

# PROVIDING RETIREMENT INCOME SECURITY:

## Pooled Target Benefit Pensions

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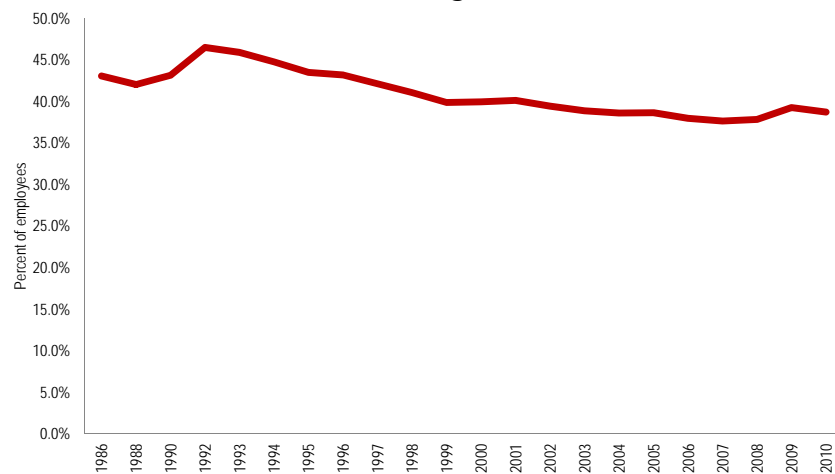
### Canadian Context: Changing Landscape

- DB coverage in persistent decline from 39% of labour force in 1986 to 29% in 2010
- For those in a plan, membership in DB fell from 92% to 75%
- Membership in DC rose from 7% to 16%
- The rest are "Hybrids"
- Leaves many workers vulnerable

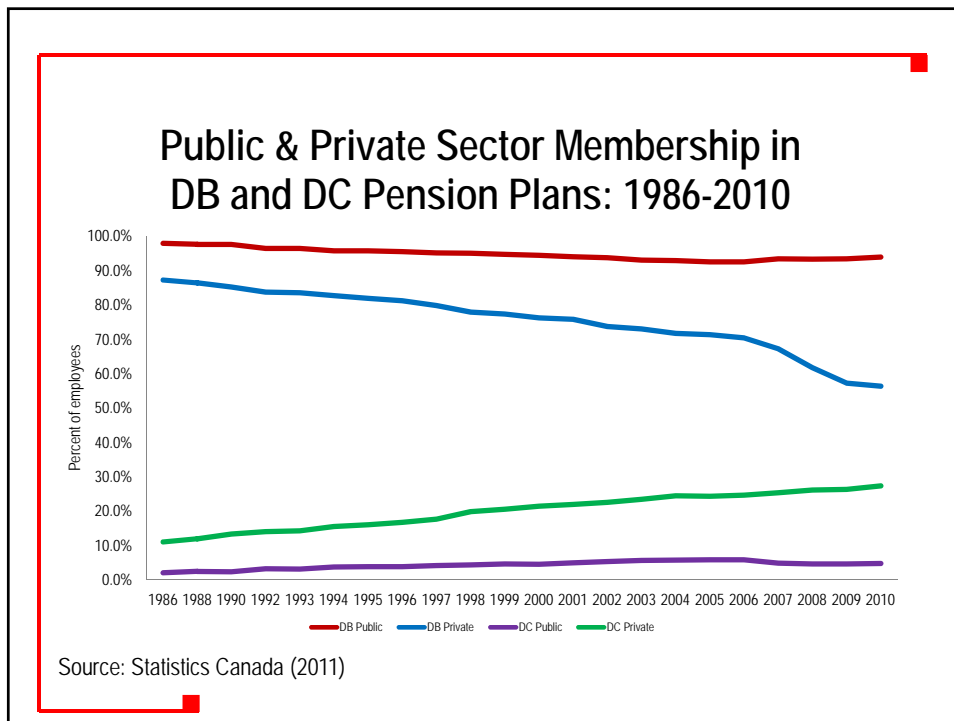
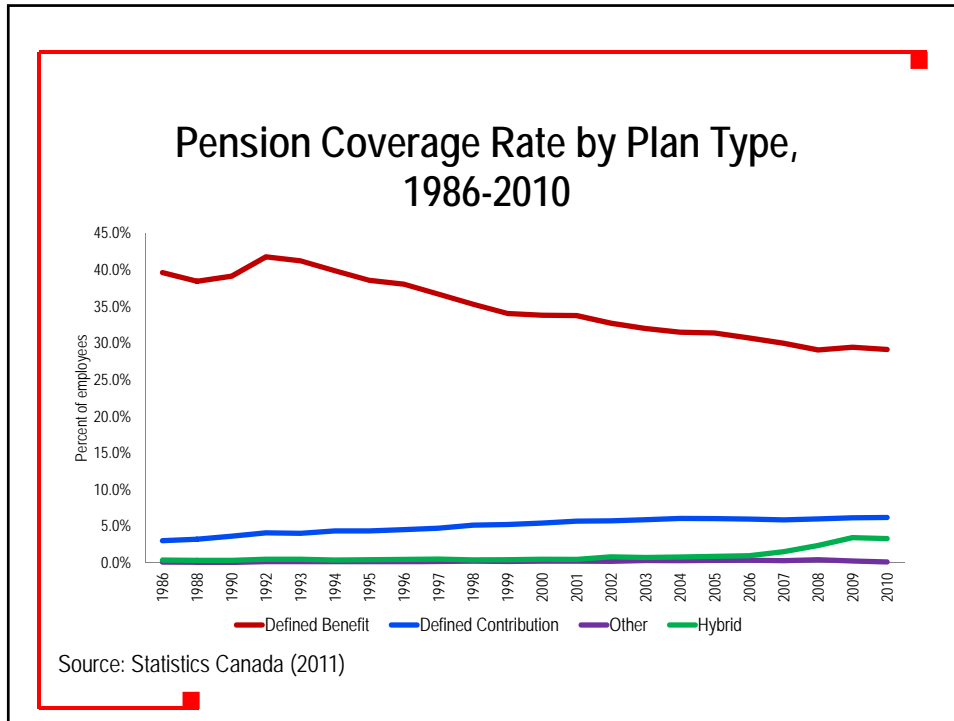
## Canadian Context: Issues of Equity

- 86% of public sector workers are covered
  - 94% of these are DB
- Only 25% of private sector have a pension
  - Only 56% of those are DB
- Employers want to reduce both cost and its volatility
- Pension risk being passed to worker

## Total Pension Coverage Rate, 1986-2010



Source: Statistics Canada (2011)



## Optimal Design of Retirement Security System

- Optimal system would minimize risk (volatility) and expenses
- This means that Individual Account (IA)  
Defined Contribution (DC) and RRSPs Do Not Work

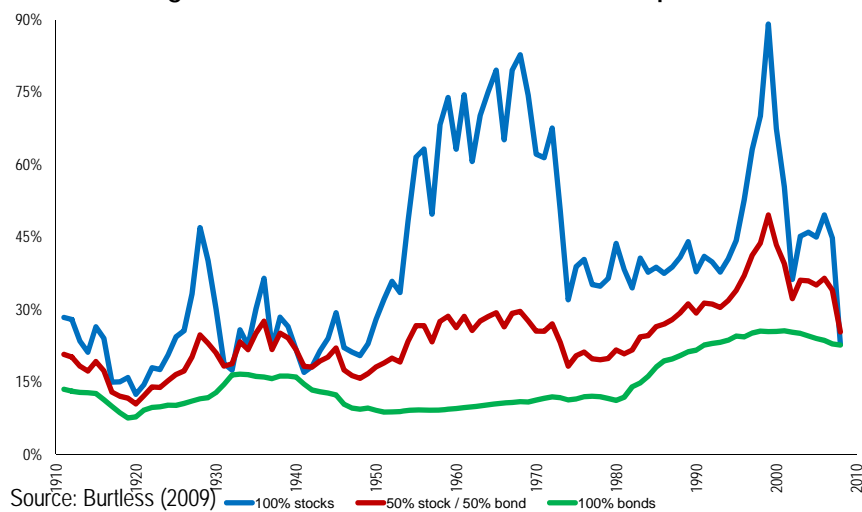
## Why Not IA DC or RRSPs?

- Assumptions required are:
  1. Workers can save and invest wisely.
  2. Or they can get asset management inexpensively
  3. Workers will adhere to "life-cycle" investing
  4. Workers can buy fair-value life annuities
- All assumptions are patently false

## Workers Can Save and Invest Wisely

- They have zero training and education in investing
- Equities have unacceptable volatility
- Fixed Income has unacceptable low returns
- And the deaccumulation phase is even more difficult
- There is also a “timing” risk (e.g., retire in 2009)
- Workers will typically invest conservatively with low rates of return
- Nicely illustrated in the following Graph

Replacement rate obtained from personal account savings of workers who invest in alternative portfolios

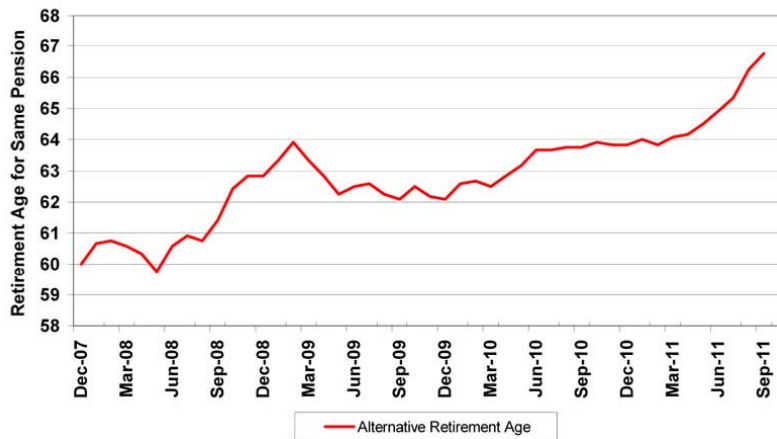


### Canadian Context:

- 2008/09 showed that IA DC or RRSPs not the answer

### Towers Watson DC Retirement Age Index

As of September 30 2011



Source: Towers Watson (2011)

### Explaining Figure 3

- 2008/09 Financial Crisis
- Low investment returns in general
- Low "i" means annuities are costly
- Plus life expectancy is up
- Affordable retirement age has risen seven years

### Workers can get Asset Management Inexpensively

- MER of 2% of assets per annum is not uncommon
- Over 35 years this decreases the fund by 31.7%
- Over 40 years, each added 1% MER decreases the fund by 20%
- Actively managed funds under-perform Indexed funds even before expenses
- Broker sold mutual funds perform worst of all

## The impact of investment fee ratios on pension adequacy

Management expense ratio (basis points)	0	40	150	300
Accumulated value (\$ after 40yrs)	777,000	707,000	551,000	400,000
Payout (\$/yr)	45,000	41,000	32,000	23,000
Replacement ratio (%)	90	82	64	46

Assumes annual contributions of \$10,000 over a worker's 40 yr career with average annual income of \$50,000

Source: Ontario Expert Commission on Pension Reform

## At the least, run the DC Acct as a "Collective" Acct

- Much Lower MERs
- Opportunity for Private Placements/Infrastructure
- Large funds also achieve stability of large numbers
- Target funds of \$10B minimum



## The cost of investment fees in pension funds (by fund size) and individual savings accounts

	Average management expense ratio (basis points)
Large cap equities	
\$10 million	60
\$1 billion	42
\$10 billion	28 to 35
Individual account	250 to 300

Source: Ontario Expert Commission on Pension Reform

## Worker will Invest Wisely and Use Life-Cycle Model

- No support for this in the literature
- If given a large number of choices, Workers tend to choose the Default Option
  - 80% in Australia; 98% in Sweden
- At the least, have a good default option
- Annuitizing brings its own problems

### **Annuities are available at a Fair Actuarial Price**

- Need annuities to cover the longevity risk
- Low interest rates mean high costs
- Plus, I.C. must cover "anti-selection"
- Healthy applicants buy more and bigger annuities
- Those with low Life Expectancy do not buy
- Most I.C. in North America price all annuities assuming the applicant's health is five star (no risk classification)
- Result is over 50% of population can't get a fair price
- System is regressive since wealthy live longer

### **Annuities are Available at a Fair Market Price**

- If no annuity, then must manage draw down
- No one knows their life expectancy
- Should plan for life expectancy plus standard deviation
- Result is living at a low standard of living and still having the longevity risk

### DC Plans have Perverse Labour Force Impact

- When times are good, DC/RRSP funds are strong and worker can retire just when needed in the labour force
- When times are bad, DC/RRSP funds are weak and worker must continue to work when labour force wants retirement

### Result: Don't use Individual Acct. DC or RRSPs

- Inadequate education of the public
- Poor investment choices
- Lack of smart default options
- Inadequate regulation of investment managers
- High MERs
- Low investment returns (even before MERs)
- Low retirement replacement ratios

## Canada: Retirement Income Security Challenges

- This generation has done well and is OK
- Concern is next generation middle class who are not saving enough

## Pension Risks

- Investment risk
- Cost volatility risk
- Inflation risk
- Interest rate risk if you purchase an annuity
- Longevity risk if you don't

## A Classic DB Plan

- The Plan Sponsor carries these risks
- May be passed on to:
  - Customers through higher prices
  - Shareholders
  - Workers through total compensation package

Regardless, Sponsor controls plan decisions

## DB Plans were affordable

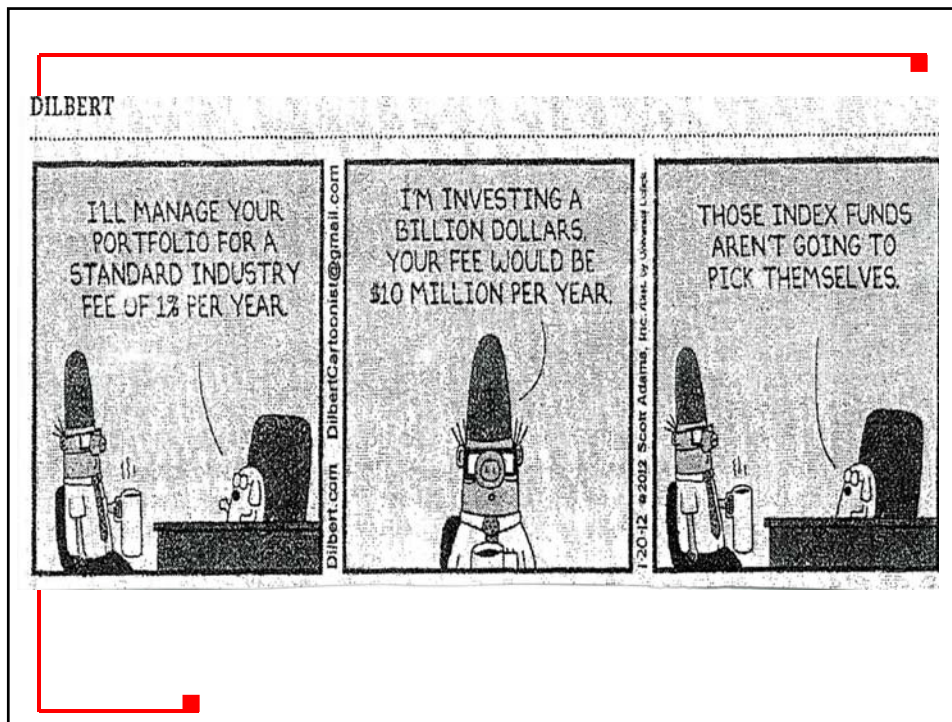
- At first through long vesting periods and no indexation
- Then through high investment returns
- Now many plans in deficit
- Increasing volatility:
  - Aging plan membership
  - Mark to Market
  - Marketplace volatility

### Other Problems with DB

- Sponsor bankruptcy when plan under-funded
  - Low priority of members in bankruptcy
- Limited portability

### DC funded through Individual Accounts or RRSPs

- Plan sponsor responsibilities end with contribution
- Retirement income unknown
- Worker carries all risks
- Cost of risk mitigation can be very high
- Investment risk is the largest variable



## Target Benefit Plans

- Benefits can be increased or decreased
- Like a DC plan to the employer/sponsor
- One example: New Brunswick "Shared Risk" Plans
- Ontario Traditional MEPPs are another example
  - (e.g., Construction Trades)
- These MEPPs do not contribute to the Ontario Pension Benefit Guarantee Fund
- Result is "Expected" but "Not Guaranteed" Retirement Income

## Size Matters

- Much Lower MERs
- Opportunity for Private Placements/Infrastructure
- Large funds also achieve stability of large numbers
- We should target funds of \$10B minimum

## Pooled Registered Pension Plans-PRPPs

- A priority for the federal government
  - Most pension plans are under Provincial jurisdiction
- Voluntary DC plans but with commingled asset pools
- Self-employed can join
- Worker Default Option is “in”, but can opt out
- Could lead to lower MERs if properly regulated





## PTBPPs: The Concept

- *The Basics*
  - Combines Employer DC features with Target Benefit
  - Worker Expectation is a DB (not guaranteed)
  - Employer Expectation is DC
- Better balance of DB/DC Risk Sharing

## PTBPPs: The Concept

- *Asset and Risk Pooling*
  - Assets Managed Globally across the Pool
  - Pooled Assets for low MER and “Size” Investment Choices
- Could accept new Plans or Existing Assets
- Self-Employed could Participate
- Participant Plans need not be Identical
- Just Pooled Assets

## PTBPPs: *Asset and Risk Pooling*

- Minimum Pool Size must be \$10 B or merge
- Employer Participation not mandated
- But if in, mandatory Employer contribution
- If Employer in, then Employees Auto Enrolled (but can opt out)
- Contributions are locked in
- This Mitigates Selection Bias

**PTBPPs: *Contribution Rates and Cost Minimization***

- For Plan Sponsor, Plan is DC
- Employee allowed to make extra contributions
- Model Replacement Rate = 50% (Target Benefit)
- This would require total contributions of 10%
- This plus CPP/OAS is adequate
- Today's Average DC Total Contribution is 8.7%

**PTBPPs: *Contribution Rates and Cost Minimization***

- Management Fees would be capped at 40 bp once critical mass is achieved
- Note: BC Public Sector Pension Plans operate with total expenses (admin + investment) = 25 bp
- Nothing Similar in PRPP Proposal

### *Target Benefits*

- Start with Agreed-Upon Target Benefit (Would vary by Age of Participant at Entry)
- Work Backwards with Slightly Conservative Actuarial Assumptions for needed Contribution (e.g., FE "i")
- Worker Receives Annual Update on Benefit
- Allows Worker to Respond (make larger contributions or negotiate more from E'er)
- Benefit is NOT Guaranteed (Can be Reduced)

### *Risk Management*

- Longevity Risk
  - Buy Deferred Annuities (e.g., starting at age 40)
  - Fund pays out Retirement Income and carries risk (Like TIAA-CREF in the U.S.)
  - Risk not borne by Worker
- Inflation Risk
  - Original Actuarial Assumptions will Include Modest Inflation Adjustment
  - If Fund is healthy, more can be covered
  - Like Ontario Teachers', BC Public Sector PP, Nova Scotia Teachers' and New Brunswick "Shared Risk" Plan

## *Governance and Investment Management*

- There will be Arm's Length Investment Managers
- Governance:
  - All Participants will be represented (even retirees)
  - Pension Board Will Review Investment Strategy
  - Can Adjust Benefits as Needed
  - Will be Independent Pension Professionals (not constituency reps)
  - Like Ontario Teachers'
  - Lower Probability of Constituency Self-Interest
- Automatic Balancing Mechanism
  - Like C/QPP ABM (50% rise in Contribution Rate and 50% from Non-Indexed Benefits until Balance)

## **Implementation**

- Would allow Banks and I.C. to Manage
  - Maybe in Seg. Funds with Lower Capital Requirements
- Also existing Large Pension Funds (OMERs)
- Or Arm's Length Gov't Sponsored Agency (CPPIB)
- Total MERs capped at 40 bp (Mandated)
- No Control of Investments by Plan Sponsor
- Assets would be locked in (avoid anti-selection)
- Minimum Fund size = \$10 B ultimately
- Requires Modest Changes to ITA and PBA

## BC Public Sector Pension Plans

- Could be viewed as Target Benefit Pension Plans
- Inflation Adjustment Account is DC not DB
- Only get full CPI indexing if fund is healthy

## Impact of DC Inflation Adjustment Account

- Public Service PP
  - Liabilities if fully indexed: \$24.583 B
  - Liabilities with DC IAA: \$18.041 B
- Teachers' PP
  - Liabilities if fully indexed: \$25.759 B
  - Liabilities with DC IAA: \$18.735 B
- College PP
  - Liabilities if fully indexed: \$4.278 B
  - Liabilities with DC IAA: \$3.110 B

## Questions and comments?

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