# David Dodge: Economic and financial efficiency – the importance of pension plans

Remarks by Mr David Dodge, Governor of the Bank of Canada, at the l'Association des MBA du Québec (AMBAQ), Montréal, 9 November 2005.

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Over the past year, I have spoken a number of times on the topic of efficiency, and why it is so important for Canadian policy-makers to keep in mind the goal of an efficient financial system. Today, I want to talk about Canada's system of pension plans and how they contribute to the efficiency of financial markets and of the economy as a whole.

Before I talk specifically about pensions, let me begin with a few words about financial system efficiency in general. What exactly do I mean by efficiency? An efficient financial system is one that helps to allocate scarce economic resources to the most productive uses, in the most effective way. An efficient financial system reduces the misallocation or waste of economic resources. This is important because, by making our financial system as efficient as possible, we maximize our chances of generating sustained economic growth and prosperity.

At the Bank of Canada, we contribute to the goal of an efficient financial system in various ways. Our monetary policy aims to keep inflation low, stable, and predictable. By doing so, we enhance the confidence of Canadians in the value of their money, thus reducing their need to spend resources either anticipating or coping with inflation. We also contribute to efficiency through our role as overseer of major payments, securities, and foreign exchange clearing and settlement systems, and by providing liquidity in times of financial stress. By reducing risks to the safety and stability of the financial system, we increase certainty about the robustness of the system, which also supports efficiency. Our semi-annual Financial System Review promotes awareness of financial system issues. As well, the Bank works actively with financial market participants and regulators to develop and promote efficiency. And we conduct research that helps inform the decisions of policy-makers in terms of promoting this goal.

In previous speeches, I've spoken about the need to support the efficiency of our financial institutions. Canadian policy-makers need to develop a framework that continues to provide incentives for innovation and efficiency by encouraging competition. At the same time, Canadian financial institutions may be able to find efficiency gains through economies of scale, which could flow across the economy in the form of lower-cost business and retail lending. However, other relevant public policy questions include foreign ownership and concerns about the concentration of market power among very few players. Striking a balance between all these interests is not a simple task. But we should keep in mind that the level of competition can be maintained or enhanced by new entrants into the marketplace or by the threat of new entrants.

I've also spoken about the need to promote efficiency in the regulation of securities markets. Efficiency dictates that Canada should have uniform securities laws and regulations based on principles that apply to everyone. The question is how to apply these laws and regulations in a tiered way to take into account the differing needs of issuers. All major provincial jurisdictions deal with issuers that vary greatly in terms of size and complexity—whether issuers are large, complex firms that want access to international capital markets, "mid-cap" firms that choose to access only Canadian capital markets, or small speculative resource firms that have historically relied on Canadian equity markets for financing. And the needs of investors are similar from one jurisdiction to another. So while the application of rules needs to take into account the size and complexity of firms, there is no need for different rules based solely on the province or territory of the issuer or investor.

Today, I want to bring Canada's pension system into the picture. Obviously, the health of the pension system is extremely important from the perspective of the people who rely on it for their retirement income. It is also important from the perspective of economic and financial market efficiency. A report to G-10 deputies published in September emphasized that pension funds have already become the largest institutional investor class among G-10 countries. It also noted that retirement savings and the related capital flows will have an increasingly important influence on financial markets.

Here in Canada, policy-makers need to think about how our pension system can contribute to efficiency. There is a need for long-term investment in critical infrastructure to support Canada's future production capacity. And there are pools of pension capital that, given their very long-term investment horizon, can be invested in this manner. I will come back to this issue in a future speech. But in the balance of my remarks today, I want to look at the pension system itself and discuss the incentives under which these large pools of capital operate. We must allow these pools to be accumulated and invested so that they not only maximize returns to support future pensioners, but also maximize the future growth of the economy's production capacity.

**Canada's pension system and risk**

There are essentially three pillars that make up Canada's pension system. The first is government income support: the Old Age Security (OAS) and Guaranteed Income Supplement (GIS) program. The second pillar is public pensions: the Canada and Quebec Pension Plans (CPP/QPP). The third pillar is private pensions, consisting of tax-deferred retirement savings plans (RRSPs) run by individuals, and employer-sponsored pension plans. Statistics Canada data show that through the 1990s, income from the third pillar grew in importance, rising from 18 per cent to close to 30 per cent of retirement income. By comparison, income from the first pillar—the OAS/GIS—edged down from 30 per cent to 27 per cent during that decade, while income from the CPP/QPP rose from about 16 per cent to about 20 per cent. Returns on other personal investments made up most of the balance of retirement income.

Of these sources of pension income, the OAS/GIS is not relevant to this discussion, since it is funded out of current federal government revenues and is not backed by a pool of dedicated assets. The other pillars are composed of three pools of capital with combined assets of more than $1 trillion at the end of 2003. Expressed in very rough percentages, the CPP/QPP pool was the smallest, with less than 10 per cent of the total, while assets held in RRSPs accounted for about 35 per cent. By far the largest pool was employer-sponsored pension plans, at about 55 per cent of the total.

In virtually all cases, employer-sponsored pensions take the form of either defined-benefit or defined-contribution plans. A defined-benefit pension plan promises a guaranteed, fixed stream of retirement income. The pension is based on the employee's work history and is often expressed as a percentage of the employee's salary. In contrast, pension benefits from a defined-contribution plan are not
pre-determined. They depend on the actual amount of contributions made on behalf of the individual employee and on the actual rate of return realized on those contributions.

An efficient financial system distributes various risks to those who are best able to bear them. And the efficiency of these three pools of capital largely boils down to how they handle two principal types of risk. The first of these is return risk. This refers to the fact that the value of the pension that can be purchased at the time of a person's retirement depends largely on the conditions that exist just at the point of retirement. This risk is handled in different ways by different types of pension plans. For example, a defined-benefit pension plan mitigates this risk by pooling the assets of all contributors. This pooling helps to protect the ability of a sponsor of a defined-benefit plan to pay the pensions of all plan members, even those who retire one day after a stock market crash, or at a time when the return on long-term bonds is particularly low.

The other type of risk is longevity risk. In a defined-benefit pension plan, this risk is transferred to the sponsor of the plan—usually the employer—who is responsible for making up any shortfall that could arise from pensioners living longer on average than expected.

By pooling these risks, pension funds generate important benefits in terms of economic efficiency. By transferring risk from individuals to collectives, pension funds help achieve a more efficient allocation of savings. Pension funds—particularly the very large ones—tend to have sophisticated asset managers. These large funds have the incentive and the ability to invest pools of contributions across appropriately varied asset classes. Further, they invest over very long time horizons, so they can finance large investment projects at competitive rates of return. All of this contributes significantly to economic efficiency by transferring risk to those investors that are best able to bear it.

Let's now turn to the three large pools of capital in Canada's pension system, and consider their implications for the efficiency of financial markets and for the economy as a whole.

First, let me talk about the CPP and the QPP. While these plans are not fully funded, as private pension plans must be, many of the principles of the CPP and QPP are the same as those used by well-structured defined-benefit pensions. The benefits are linked to the earnings history of each member. The assets of the plans are managed by the Canada Pension Plan Investment Board and the Caisse de dépôt et placement du Québec, with the aim of maximizing their long-run returns. Contributions are invested broadly, thus supporting the efficiency of financial markets and of the economy as a whole.

Now let's turn to private pension plans and look first at individual and group tax-deferred RRSPs. This component of Canadians' retirement income has many of the same characteristics as a defined-contribution pension. By deferring taxes, RRSPs provide an appropriate incentive for saving. In recent years, just under one-third of taxpayers have contributed to their RRSP in any given year, and close to two-thirds of Canadians who filed a tax return contributed to a plan between 1993 and 2001. The increasing use of RRSPs has encouraged the development of financial products that allow individuals to diversify their risk. Of course, this source of income is subject to return risk, since an individual's portfolio could fall sharply in value just before planned retirement.[1]

Research in the United States[2] has shown that individuals tend to be risk averse in terms of the assets they hold in individual retirement accounts, and in terms of how they allocate assets in defined-contribution pension plans when they have the opportunity to do so. Individuals tend to invest too much in investment-grade bonds, money market instruments, and large-cap equities relative to the portfolio that would maximize their expected pension. And, understandably, the older they get, the more risk averse they become. So the proportion of the pool of savings from individual and group RRSPs and from other defined-contribution plans that is allocated to riskier, less-liquid and longer-dated assets is likely to be quite small compared with that of defined-benefit plans. This difference in the risk appetite of individual savers with RRSPs and that of the sponsors of defined-benefit plans has an important effect on the functioning of Canadian capital markets. I'll come back to that point in a moment.

Now let's look at the third pool of capital—employer-sponsored pensions. I want to spend a bit more time discussing these plans because there are policy concerns here that need to be addressed with some urgency.

For decades, the vast majority of this pool—in terms of assets—has been held in defined-benefit plans. These plans can be attractive to individuals because they mitigate longevity risk and return risk.[3] Defined-benefit plans also have important positive attributes for efficiency. I mentioned earlier the way in which defined-benefit plans support economic efficiency by allowing for a better allocation of savings. But there are also efficiency gains for financial markets. The managers of defined-benefit pension plans have both the ability and desire to invest in the kinds of assets that the average individual investor might not normally consider. Pension managers have superior knowledge of financial markets and of the associated risks that makes them willing to invest in alternative asset classes and to engage in arbitrage between markets.[4] All of these activities make financial markets more complete and, so, enhance their efficiency. The size and sophistication of pension plans also lead them to be actively interested in good corporate governance, thus contributing to market discipline, which supports overall market efficiency.

### The decline in defined-benefit pensions

In recent years, defined-benefit pension plans have been in decline. The number of Canadians covered by defined-benefit plans has fallen by roughly 5 per cent since 1992. While the large majority of employer-sponsored plans are still of the defined-benefit variety, defined-contribution plans have grown significantly. We have seen many employers either collapse their defined-benefit plans or restrict new entrants into the plans. We have also seen increasing deficits in many defined-benefit pension plans.

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1 The ability of individuals with RRSPs to use a Registered Retirement Income Fund rather than a life annuity does allow more sophisticated retirees to mitigate this risk somewhat.

2 I am not aware of any Canadian research on this topic. But it is a reasonable assumption that these results would apply to Canada.

3 But many defined-benefit plans lack portability, which lessens their attractiveness.

4 Arbitrage refers to a trading strategy that tries to take advantage of differences in prices for the same asset trading on different exchanges.

While part of the decline in defined-benefit plans comes from developments in the economy and the labour force, part is also due to the incentives under which these plans operate. Let me elaborate. Defined-benefit plans should operate so that the expected value of all benefits to be paid out equals the expected value of all contributions plus the expected returns on investments. But when the actual value of one of these variables differs from the expected value, the sponsor of the plan takes on responsibility for making up any difference.

What would make a sponsor accept this responsibility? One reason would be if sponsors could mitigate the risk of worse-than-expected outcomes by being allowed to benefit from better-than-expected outcomes. But while there is no question that the sponsor is responsible for any deficit in the plan, it is not at all clear that the sponsor benefits from any surplus that may be generated. The question of who "owns" a surplus in a defined-benefit plan has been before many different courts at different levels and in different jurisdictions in recent years. While the precise answer depends on the specific wording of the rules of any given pension plan, in general, provincial and federal pension law has evolved so that employees have increasingly been given rights to pension surpluses, even though employees typically bear none of the responsibility for any deficit.

A further distortion of incentives arises in those cases where the pension plan contributions are held in trust and administered by a trustee. Currently, most pension plan trusts are set up so that the employees are beneficiaries of the trust. Beginning in the 1980s, successive court decisions have established that sponsoring firms may gain exclusive access to a surplus in a pension plan trust only if the trust is set up in such a way as to permit the sponsoring firm to gain exclusive access.

If defined-benefit plans are to survive, grow, and provide a source of funding for long-term, riskier assets, it is important that Canadian policy-makers consider taking steps to rebalance the incentives for sponsors to operate defined-benefit plans. Let me mention a few of the things that could be done.

First, the provincial and federal governments need to make appropriate adjustments to their pension laws so that the sponsors of defined-benefit pension plans are responsible for all residual risks to the pension plan—both outcomes that lead to deficits and outcomes that lead to surpluses. Let me be clear. I am not saying that firms should be given unambiguous sole ownership of pension surpluses, but rather that sponsors should have that ownership. There are a handful of pension funds—such as the Ontario Teachers' Pension Plan—where both the employer and employees are joint sponsors, and share ownership of any surpluses, as well as responsibility for any deficits.

The second step would be to consider rebalancing the tax treatment of employer contributions. Currently, in most circumstances, employers are not allowed to deduct contributions to a defined-benefit pension plan if the going-concern valuation of the plan is more than 110 per cent of expected future liabilities. This has certainly added to the bias against sponsors allowing surpluses to build up in their pension plans.

Third, there are issues with Canadian accounting standards for pensions in terms of valuation that have been posing challenges since they were adopted in 1999. For one thing, changes in the annual discount rate used to value pension liabilities can result in large swings in the amount reported as pension expenses. For another thing, periodic actuarial valuations of defined-benefit plans also flow through firms' income statements. Both of these issues lead to volatility in reported earnings, which investors do not like. So, accounting standards have become another reason for employers to avoid defined-benefit pension plans.

I have just listed three of the most serious problems facing sponsors of defined-benefit pension plans. Of course, there are other issues as well. Nevertheless, addressing these three issues would be helpful in getting the incentives right, so that defined-benefit plans can remain actuarially sound. This would significantly reduce the risk that pension contributions would be insufficient to cover future liabilities should sponsor firms go bankrupt. That said, sponsor bankruptcy remains a risk for members of private sector plans, and some form of risk-sharing arrangement is desirable. There are a number of options as to how to pool this risk, including encouraging the creation of plans sponsored by multiple employers. However, I would argue against the use of pension benefit guarantee funds, since they significantly raise the risk of "moral hazard," and further increase the bias against employers sponsoring defined-benefit plans.

## Conclusion

Let me conclude. Canada's pension plan system is crucial to our future, not only because it will sustain us in our retirement, but also because it supports the efficiency of our financial markets and our overall economy in important ways. Defined-contribution and defined-benefit pension plans, RRSPs, and the CPP and QPP all have a role to play.

But as we have seen, one important part of our pension system—defined-benefit plans—has been in relative decline. This relative decline represents a transfer of return risk and longevity risk to individuals, who are less able to bear or manage them. This transfer has a negative impact on overall economic efficiency and could ultimately represent a significant threat to the ability of pension funds to finance the long-term investments that will maximize our economy's future potential growth.

The task of establishing proper incentives is a difficult one, and I have touched on only some of the issues today. But policy-makers cannot avoid these difficult issues, and the stakes are too high for us to get it wrong. For the sake of efficiency and for the future health of our economy, we must get the analysis right, and then we must act.