#### **Good Pension Design**

Peter Diamond March 1, 2016

## Purposes of a pension system

• The primary objective of pensions is economic security in old age.

- Achieving that objective requires:
  - consumption smoothing across a person's lifetime,
  - insurance against low income and wealth in old age,
  - poverty relief.

## Primary objective of pension design

- Optimizing old-age security, including the cost of providing it; recognizing:
  - incentives concerning labor supply and labor mobility,
  - effects from the way the financing of pensions is organized,
  - the presence of opportunities for better risk sharing
  - diversities in labor market experience and family structure

## Sweden

- 1913 First national pension system
- 1946 Basic Pension
- 1959 ATP pension
- 1994 "There are compelling reasons for carrying out a thorough-going reform today that will provide a new modernized pension system." (Parliamentary bill 1993/94:250)

## Sweden

Name	Type of pension
Inkomstpension (16%)	Notional defined contribution
Premium pension (2.5%)	Funded defined contribution
Guaranteed pension	Minimum pension guarantee

# Transition 1

 Persons born in or after 1954 are wholly covered by the new old-age pension.

 Persons born in or before 1937
 have their pension calculated according to earlier rules. But with some changes.

# Transition 2

- Persons born between 1938 and 1953 are covered by the new system
- A fraction of their income-based pension calculated according to earlier rules.
  - Persons born in 1938 have 16/20 from the old system;
  - those born in 1953 have 1/20 from the old system.

# Funding in Sweden

- Premium Pension: full funding
- Inkomstpension: buffer stock to smooth the ability to pay benefits

## Chile

• 1924 Start: Workers' Insurance

 By 1979, over 100 different social security schemes

• 1981 Individual accounts (AFP)

• 2008 Solidarity Pillar (PBS, APS)

# Chile

Name	Type of pension	
1981: Individual account (AFP)	Funded defined contribution	
2008: Basic	Non-contributory	
Solidarity Pension	pension for people	
(PBS)	without a pension	
2008: Solidarity	Non-contributory	
Pension	pension complements	
Contribution (APS)	contributory pensions	

# Transition

 Mandatory for employees joining the workforce for the first time from January 1983

 Voluntary for those who were already members of the Old System

• Voluntary for self-employed workers

## Cost of the transition

 Present value of 136% of the GDP in 1981.

- From:
  - recognition bonds,
  - operational deficit, and
  - state-guaranteed minimum pension

## Cost of the transition

• Almost 5% of GDP in 1984.

• 1.6% of GDP in 2012.

 The total cost will not disappear until 2050, taking 70 years to pay off, in contrast to original projections Comparison of administration costs (in HKD) per account and member

Country	Cost per account	Cost per member
Hong Kong	400	1,000
Australia	1,500	3,800
Mexico	80	80
Chile	300	325

The cost comparison does not take into account the differences in cost of living of the reference systems.

Source: Managing the changing landscape of retirement savings, Report on a study of administrative costs in the Hong Kong Mandatory Provident Fund system, November 2012

#### The demonstration effect of Chile

- Peru (1993), Argentina (1994), Colombia (1994), Uruguay (1996), Bolivia (1997), Mexico (1997), El Salvador (1998), Ecuador (2001), Costa Rica (2001), the Dominican Republic (2003–05), and Panama (2005–07)
- Hungary (1998), Poland (1999), Latvia (2001), Bulgaria (2002), Estonia (2002), Lithuania (2004), Slovakia (2005) and Romania (2008).
- China (1998) and Hong Kong (2000).

#### Retreat from individual accounts

- Estonia, Latvia, Lithuania, Poland and Romania changed the balance of contributions: less to individual accounts and more to finance Pay-As-You-Go (PAYG) benefits.
- Hungary and Argentina abandoned individual accounts altogether and transferred both the flow of contributions and the stock of assets to the PAYG system.

Many Asian countries (for instance China, Thailand and the Philippines) have experienced difficulties in implementing individual retirement accounts, whether mandatory or on voluntary basis. Developing robust annuities markets, particularly important for defined contribution pension systems, has been especially difficult for many Asian countries.

Lessons for Asian Countries from Pension Reforms in Chile, By Prof. Mukul G.Asher and Deepa Vasudevan, June 2008

# Chile

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# Funding in Chile

- AFP full funding
- Solidarity pension system
  - Pension Reserve Fund (PRF) receives payments from the government:
    - 0.2% of the previous year's gross domestic product (GDP).
    - If the actual fiscal surplus exceeds 0.2% of GDP, the PRF receives the surplus, up to a maximum of 0.5% of GDP.
  - Actuarial evaluation every three years.

#### Proportion of contributors as a percentage of affiliates December 2014 (AIOS, Boletin, 27)

Chile	56.2
<ul> <li>Colombia</li> </ul>	42.0
<ul> <li>Costa Rica</li> </ul>	62.1
<ul> <li>El Salvador</li> </ul>	25.0
<ul> <li>Mexico</li> </ul>	29.9
<ul> <li>Panama</li> </ul>	54.0
• Peru	44.0
<ul> <li>R. Dominicana</li> </ul>	47.9
<ul> <li>Uruguay</li> </ul>	62.1

Asian countries such as India, Indonesia and China, which have substantial levels of informal sector employment, must address the additional challenge of poverty prevention in their large unskilled and semi-skilled, highly mobile force that works outside the formal system.

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## Canada

Name	Type of pension
Canada Pension Plan (CPP)	Partially funded defined benefit
Old Age Security (OAS).	Citizen's pension
Guaranteed Income Supplement	Minimum income guarantee

## Funding the Canada Pension Plan

• The CPP Investment Board is governed independently from the CPP.

 Employer and employee contributions are projected to cover 75–80% of future CPP benefits, with investment returns covering 20–25%.

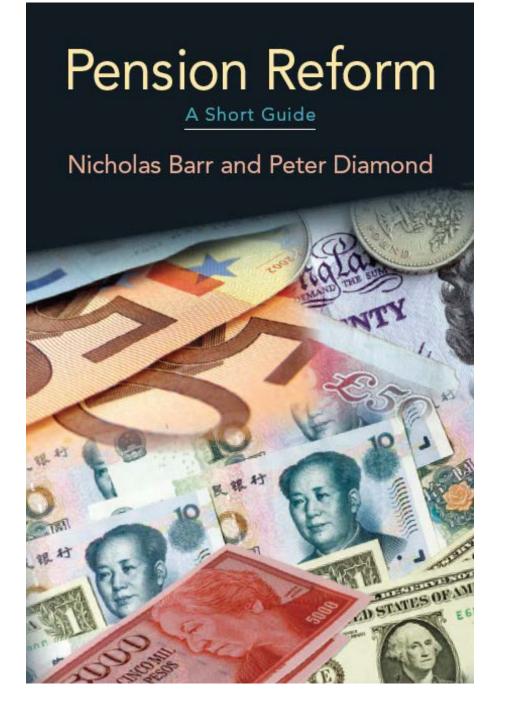
# **CPP** Actuarial Report

- Every three years, the Chief Actuary of Canada reviews the contribution rate required to sustain the CPP over the next 75 years.
- If the system is not financially sustainable there is a semi-automatic adjustment that freezes benefits and increases the contribution rate until the next triennial evaluation.

#### Pension Reform in China: Issues, Options and Recommendations

Nicholas Barr and Peter Diamond February 2010

# 中国的养老金改革 问题、选择和政策建议 尼古拉斯・巴尔 彼得・戴蒙德



尼古拉斯・巴尔(Nicholas Barr) 彼得・戴蒙德(Peter Diamond)

养老金改革: 理论精要

Pension Reform: A Short Guide

郑秉文 等译 齐传钧 校译



A key test of a decent society is the living standards of its older people, particularly the poorer among them.

Nicholas Stern

Pension Reform A Short Guide, Nicholas Barr and Peter Diamond, Oxford University Press, 2010, p. vii.