Demographic Change and the Economic Lifecycle Deficit for Malaysia

Sharifah A. Haron, Tengku Aizan Hamid, Maliki Achmad, Jariah Masud, M. Sofi Ali & Alim Jihen
Institute of Gerontology, UPM; BAPPENAS, Indonesia; DOSM, MOF
Email: sh.azizah@upm.edu.my

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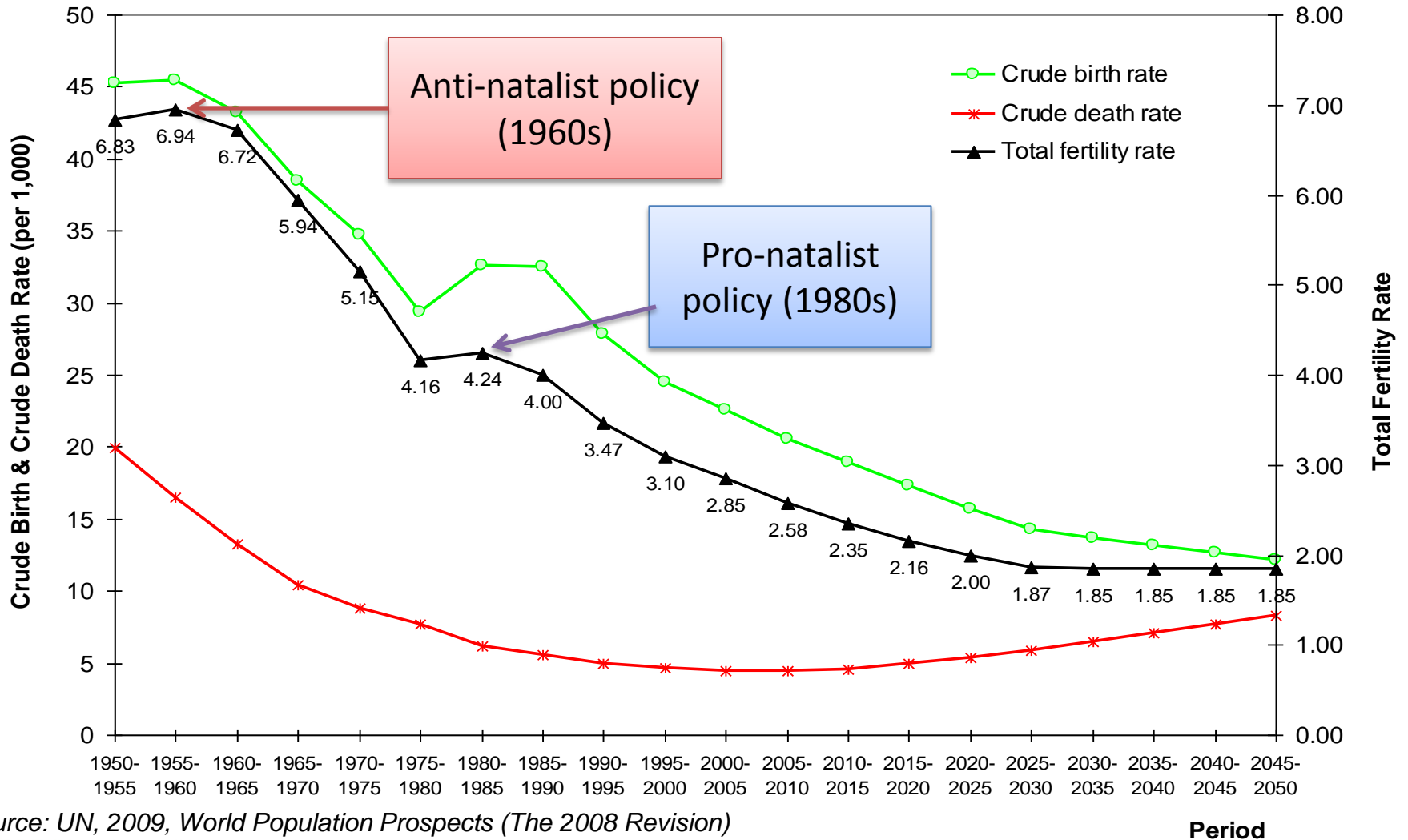
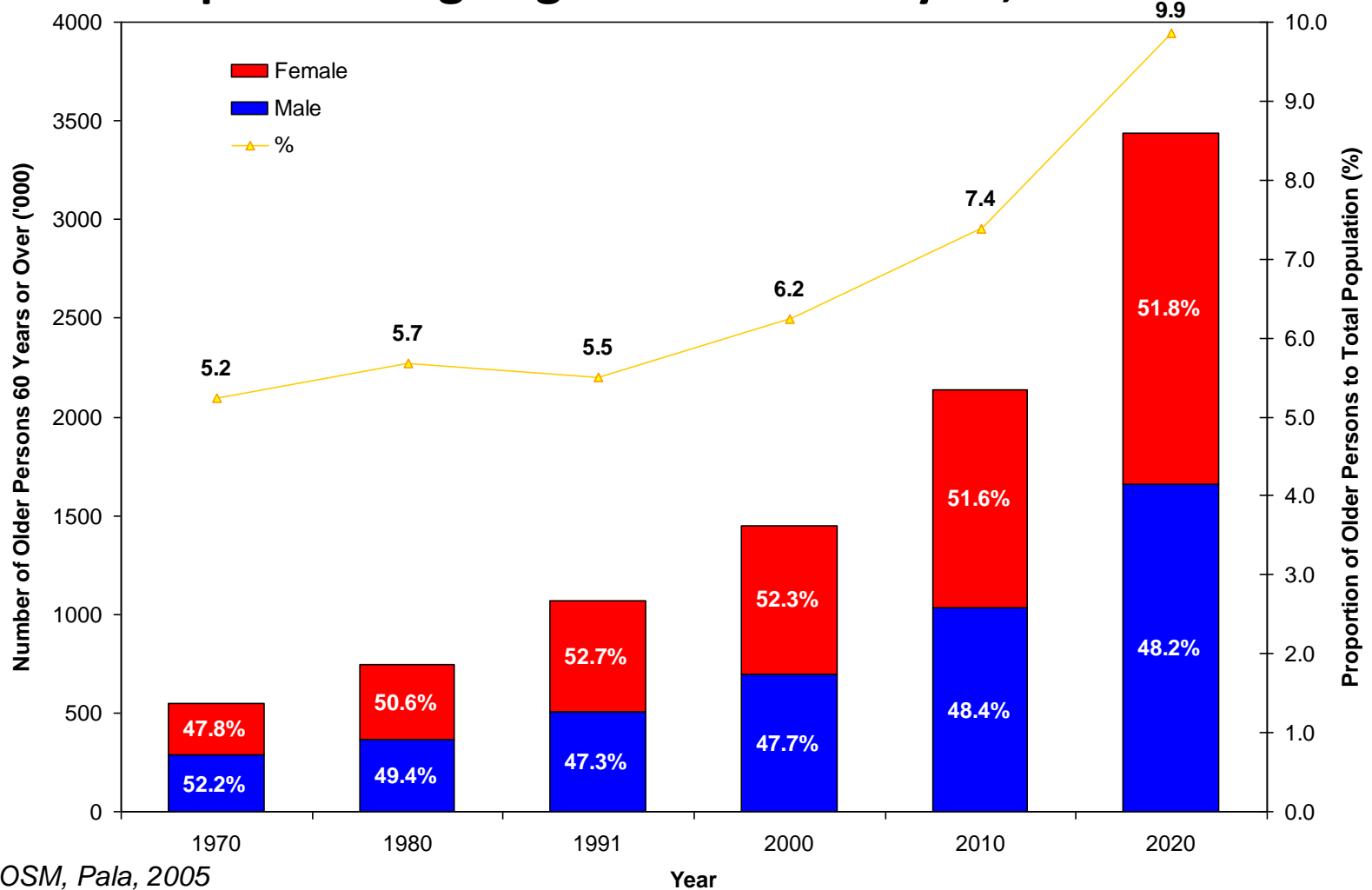*Source: UN, 2009, World Population Prospects (The 2008 Revision)*

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MALAYSIAN DEMOGRAPHIC PATTERNS

TFR, Median Age and Life Expectancy for Malaysia, 1970–2050

Year	TFR (children per women)	Median age (yr)	Life expectancy at birth (yr)		Life expectancy at 60 (yr)	
			Male	Female	Male	Female
1970	5.94	17.5	57.8	61	-	1
1980	4.16	19.7	63.5	67.1	3.5	7.1
1990	4.00	21.5	67.5	71.6	7.5	11.6
2000	3.1	23.6	69.6	74.5	9.6	14.5
2010	2.58	26.3	72	76.7	12	16.7
2015	2.35	28.0	72.9	77.6	12.9	17.6
2050	1.85	36.3	77.8	82.4	17.8	22.4

Source: DOSM, various years; United Nation (2006; 2012)

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Population Ageing Trends in Malaysia, 1970 - 2020

Source: DOSM, Pala, 2005

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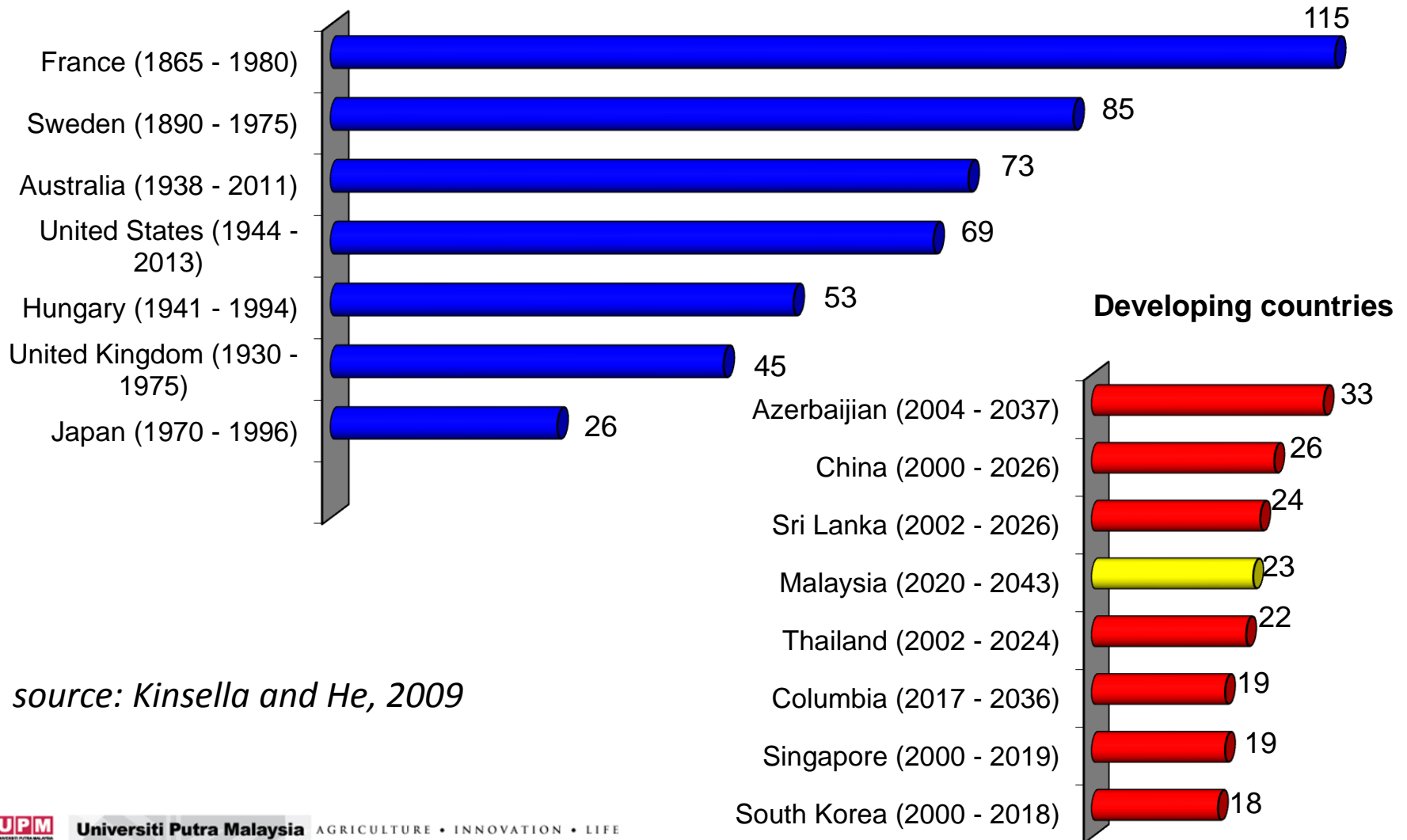## Age Composition of Malaysian Population, 1970 - 2050

Year	Number of Persons (million)				Percentage of total population		
	0-14	15-59	60+	Total	0-14	15-59	60+
1970	4.8	5.4	0.59	10.9	44.5	50.0	5.4
1980	5.5	7.6	0.76	13.9	39.9	54.6	5.5
1990	6.8	10.3	1.0	18.1	37.4	56.9	5.6
2000	8.0	14.0	1.45	23.5	34.1	59.8	6.2
2010	9.2	17.6	2.1	28.6	31.7	60.9	7.4
2015	8.2	19.0	2.8	30.0	27.3	63.4	9.3
2050	7.2	23.6	6.4	37.3	19.4	63.3	17.3

Source: DOSM, various years; United Nation (2006; 2012)

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The speed of Ageing

Developed countries

Country	Years
France (1865 - 1980)	115
Sweden (1890 - 1975)	85
Australia (1938 - 2011)	73
United States (1944 - 2013)	69
Hungary (1941 - 1994)	53
United Kingdom (1930 - 1975)	45
Japan (1970 - 1996)	26

source: Kinsella and He, 2009

Developing countries

Country	Years
Azerbaijian (2004 - 2037)	33
China (2000 - 2026)	26
Sri Lanka (2002 - 2026)	24
Malaysia (2020 - 2043)	23
Thailand (2002 - 2024)	22
Columbia (2017 - 2036)	19
Singapore (2000 - 2019)	19
South Korea (2000 - 2018)	18

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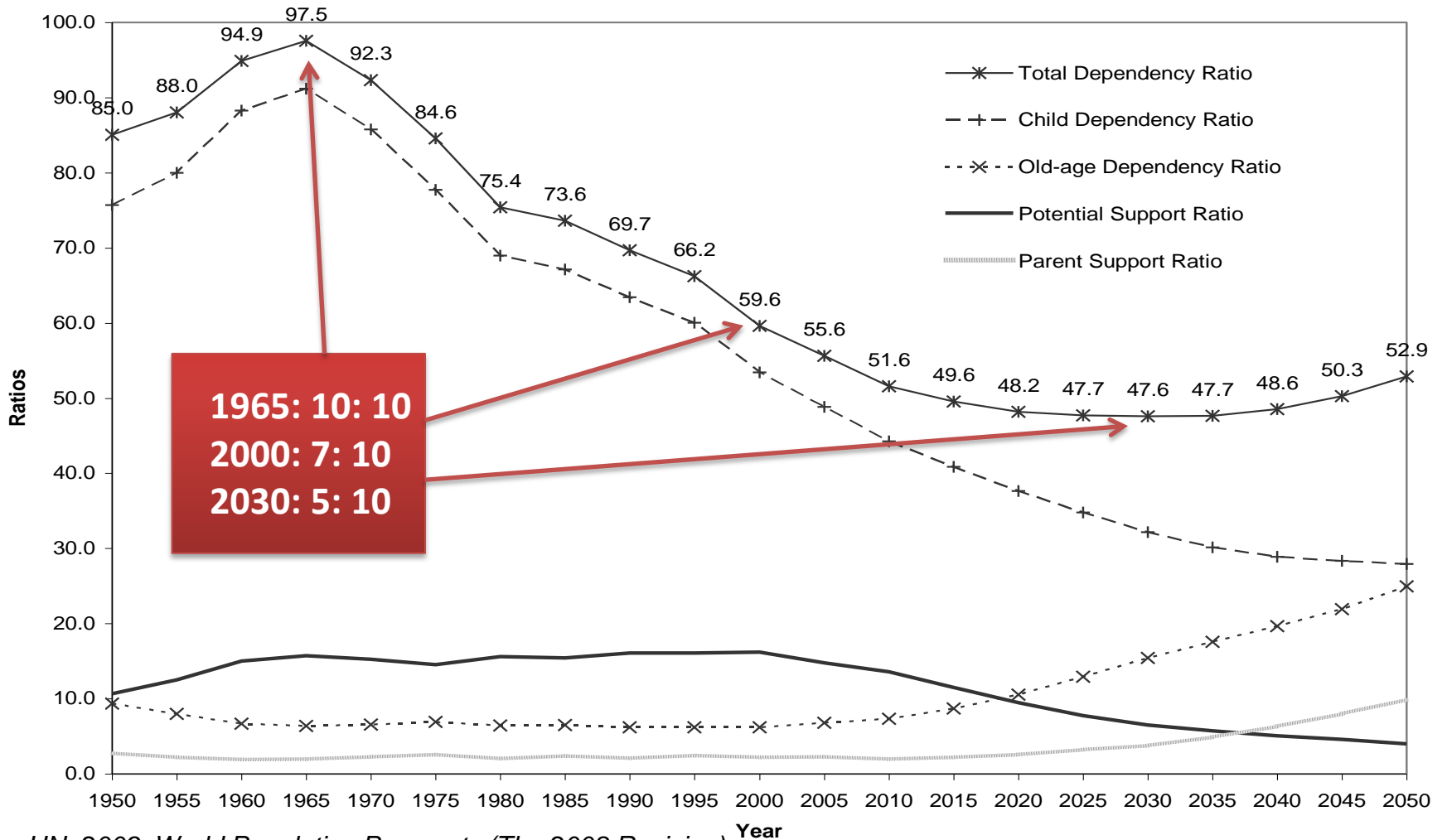
MALAYSIAN DEMOGRAPHIC PATTERNS

Dependency and support ratio, 1950 - 2050

Source: UN, 2009, World Population Prospects (The 2008 Revision)

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Age-Sex Pyramid for Malaysia, 1970, 2000, 2030
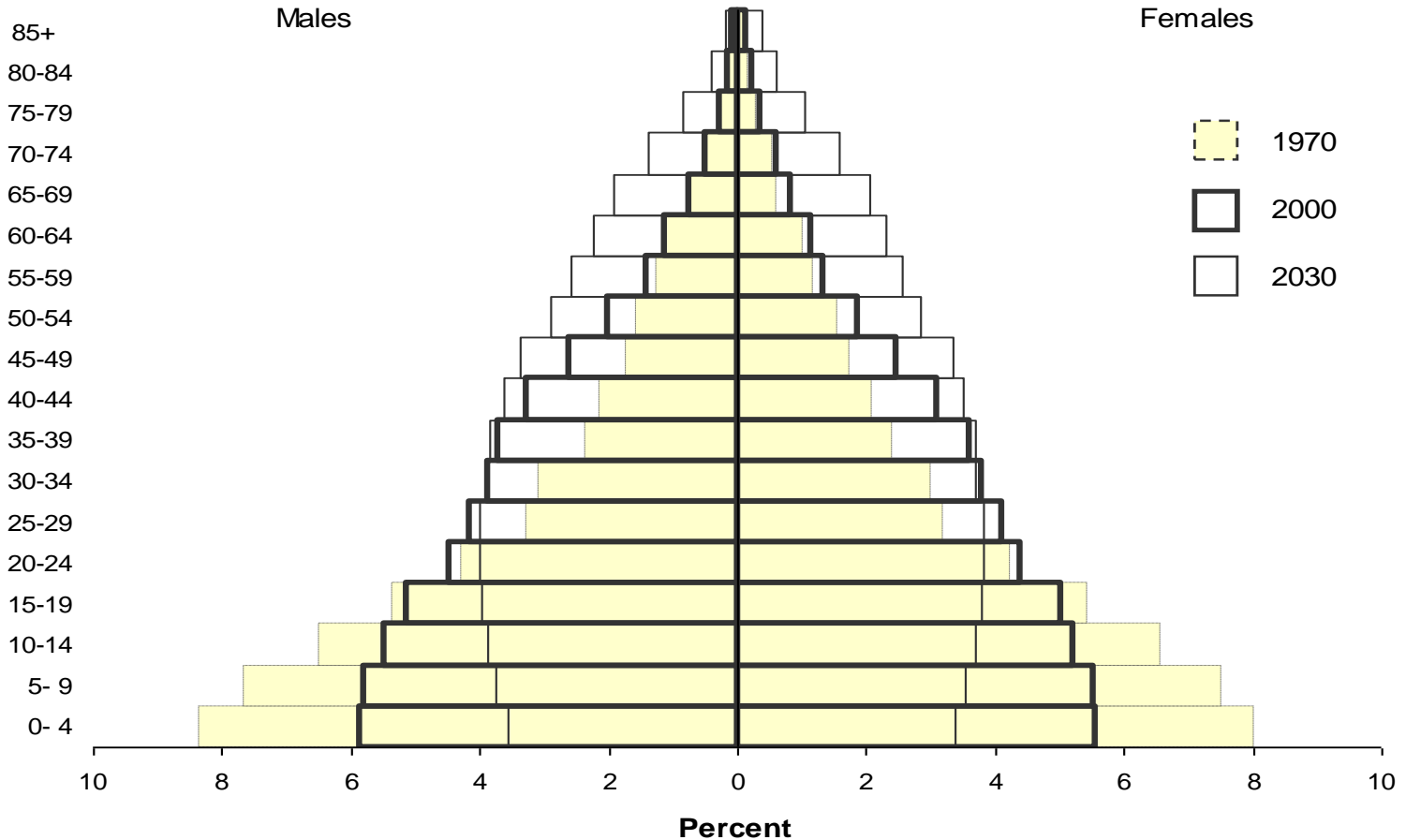
Source: UN, 2009, World Population Prospects (The 2008 Revision)

MALAYSIAN DEMOGRAPHIC PATTERNS

Size of labour force by age group, Malaysia, 1985–2012

Year	Total	15–19		20-59		60–64	
		No	%	No	%	No	%
1985	5,990.1	662.8	11.1	5,184.5	86.6	142.9	2.4
1990	7,000.2	748.4	10.7	6,084.6	86.9	167.1	2.4
1995	7,893.1	642.4	8.1	7,075.3	89.6	175.4	2.2
2000	9,556.1	637.6	6.7	8,704.2	91.1	214.5	2.2
2009	11,315.3	452.4	4.0	10,600.7	93.7	262.2	2.3
2010	12,303.9	528.4	4.3	11,491.6	93.4	284	2.3
2011	12,675.8	521.8	4.1	11,842	93.4	311.9	2.5
2012	13,119.6	519	4.0	12,248.8	93.4	351.8	2.7

Source: DOSM, various years; United Nation (2006; 2012)

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The Data:

| Household Expenditure Survey (HES) 2009	Household Income Survey (HIS) 2009
• A nationwide survey covering 21,641 private households in urban and rural areas • Information on income, expenditure and the debt burden • The expenditure data are reported at the **household level**	• Covered 184,447 individuals living in 43,026 households • Information on income and basic amenities • Income from employment and self-employment are reported at the **individual level**

- Used the National Income Account data for 2009 to calculate public consumption and macro control

- Used household surveys (HES and HIS) and administrative records from the Ministry of Education and Health to estimate per capita age profiles

- Per capita age profiles are estimates of per capita values by single year of age (0-94+)

- All consumption (private and public) and labor production can be assigned to individuals

FINDINGS AND IMPLICATIONS

## Per capita consumption profiles for Malaysia, 2009
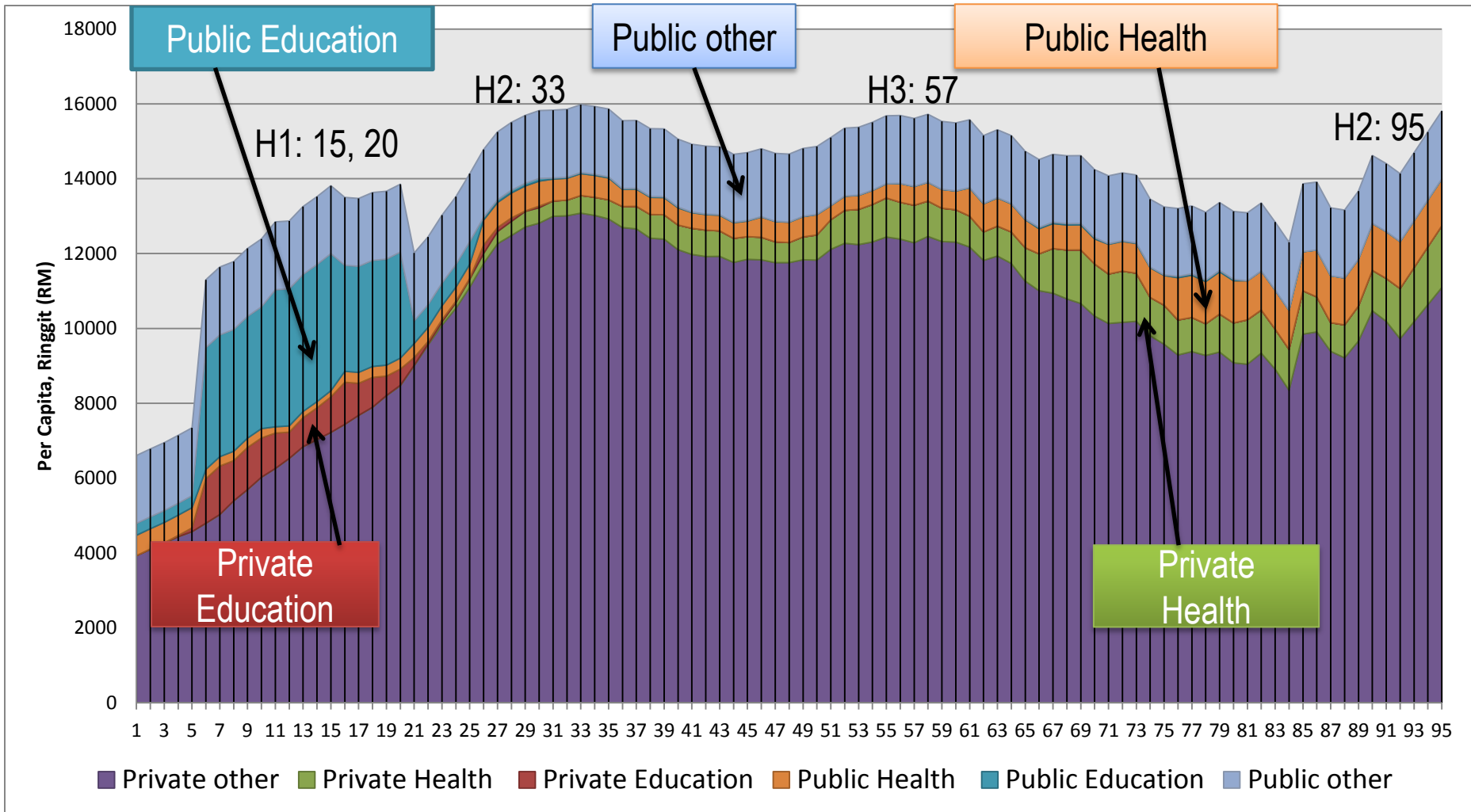
The Consumption profile

- Public consumption is significantly higher at young (education) and old (health) age

- The contribution of private health and education is small, so the age profile of private consumption is driven by its "other" component, i.e., especially during adulthood

- The total consumption profile for Malaysia shows a special feature, i.e., it has **four humps** at different ages: (1) adolescents, (2) young adults, (3) near elderly and (4) elderly

FINDINGS AND IMPLICATIONS

- **First hump:** Primary school age up to adolescence (peak at 15 and 20)
  - Mostly due to educational cost
  - Malaysia has allocated a significant amount of budget to education with Malaysian children receiving free education from primary up to high school; therefore, public consumption is especially high during the school ages of 6 through 19 or 20
- **Second hump:** Age 21 to 44 (peak at 33 years old)
  - High private consumption in this age group may be attributed to lifestyle-related expenditure such as recreation
- **Third hump:** From mid-50s to early 80s (peak at 57)
  - High private consumption may be due to cultural expenditures such financing children's weddings; public and private consumption on health start to increase at this stage
- **Fourth hump:** Starting in the 80s (peak at 95)
  - May be due to health costs

FINDINGS AND IMPLICATIONS

## Per capita labour income for Malaysia, 2009
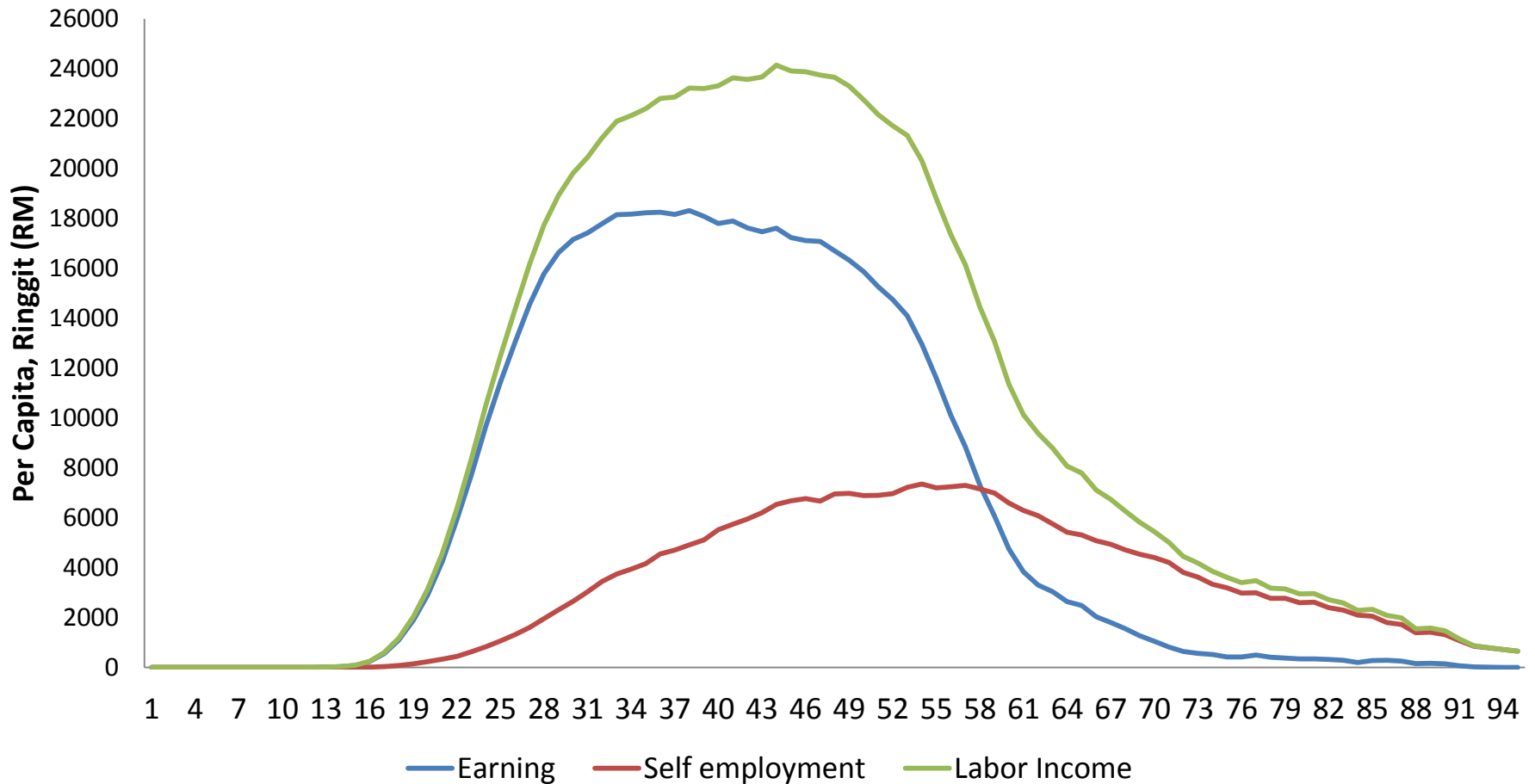
## The Income profile

- Has four phases, with:
    1. A sharp increase between age 19–33
    2. Slow growth with a peak at age 44
    3. A sharp decline until around age 61
    4. A gradual decline until around age 90

- A small proportion of total lifecycle income earned by persons under age 20 (1.4%) and at age 60 and above (4.38%)

- Very small portion of elderly who are employed continue working after age 70

    - The self-employed continued to work even after age 70

    - Many shift from wage-based to self-employment upon retirement: Self-employment peaks at around age 57

The most important graph for Malaysia, 2009

Legend: Labor Income, Consumption
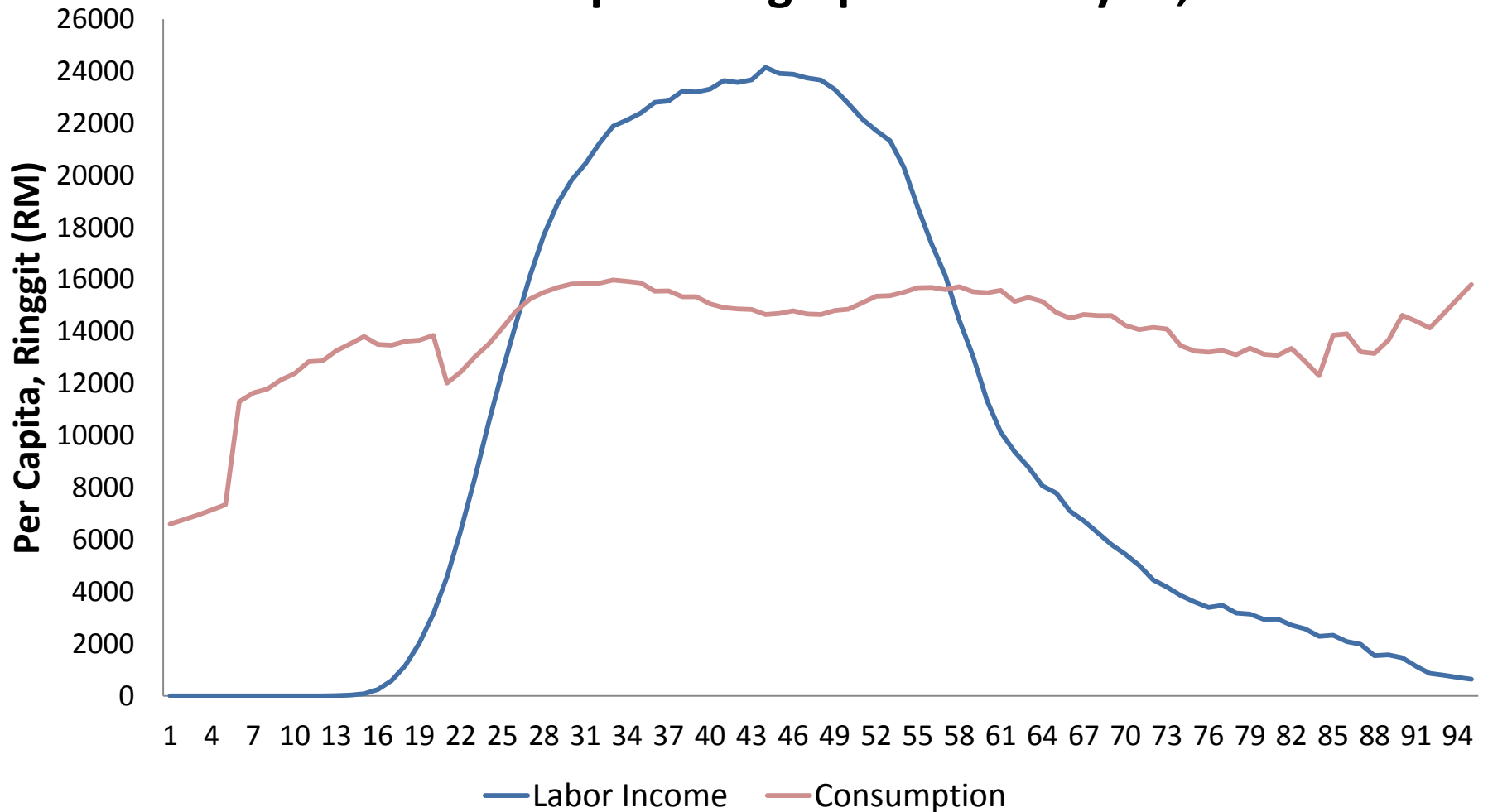
The Life Cycle Deficit for Malaysia, 2009
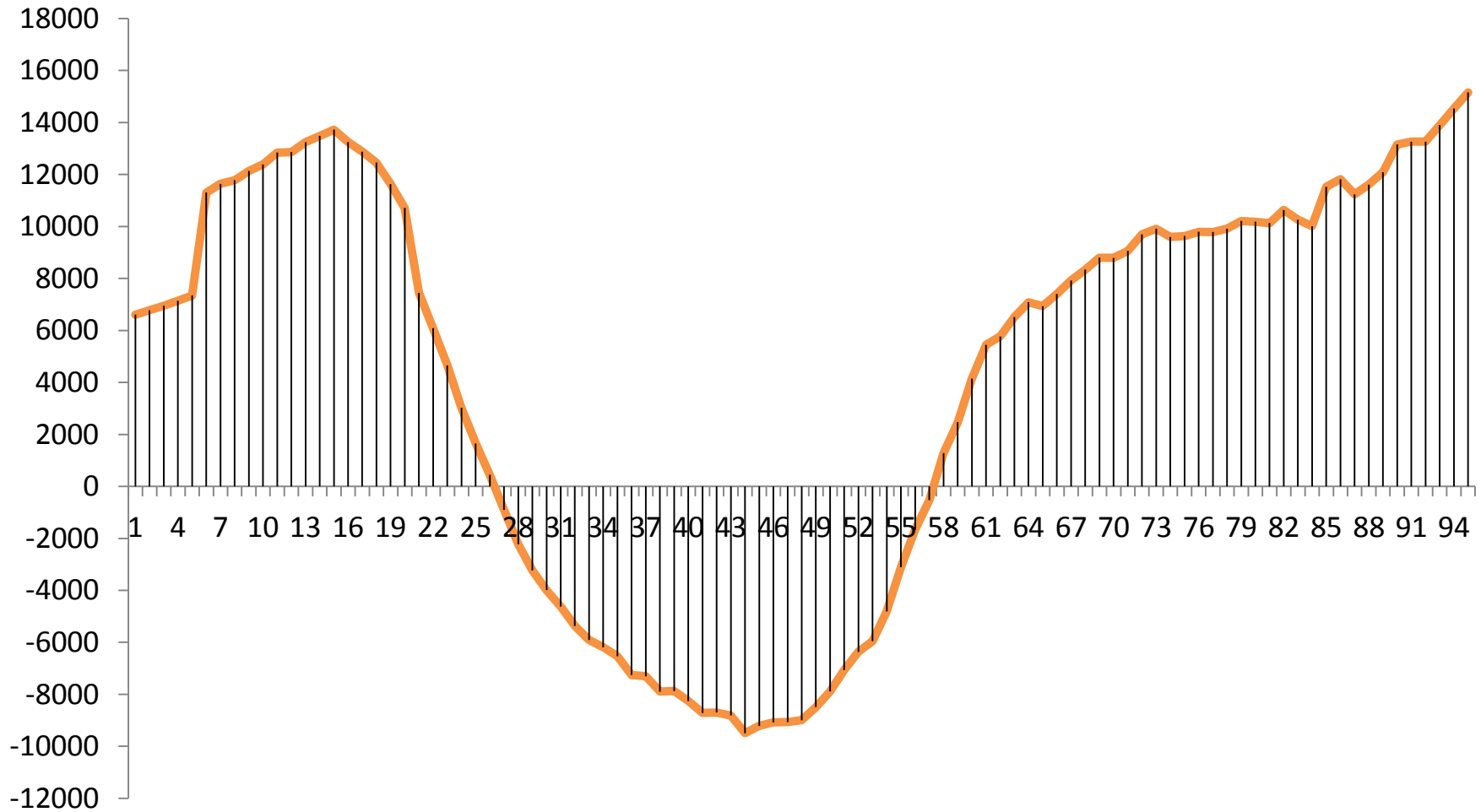
The lifecycle : Deficit

- Child dependency up to **age 26**

- Older person dependency starts at **age 57**

- Those age 57 and older can change how they support their consumption using means other than their labor income

- The total deficit for 2009 is RM410,249.83, to be financed either by asset reallocation and/ or familial or public transfers

The lifecycle : Deficit

- The most critical issues for financing the lifecycle deficit:

  - How intertemporal reallocation can benefit the economy with good investments

  - How public transfers can provide an efficient reallocation system from taxes to government services that can suport the development of human capital, reducing poverty and inequality

  - Private transfers from families are critical, especially if there is no other means for the elderly to finance their consumption

The lifecycle : Surplus

- A productive/surplus period of **31 years** (from age 26 to 57)

  - The average duration of education is long, and a high number of persons age 55 and above are outside the labour force

- The retirement age was recently extended to age 60, so the lifetime income for wealth accumulation can be improved

- But EPF fears that many Malaysians in retirement will be in poverty due to insufficient saving (*The Malay Mail*, 5 October 2014), mainly due to

  - Premature withdrawal for housing, health and education

  - The relatively low income of employees, which affects how much they can save for old age

The lifecycle : Surplus

- The Government is well aware if this issue and has developed several programmes to improve saving for old age

  - The **Private Retirement Scheme** is a new initiative to promote voluntary saving for old age

  - The Government has also created **1Malaysia Retirement Scheme** for self-employed workers to save with the EPF and the government contributing RM 60 to investors

CONCLUSIONS AND WAY FORWARD

- The Malaysian Government is heavily investing in its people through public expenditure on health and education; there are universal health programmes and free education for all Malaysians up to high school

- Malaysian consumers are spending heavily on other consumption, especially on housing, most likely driven by the rising cost of living and housing prices

- The amount of surplus may indicate that Malaysians are not saving very much; this raises the following concerns:

  - Whether Malaysians are making bad financial decisions and not preparing for retirement, suggesting the need to intensify financial education programmes for all ages

  - Whether efforts to capture the second demographic dividend are sufficient

  - Whether current levels of public expenditure on health and education are sustainable

  - Whether the current social protection system is adequate and effective

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