Financing Old Age in a Rapidly Ageing High Income City State: The case of Singapore

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Organization

• Introduction and Context
• Overview of The CPF Scheme:
  – An Overview
  – CPFIS
  – Supplementary Retirement System
  – Civil Service Pensions
• Fairness Issues
• Sustainability Issues
• Concluding Remarks
Introduction and Context

• The city-state of Singapore has evolved from a low-middle income country to a high-income country in a relatively short period of about four decades. Its business location strategy has been pursued skilfully to benefit from global trade, technologies, investments, and manpower flows.

• Singapore’s economic success notwithstanding, there are several factors which are contributing to the need by the policymakers for assigning greater weight to promoting fairness and sustainability of the current pension arrangements in Singapore.

• This presentation focuses on pensions, but similar fairness and sustainability issues arise for health care financing.
Introduction and Context

- First, one of the consequences of Singapore’s growth strategy has been the rising share of non-citizen population in Singapore. Thus, the ratio increased from 14 percent in 1990, to 26 percent in 2000, to 36 percent in 2010 (Table 1).

- The growth rate of citizens has been a fraction of the growth rate of non-citizens. Such a trend is difficult to sustain in any country over the long term.
Introduction and Context

• Second, Singapore is expected to experience very rapid ageing of the population in the next two decades. The population aged above 65 years, as projected by the United Nations, will increase from about 0.46 million in 2010 to 1.40 million in 2030, an increase of 207 percent in just two decades (UNDESA, 2010). Life expectancy at age 65, in 2011 was 18.3 years for men, and 21.8 years for women (DOS, 2011) is also expected to rise, thereby posing even greater challenges in managing an ageing society.

• Third, Singapore has relied primarily on a single-tiered retirement financing system, involving mandatory savings administered by a national agency, called Central Provident Fund (CPF). With increasing longevity, relying on savings from income during the working years to finance retirement period, which in some cases may exceed the proportion of life spent in labor force, has become increasingly untenable for a significant proportion of the population.

Introduction and Context

• Fourth, the expectations of the policymakers in Singapore have been that longer working life will significantly contribute to retirement income security even while primarily relying on mandatory savings tier. The age-specific labour force participation rates (LFPR) for males and females in Singapore do not lend strong support to the above expectation.

• Singapore’s total LFPR in 2011, at 66.1%, is higher than the corresponding figure for Japan (60%) and Korea (61%), but lower than that of Canada (67%). The LFPR for age groups between 40 and 64 years are however much lower in Singapore. Thus, for the age group 60–64 years, Singapore’s LFPR at 51% compares unfavorably with Japan (55%) and, Korea (56%), Such a pattern is also observed in the LFPR for the 65–69 age group.

• It is in the above context that this paper analyzes the fairness and sustainability of the pension system in Singapore.
Table 1: CPF System: An overview

Key CPF Statistics as of March 31, 2012

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of CPF members</td>
<td>3.39 million (100.0%)</td>
</tr>
<tr>
<td>Total number of Active CPF members</td>
<td>1.75 million (51.6%)</td>
</tr>
<tr>
<td>Labor Force (2010): Total/Resident</td>
<td>3.41 million/ 1.96 million</td>
</tr>
<tr>
<td>Active Members/ Total Labor Force</td>
<td>55.7 percent ; 89.3 percent (residents)</td>
</tr>
<tr>
<td>Active Employers</td>
<td>124,356</td>
</tr>
<tr>
<td>Total Population (2010)</td>
<td></td>
</tr>
<tr>
<td>Resident Population citizens</td>
<td>3.23 million</td>
</tr>
<tr>
<td>PR</td>
<td>0.54 million</td>
</tr>
<tr>
<td>Total Population (2010)</td>
<td>5.087 million (100%)</td>
</tr>
<tr>
<td>Total Members Balance</td>
<td>$214.1 billion (100.0%) (70.5% of 2010 GDP)</td>
</tr>
<tr>
<td>Ordinary Account</td>
<td>S$87.5 billion (40.9%)</td>
</tr>
<tr>
<td>Special Account</td>
<td>S$49.1 billion (23.0%)</td>
</tr>
<tr>
<td>Medisave Account</td>
<td>$55.9 billion (26.1%)</td>
</tr>
<tr>
<td>Retirement Account and others</td>
<td>$21.6 billion (10.0%)</td>
</tr>
</tbody>
</table>

Source: Central Provident Fund Board (2012); MoM (2012); DOS (2012)....
Administered Interest Credited to Members:

• The Ordinary Account (OA) interest rate is calculated based on a weighable of 80% on the 12-month fixed deposit rates and 20% on the savings rates of the major local banks. It is reviewed quarterly to keep up with prevailing market interest rates. In 2008, the interest rate was 2.5% per annum for the OA.

• With effect from January 1, 2008, an extra 1% interest has been paid on the first $60,000 of a members’ combined balances, with up to $20,000 from the OA.

• On 1 January 2008, savings in the Special, Medisave, and Retirement Accounts (SMRA) were pegged to the 12-month average yield of the 10-year Singapore Government Security (10YSGS) plus 1%. To help CPF members adjust to the floating SMRA rate, the Government will maintain the 4 percent floor rate till December 31, 2012. The 2.5% floor rate legislated in the CPF Act will continue to apply for all CPF Accounts.

CPF System: An Overview

- The asset side of the balance sheet of the CPF comprises non-marketable government securities, interest on which is determined *ex-post*.
- The proceeds from the securities are in effect turned over by the government to Singapore Government Investment Corporation (SGIC) for investments around the world.
- These securities constitute internal debt of Singapore.
CPF System: An Overview

Gross Internal Debt of Singapore (2011)

Public Debt: USD 223.0 billion
Public Debt Per Capita: USD 42,819.0
Public Debt as percent of GDP: 96.7%

http://www.economist.com/content/global_debt_clock
CPF System: An Overview

• By statutory provision, SGIC (and Temasek, another government holding company and their subsidiaries) do not have to reveal their financial performance and activities. So CPF members are not provided information on the ultimate investments of their balances. In return, they receive a guarantee of minimum 2.5 percent nominal rate of return.

• To the extent SGIC earns higher returns on CPF balances then credited to members, there is an implicit tax on CPF wealth which is both recurrent, highly regressive, and often quite large (Asher and Nandy, 2009).
CPF System: An Overview

- Figure 1 shows the real rate of return on CPF Balances and Compares them with the growth rate of GDP and the wage rate.

- The SGIC has publicly announced that it earned annually returns in Singapore $ of 8.2% for the 25 year period ending in March 2006; the inflation adjusted return was 5.3% per annum.

- The difference between what SGIC has earned and what the CPF members receive is a recurrent annual tax on CPF wealth. It is both large and regressive.
Figure 1: Real Return on CPF Balances (1987-2009)

Source: Calculated by the Author.
CPF System: An Overview

• The returns to CPF members are substantially below the real rate of growth of GDP (7.9 percent per annum) and real wages (5.0 percent per annum).

• As the replacement rate reflects the ratio of retirement income to pre-retirement income, higher rate of wage growth as compared to returns on balances adversely impacts the replacement rate.
CPF System: An Overview

• The CPF system was established in 1955, but it has only been 1968 that a variety of pre-retirement asset-accumulation schemes have been introduced.

• The schemes have been introduced over time in response to various *ad-hoc* policy objectives; and the schemes have been frequently revised and fine-tuned.

• The level and changes in contribution rate structure has also been altered accordingly.
CPF System: An Overview

• The current contribution rates to the CPF vary with age, and are subject to a wage ceiling (Table 2).

• The proportion of the contributions allocated to different accounts of a member also varies by age.

• The rates decline with age, and so does the share explicitly allocated for retirement purposes in the Special Account.

• These allocations and arrangements suggest that policymakers assign low priority to accumulation of cash balances for retirement.

• The CPF contributions (subject to a wage ceiling), income, and withdrawals are free of tax, thus receiving EEE (exempt-exempt-exempt) tax treatment.
## Table 2
CPF Contribution and Allocation Rates from 1 September 2012

<table>
<thead>
<tr>
<th>Employee Age (Years)</th>
<th>Contribution by Employer (% of wage)</th>
<th>Contribution by Employee (% of wage)</th>
<th>Total Contribution (% of wage)</th>
<th>Credited into</th>
<th>Ordinary Account (% of wage)</th>
<th>Special Account (% of wage)</th>
<th>Medisave Account (% of wage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 &amp; below</td>
<td>16</td>
<td>20</td>
<td>36</td>
<td></td>
<td>23</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Above 35-45</td>
<td>16</td>
<td>20</td>
<td>36</td>
<td></td>
<td>21</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Above 45-50</td>
<td>16</td>
<td>20</td>
<td>36</td>
<td></td>
<td>19</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Above 50-55</td>
<td>14</td>
<td>18.5</td>
<td>32.5</td>
<td></td>
<td>13.5</td>
<td>9.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Above 55-60</td>
<td>10.5</td>
<td>13</td>
<td>23.5</td>
<td></td>
<td>12</td>
<td>2</td>
<td>9.5</td>
</tr>
<tr>
<td>Above 60-65</td>
<td>7</td>
<td>7.5</td>
<td>14.5</td>
<td></td>
<td>3.5</td>
<td>1.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Above 65</td>
<td>6.5</td>
<td>5</td>
<td>11.5</td>
<td></td>
<td>1</td>
<td>1</td>
<td>9.5</td>
</tr>
</tbody>
</table>

**Note:**

1. The information in the above Table applies to employees with monthly wages above $1500. Workers included in the categories: (1) Private Sector (2) Government Non-Pensionable employees (3) Non-Pensionable Employees in Statutory Bodies & Aided Schools (4) Singapore Permanent Resident (SPR) employees from their 3rd year onwards.
2. The wage ceiling for contribution is S$5,000 per month. 

*Source: [http://mycpf.cpf.gov.sg/Members/Gen-Info/Con-Rates/ContriRA](http://mycpf.cpf.gov.sg/Members/Gen-Info/Con-Rates/ContriRA)*
### CPF System: An Overview

**Table 2 (continued)**

**For Pensionable Civil Servants**
CPF Contribution and Allocation Rates from 1 September 2012

<table>
<thead>
<tr>
<th>Employee Age (Years)</th>
<th>Contribution Rate (for pensionable component only)</th>
<th>Credited into</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contribution by Employer (% of wage)</td>
<td>Contribution by Employee (% of wage)</td>
</tr>
<tr>
<td>35 &amp; below</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Above 35-45</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Above 45-50</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Above 50-55</td>
<td>10.5</td>
<td>13.875</td>
</tr>
<tr>
<td>Above 55-60</td>
<td>7.875</td>
<td>9.75</td>
</tr>
<tr>
<td>Above 60-65</td>
<td>5.25</td>
<td>5.625</td>
</tr>
<tr>
<td>Above 65</td>
<td>4.875</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Note: The Ordinary Wage Ceiling is $6,666.67.

Source: [http://mycpf.cpf.gov.sg/Members/Gen-Info/Con-Rates/ContriRA](http://mycpf.cpf.gov.sg/Members/Gen-Info/Con-Rates/ContriRA)
CPF System: An Overview

• Even though gross contributions to CPF have been high, the net contributions have been relatively modest due to substantial withdrawals for housing, retirement, healthcare and other purposes.

• For the 1997-2009 period, the withdrawals averaged 81.2 percent of the contributions(Table 3). The policymakers are making an attempt to reduce the share of withdrawals.
CPF System: An Overview

- As a result, CPF’s contribution to gross national savings (GNS) averaged 7.7 percent, including interest income earned on CPF balances (Table 3).

- In contrast, during the 1991-2001 period, government budgetary savings (total revenue minus current expenditure) averaged 39.5 percent of GNS (Asher, 2003).

- The CPF thus has been relatively small factor in Singapore’s high savings rate which are primarily due to high public sector, particularly budgetary savings.

- Because of the certain characteristics of Singapore’s economy, such as lack of common law or constitutional rights to own land, and existence of a monopoly state supplier of housing, the CPF system has dominated residential mortgage financing in Singapore (Asher and Phang, 1997).

- As at 31 March 2012, 1.38 million members had withdrawn net amount of $101.9 billion for public housing scheme; the corresponding values for Residential Property Scheme was 0.26 million and $50.4 billion respectively.
Table 3: Singapore’s CPF: Contributions, Withdrawals, and Change in Balances 1997-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (Mn $)</th>
<th>% of GNI</th>
<th>% of GNS</th>
<th>Amount (Mn $)</th>
<th>Withdrawals as % of Contributions</th>
<th>% of GNI</th>
<th>% of GNS</th>
<th>Amount (Mn $)</th>
<th>% of GNI</th>
<th>% of GNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>15,873.80</td>
<td>10.8</td>
<td>20.4</td>
<td>11,456.50</td>
<td>72.2</td>
<td>3</td>
<td>5.7</td>
<td>7090.8</td>
<td>4.8</td>
<td>9.1</td>
</tr>
<tr>
<td>1998</td>
<td>15,999.80</td>
<td>11.3</td>
<td>21.2</td>
<td>13,609.80</td>
<td>85.1</td>
<td>1.7</td>
<td>3.2</td>
<td>5619.4</td>
<td>4</td>
<td>7.5</td>
</tr>
<tr>
<td>1999</td>
<td>12,826.70</td>
<td>9</td>
<td>18.2</td>
<td>12,788.60</td>
<td>99.7</td>
<td>0</td>
<td>0.1</td>
<td>3120.1</td>
<td>2.2</td>
<td>4.4</td>
</tr>
<tr>
<td>2000</td>
<td>14,092.80</td>
<td>8.9</td>
<td>19.1</td>
<td>14,555.90</td>
<td>103.3</td>
<td>-0.3</td>
<td>-0.6</td>
<td>1901.4</td>
<td>1.2</td>
<td>2.6</td>
</tr>
<tr>
<td>2001</td>
<td>18,322.30</td>
<td>11.8</td>
<td>27.3</td>
<td>18,860.40</td>
<td>102.9</td>
<td>-0.3</td>
<td>-0.8</td>
<td>1922.9</td>
<td>1.2</td>
<td>2.9</td>
</tr>
<tr>
<td>2002</td>
<td>16,165.70</td>
<td>10.2</td>
<td>24.1</td>
<td>14,821.40</td>
<td>91.7</td>
<td>0.9</td>
<td>2</td>
<td>4201.4</td>
<td>2.7</td>
<td>6.2</td>
</tr>
<tr>
<td>2003</td>
<td>15,870.00</td>
<td>10.1</td>
<td>22.6</td>
<td>11,816.50</td>
<td>74.5</td>
<td>2.6</td>
<td>5.8</td>
<td>7117</td>
<td>4.5</td>
<td>10.1</td>
</tr>
<tr>
<td>2004</td>
<td>15,320.10</td>
<td>8.7</td>
<td>19.1</td>
<td>10,310.30</td>
<td>67.3</td>
<td>2.8</td>
<td>6.2</td>
<td>8334.2</td>
<td>4.7</td>
<td>10.4</td>
</tr>
<tr>
<td>2005</td>
<td>16,105.10</td>
<td>8.8</td>
<td>20.9</td>
<td>11,776.10</td>
<td>73.1</td>
<td>2.4</td>
<td>5.7</td>
<td>7913.7</td>
<td>4.3</td>
<td>10.2</td>
</tr>
<tr>
<td>2006</td>
<td>16,547.10</td>
<td>8.1</td>
<td>18.2</td>
<td>14,350.50</td>
<td>86.7</td>
<td>1.1</td>
<td>2.4</td>
<td>6016.3</td>
<td>2.9</td>
<td>6.6</td>
</tr>
<tr>
<td>2007</td>
<td>18,185.00</td>
<td>7.7</td>
<td>15.9</td>
<td>11,776.10</td>
<td>64.7</td>
<td>2.7</td>
<td>5.7</td>
<td>10783.1</td>
<td>4.6</td>
<td>9.4</td>
</tr>
<tr>
<td>2008</td>
<td>20,293.60</td>
<td>8.1</td>
<td>17.2</td>
<td>10,966.00</td>
<td>54.0</td>
<td>3.7</td>
<td>7.9</td>
<td>14721</td>
<td>5.8</td>
<td>12.5</td>
</tr>
<tr>
<td>2009</td>
<td>20186.2</td>
<td>7.7</td>
<td>16.9</td>
<td>10719.1</td>
<td>53.1</td>
<td>4.1</td>
<td>9.0</td>
<td>15497</td>
<td>5.9</td>
<td>13.0</td>
</tr>
<tr>
<td>Average (1997-2009)</td>
<td>16,291.22</td>
<td>9.43</td>
<td>20.70</td>
<td>13,070.10</td>
<td>81.20</td>
<td>1.72</td>
<td>4.02</td>
<td>7,249.10</td>
<td>3.60</td>
<td>7.70</td>
</tr>
</tbody>
</table>
CPF System: An Overview

The CPFIS Scheme:

• This is a pre-retirement withdrawal scheme which provides choice to members to invest their balances in approved financial and real assets.

• A member may open a CPF investment account with approved agent banks, all of whom are locally controlled banks. Their charges and fees are not regulated.

• Individual CPF members may invest their Ordinary Account (OA) balance as well as Special Account (SA) balance in approved assets. There is no limit on investments in shares through the approved Unit Trusts.

• Table 4 provides average performance of CPFIS funds in SGD terms. The data suggests that over a three year period ending June 2011, the average performance was 2.4 percent for all the funds, with ILPs performing much better that the Unit Trusts.
CPF System: An Overview

CPFIS Scheme

• As at 31<sup>st</sup> March 2012, the total amount invested under the CPF –OA was $23.4 billion, 36 percent of the total amount potentially available ($26,106 per participating member); the corresponding figures for CPFIS-SA being $ 6.45 billion, and 37 percent ($ 14,075 per participating member).

• The above figures suggest that only around a third of the CPF members have opened a CPFIS account; and that nearly two-thirds of the balances eligible for the CPFIS have been left unutilized.
CPF System: An Overview

• **CPF Life** – this is a deferred annuity scheme, with individuals bearing the cost of purchasing the annuity. The annuity premiums vary by gender and age, while returns are subject to prevailing macroeconomic conditions.

• The annuity is to be bought at age-55, but in the base case, pay-outs will not begin till age-65. There are various options for the pay-out phase. The pay-outs are not indexed.

• The CPF-Life does not increase resources available to individuals for retirement.
**CPF System: An Overview**

### Table 4 Average Performance of CPFIS Funds as at End Second Quarter 2011 (% in SGD)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>All CPFIS Funds</th>
<th>Unit Funds in CPFIS</th>
<th>ILPs in CPFIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-03-2011 to 30-06-2011 (three months)</td>
<td>-1.65</td>
<td>-1.70</td>
<td>-1.61</td>
</tr>
<tr>
<td>30-06-2010 to 30-06-2011 (one year)</td>
<td>7.74</td>
<td>9.59</td>
<td>6.32</td>
</tr>
<tr>
<td>30-06-2008 to 30-06-2011 (three years)</td>
<td>2.4</td>
<td>3.89</td>
<td>7.01</td>
</tr>
</tbody>
</table>

Supplementary Retirement System (SRS)

• This was introduced as a voluntary tax-advantaged savings scheme in 2001 for employees only. Since October 2009, employers can also contribute and get tax benefits.

• SRS contributions are subject to an annual cap of $12,750 for Singapore citizens and PRs and $29,750 for foreigners (2011 Budget)

• Contributions are tax-deductable but half of the benefits in retirement are potentially taxable. This can be mitigated by spacing out withdrawals over ten years. The estimates are that about one-third of Singapore’s 750,000 individual income tax payers can potentially benefit, but only around 63,984 (as of December, 2010) have opted for SRS. Foreigners account for only 3 percent of the account holders. Thus, Singaporeans and PR are predominant members.
Civil Service and Armed Forces Pension Arrangements

• Prior to 1986 eligible civil servants were covered under the Pension Scheme financed by the Government. In 1973, the civil servants were given an option to transfer from the Pension Scheme to the CPF, but relatively few chose to do so. The attempt in 1986 to transfer the civil servants to the CPF was effective as it was combined the discontinuation of the Pension Scheme for most civil servants. A relatively small number of civil servants were permitted to be on the pension scheme.

• Most civil servants employed after 1986 are covered by the CPF. Non-pensionable civil servants have the same contribution rates, and wage ceiling as Singaporean citizens and permanent residents employed in the private sector. Pensionable civil servants however have lower contribution rates, but a higher wage ceiling of $ 6,666.67 is applied to their contributions.
Civil Service and Armed Forces Pension Arrangements

• Pensionable civil servants on reaching retirement can choose between a) full pension calculated at $1/600 \times \text{Annual Pensionable Salary} \times \text{Completed Months of Service}$; b) a lump sum payment based on full annual pension \times 14.2; c) a combination of a lump sum payment and reduced pension for 12.5 years, after which the monthly pension is restored to the full pension. The Pension Fund Act stipulates that the maximum replacement rate to not exceed two-thirds of the highest pensionable emoluments paid to the civil servant.

• As on 31\textsuperscript{st} March 2005, the Pension Fund had assets of $11.41 billion. The scheme is well funded with pension assets matching estimated actuarial liabilities of $11.40 billion. The Pension Fund is funded by income earned from its investments, occasional lump sum transfers from the Consolidated Revenue Account of the Government, and from monthly transfers. During 2004-2005, the fund earned $438.8 million (or 4.0 percent) from its investments. The GDP Deflator was 1.2 in 2005, thus the real rate of return on the pension fund was 2.8 percent.
Civil Service and Armed Forces Pension Arrangements

- Pension arrangements for the Armed Forces personnel are governed by the Saver Plan, a DC (Defined Contribution) scheme, established in 1998. The value of the accumulated pension benefits at the time of introduction were estimated and transferred into members’ accounts.

- The Saver Fund is also funded by transfers from the Consolidated Revenue Account of the Government, contributions from personnel, and income earned from its investments. The contribution rate for the first six years of service is thirteen percent, after which it is increased to fifteen percent. Members have three options to invest their accumulated balances.

- The first option: **Stable**, fifty percent in cash and fifty percent in bonds; the second option **Balanced**: ten percent in cash, fifty percent in bonds, and forty percent in equities; and lastly **Dynamic**: Ten percent in cash, twenty percent in bonds, and seventy percent in equities. The default option is the **Balanced plan**.
Civil Service and Armed Forces Pension Arrangements

• As of March 31, 2011 Saver Fund investments earned an implicit real return of 4.0 percent (5.2 in nominal terms). This is in contrast to the real rate earned on CPF balances of 2.0 percent, and 2.8 percent on balances in the Pension Fund during the same time period.
Fairness Issues

- The broader fairness issues concern the lack of social insurance principles in managing longevity, inflation, and survivor benefit risks during retirement; and the extremely limited nature of public assistance to the elderly.

- **Differing Pension Design For Different Groups**

- The fairness issues arise due to differing design between the CPF and the Armed Forces pension scheme. In the CPF scheme, the Funds managed by the CPF Board are invested differently than the funds managed under the Armed Forces Pensions Schemes, called the SAVER scheme. As at March 31, 2011, CPF Member Balances of $214.1 billion, were essentially in non-marketable government securities, the interest on which is determined on an administrative basis.

- The deductive reasoning suggests that these balances are ultimately invested by SGIC as the government has been running fiscal surpluses if the IMF definition is adopted (Asher, 2004). Since the SGIC is not required to reveal its investment portfolio or performance, CPF members are unaware of the actual returns obtained by the SGIC on their balances.
Fairness Issues

• In sharp contrast to the centralized, non-transparent nature of the investment of CPF Balances, the CPFIS provides individual members considerable choice of asset managers, and of product. As is well known in finance, too much choice of financial products and providers to relatively unsophisticated provident and pension fund managers is not conducive to sound investment decisions.

• Chia and Tsui (2011) estimate that for the 2004-09 period, nearly half of those who participated in the CPFIS Scheme incurred realized losses; nearly one-third had realized returns of less than the nominal CPF guaranteed 2.5 percent; and only 20 percent had realized returns higher than 2.5 percent.
Fairness Issues

• **Tax Treatment**

• As CPF Contributions by the employees are tax exempt, the rate of subsidy varies with the marginal tax rate of income tax. The individual income tax rates in 2009-10 ranged from 3.5 percent to 20.0 percent; while the total number of tax payers was 33.8 percent of the labour force.

• Since the labour force includes many high income earning expatriates, the share of income tax payers among citizens and permanent residents is likely to be lower. The implicit tax subsidy therefore is regressive, with vast majority of CPF members not benefiting from the income tax deduction.
Fairness Issues

• The regressivity is compounded by the implicit tax on CPF wealth which falls disproportionately on the bottom half of the income group. The SGIC has publicly announced that it earned annual returns (in Singapore dollars) of 4.5 percent in 2008. The difference between what SGIC has earned (4.5 percent) and what the CPF members received (1.2 percent) could be construed as an approximation of the recurrent annual tax on CPF wealth.

• The estimated tax was $4.98 billion. The tax is both large and regressive as relatively lower income households are likely to have larger proportion of their wealth in the form of CPF Balances. In estimating Singapore’s household tax burden, this implicit tax should be included.
Fairness Issues

• **Fairness Issues in the Payout Phase**

• In 2009, CPF Lifelong Income Scheme (CPF LIFE) was introduced for the payout phase of the CPF. It is essentially a deferred annuity managed by the CPF, and paid for by members. Its design raises at least two fairness issues.

• First, the premiums charged for the annuity is based on age and gender, with women paying higher effective premium than men, as they as a group live longer. Thus, the premium of CPF LIFE is structured along private, not social insurance methods. This particularly disadvantageous to women, who as a group have lower CPF balances than men, but need income support for a longer period.
Fairness Issues

- Second, the annuity benefit is specified in nominal terms. This implies that real benefits will decline at the rate of inflation. The CPF Life scheme thus does not increase the resources available for retirement. Instead, as the members pay the premiums, it reduces the resources available for retirement, though the benefits are in terms of life-time stream of benefits in nominal terms.
Fairness Issues

- **Treatment of Foreign Workers**
- The stock and flows of foreign workers are subject to government regulation, and administrative measures. The structure of the levy and its design is complex. It varies across sectors, skill levels, nationality and the dependency ratio.

- While disaggregated data on the number of foreign workers is unavailable, as at end-December 2010, there were 201,000 foreign domestic workers. The Budget does not provide separate revenue data from levies of foreign workers, combining it with Airport Passenger Service charge under the ‘Other Taxes’ category. In 2010, the revenue from Other Taxes was $2.24 billion, and estimates suggest that it will be $3.3 billion in 2011 (Singapore Budget, 2011).

- A substantial proportion of the Other Taxes collected can reasonably be assumed to be levies on the foreign workers. They therefore contribute significantly to fiscal revenues in Singapore. Foreign workers however are not members of the CPF, are ineligible for social and community benefit schemes; and do not receive healthcare subsidies and benefits like Singaporean residents do.
Sustainability Issues

• In a Defined Contribution (DC) method used in Singapore, whatever the accumulations are become the liabilities. Therefore, unlike the Defined Benefit (DB), it is not the matching of assets and liabilities that is relevant. In a DC method, the sustainability is intricately tied up with adequacy of pensions.

• As the coverage of the Singapore’s pension system is near-universal, the issues surrounding extending the coverage of the population are not relevant. Instead, as noted above the coverage issue concerns the lack of risk mitigation instruments for addressing longevity, inflation and survivors risks.
Sustainability Issues

- Conventionally, *adequacy* of retirement financing is measured by the combined replacement ratio obtained from all tiers. This ratio may be defined as the value of an annuity during retirement as a percentage of pre-retirement income.
- The replacement rate at retirement however will not be sustained unless the annuity amount is indexed for inflation, i.e. unless the inflation risk is addressed; and the annuity amount is provided for life.
- There is also a need for survivors’ benefits to address gender imbalances during retirement. As women, on average, live longer than men, the old-old will be disproportionately women. As women as a group have lower life-time incomes, a mechanism to increase resource to elderly women is essential.
Sustainability Issues

- Singapore’s pension system does not address the inflation risk, nor does it have a mechanism to address Survivors’ risks. The CPF Life does in a limited way address the longevity risk, but its costs are borne by individuals through commercial-type of insurance. The absence of non-contributory social pensions financed from general government revenue adversely impacts on adequacy, and therefore sustainability.

- The above suggests that while in a narrow financial sense, Singapore’s pension system may be regarded as sustainable; it is not sustainable when assessed against the more relevant criteria which incorporate adequacy concerns. These concerns will become even more acute as rapid ageing of the population occurs in the next two decades.
Concluding Remarks

• The analysis in this paper suggests that broad direction of promoting fairness and sustainability of Singapore’s pension system are fairly clear.

• These concern greater use of social insurance principles and social risk pooling instruments such as social pensions; reforming the investment policies of the CPF by bringing them more in line with the SAVER Scheme; and improving design of the CPF scheme to promote fairness.

• DB method is currently being used explicitly for those receiving government pensions, or indirectly for the rest of civil servants. So such reforms would not constitute fundamental departure from what is currently being practiced, albeit only for a small proportion of the workforce.
Concluding Remarks

• These changes will make Singapore’s pension system consistent with the needs of a high-income, rapidly ageing economy. It will also bring its pension system in greater conformity with similar economies globally.

• The constraints on promoting fairness and sustainability of Singapore’s pension system are not financial, or lack of institutional and organizational capacities. They arise due to the disproportionate importance given to achieving high economic growth, while not taking sufficient account of its negative implications for social protection.
Concluding Remarks

• Singapore’s 2011 General Election results, in which nearly two-fifths of the electorate voted for opposition candidates, could be interpreted as a signal for the urgent need for a more balanced approach to economic growth and social protection. Since the general elections there has been considerable debate in social media about the fairness and sustainability issues discussed in this presentation.

• The key decisions in promoting fairness and sustainability of Singapore’s pension system will therefore be political.

• This would require reducing near exclusive reliance on mandatory savings intermediated through the CPF system, increasing the very limited scope of social assistance and pension programs, reducing the reliance of implicit tax on CPF wealth, and reducing the gross mismatch between fiscal revenue generated by foreign workers and social program benefits made available to them.

• Once such decisions are made, the rest of the decisions will be of the technocratic nature and will not be constrained by fiscal resources or by limitations of institutional and organizational capacities.
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