# Aging Population and Fiscal Sustainability

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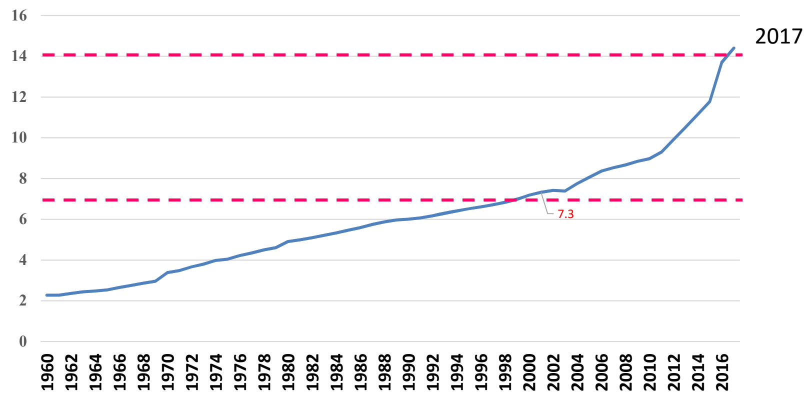
## CHANGING DEMOGRAPHIC LANDSCAPE

## Speed of Aging
## Proportion of 65 years and over to total population

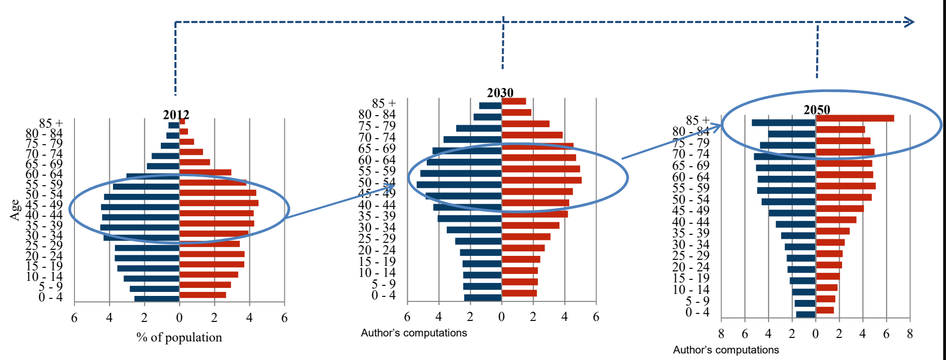



Source: Singstat



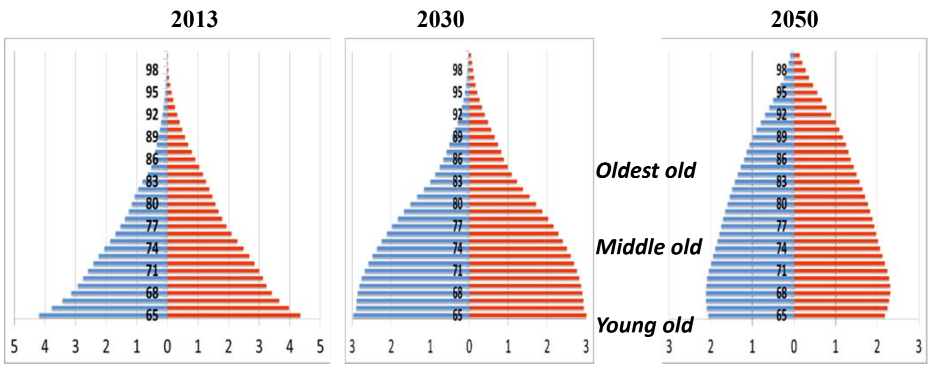


## Lee Carter Mortality Forecasting
## Demographic Landscape of Singapore, 2013, 2030 and 2050




- **By 2050, population pyramid would be fully inverted.**
- **Aging landscape will impact financing a universal basic pension costs in a profound way.**
- **Quicker transition from ageing to aged population.**

## Lee Carter Mortality Forecasting
## Population Aged 65 and above in 2013, 2030 and 2050



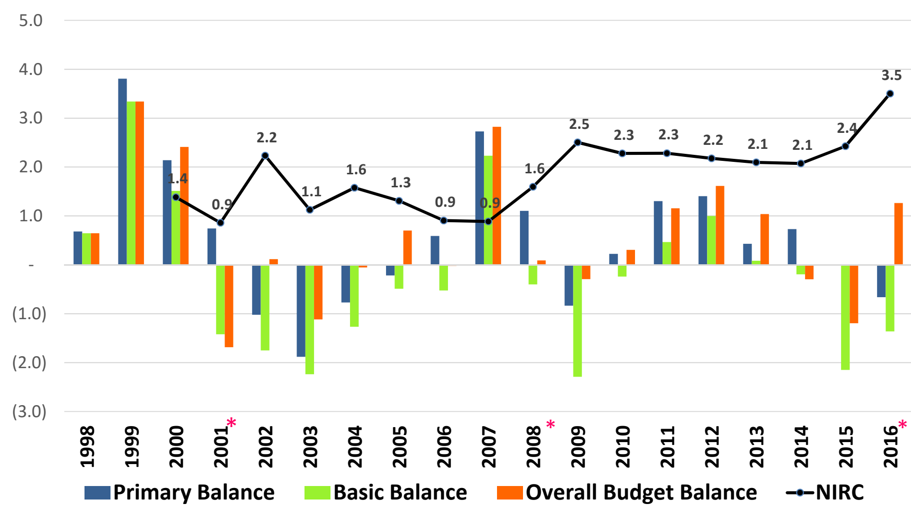

- **Oldest Old is the fastest growing age group.**
- **By 2030, youngest cohort of the baby boomers become young old.**
- **By 2050, they will become the oldest old.**





# FISCAL POLICIES 2005-2017

## Fiscal Position (percent of GDP)








## Budgetary Accounting: 3 metrics

- Because of existence of large accumulated reserves and unique way of prefunding social programs through funds, 3 metrics are used to describe fiscal position

**[1] Primary Budget Balance:**

- Operating Revenue less Total Expenditure
- Reflects government's ability to meet its annual operating and development expenditure through its operating revenue
- Excludes other fiscal capacity

e.g revenues generated from reserves, land sales

- excludes the Government's commitments to targeted medium and longer-term expenditures
- understates the full fiscal position of the government

## Budgetary Accounting: Primary Budget Balance

**[1] Primary Budget Balance:**

- Operating Revenue less Total Expenditure

OR = tax and nontax revenues (Fees and charges)

Total Expenditure = operating and development

- Reflects government's ability to meet its annual operating and development expenditure through its operating revenue
- Understates the full fiscal position of the government

- excludes other fiscal capacity ( e.g revenues generated from reserves, land sales)
- excludes Government's commitments to targeted medium and longer-term expenditures





## Budgetary Accounting: Basic Budget Balance

**[2] Basic Budget Balance**

- Include transfers for targeted programs for specific development
- Mostly negative

**[3] Overall Budget Balance**

- picture of fiscal position in the long term
- reflects fiscal capacity and sustainability over the long term

Includes:

[i] expenditures / social investments to meet specific long term needs

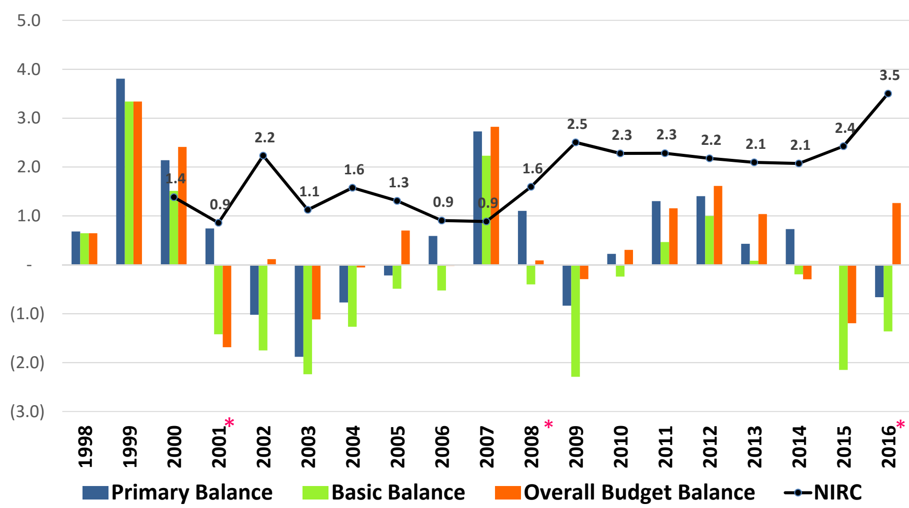
i.e. transfers to endowment and trust funds

- capital injections into new fund
- and top-ups to grow the size of the fund

[ii] Revenue generated from reserves

i.e. receipts from incomes, dividends and capital returns generated from reserves

## Fiscal Position (percent of GDP)








## FISCAL DIRECTION AND TARGET 2005-2017

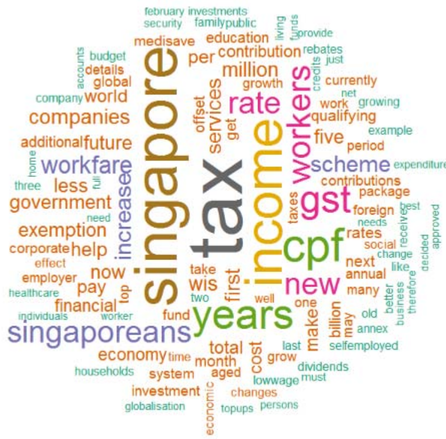
## Budget 2005
## Continued growth and fiscal consolidation






## BUDGET 2006
## BUILDING ON OUR STRENGTHS, CREATING OUR BEST HOME

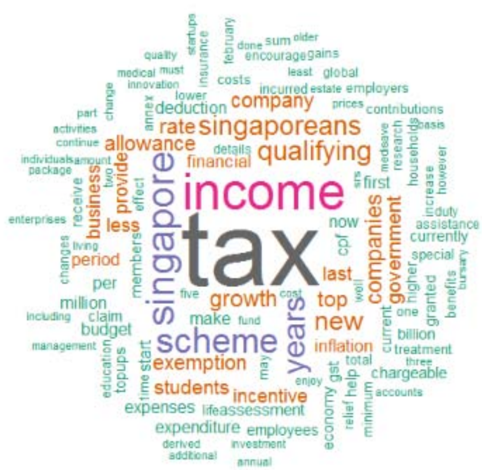
## Budget 2007
## Ready for the Future, Ready for the World








## Budget 2008
## Creating a Top Quality Economy, Building a Resilient Community

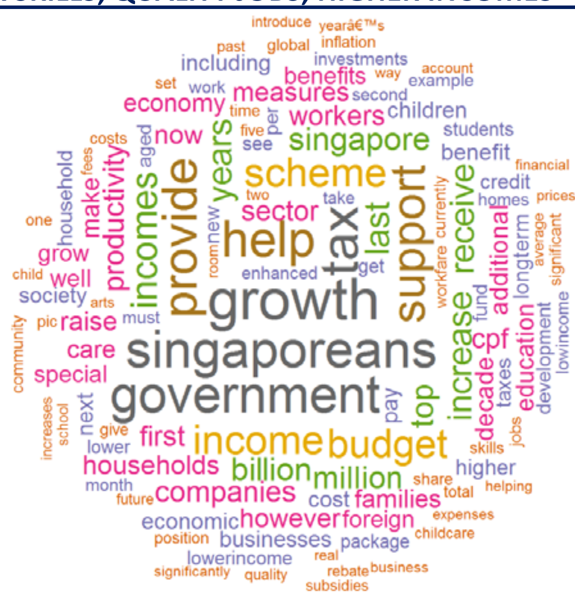


## Budget 2009
## Keeping Jobs, Building for the Future






## Budget 2010: TOWARDS AN ADVANCED ECONOMY
## SUPERIOR SKILLS, QUALITY JOBS, HIGHER INCOMES



## Budget 2011
### GROWING INCOMES, STRENGTHENING OUR SOCIETY






## Budget 2012
### AN INCLUSIVE SOCIETY, A STRONGER SINGAPORE

## Budget 2013
### A Better Singapore: Quality Growth, An Inclusive Society






## Budget 2014
### Opportunities for the Future, Assurance for our Seniors

## Budget 2015
## Building Our Future, Strengthening Social Security





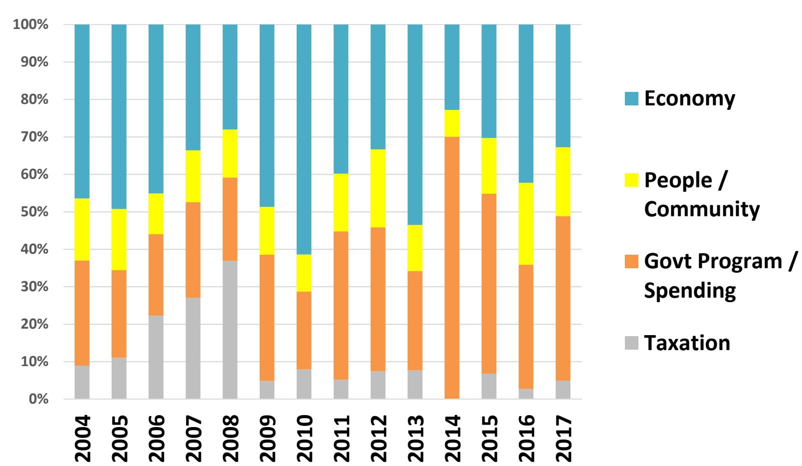

## Budget 2016
## Partnering for the Future

## Budget 2017
## Moving Forward Together






## Fiscal Policy Targets: 2004 to 2017




**Source: Author's calculations based on the top 20 most frequent words mentioned in the Budget Statements**

## BUDGET 2011: GROWING INCOMES FOR ALL SINGAPOREAN DOES ECONOMIC TIDE LIFT ALL BOATS?



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## Growing incomes for all key to inclusive fiscal policy

"we must **grow incomes for all Singaporeans.** We aim to raise incomes by 30% in real terms over this decade."

Mr Tharman Shanmugaratnam, Minister for Finance
Singapore Budget Statement 2011

"Growing incomes for everyone, especially lower-paid workers, is the first priority when thinking of how fiscal policy can promote innovation and growth while favouring an equitable society"

Deputy Prime Minister Tharman Shanmugaratnam
G20 High Level Symposium, July 2015



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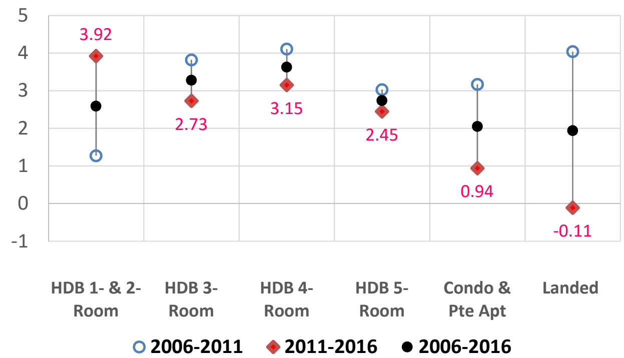
## How close is Singapore to achieving the target of 30% real income growth over this decade?

**Annualized change in real household income (by housing type), 2006-2016**

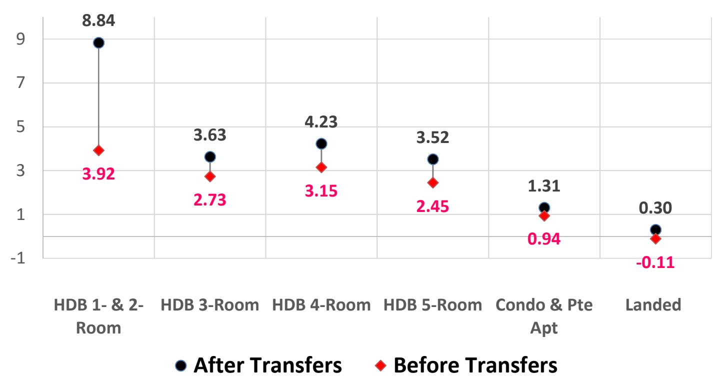



Sustained rise in real income growth rates for Singaporeans living in 4-room and smaller HDB flats. Since the majority of Singaporeans reside in HDB flats, majority of the Singaporeans experienced sustained income growth since Budget 2011.





## Annualized real income growth rates (before and after transfer incomes), 2011 to 2016




Two schemes significantly boost real income of poorer households:
Workfare Income Supplement (WIS) scheme and the Wage Credit Scheme (WCS).

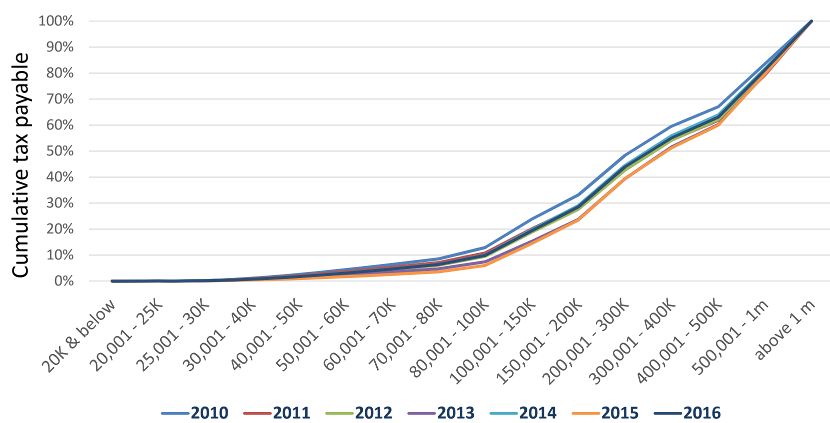
With government transfers, 80% of the households are on track to achieving 30% real income growth.

## TAX PROGRESSIVITY





## Progressivity of personal income tax, 2010 -2016




Source: Author's calculations

Richest Decile contribute between 77% to 81% of the total tax takings in Singapore, compared to OECD average of 32%.

## BUDGET 2014: PIONEER GENERATION FUND PRE-FUNDING SOCIAL PROTECTION





## Fiscal Prudence, Reserves and Overall Balance

- Accumulation of Fiscal Surpluses Through Fiscal Discipline
- Reserves serve as a strategic asset in times of "rainy days". It enables the Government to respond more timely and effectively in times of crisis
- long-term view on public finance in anticipation of an ageing population.
- reserves are endowment funds.
- Returns from fund investments will help to provide a stream of income for the government budget and can be spent or invested for the benefit of current as well as future generations.

## Benefits of prefunding

- Reduces the need to increases taxes
- need not draw down past reserves to finance the pioneers' healthcare expenditure as long as the Pioneer Generation Fund, including the initial capital and subsequent returns, is able to support the subsidies to the pioneers
- Fund is sustainable if health inflation is lower than returns to fund.
- Reduce fiscal burden of the Government and make sure the past reserves are reserved for use in critical times such as the Global Financial Crisis.
- Avoid inter-generational inequity

- young needs not carry the burden to pay for the premiums and healthcare expenditure of the old





## Sustainability of Pioneer Generation Fund

- Sustainability depends on returns, which is subject to global economic conditions.
  - As demonstrated, in the case of low annualized returns, the fund becomes unsustainable.
  - Sustainability of the Pioneer Generation Fund ultimately relies on short-term returns which is subject to global market fluctuation, if we assume that each year's fund balance is to be reinvested in the following year.
- Sustainability is discounted by the unpredictability of health inflation due to emerging medical technologies and their availability in the market, as well as prolonged longevity.
  - in the case of high health inflation, the fund becomes unsustainable
  - volatility of health inflation.
- Uniquely Singapore
  - might not fiscally affordable for other countries
  - Small country, smaller population, smaller aged population in absolute numbers

## Concluding Remark: More Challenging Fiscal Situation

- Government spending looks set to outstrip revenue in the longer term
- have to grow its revenues through new taxes or raising tax rates over time
- “spent prudently, built up our reserves, and tapped on their returns judiciously”
- “Moving forward, the Government must remain disciplined and prudent in spending its reserves so that they remain a stable and sustainable source of revenue over the long term”

Finance Minister Heng Swee Keat
Budget 2017





# THANK YOU!