CARIBBEAN ACTUARIAL ASSOCIATION

Accredited as a Full Member of the International Actuarial Association

CONVERTING PUBLIC SECTOR DB TO DC: The Experience So Far and Implications

24th Annual CAA Conference

Hilton Barbados Resort

Bridgetown, Barbados

December 3 to December 5, 2014

CONVERTING PUBLIC SECTOR DB TO DC: The Experience So Far and Implications

Robert L. Brown, PhD

FCIA, FSA, ACAS

And

Craig McInnes

Summary of Findings

- % of labour force covered by DB plans dropped from 39% in 1986 to 29% in 2010
- Most of the drop in the Private Sector
- Only 12% of Private Sector have DB Plans
- 12% have DC Plans
- 76% have Nothing
- 81% of Public Sector have DB (most with COLAs)
- Creates Pension Envy

Summary of findings

- DC Plans are more expensive for the same level of benefits as DB plans
- Main cause is level of net investment returns
- But also high admin costs in DC
- And ability of DB plans to pool longevity risk
- Switch to DC would mean higher contributions from employers (taxpayers) and employees

CARIBBEAN ACTUARIAL ASSOCIATION

Stakeholders In Public Sector Pension Plans

- Employers including governments
- Employees and their dependents
- Current taxpayers
- Future generations of taxpayers
- Society at large

Convert Private Sector DB to DC: Hope is Win Win

- Hope is to lower costs and run down existing liabilities
- In Private Sector, Only Stakeholder is Shareholders
- Goal is Profit
- Focus is Short Term
- Impact on the rest of Society is not of concern

Closing Public Sector DB Plans

- In Public Sector, Bottom Line is Overall Impact
- Stakeholders are Taxpayers and Citizens
- If Shifting Pension Plan to DC results in more use of OAS/GIS, this is bad
- If Shifting to DC results in less spending and lower taxes paid by the elderly, this is bad
- If Shifting to DC results in less Patient Capital to be Invested, this is bad

Convert Public Sector DB to DC: A Lose Lose

- Legacy Liabilities go up, not down
- Because investments move to shorter-term, more liquid assets that earn lower returns
- Legacy Liabilities will be around for 70 or more years even with a "Hard Freeze"

Convert Public Sector DB to DC: A Lose Lose

- History of Conversions bears evidence:

  --Alaska

  --Michigan

  --Nebraska

  --West Virginia

  --Saskatchewan

Convert Public Sector DB to DC: A Lose Lose

- Other Jurisdictions have carefully studied the implications of DB to DC and rejected the idea:
  - Minnesota
  - Nevada
  - New York City
  - Texas
  - Wisconsin

DB Model An Effective and Efficient Mechanism

- A DB Plan will Produce Significantly (up to 77%) more income than a DC Plan with Equal Contributions
- In Reality, only way to Lower Costs through DC is through Lower Benefits

DB Model An Effective and Efficient Mechanism

- Consider a DB Plan with 50/50 Cost and Risk Sharing (Common)

    --75.0% of Benefits funded by Investment Income

    --12.5% by Employer contributions

    --12.5% from Employee contributions

DB Model An Effective and Efficient Mechanism

- Consider an Individual Account DC Plan

  (Common because of CRA Rules)

  --55.0% of Benefits funded by Investment Income

  --22.5% by Employer contributions

  --22.5% by Employee contributions

DB Model An Effective and Efficient Mechanism

- Large “Pooled” DC Plans could mitigate partly but are virtually non-existent in Canada

Freeze Existing DB Plan

- For the model $10 B Public Sector DB Plan, costs to government would rise 38%
- Could be met with a one-time payment into the plans of $3.29B

Freeze Existing DB Plan—Soft Freeze

- Only impacts accruals of new employees
- Will have active members for a century or more (including last survivor)
- Legacy liability will be increasingly the responsibility of plan sponsor (no new contributors)
- Will have to shift investments to more liquid and lower return assets
- Impact is higher cost than a going concern plan

Freeze Existing DB Plan—Hard Freeze

- No new accruals at all
- Will still have legacy liabilities for decades to come
- Legacy liability could be totally the responsibility of plan sponsor (given no new contributions)
- Will have to shift investments rapidly to more liquid and lower return assets
- Impact is much higher and more volatile cost than a going concern plan

Most Provincial Public Sector DB Plans Now Share Risk

- Many are Jointly-Governed, Jointly-Trusteed

  --all costs are shared 50/50
- Some have Benefits that are paid only if the plan funding is healthy
- Most common Contingent Benefit is COLA
- By itself, this can lower plan liabilities by over 25%

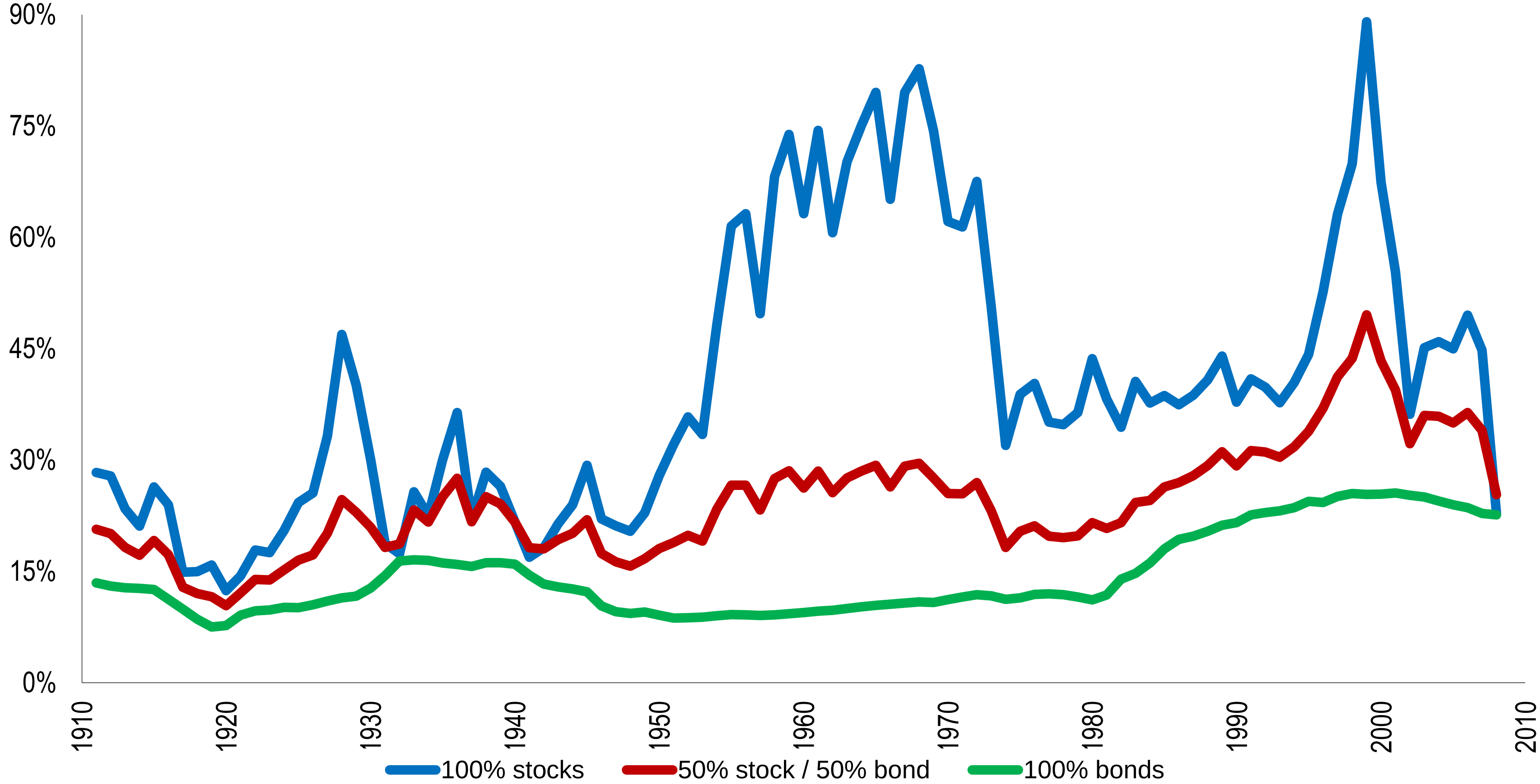
Risks in DC Plans Borne by Worker

- Pooling of Assets would help
- But most common Reform Proposal is to move to Individual Account DC
- This is consistent with CRA tax rules
- Individual Acct DC has no Risk Sharing

DB Plans Provide Dependable And Adequate Retirement Income by Pooling Risk

- A DC Plan transfers significant risks to worker who is not equipped to manage that risk
  - Investment Risk
  - Longevity Risk
  - Expense Risk
  - Interest Rate Risk
  - Inflation Risk

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



Source: Brookings Institution in Burtless (2009)

Investment Risk in DC

- Financial Advice is Expensive
- MERs easily 2 to 3% (200 to 300 bp)
- Each Additional 100 bp over a 40-year period reduces final assets by 1/5
- No evidence that Active Management Out-performs Passive Management
- DC/CAP lost 20 to 30% of value in 2008/09
- Resulted in drop in replacement ratio of almost 10 percentage points


DILBERT
I'LL MANAGE YOUR PORTFOLIO FOR A STANDARD INDUSTRY FEE OF 1% PER YEAR.
Dilbert.com DilbertCartoonist@gmail.com
I'M INVESTING A BILLION DOLLARS. YOUR FEE WOULD BE $10 MILLION PER YEAR.
1-20-12 ©2012 Scott Adams, Inc.
THOSE INDEX FUNDS AREN'T GOING TO PICK THEMSELVES.

Longevity Risk

- In a pooled DB Plan, you share Longevity Risk with all members of the Plan, Active and Retired
- In an Individual Plan, you must Account for your Life Expectancy plus a Margin
- Two Outcomes:
  - Draw down income slowly and live poorly
  - Draw down income rapidly and run out
- Either way, need more liquid assets with
- Lower rates of return and lower monthly income

Mitigation of Longevity Risk: Buy a Life Annuity

- With low “i” life annuities are expensive
- Life annuity price assumes 5-star life expectancy

  --Must cover Anti-Selection
- Hard to get true inflation protection
- Insurer in business to make a profit
- So, now face interest rate risk and expense risk

Size Matters

- For Individual Accounts expect MERs of 200 to 300 bp
- For Large DB Plan with >$10B in Assets have MER of 28-35 bp
- If move from DB to DC, at least use Large Asset Pools
- In Australia SuperFunds, MERs for Retail funds are 128 to 279 bp

DB Plans Provide Dependable and Adequate Retirement Income

- Retirees with Inadequate Income will fall back on Welfare Transfers (e.g., GIS and Provincial Plans)
- Also has Impact on Cost of OAS (Clawback)
- Government Responsible for Protecting Future Taxpayers from Workers not Saving Enough for Adequate Retirement Income
- Watch for Intergenerational Inequity
- Concerns are not Solely Net Profit
- Focus is Rightly Longer Term

Public Policy Needs to Have Long-Term Focus

- Do the Research
- Understand Longer-Term Impact of Conversion
- Lots of Real-World Case Studies to Learn From

One Case Study

- 2011 Texas Study showed that if DB Plan Replaced with DC and Self-Directed Investments:

  --Only 8% of plan members would do better

  --92% would do worse

  --2/3rds would do significantly worse (less than 60% of Current Benefit)

Second Case Study

- New York City Study showed that it would be 57-61% more expensive to deliver the same benefits under a DC plan than under DB

DB Plans Create Patient Capital

- Public Sector DB Plans in Canada manage $900B
- 35% of this invested in Alternative Classes (Private Equity, Infrastructure, Real Estate)
- Extremely Well Managed Funds
- Low Expense Ratios
- Low Liquidity Requirements
- Contributes to Financial Stability (Patient Capital)
- Employ 10,000 professionals
- Help to improve Corporate Governance

Human Resource Impacts

- Good Pension Plan can Attract Talent
- Can incent Early and Later Retirement as Needed
- Gives Employees True Retirement Income Security
- DC Plans Create Perverse Labour Force Incentives
  - When Economy Hot, Workers Can Afford to Retire
  - When Economy Cold, Workers Stay at Work

In Conclusion

- *"If you look at the DC plans that are out there now, they are likely to produce less benefit per dollar contributed than you would get out of a DB plan, and in that sense they are less efficient … they are small, offer less investment choices, and you have the wrong people making the investment decisions."*

Canadian Pension expert Bob Baldwin

Presentation Title

Presenter’s Name

Presenter’s contact details

Date