

MEGATRENDS

Kick-Off Conference | RMK 12

July 01 2019



Unprecedented global trends impact us all

Future 2020-2035



62

RICHEST PEOPLE

in the world owns
50% of global wealth



1 IN 3

of Gen Y children will
live to 100 years



3 IN 4

people have no
social protection



1 IN 25

people in the world are
refugees / immigrants



1 IN 2

jobs today will
disappear



1 IN 2

jobs will be replaced
by robots



1 IN 6

people today are
elderly people



1 IN 5

organisations have to
deal with cyber attacks

Underpinned by two mega forces

DEMOGRAPHIC SHIFT

- ▶ Longevity, ageing societies
- ▶ Increasing Gen Y and Z into the workforce
- ▶ Rapid urbanisation
- ▶ Changing nature of work
- ▶ Middle class in emerging markets

Aged Population

>56%
of 8 billion world population are above 65

Middle Income

3.2 billion
of world population are middle income consumers

Urbanization

>20%
of world population live in megacities

Aged Population

>10%
of Malaysians are above 65

Middle Income

8.2 million
of Malaysians are middle income consumers

Urbanization

>55%
of Malaysians live in cities

Affecting how we view things

DIGITAL REVOLUTION

- ▶ Mobile internet, cloud technology
- ▶ Big data, processing power
- ▶ Internet of things
- ▶ Sharing economy, crowdsourcing
- ▶ Robotic, autonomous transport, AI

Artificial Intelligence

>47%
of jobs taken over by AI

Connected Devices

20 billion
of connected devices globally

IOT Solutions

\$656 billion
market size

Cloud Computing

\$241 billion
market size

Digital Data

3 Zetta byte
of digital data
(1 ZB = 1 trillion Gigabyte)

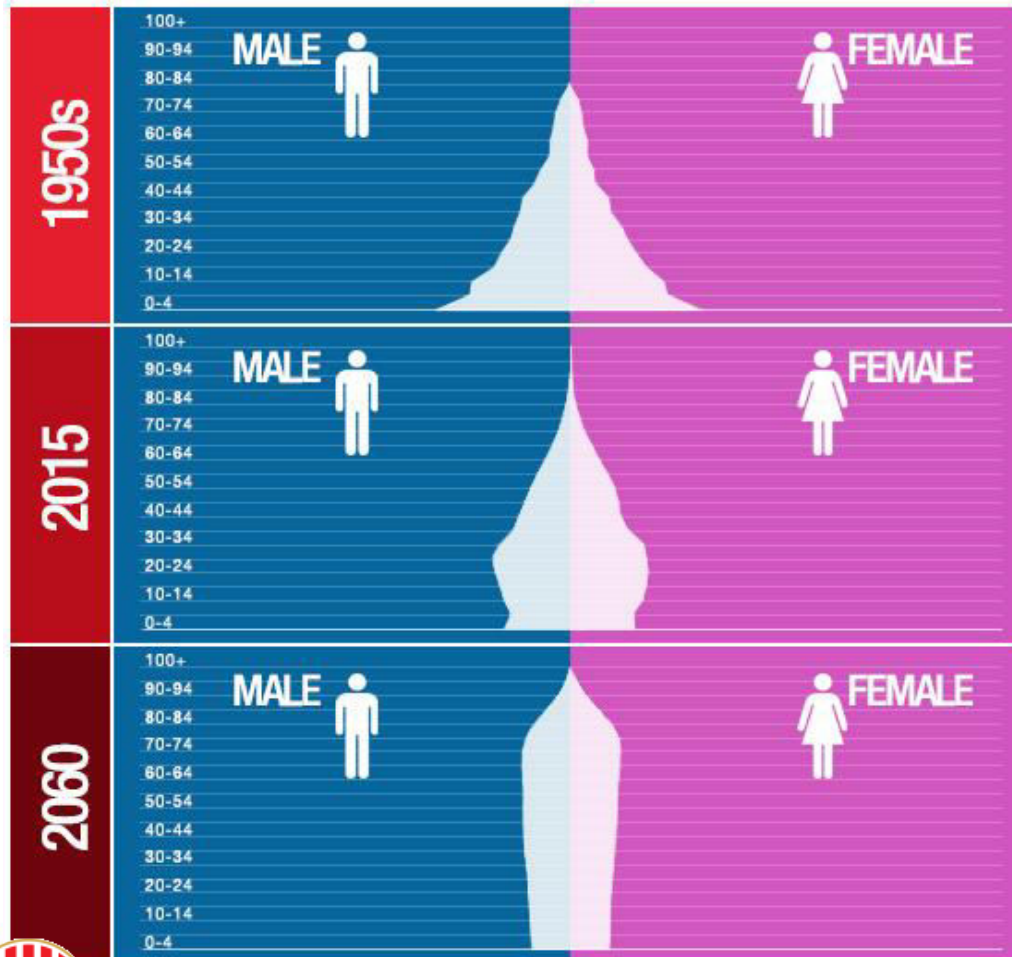
Robotic Technology

\$83 billion
market size

Affecting how we do things and live

People are living longer

But, the replacement rate is for productive population is reducing



Average Life Expectancy



Impact

LARGER elderly population	LESSER productive population	LESSER Tax payers
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LARGER Public expenditure



Technology disrupting industries, changing lives

The world's largest taxi company owns **zero** vehicles

\$63 Billion



The world's most popular media owner creates **zero** content

\$328 Billion



The world's most valuable retailer has **zero** inventory

\$268 Billion

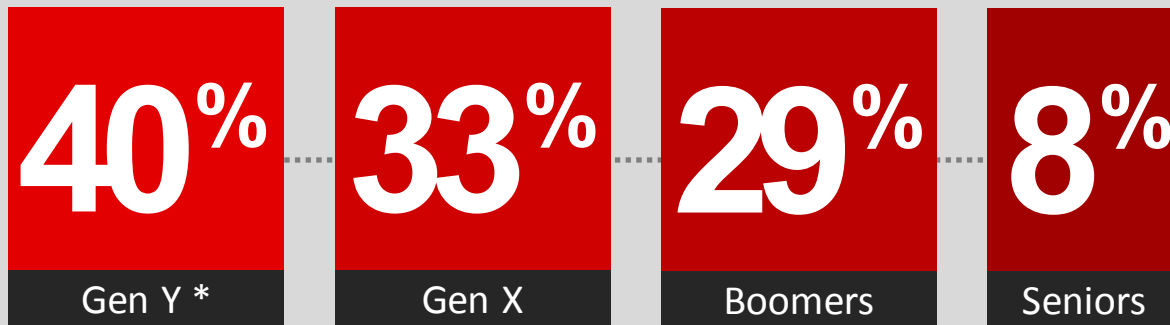


The world's largest accommodation provider owns **zero** real estate

\$26 Billion



Rise of freelance and "on demand" economy



*Adjusted and normalized figure for Gen Y whereby figure imputed include 20-30% of Gen Y under going education system has yet to enter workforce.

Contributing factors	
Control my schedule	61%
Have more flexibility	58%
Like being my own boss	54%
Do what I love	48%
Earn more income	38%

Large uncovered and under-covered group

Only a handful can live comfortably after retirement

Living comfortably after retirement

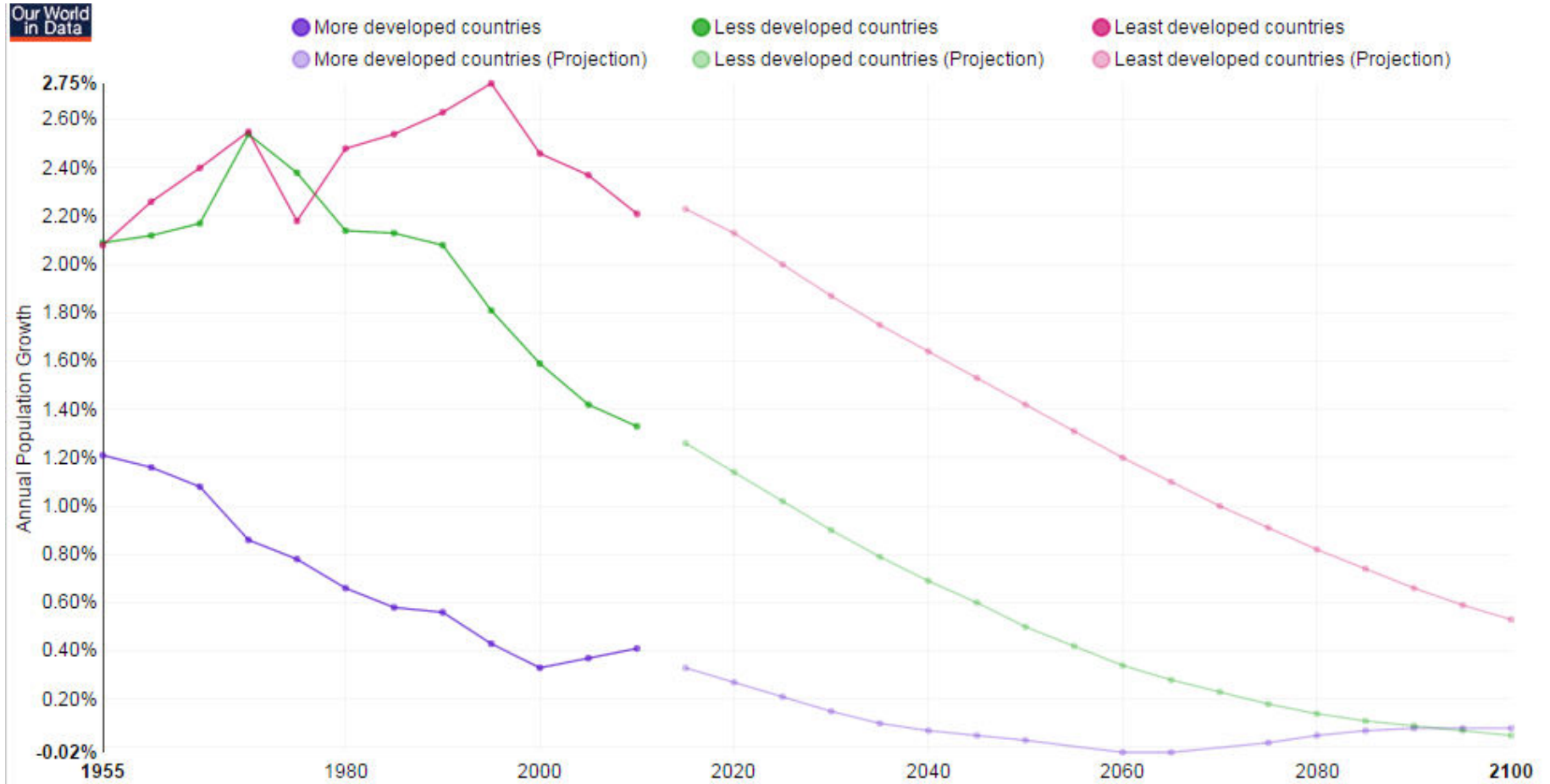
3 in 100

Excluding children and senior citizens



Remaining **97** will depend on social or other forms of assistance.

Demographic Realities

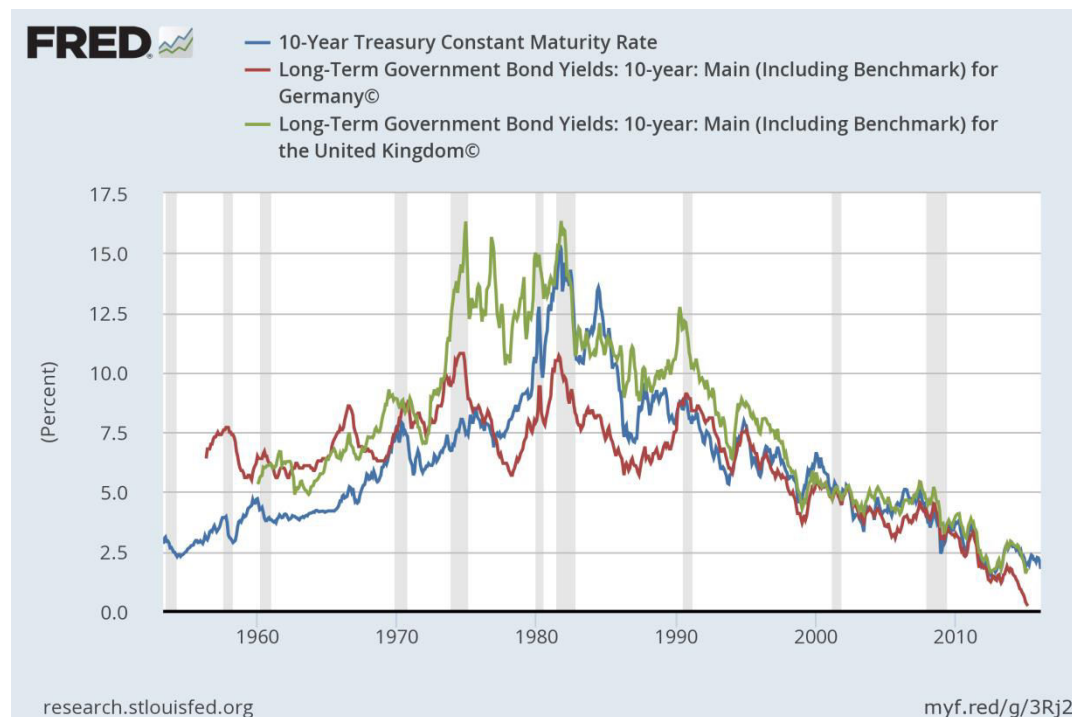


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 Data source: United Nations Population Division (projections show the 'medium variant')

Source: Our World In Data

Growth in the very long run

- Taking all three factors, growth potential is declining across the board:
 - Productivity growth and GDP positive innovation is slowing
 - Savings-investment gaps are rising
 - Demographic factors slowing or reducing labour force growth
- One relevant symptom: decline in interest rates ->
- Will the post-industrial age = the pre-industrial age?



Source: Federal Reserve Bank of St Louis



Some Implications

- In the very long run, global growth is likely to halve (productivity will be the only growth driver)
- Policy options are limited
- Premature de-industrialisation and automation will increase inequality
- Changing work force dynamics:
 - Greater part time work
 - Greater geographic dispersion
- Lifetime income hypothesis is wrong:
 - Uncertainty over life expectancy is driving up savings behaviour
 - Increasing life expectancy also driving up savings
- Real yields are likely to decline (amid greater volatility)
- Risks at any given level of return likely to increase
- Burden on fiscal policy and social protection systems also likely to increase



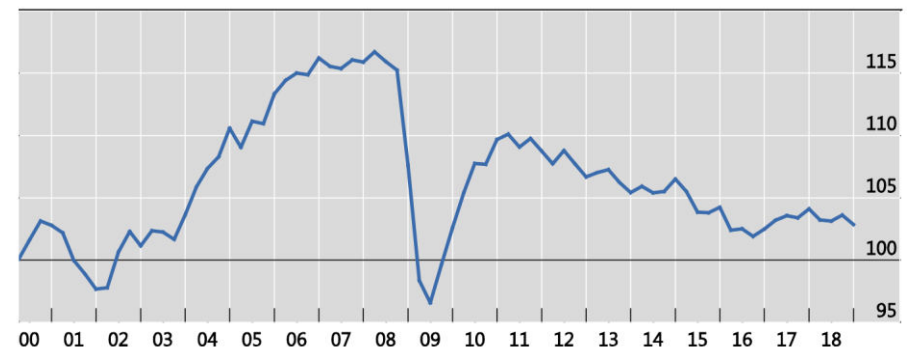
Globalisation and Trade

- Expansion of Global Value Chains (GVC) a major factor behind export growth model
- That appears to have peaked in 2007-2008
- Tech advance and protectionism a double whammy
- Wage convergence also a factor
- Result: increasing onshoring
- Implication: development window is closing; Mfg no longer generating jobs

Ratio of world goods exports to world GDP

In constant prices, Q1 2000 = 100

Graph 4

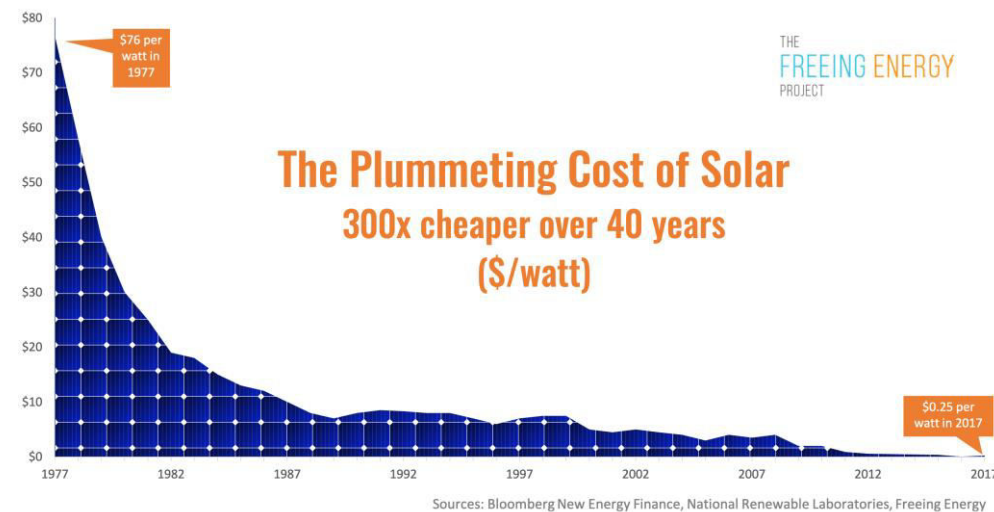


Source: Hyun Song Shim (2019)



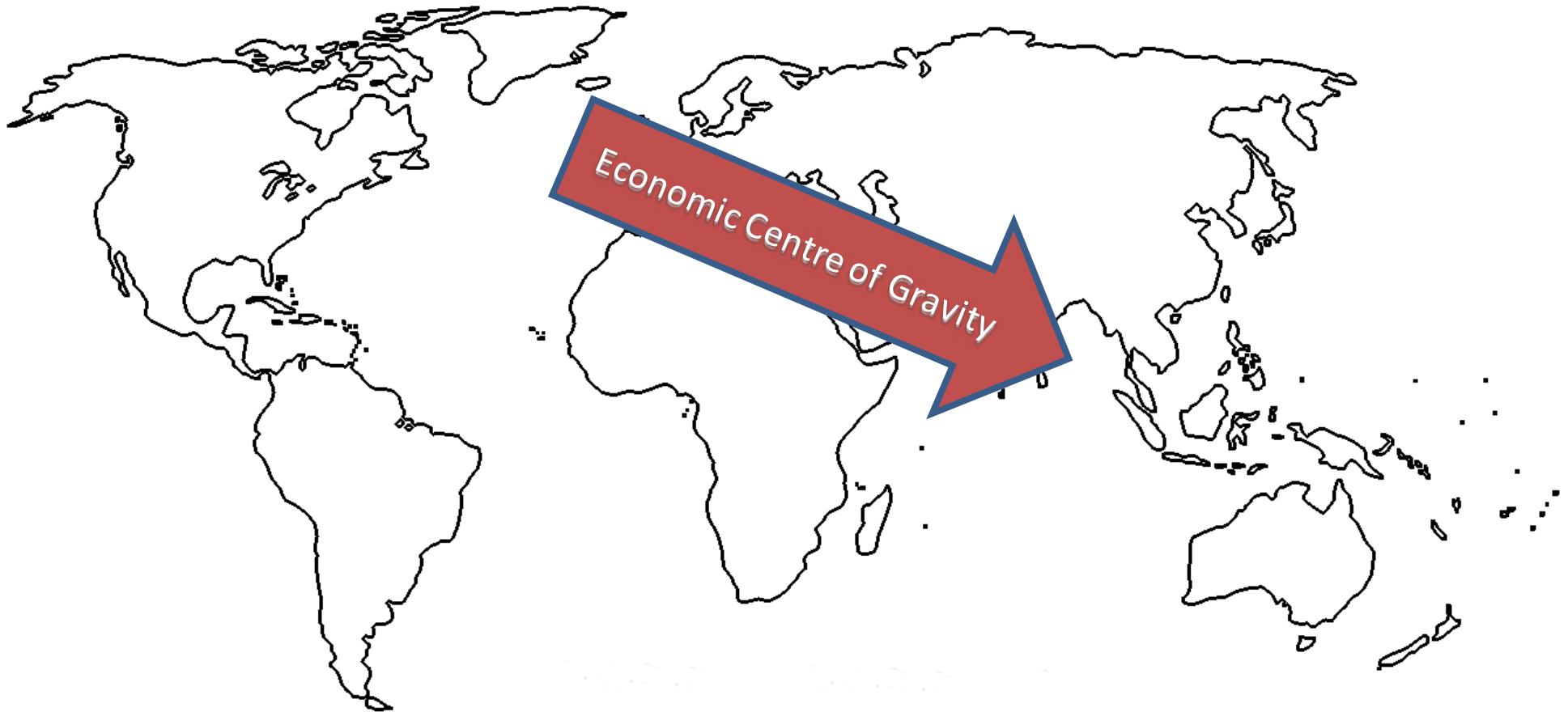
Disruption and resource obsolescence

- Prebisch-Singer Hypothesis— real prices of commodities are declining over time
- Evidence is that it applies mainly to non-food commodities
- Implication: reliance on natural resources implies declining real income over time, and depreciating FX
- Renewables poses different challenge— resource obsolescence
- For food, sustainability is the bigger issue



Source: Freeing Energy

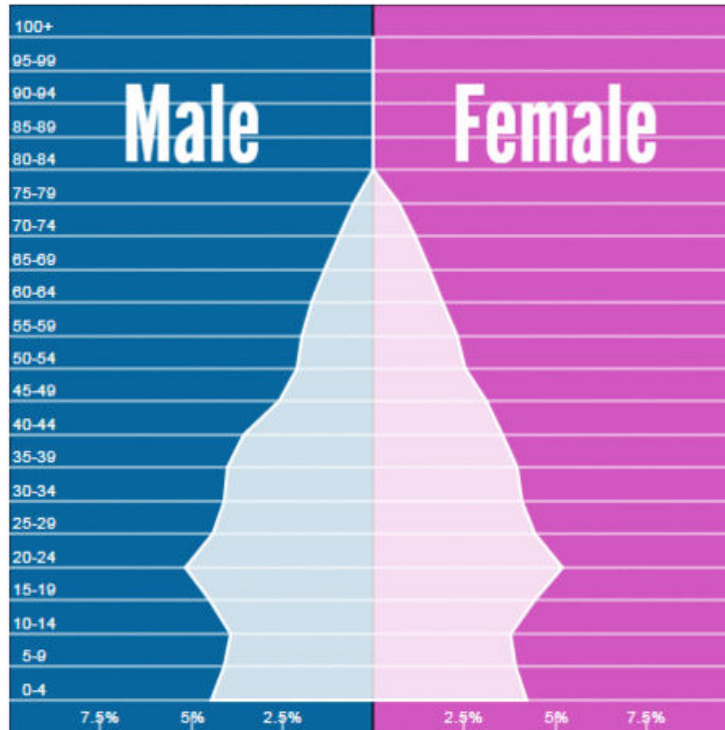
Single Superpower to Multipolar World



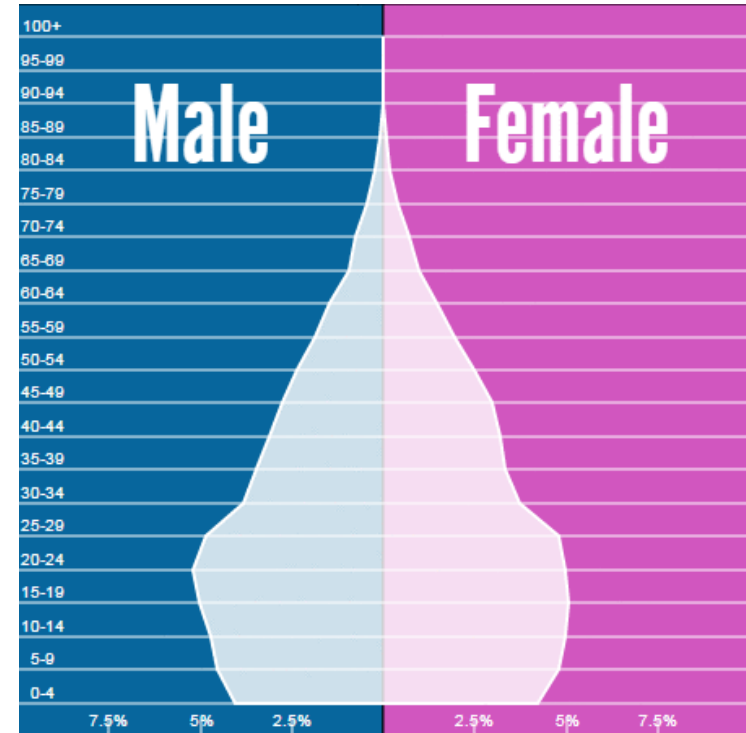
Malaysia By The Numbers



The Tree of Life



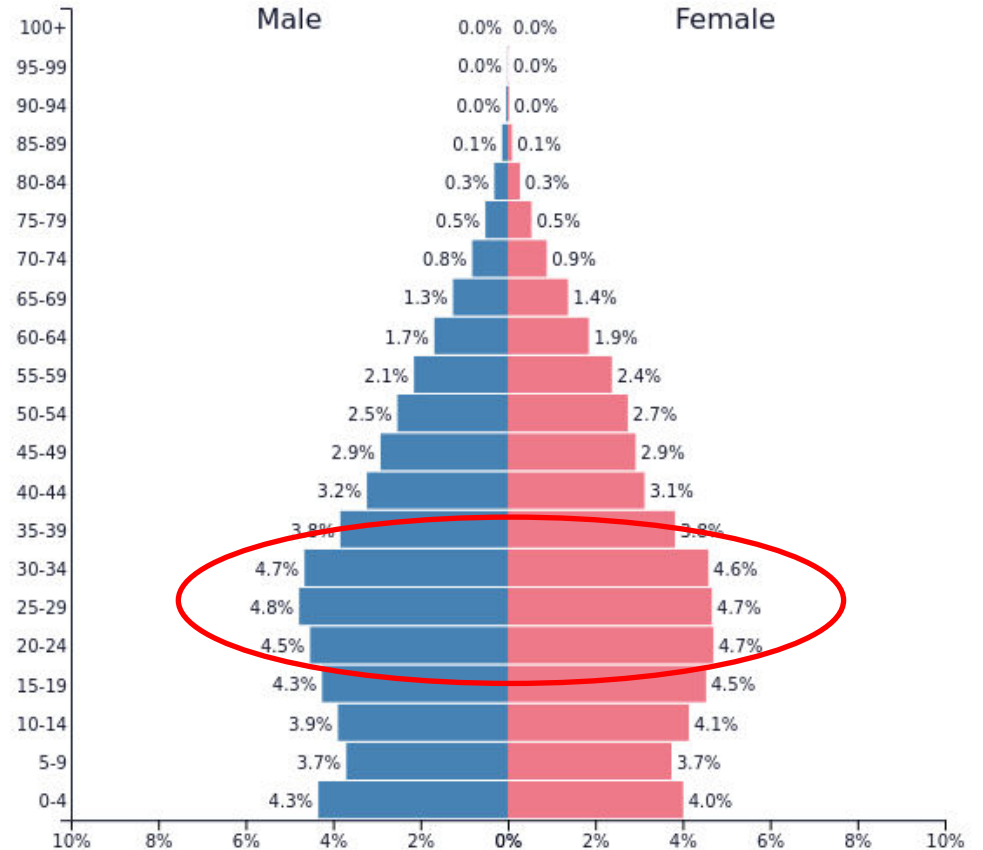
Japan 1970-2010



Malaysia 2010-2050

Population Aging:

1. Malaysia remains young, but is aging very rapidly
2. Boom generation now entering early-30s, peak age cohort at 25-29
3. Big factor in driving up house prices and graduate unemployment, lowering wage growth
4. Inter-generational mobility high, but intra-generational mobility is low
5. Potential pension/social crisis within 25 years
6. Gender education gap = potential for instability

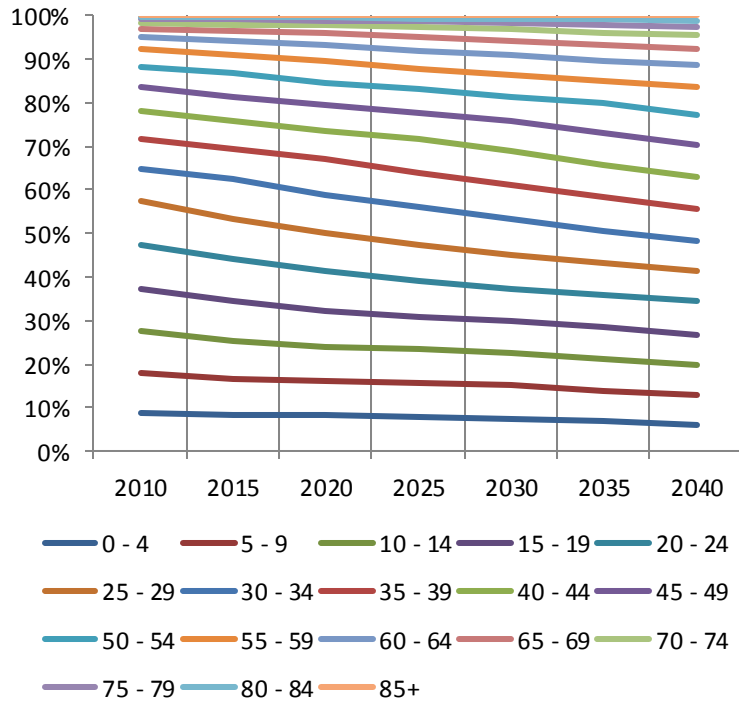


PopulationPyramid.net **Malaysia - 2017**
Population: **31,164,177**

Source: populationpyramid.net

Population Projection

Age Breakdown: 2010-2040



Population Growth: 2010-2040

Age	Year						
	2010	2015	2020	2025	2030	2035	2040
	Total						
Total		1.3%	1.3%	1.1%	1.0%	0.8%	0.6%
0 - 14		-0.2%	0.1%	0.6%	0.2%	-0.5%	-0.9%
15 - 24		-0.3%	-0.3%	-0.6%	-0.3%	0.8%	0.6%
25-34		2.5%	0.5%	-0.1%	-0.2%	-0.6%	-0.3%
35-44		1.6%	3.3%	2.6%	0.7%	0.1%	-0.1%
45-54		2.2%	1.5%	1.6%	3.4%	2.7%	0.9%
55-64		4.0%	3.5%	2.3%	1.7%	1.9%	3.7%
65+		4.5%	4.5%	4.4%	3.9%	3.1%	2.5%

Gender Disparities

Population ratio

107 Males : 100 Females

Tertiary Enrollment

100 Males : 132 Females

Labour Force Participation

80.6% Males : 54.1% Females

Wages

RM1 Males : RM0.75 Females

Households

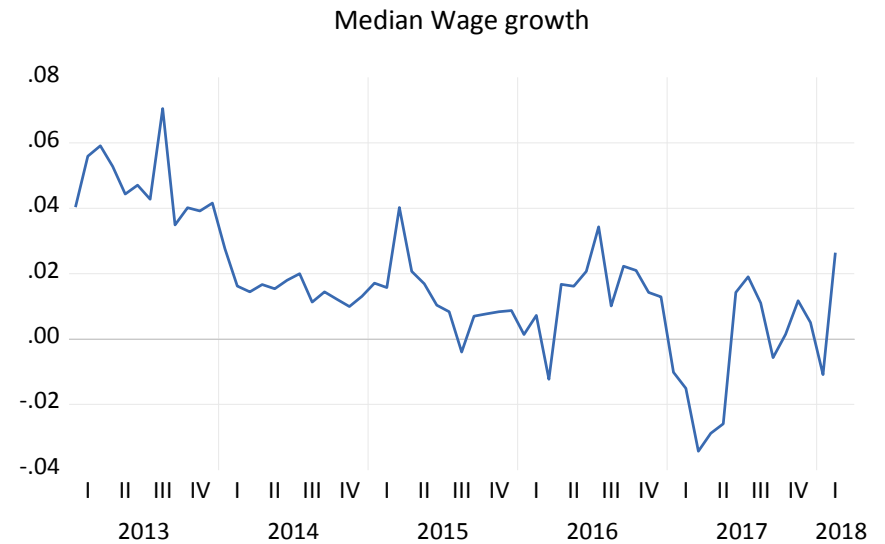
Size

	Household Size
1980	5.22
1991	4.92
2000	4.62
2010	4.31

Income

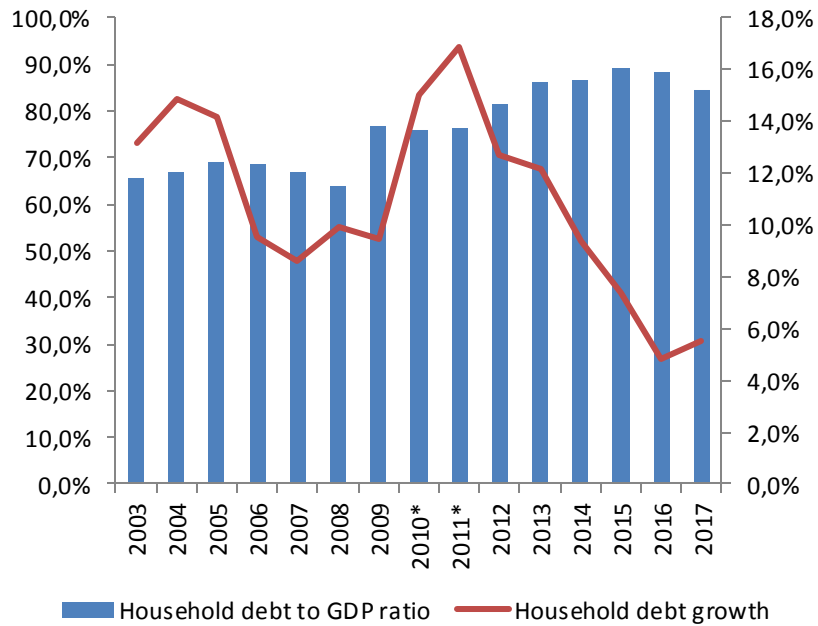
	Median income
2007	3,686
2009	4,025
2012	5,000
2014	6,141

Wages

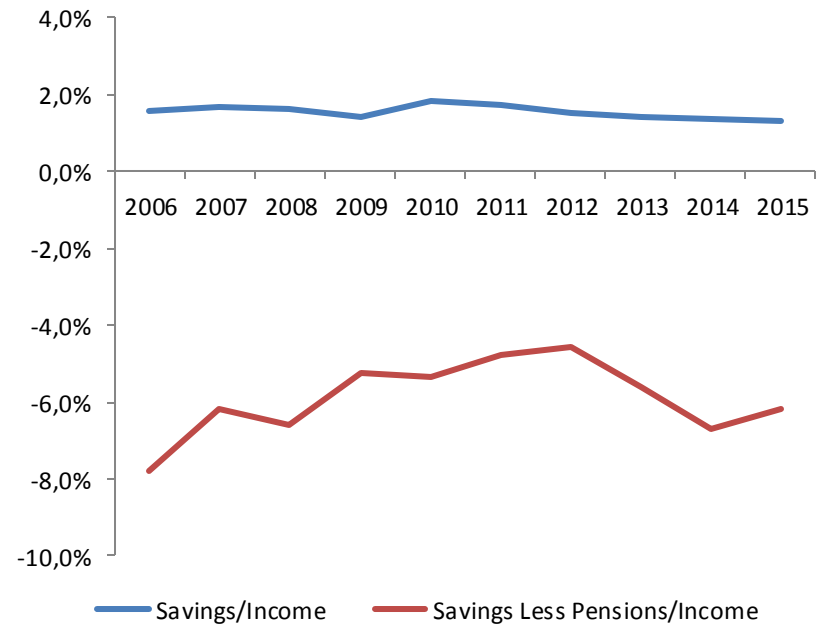


Households

Debt



Savings



Implications

- Housing
- Crime
- Gender issues
- Household composition
- Growth
- Social mobility
- Social cohesion
- Incomes
- Investment
- Savings



THANK YOU

