely different type of financial instrument with a completely different type of guarantee and a completely different sharing of risks.

At a minimum, regulations should be changed to require that, in the event of a plan conversion from DB to DC, the two plans should be treated as separate entities. In the event that a DB plan is frozen, with no further benefit accruals, the regulations should require that the plan be wound up, triggering the full suite of members' plan termination rights. Where a DB plan is frozen to new entrants, the regulatory regime should require that the two plans be maintained as completely separate entities.

Our view of the relationship between pension plans and their members has changed substantially over the years. Before formal pension regulation began in the mid-1960s, pensions not governed by collective bargaining agreements could be treated as equivalent to a gratuity that could be paid or withheld at an employer's discretion. The 1960s regulations introduced the idea of a pen-

sion being a right accruing to an employee over a working lifetime. The rules were quite restrictive, in that the right to a pension only vested in the legislation for employees over the age of 45 with at least ten years of credited service in the plan.

In the modern era of pension regulation beginning in the mid-1980s, that accrued entitlement was required to begin within two years of employment. In some jurisdictions, vesting is now immediate. In effect, early or immediate vesting reflects a recognition that a pension is different from other elements of total compensation in that it accrues over a working lifetime and in that its continuation is basic to every individual employee's long-term financial planning.

The regulatory perspective on plan conversion has not kept up with this changing view of pensions. This regulatory gap is brought into sharp relief by the contrast between the draft set of rules governing conversion of a defined benefit pension plan to a target benefit plan set out by the Harper government in 2014, which required consent of plan members for conversion and the absence of any consent requirement at all for the much more financially significant (for plan members) conversion of DB to DC.

Conversions from DB to DC should require the consent of plan members.

Eliminating Regulatory Loopholes for DC-like Unregulated Arrangements and Strengthening DC Regulation

In all jurisdictions in Canada, defined contribution plans are regulated under the relevant pension benefits standards acts. While the nature of the regulation is different from that applicable to DB plans — because there is no benefit guarantee to be protected, the legislation generally imposes procedural, disclosure and fiduciary obligations on the administrators of DC plans, providing members with protections that exceed those applicable to (say) investors in mutual funds.

However, the growth of so-called group RRSPs and retirement savings benefits that provide for employer matching of contributions to individual RRSPs has created a gigantic regulatory loophole — a loophole that benefits the retail financial management industry at the expense of individual Canadian retirement savers.

This loophole should be closed by requiring that any scheme that involves employer contributions to a retirement income scheme of any kind be registered and regulated by the appropriate regulatory authority, putting these schemes on a level footing with registered DC plans. This would ensure that payments into employment-based RSPs and other like vehicles are locked in on the same basis as are contributions to currently regulated plans.

The regulations governing DC plans and other retirement saving schemes should be strengthened as well, to strengthen the fiduciary obligations of administrators and agents to plan participants. These plans should also provide for much better disclosure so that plan members have a realistic estimate of what retirement income their savings will translate to at retirement. As part of a required annual statement from any registered savings plan, the registered administrator should be required to provide an estimate of the expected monthly annuity beginning at retirement that could be purchased from the accumulated balance. Similar disclosures and forecasts should be required as of the time of a proposed plan conversion from DB to DC.

From DC Balances to Retirement Incomes

One of the major gaps in Canada's retirement income system arises at the point where accumulated cash balances in DC plans and other capital accumulation plans are converted into retirement incomes.

In general, regardless of the vehicle through which the capital accumulation has taken place, once the capital accumulation phase is over, the individual is on his or her own, faced with a

choice between a gamble on life expectancy by converting the balance into a Registered Retirement Income Fund or buying a monthly income on the individual annuity market. The former is extremely risky; the latter is prohibitively expensive — almost literally a Hobson's choice.

What makes matters worse is that for the many Manitobans who change jobs and accumulate past service benefits in plans sponsored by previous employers, changing jobs effectively converts their DB plan into an RRSP.

This is not just a problem for Manitobans. It is a problem for all Canadians. And given the extent of interprovincial labour mobility and the rapid turnover of employees and employers, it is a widespread problem.

The obvious solution to this problem is to establish a public system for converting accumulated balances into retirement incomes. Such a system could, for example, be operated as an off-shoot of the Canada Pension Plan, enabling Canadians who have saved for retirement through employment to take advantage of both the CPP's investment expertise and the efficiency in longevity management arising from a broad participant base.

Expanding the Canada Pension Plan — Again

The private workplace-based retirement savings system in Canada has failed to such an extreme extent that decent retirement incomes from workplace based schemes in the private sector are becoming the exception rather than the rule.

Recognition of that reality was one of the driving forces behind the movement that culminated in the Federal-provincial consensus on expanding the CPP in 2016.

The job, however, is far from being done. Because the expansion does not address past service, it will be decades before it has a material impact on the retirement income prospects of Canadian working people. And even when it does mature fully, at 33% of a slightly (14%) higher YMPE, it will still fall far short of providing for an adequate retirement income, leaving a gap which experience tells us cannot and will not be filled by private workplace-based retirement income schemes.

Canada Pension Plan expansion and strengthening will have to be revisited, because there really is no alternative.

Endnotes

¹ Participation percentages calculated from CANSIM 282-0012 (employment by sector) and Statistics Canada Custom Tabulation based on CANSIM 280-0008 (pension plan membership by jurisdiction of employment)

² Statistics Canada, CANSIM 280-0009

³ The total return on a real return bond is the RRB yield plus the rate of inflation. The RRB yield is commonly used as a measure of a risk-free fixed income return, excluding the rate of inflation. Because it excludes the impact of inflation, it is useful as a basis for assessing potential returns for pension plans in which benefits are indexed to the rate of inflation. Real (after allowing for inflation) returns on risky assets are derived by adding premia for various types of risk to the underlying real risk free rate. Given that these premia have been relatively stable over time, movements in the underlying real risk free rate can serve as a useful proxy for movements in long-term expected returns on a broader asset mix.

⁴ Pension funding rules essentially ask the following question: How much money would I have to have today to provide for a pension which will begin to be paid at retirement and continue until the death of the pensioner and/or his or her survivor? While a number of assumptions go into answering this question, the most important is the investment return that is assumed to be earned on contributions into the plan. The higher the investment return assumed, the less has to be set aside today to pay for future benefits. And vice versa.

⁵ Derek Messacar, *Trends in RRSP Contributions and Pre-retirement Withdrawals, 2000 to 2013*, Social Analysis and

Modelling Division, Statistics Canada, Catalogue no. 11-626-X, February 13, 2017 -- <http://www.statcan.gc.ca/pub/11-626-x/11-626-x2016064-eng.pdf> accessed 13 April 2017

⁶ For a more detailed analysis of the economics of RRSP savings for retirement, see Hugh Mackenzie, *Risky Business — Canada's Retirement Income System*, Canadian Centre for Policy Alternatives, March, 2014

⁷ "How Fees and Expenses Affect Your Investment Portfolio", Investor Bulletin, Office of Investor Education and Advocacy, Securities and Exchange Commission, Government of the United States, 2013

⁸ Robert L. Brown and Craig McInnes, "Shifting Public Sector Plans to DC — The experience so far and implications for Canada", Canadian Public Pension Leadership Council, October 2014, p.17

⁹ Annuity pricing as published in the Globe Investor website as of 17 April 2017, sourced at http://www.globeinvestor.com/servlet/Page/document/v5/data/rates?pageType=annuity&guarantee_term=0&survey_type=SL&sex=M&fund_type=R&province_of_residence=ON, average of male and female single annuities with no guarantee, highest and lowest costs; pension costing based on population average life expectancy at age 65 of 20.2 years, (Statistics Canada CANSIM 102-0512), interest rate of 5.5% (nominal).

¹⁰ CEM Benchmarking, unpublished data provided to Ontario Teachers Pension Plan, 2014.

¹¹ Target asset calculations assume savings beginning at age 30, a starting salary of \$50,000, 3% annual salary increase and a contribution rate of 6% of salary. Looking only at

fund accumulation, the contribution rate would have to be increased to 8.1% to reach the same target. Factoring in the higher cost of annuity purchase vs. funding through a pension plan at the low end of the blended gender neutral range of 35% yields a required contribution rate of 10.95% vs. the base case rate of 6%. Note that this example assumes a post-retirement return on pension assets of 5.5% — more than 2% below the experience measured by CEM for DB plans over the 16 years before 2012.

12 Robert L. Brown and Craig McInnes, “Shifting Public Sector Plans to DC — The experience so far and implications for Canada”, Canadian Public Pension Leadership Council, October 2014

13 Brown et. al. Executive Summary, pp 1–2.

14 The paper cites the states of Nebraska and West Virginia as examples of jurisdictions in which costs actually increased following a conversion.

15 Brown et. al,

16 Brown et al. p.26

17 The figure of 46% for estimated efficiency loss is based on the results reported in a 2008 paper by Beth Almeida and William B. Forna, “A Better Bang for the Buck; The Economic Efficiencies of Defined Benefit Pension Plans”, published by the National Institute on Retirement Security in Washington, DC. The 46% figure breaks down as

follows: 15% attributable to the loss of the benefit of pooling longevity risk; 5% attributable to the need to increase the liquidity of plan assets; and 26% attributable to asset mix and fee differences. The 80% figure for a pooled DC plan implicitly assumes that a DC plan will be able to realize the fee and asset mix advantages of a DB plan. The CEM data reported above in this paper demonstrate that this is not a realistic assumption and that therefore the assumed 80% efficiency of a pooled DC plan is a substantial overstatement, given that CEM shows an efficiency loss of 22% from asset mix differences alone.

18 Brown et al. p. 28

19 Guillaume Bédard-Pagé, Annick Demers, Eric Tuer and Miville Tremblay, “Large Canadian Public Pension Funds: A Financial System Perspective”, Bank of Canada Financial System Review June 2016

20 “Defined Benefit Impact Assessment”, Discussion Document, The Boston Consulting Group, July 2013, slide presentation provided by Ontario Teachers Pension Plan.

21 In Alberta, the plan sponsor’s only obligation is to make the periodic amortization payments required to pay down a deficit. In practical terms, this means that when a sponsor winds up a plan in Alberta, any future scheduled amortization payments cease to be required whereas in other jurisdictions, any remaining deficit on wind-up becomes an obligation of the sponsor.



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