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by Jack Selody

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**Jack Selody**

Executive and Legal Services Department  
Bank of Canada  
Ottawa, Ontario, Canada K1A 0G9  
[jselody@bankofcanada.ca](mailto:jselody@bankofcanada.ca)

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## **Abstract**

An effective pension system enhances economic and financial efficiency. A majority of pension plans in Canada are defined-benefit (DB) plans, but DB plans are under stress from increasing longevity, low long-term interest rates, and the shrinking equity premium. DB plans are vulnerable to such shocks because they are complex financial vehicles, with interdependencies not fully understood by those who design, administer, regulate, and otherwise influence their operation. In this paper, I provide an overview of the basic economic workings of a highly stylized DB pension plan. I use the framework to highlight some of the misconceptions about these plans and explain why the burden on sponsors has been increasing.

*JEL classification: G23*

*Bank classification: Financial institutions*

## **Résumé**

Un système de pension efficace accentue l'efficacité économique et financière. Au Canada, la majorité des régimes de retraite sont des régimes à prestations déterminées. Or, ceux-ci sont fragilisés par l'accroissement de la longévité, le bas niveau des taux d'intérêt à long terme et la baisse de la prime de risque sur les actions. Les régimes à prestations déterminées sont vulnérables à ces types de chocs, car ils forment des vecteurs financiers complexes dont les interdépendances échappent en partie à leurs concepteurs, administrateurs, régulateurs et autres acteurs. L'auteur propose une description synthétique des principes de fonctionnement économique d'un régime de retraite à prestations déterminées hautement stylisé. Grâce à ce modèle, il met au jour certaines idées erronées sur les régimes de cette classe et explique en quoi la charge de leurs promoteurs s'alourdit.

*Classification JEL : G23*

*Classification de la Banque : Institutions financières*

# 1 Introduction

Defined-benefit (DB) pension plans are under stress. In a recent Canadian survey, 61 per cent of chief financial officers reported that DB plans are facing severe problems, including volatile valuations, diminished affordability, and high regulatory burden (Watson Wyatt and Conference Board 2006).<sup>1</sup> In the United States, the proportion of pension assets in DB plans fell from 65 per cent in 1985 to 40 per cent in 2006.<sup>2</sup> In the United Kingdom, membership in DB plans fell 60 per cent since 1995 (Pensions Commission 2004).

Three factors contribute to this stress on DB plans. First, the increasing longevity of plan members has resulted in a growing number of plan liabilities. Second, the decline in long-term interest rates has made the discounted present value of pension liabilities large relative to the assets of the plan sponsor, and has made fluctuations in the value of these liabilities more difficult for the sponsor to manage. Third, the shrinking of the equity premium has reduced the return on equities, making plans less affordable.

But focusing on the immediate causes of stress raises the more fundamental question of why DB plans are so vulnerable to shocks in the first place. The answer provided in this paper is that DB pension plans are vulnerable because they are complex financial vehicles, with interdependencies not fully understood by those who design, administer, regulate, and otherwise influence their operation. Each party reacts to shocks in isolation, protecting their own interests and often increasing the burden on others. When the burden on sponsors becomes too great, plans are closed to new members or abandoned.

In this paper, I discuss five elements that, in combination, have significantly increased the burden on plan sponsors. These elements concern the funding, operation, regulation, accounting, and design of DB pension plans. To put the discussion in context, I start with an overview of the basic economic workings of a highly stylized DB pension plan. I then examine several popular misconceptions about the working of DB plans to highlight how difficult it can be to fully understand the complex workings of these plans. The paper ends with a discussion of the increased burden on sponsors.

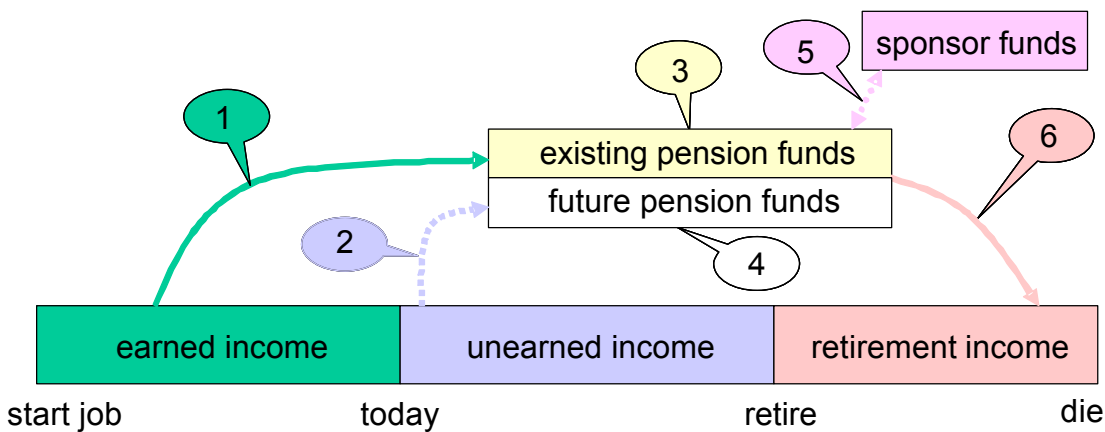
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1. In Canada, 82 per cent of registered pension plan members were in a DB plan at the end of 2002 (Statistics Canada 2003).
  2. For the purpose of this calculation, total pension assets include defined-benefit, defined-contribution, and hybrid plans.

## 2 Economic Basics

In this section, I provide an overview of the basic economic workings of a highly stylized DB pension plan. To help the reader grasp the essence of such a plan, I abstract from tax, legal, and regulatory details that in some cases prevent a plan from operating exactly as described below.

In economic terms, a DB pension plan is a contract between members and the sponsor to defer income to the members' retirement years. The feature that distinguishes this contract from other pension vehicles is that the payout is predetermined, and it is secured by a sponsor.<sup>3</sup> Associated with a DB plan is a pension fund that serves as collateral to back the sponsor's guarantee.<sup>4</sup> To be sustainable, a DB plan must be seen as a fair game to members and to the sponsor.<sup>5</sup>

**Figure 1**  
**The Functioning of a Defined-Benefit Pension Plan**



3. The nature of the sponsor's guarantee of the payout has changed over time and can be unclear in DB pension plans.
4. Who owns and has access to this collateral is sometimes a source of ambiguity in DB plans.
5. A fair game is one in which the expected net payoff to all participants is equal to or greater than zero. If this condition were not met, members would move to an employer with a fair plan, or the sponsor would close the plan.

A DB plan (see Figure 1) is effectively funded (i.e., paid for) by members. Past contributions (1) and future contributions (2) go into the creation of an existing pension fund (3) and a future pension fund (4), which act as collateral for promised benefits (6). Contributions can be made either directly by members or indirectly by employers on behalf of members. Conceptually, it does not matter who makes the contributions, since all contributions are part of members' total compensation and are earned by members. The employer sets total compensation (cash and benefits) to a competitive value determined by market forces. This value will converge over time to the marginal product of the members' labour contribution to the firm on average. Contributions are distinct from sponsor injections and withdrawals into and out of the pension fund.<sup>6</sup> Sponsor injections and withdrawals are a claim on the shareholder equity or wealth of the sponsor.

The members' benefits from a DB pension plan are insured by the sponsor against unanticipated events (shocks). If events unfold as anticipated, contributions (made directly by members and indirectly by employers, including investment accruals but excluding sponsor special contributions) will be just sufficient to cover benefit payouts. In this case, the sponsor need not inject or withdraw funds. A shock such as a surprisingly high or low rate of return on the pension fund or an unexpected change in the longevity of members, however, will result in the sponsor having to inject or withdraw funds (5) to secure the payment of future benefits. If the shock persists, contributions should be adjusted to reflect the shock.<sup>7,8</sup> The sponsor can be the employer, a union, a third party such as an insurance company, or any combination of the three.<sup>9</sup>

By pooling investment funds and providing a payout independent of individual longevity, a DB pension plan insures individual members against idiosyncratic shocks that would otherwise affect the retirement income of individual plan members. This insurance for idiosyncratic shocks is paid for by all plan members in that an unanticipated event that affects one member, but is anticipated in aggregate, will be covered by the contributions made on behalf of all members.

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6. Sponsor injections and withdrawals of funds are often referred to as special contributions.
  7. This adjustment would ensure that the pension plan continues to be a fair game, such that the expected value of contributions plus investment accruals equals the expected value of member benefits.
  8. Any increase in contributions will usually be matched by a reduction in cash compensation, such that total compensation is unchanged. This will not be true, however, when the shock affects the marginal product of labour, since total compensation will adjust to match the change in the marginal product of labour.
  9. For the sake of simplicity, in the remainder of the paper, the employer will be considered as sponsor in the sense that the employer is responsible for keeping the benefit promise and therefore must make the special contributions to cover funding deficits.

For example, members who live longer will receive more retirement income over their lifetimes, all else being equal. They will receive more retirement income despite having effectively made contributions equivalent to those of shorter-lived members.

A DB pension fund surplus or deficit is an actuarial construct. In the case of a surplus, it indicates, if all actuarial assumptions hold true, that the pension plan has more than enough assets in the fund to cover liabilities. In the case of a deficit, the opposite holds true. An actuarial surplus does not guarantee that future liabilities can be met, since actuarial assumptions will prove to be inaccurate. Similarly, an actuarial deficit does not necessarily mean that the assets in the fund will fall short of liabilities at the time the liabilities come due. Because of the uncertainty surrounding actuarial assumptions, actuarial surpluses and deficits are not definitive representations of the funding status of the plan and are subject to large swings as actuarial assumptions change.

In terms of incentives, proper alignment is achieved when the sponsor has control of the pension fund and when the actuarial surpluses and deficits of the DB pension fund are owned by the sponsor.<sup>10</sup> Control of the pension fund gives the sponsor the ability to manage the risk it assumes when indemnifying the pension benefit promise. Ownership of the actuarial surpluses and deficits gives the sponsor an added incentive to take on this risk as the surpluses and deficits are the products of that risk taking.<sup>11</sup> However, the pension fund also serves as collateral for the benefit promise, and ownership of the fund should revert to members in the event that the sponsor cannot keep the promise. Therefore, members have an interest in how the collateral is managed.<sup>12</sup> Protecting this interest is the modus operandi for the regulation and supervision of DB pension funds.

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10. Ownership would give the sponsor the right to trade access to the fund when there is an actuarial surplus. For example, the sponsor and members might agree to distribute a portion of the pension fund to members in the event of an actuarial surplus, provided members agreed in advance to reduce pension benefits in the event of an actuarial deficit.
  11. The incentive is that sponsors would benefit from the surplus. This is not a strong incentive, since negative shocks are likely to occur with the same probability as positive shocks, given that the expected value of future contributions should equal the expected value of future member benefits. Setting up the pension plan on an actuarially sound basis should satisfy this condition.
  12. Giving sponsors an unambiguous claim of ownership to pension fund surpluses would also reduce their disincentive to maintain surpluses. This would help protect member interests in the event of sponsor insolvency.



### **3 Popular Misconceptions**

#### **3.1 Employers pay for part of DB pensions**

*Misconception:* Pensions are paid for by two economically distinct entities: (i) members, who pay out of earned income; and (ii) the employer, who pays out of revenue not earned by members. In reality, members earn the value of contributions because total compensation is determined by market forces exogenous to the firm. Only when the value of the benefit payout differs from the cumulated value of contributions does the sponsor need to make a payment to (or withdrawal from) the pension fund. This payment is not earned by members and is a subtraction from (or an addition to) the shareholder equity of the sponsor.<sup>13,14</sup>

#### **3.2 Sponsors can transfer risk to members**

*Misconception:* Sponsors can force members to absorb the cost of errors in setting contribution rates (and therefore members bear the cost of deficits and so should have an ownership claim on pension surpluses). In reality, sponsors cannot recoup the cost of errors because they cannot unilaterally set future total compensation rates below the rate determined by market forces without undesired consequences.<sup>15</sup> Indeed, it is the unwillingness of members to accept benefit risk that gives rise to the need for the benefit guarantee in the first place. It is the transfer of this risk from members to the sponsor that is the distinguishing feature of a DB plan.

#### **3.3 The pension fund can be managed to keep contribution rates stable**

*Misconception:* Contributions do not have to be adjusted in response to shocks because the pension fund can make up any shortfall by targeting a higher rate of return. In reality, the return on the pension fund is determined by market forces and the risk tolerance of the sponsor, both of which are exogenous to pension benefits. The only way to keep a DB pension fund in balance is for contribution rates to be adjusted in response to anticipated future events (such as predictable increases in longevity), and for the sponsor to make repeated special injections and withdrawals

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13. This is equivalent to saying that members earn contributions, whereas the benefit payout includes contributions, investment returns on contributions, and the net payment from the benefit-promise insurance provided by the sponsor. In effect, contributions are used to purchase the future benefits promised by the sponsor.

14. A payment made to finance an increase in pension benefits corresponding to an increase in the marginal product of labour would not come out of shareholder equity because the revenue of the employer would also have increased. In this case, the increase in benefits is earned by members.

15. The most likely consequence would be difficulty in recruiting, since potential employees would opt to work for employers who offered market-determined compensation packages.

into and out of the pension fund in response to unanticipated outcomes (such as cyclical swings in interest rates).

### **3.4 A pension fund surplus means that contributions were too high**

*Misconception:* The manifestation of a pension fund actuarial surplus means that contribution rates were set too high. In reality, contributions are an ex ante decision to match liabilities with cumulated assets, and the surplus is the ex post outcome that reflects shocks to the plan, such as a swing in interest rates, that are beyond the control of either members or the sponsor. In other words, the actuarial surplus (or deficit) is the outcome of the pension risk borne by the sponsor. An actuarial surplus means that shocks hitting the pension fund were, on balance, favourable ones.

### **3.5 Ownership of a pension fund surplus should be negotiated**

*Misconception:* A pension fund surplus is a windfall gain that belongs neither to members nor to the sponsor. In reality, the surplus is the outcome of the pension risk borne by the sponsor.<sup>16</sup> The owner of the risk should also accept the outcome of that risk.<sup>17</sup>

### **3.6 Adequate pension funding obviates the need to insure against pension risk**

*Misconception:* Eliminating pension deficits will insure pensions against all shocks. In reality, pension deficits are actuarial constructs that do not take into account future shocks. Eliminating a deficit today does not guarantee that there will not be a deficit in the future. Similarly, there is no guarantee that a reasonable pension surplus will be sufficient to cover all future shocks.

### **3.7 Conservative risk-management practices help members**

*Misconception:* Members should want a conservatively valued and managed pension fund because it strengthens the guarantee for their benefits. In reality, conservative accounting assumptions and risk-management practices increase the expected cost of providing DB pensions because they restrict the sponsor from taking on investment risk that helps lower the cost of the

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16. In the event of an actuarial deficit, members could agree to accept less than market compensation (e.g., a wage freeze) to preserve the pension plan. Such an action would transfer some of the pension risk to members, in effect making them a partial sponsor of the plan. This partial sponsorship role should give them a corresponding partial ownership share of the pension surplus.

17. Members bear the risk that the plan may be underfunded at a time when the sponsor becomes insolvent. This risk, however, is unrelated to the risk the sponsor assumes in managing the pension fund to indemnify the benefit guarantee and so it should not generate a claim on the pension fund surplus.

pension benefit insurance. When DB pensions are perceived as being too expensive, they are no longer a feasible choice for workers.

### **3.8 Moving to defined-contribution plans solves the problem with DB plans**

*Misconception:* One type of pension plan is the same as another. In reality, DB pension plans provide individual members with insurance not available from defined-contribution (DC) plans. In addition, DB pension funds can have longer time horizons than DC funds and so can have different investment strategies. Economic and financial efficiency is enhanced by choice and diversity.

## **4 Vulnerabilities**

### **4.1 Inappropriate restrictions on pension fund management**

The sponsor needs a certain amount of control over the pension fund to manage pension benefit insurance risk. Control should not be complete because ownership of the fund could revert to members in the event of sponsor insolvency.

In Canada, there is ambiguity about DB pension fund actuarial surplus ownership and control as courts have struggled to balance member and sponsor rights and obligations.<sup>18</sup> Consequently, sponsors have been reluctant to make special contributions to cover pension fund actuarial deficits when the pension fund is hit with adverse shocks because they may lose ownership and control of excess contributions that would arise if the shocks prove to be transitory. The problem is compounded by tax regulations that discourage sponsors from building surpluses in excess of 10 per cent, and employers who think they do not need to fund benefit improvements when the plan has an actuarial surplus. The result has been too few contributions in recent years, as well as chronic actuarial underfunding of DB pension plans now that interest rates are low.<sup>19</sup> The extent of the underfunding is shown in Table 1.<sup>20</sup>

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18. See the appendix for a brief history on how pension surplus ownership has evolved in Canada.

19. An example of the unintended effects of misaligned incentives is the strengthening of members' property rights over pension funds aimed at protecting them in the event of sponsor insolvency, which, in fact, weakens their protection by reducing the incentive of sponsors to contribute to the funds.

20. This table is taken from Armstrong (2006).

**Table 1**  
**Solvency Ratios of Pension Funds (percentage of assets)**

Ratio (percentage)	31 December 2003	31 December 2005	31 May 2006
<80	11	16	12
80–90	11	15	10
90–100	57	51	22
100–110	10	9	46
>110	11	9	10

Source: Mercer Human Resources Consulting. The sample represents about 35 per cent of the registered pension plan universe in Canada, using Statistics Canada data as the benchmark.

Table 1 shows that, as of 31 May 2006, pension funds representing plans with 12 per cent of total assets were severely underfunded (with assets less than 80 per cent of liabilities). Funds with 44 per cent of total assets were underfunded to some degree, an improvement from 31 December 2003 when funds with 78 per cent of total assets were underfunded. The financial position of pension funds improved over this period because long-term bond yields rose, and some funds were required by law to make special contributions to reduce deficits.

The sponsor should also have sufficient control over the investment strategy of the fund to facilitate the management of the risk associated with the pension benefit guarantee. Yet members should have protection in the event of sponsor insolvency. One way of balancing these competing needs would be to give the sponsor control over the investment strategy of the fund, unambiguous ownership of actuarial surpluses, and a regulated ability to access actuarial surpluses symmetric with the obligation to eliminate actuarial deficits. For example, sponsor access to the fund could be restricted if the sponsor was deemed insufficiently creditworthy to protect members in the event that the sponsor was unable to make special contributions should the actuarial surplus turn into an actuarial deficit. But, without proper incentives, regulators would be required to establish detailed rules regarding what can be done with a pension fund. Such rules increase the regulatory burden on sponsors and restrict the ability of sponsors to manage their pension risk.

#### **4.2 Inappropriate regulatory methodology for adequacy testing**

Pension funding adequacy is typically determined in one of two ways. The first valuation method assumes that the sponsor will be a going concern when the pension promises come due, such that the future value of assets can be compared to the future value of liabilities at the date obligations

come due. The second method assumes that the sponsor will become insolvent immediately, such that the current value of assets can be compared to the current value of liabilities.

The *Pension Benefits Standards Act* of 1985, for example, requires the use of both valuation methods. A going-concern deficit must be funded by the sponsor over a maximum of fifteen years. A solvency deficit must be funded over a maximum of five years.<sup>21</sup> When both adequacy tests show a deficit, it is the higher minimum payment that must be paid into the fund as a special contribution by the sponsor.

The use of the insolvency adequacy test has the potential in some circumstances to place an economic burden on those sponsors that are unlikely to become insolvent in the near term. For example, a burden arises when asset values are temporarily depressed relative to the value of liabilities. In this case, the insolvency deficit can be significantly larger than the going-concern deficit.<sup>22</sup> This situation would require the sponsor to make a special contribution that should be reversed once asset values recover. However, if the sponsor cannot reclaim this special contribution once asset markets recover, because of the asymmetric treatment of surpluses and deficits, the sponsor suffers an unnecessary and permanent burden.<sup>23</sup>

### **4.3 Inappropriate pension accounting rules**

Globally, accounting standard setters are promoting a move to fair-value methods. The proposed rules, when applied to pension accounting, will likely replace smoothing rules that now approximate future values with market-consistent valuation methods that focus on what an asset or liability would be worth if it were traded today. The result will be an increase in the volatility of pension fund assets and liability valuations. This, combined with the move to consolidate the accounting of pension fund activities with the other activities of the employer will add volatility to the balance sheet and income statement of the employer. Financial market participants may misinterpret the resulting increase in volatility as indicating that the employer has taken on greater short-term risk. In this case, market participants are likely to charge for taking on this perceived risk, thereby making it more expensive for the employer to raise capital.

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21. This requirement will change temporarily at the beginning of 2007, such that a solvency deficit can extend to a maximum of ten years, provided members agree or the sponsor posts a letter of credit to cover the deficit.

22. Such a situation would arise, for example, if a significant portion of assets were in the stock market and stock market returns fell temporarily, relative to bond market returns.

23. The regulatory burden could be reduced, without putting members at additional risk, by using an assessment of the creditworthiness of the firm to condition the solvency test of the pension fund.

However, some of the volatility may reflect inappropriate accounting assumptions. Market values assume that it is appropriate to treat pension assets and liabilities as if they were to be traded every day. For pension plans where obligations come due far into the future, and for which there is often little intent to trade assets and liabilities frequently, this may not be the best of assumptions. In such cases, the underlying economic position of the employer will be distorted.

In addition, the liabilities of a pension plan do not always accrue wholly to the employer. Members sometimes share sponsorship. For example, this is the case when benefits (or wages) can be scaled back contingent on extreme negative investment outcomes. In such cases, it may be inappropriate to put the full value of pension assets and liabilities on the balance sheet of the employer.

It may be that sponsors will move towards indemnifying their balance sheets from volatility once fair valuation techniques become mandatory. Consequently, sponsors may significantly increase their holding of bonds that, under future accounting rules, provide a better match for the projected cash flows of their benefit obligations. This would reduce funding risk, but make pension plans more expensive, since lower risk is often associated with a lower return on investment. Making DB pension plans more expensive will make them less attractive to members. The increase in cost does not arise because sponsors are not able to handle risk, but because inappropriate accounting methodology misrepresents that risk in a way that is likely to be costly to sponsors.

#### **4.4 Inappropriate contribution smoothing**

It is often the practice for a sponsor not to make special contributions for long periods of time. This is inappropriate because, with benefits predetermined, the only way to offset the impact of financial market volatility on the pension fund is to vary special contributions.

Delaying special contributions will lead to accumulating deficits or surpluses in the fund because the dynamic process underlying the accumulation of assets is unstable. The instability arises because of compound interest and persistent shocks. A shock on one side of the baseline will initiate an exponential process of accumulation that will not be fully offset by a later but equally sized shock on the other side of the baseline. This occurs because a deficit or surplus builds up in the intervening period that itself will grow at a compounded rate of interest.

It is also the case that employers tend to leave contribution rates unchanged for long periods of time even though actuarial assumptions are changing and pension benefits become richer owing

to benefit enhancements. Employers cannot count on an increase in pension fund returns to pay for increasing pension benefits. Delaying an increase in contributions only adds to the burden of future contributions because of foregone pension fund returns. Keeping actuarial deficits and surpluses at a manageable size means paying for a change in the cost of the benefit promise at the time the change is seen to occur.

#### **4.5 Inappropriate pension design**

Sponsors of DB pension plans take on a sizable amount of risk. They insure large values for long periods of time against all unanticipated events. Effective tools and skills are required to manage this kind of risk successfully – hence the need for a well-collateralized pension plan and effective risk-management techniques.

Small or financially fragile sponsors are especially vulnerable to pension funding risk because they do not have significant assets outside the pension fund. This vulnerability places a burden on sponsors when they take on more risk than they can reasonably provide insurance for.

There are three ways of changing the design of DB pension plans to better match benefit insurance risk with the ability of the sponsor to take on that risk. First, sponsors could share risk with members by making pension benefits contingent on an acceptable range of outcomes. The downside of this solution is that benefit insurance is not complete. Second, sponsors could share risk with other sponsors by joining together to better diversify against extreme events. The downside of this solution is that the cost of coordination is high. Third, sponsors could find an underwriter, such as a government, that can levy taxes to pay for benefits in the event of extreme negative circumstances. The downside of this solution is that it sets up an incentive for the sponsor to overpromise and underfund benefits in the knowledge that the underwriter will pick up the tab when things go wrong.

### **5 Conclusion**

DB pension plans have a number of unique and significant advantages. They allow members to pool risks, such as longevity risk, that other types of plans do not. They give employers a mechanism for adding a long-term element to the employment contract. They provide the financial system with a vehicle that is well equipped to take on long-term risk, thereby contributing to capital market efficiency.

However, DB pension plans have become vulnerable to shocks because constraints and/or misconceptions about different elements of the plans place an increasingly heavy burden on

sponsors. Increasing member longevity and low bond market returns have created a growing funding deficit because contribution rates have been slow to respond. Sponsors have been reluctant to inject funds to mitigate unanticipated outcomes because the ownership of any resulting actuarial surplus is ambiguous. Regulators continue to place emphasis on insolvency valuations because of the rising actuarial deficits. Accounting conventions are moving to more accurate but potentially misleading measurement in order to make the accounts more transparent. Sponsors, in response, may move to asset-liability matching to control the resulting volatility, which will raise the cost of providing pensions. The result is a series of reactions that look reasonable in isolation, but when taken together raise the overall burden on sponsors and explain why DB pension plans are in decline despite continuing to serve a useful economic purpose.

There are a number of ways to strengthen DB pension plans without increasing the burden on sponsors or undermining the protection of members. First, when the sponsor is creditworthy, it could be given greater access to an actuarial surplus and would consequently be less reluctant to offset deficits. Second, contribution rates could be adjusted more frequently. Third, regulators could focus more on going-concern funding-adequacy tests, especially for creditworthy sponsors. Fourth, accounting conventions could be set to recognize the unique situation of DB pension plans. Fifth, sponsors could form an industry or national co-operative with a greater ability to diversify risk.

The reasons why DB pension plans are vulnerable are complex, and the solutions are not simple. Greater understanding of the consequences of seemingly sensible change, and progress to accommodate the unique characteristics of DB pension plans on all fronts, will balance the risks taken and the burdens on all parties. The result will be viable DB pension plans that can be used in economically efficient circumstances.



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## Appendix

### A Brief History of Pension Surplus Ownership in Canada

Employer-sponsored private pension plans were first provided for in Canadian legislation in the Pension Fund Societies Act of 1887, as a result of the altered social conditions brought about by industrialization. Prior to World War II, however, retirement allowances provided by employers were regarded as gratuitous rewards that created no legally enforceable rights or obligations. Ownership of surplus resulting from contributions to a dedicated fund was therefore not an issue for courts or legislators.

Pension plan coverage expanded rapidly in the postwar era. From 1942, income tax deductibility of employer contributions was linked to requirements in the plan language for irrevocability of funding.

Until the early 1960s, most pension plans were funded through insurance contracts. Therefore, contract law applied. Employers generally had a unilateral right to amend the pension plan, and the employee was not privy to the funding contract between the employer and the insurer. Furthermore, investment returns did not accrue to a dedicated fund.

In 1963, the Ontario Pension Benefits Act signalled the advent of increased regulation of pension plans, emphasizing security of funding and increased employee rights, which were to accrue throughout employment rather than solely at retirement. At the same time, funding of pension plans increasingly took place through segregated trust funds, to which investment returns accrued. The stage was set for the accumulation of pension surpluses.

Beginning in the early 1980s, the accrual of large pension fund surpluses sparked increasing litigation and regulation. Accordingly, the contentious issue of entitlement to pension surplus has developed markedly in the past twenty years.

Litigation has focused on interpreting pension plan documents and related representations, such as employee booklets, in order to determine who is entitled to surplus.

The issue of access to surplus came to the forefront in the 1986 *Collins* decision,<sup>1</sup> which arose in the context of a well-publicized attempt to remove surplus from an ongoing pension plan for Dominion Stores employees. The Pension Commission of Ontario granted permission to do so.

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1. Re *Collins et al.* and Pension Commission of Ontario (1986), 56 O.R. (2d) 274.

The Divisional Court quashed this decision and ordered the funds returned. The Court did not indicate who owned the surplus. It noted, however, that the plan documents on the surface provided no entitlement for the employer to surplus funds while the plan was ongoing, and stipulated that the funds were held in trust and therefore subject to a fiduciary duty. Thus, notice to the members and documents in support of the application to withdraw funds were required. With the *Collins* decision, the question of ultimate entitlement to pension surplus was left for another day.

The leading case is the 1994 Supreme Court of Canada decision in *Schmidt v. Air Products*.<sup>2</sup> This case set out the principles according to which surplus ownership will be determined when applied to the relevant documents. If a pension plan is funded through an insurance policy, the Court held, it is to be interpreted using contract law principles. A general power of amendment will suffice in that case to permit the employer to amend the plan in its favour regarding surplus ownership. However, if the pension plan is funded through a trust agreement, classic trust law principles apply. As a result, employer ownership is established through explicit terms at the time the trust was originally established, or through clear reservation at that time of a power of revocation. These principles continue to be applied to determine surplus entitlement in the common law provinces today, since no uniform rules have been set by legislation.

In Quebec, surplus entitlement has been characterized in somewhat different terms in the absence of common law trust principles, but there are parallels. In the 1990s, the Court of Appeal analyzed pension plans both as contracts and as a “*stipulation pour autrui*.” If the latter, surplus rights could not be altered without members’ consent. If the former, surplus entitlements would be determined by the terms of the contract.

The question of surplus ownership will continue to receive attention as a result of the 2004 Supreme Court of Canada decision in *Monsanto*.<sup>3</sup> Based on its interpretation of the Ontario Pension Benefits Act regarding members’ entitlements to benefits on partial pension plan windup, the Court held that any surplus attributable to the partial windup must be dealt with at that time on the same basis as if there had been a full windup of the plan. This ruling may affect surplus distributions in other jurisdictions with similar statutory provisions to those in Ontario, namely, Saskatchewan, Manitoba, New Brunswick, Nova Scotia, and Newfoundland and Labrador, as well as plans under federal regulation. While questions of surplus entitlement have

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2. Schmidt v. Air Products Canada Ltd., [1994] 2 S.C.R. 611.

3. Monsanto Canada Inc. v. Ontario (Superintendent of Financial Services), [2004] 3 S.C.R. 152.

been dealt with most frequently on plan windup, entitlement and distribution will now be important considerations whenever workforce reorganizations are at issue.

Surplus-related governmental regulation has also increased over the past two decades. However, it has largely addressed procedural requirements, particularly through regulations for employer withdrawal of surplus from ongoing plans or at windup. For example, Ontario regulations require that the employer obtain the consent of plan members to a withdrawal. In practical terms, this may require employers to agree to share distribution of surplus to which the employer believes it alone is entitled. Quebec legislation does not allow any withdrawal of surplus by an employer from an ongoing plan, and requires that distribution on plan termination be based on agreement or arbitration. Federal and British Columbia statutes also provide for arbitration where entitlement is disputed. Despite the wide range of provisions dealing with the procedure for surplus withdrawals, legislation has not dealt with the fundamental issue of who owns a surplus in any Canadian jurisdiction.

Despite the significant increase in surplus-related litigation and regulation since the 1980s, uncertainty remains regarding the legal parameters governing individual plans. The issue of surplus ownership continues to be of great relevance, particularly in the context of partial windups.