



Vulnerabilities in Defined-Benefit Pension Plans

McMaster Pension Conference
15-17 November 2006

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Motivation

- ✿ An effective pension system is important for economic and financial efficiency
- ✿ 95 per cent of registered pension plan members in Canada are in a DB plan
- ✿ DB plans are under stress
- ✿ What are the fundamental reasons for this stress?



Proximate causes of the stress

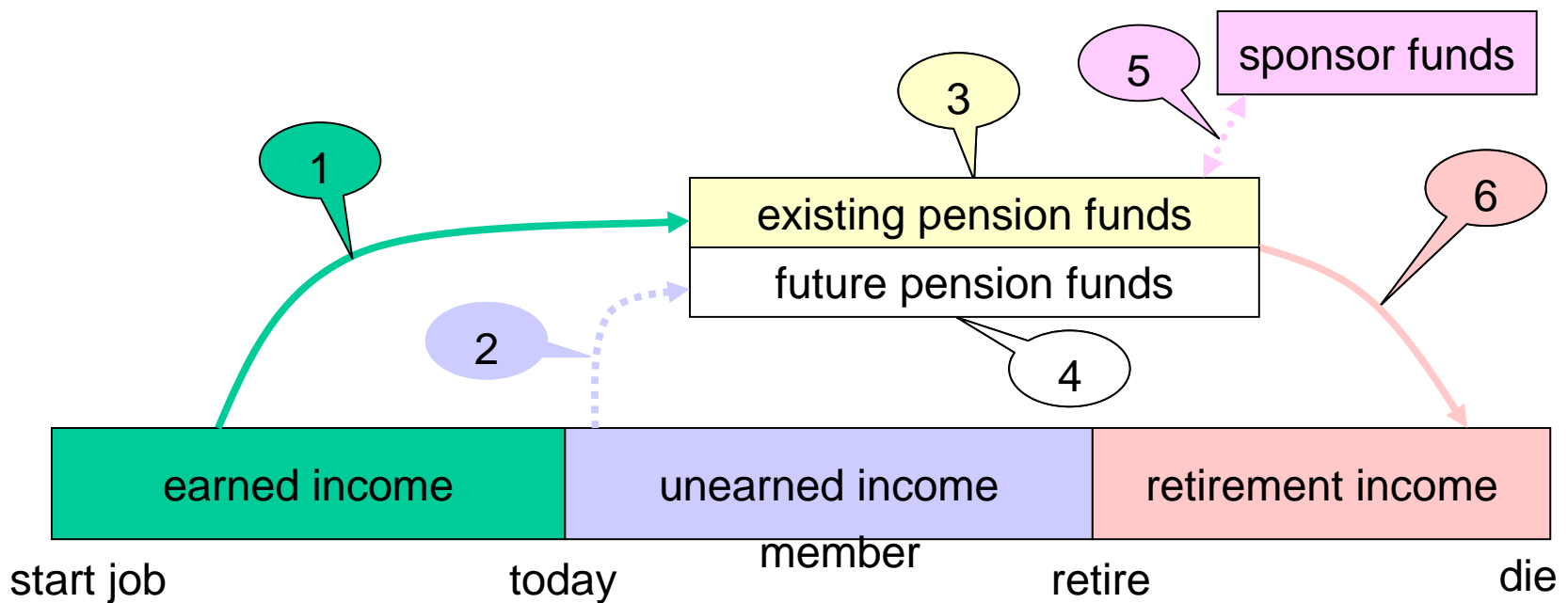
- ✿ Increasing longevity of plan members
- ✿ Low long-term interest rates
- ✿ The vanishing equity premium



The fundamental cause of the stress

- ✿ DB pension plans are not well understood because of their complexity
- ✿ They have many interdependent elements
- ✿ Parties tend to take narrow perspective when dealing with changes in each element
- ✿ The result has been a series of marginal changes that combine to place an heavy burden on sponsors

The functioning of a DB pension plan





Economic Basics

- ✿ A contract between members and the sponsor
- ✿ Members earn their pensions
- ✿ The sponsor indemnifies the pension promise
- ✿ The pension fund is collateral for this promise
- ✿ The sponsor takes on pension investment risk
- ✿ Surpluses and deficits are outcomes of this risk
- ✿ Incentive alignment rewards the sponsor for this risk
- ✿ Two types of insurance: aggregate and idiosyncratic
- ✿ Regulation and supervision protects the collateral



Popular misconceptions

- ✿ Employers pay for part of DB pensions
- ✿ Sponsors can transfer risk to members
- ✿ The pension fund keeps the plan in balance
- ✿ A surplus means contribution rates were too high

Inappropriate restrictions on pension fund management

- ✿ The sponsor needs some control over the pension fund to manage the risk of the benefit guarantee
- ✿ Ambiguous ownership and limited access to surpluses weakens the incentive to deal with deficits
- ✿ Deficits motivate regulators to tighten rules and supervision
- ✿ The result is an increased regulatory burden on sponsors

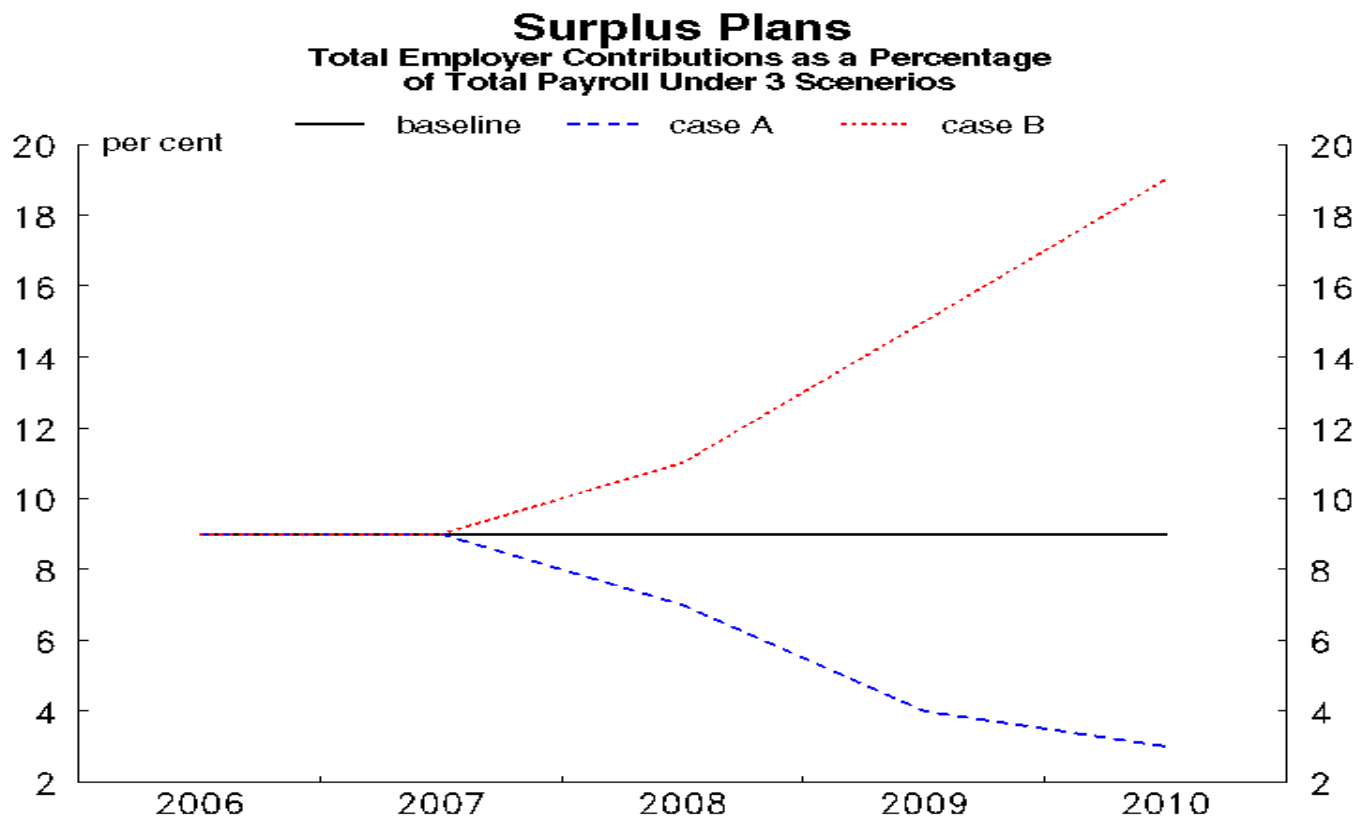
Inappropriate adequacy testing methodology for regulatory purposes

- ✿ Solvency and going-concern tests
- ✿ Solvency testing inappropriate for credit worthy sponsors
- ✿ Sponsors may have to inject money into the pension fund unnecessarily
- ✿ Sponsors may not get excess contributions back

Inappropriate pension accounting rules

- ✿ Market value (fair value) accounting rules improve accuracy but are sometimes inappropriate
 - Liabilities come due far into the future
 - Assets may be traded infrequently
- ✿ Pension liabilities can be contingent and therefore should not always be placed at full value on the balance sheet of the employer

Inappropriate operating practices



Inappropriate pension design

- ✱ Too much risk for small or highly concentrated sponsors to handle
 - Insuring an income stream that starts far into the future
 - Insuring an income stream that lasts a long time
 - Insuring against all possible shocks



Conclusion

- ✿ DB pension plans are complex and have interconnected elements
- ✿ Changes are being made in isolation
- ✿ The burden on sponsors is becoming unsustainable



Thank you