

Popular Ageing Myths Debunked:

**A sustainable future cannot be reached
through the pursuit of youthfulness**

Jane O'Sullivan

Symposium - Population and Ageing: Disaster or Triumph?

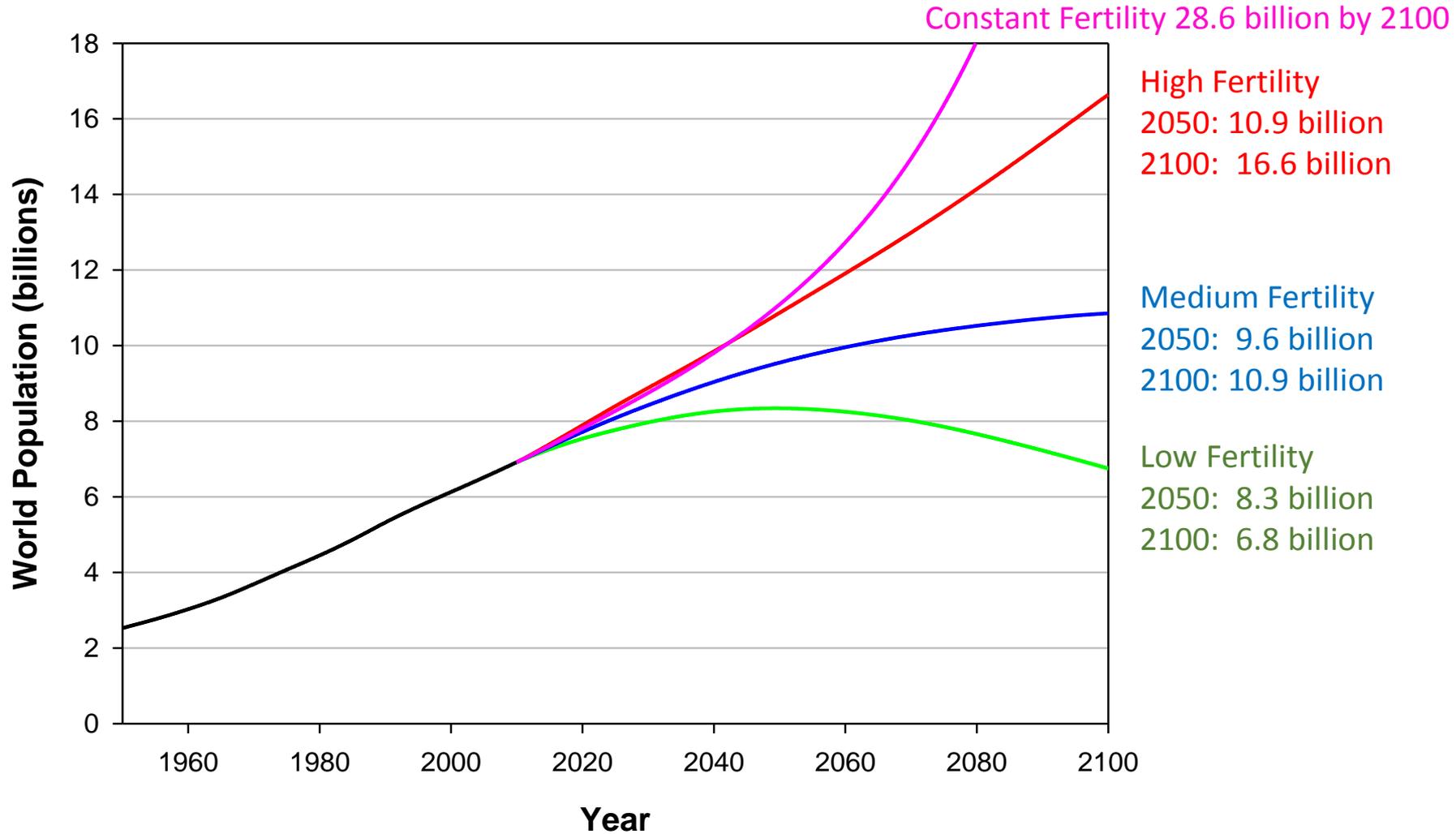
Sustainable Population Australia – 7 March 2015

Sustainability

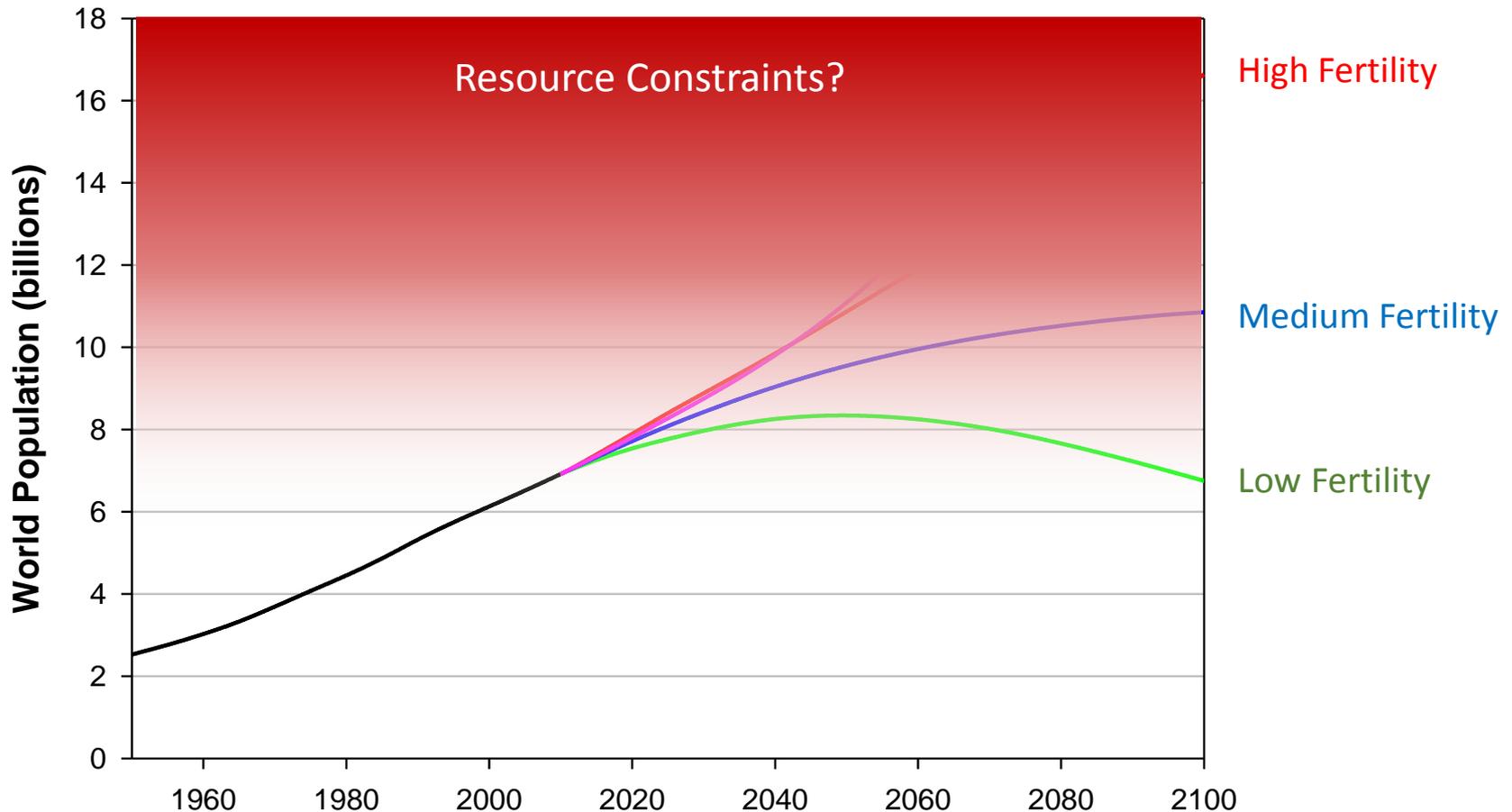
- The ability to leave future generations an environment that is no less wondrous, diverse, bountiful and benign than that we enjoy, and lives that are no less secure and fulfilling.
- **I = P.A.T** (Impact = Population x Affluence x Technology)
- Sustainability requires a population within the carrying capacity of its environment.
- Population growth is absolutely incompatible with a sustainable future.
- Population decline may be necessary or desirable to retreat from overshoot and restore ecological sustainability.

Stein's Law: *"If something cannot go on forever, it will stop."*

2012 UN Population Projections

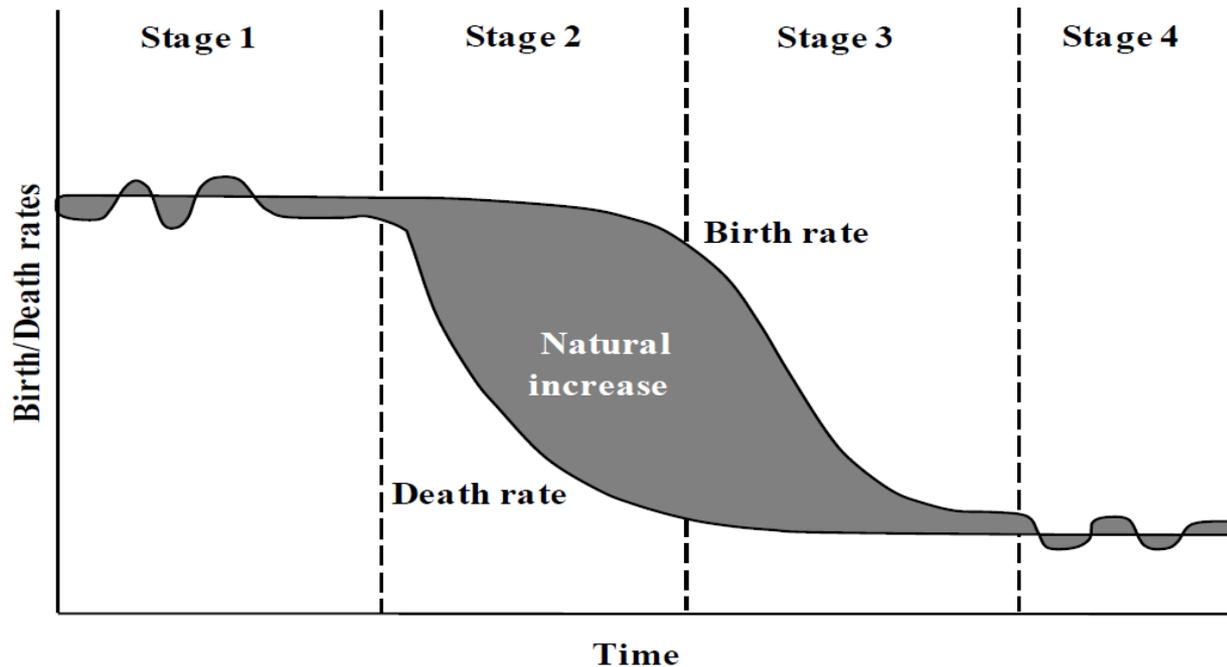


Projections are blind to carrying capacity



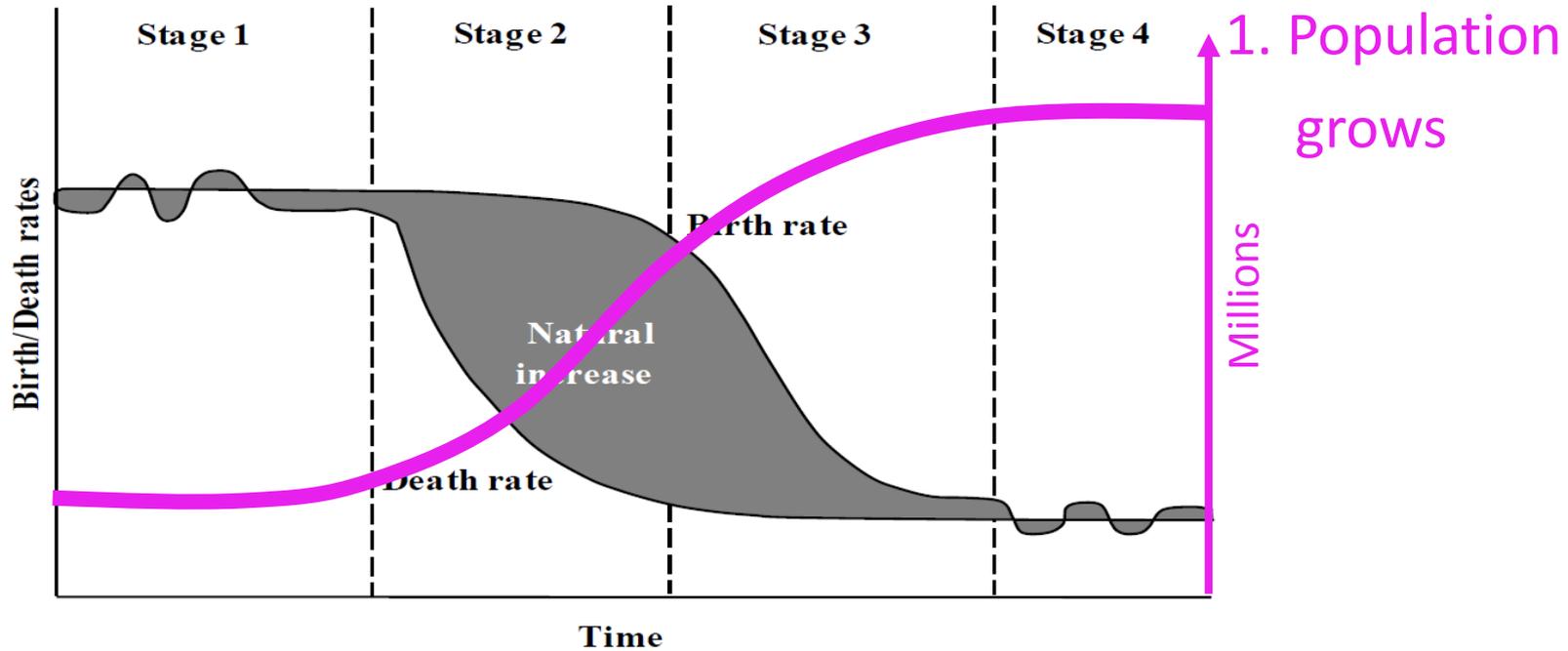
Joel Cohen “How Many People can the Earth Support”: 7-12 billion is “the zone”
“If most people would prefer a decline in birth rates to a rise in death rates, then they should take actions to support a decline in fertility while time remains to realize that choice.”

Demographic Transition

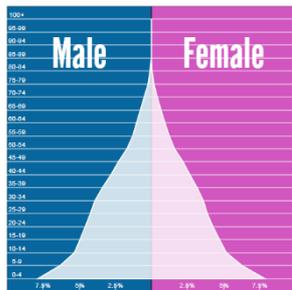


- The great triumph of the modern era: most people born will lead long and healthy lives.
- The fall in birth rates has lagged behind the fall in deaths. This results in population growth.
- Globally, we are in a protracted Stage 3.
- There is nothing inevitable about reaching Stage 4 – We have to make it happen.
- The risk is that resource limits will cause mortality to rise, before fertility has fallen sufficiently. We may return to Stage 1 – a brutal future.

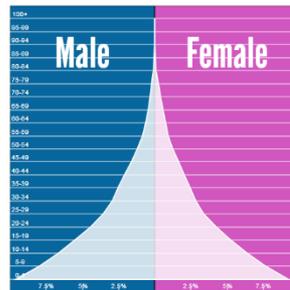
Implications of Demographic Transition



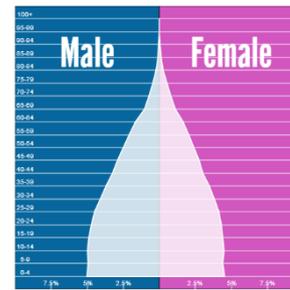
2. Age structure changes:



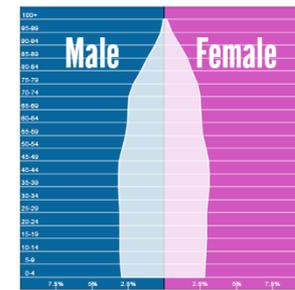
Mali 1950



Mali 2015



India 2015



Australia 2060?

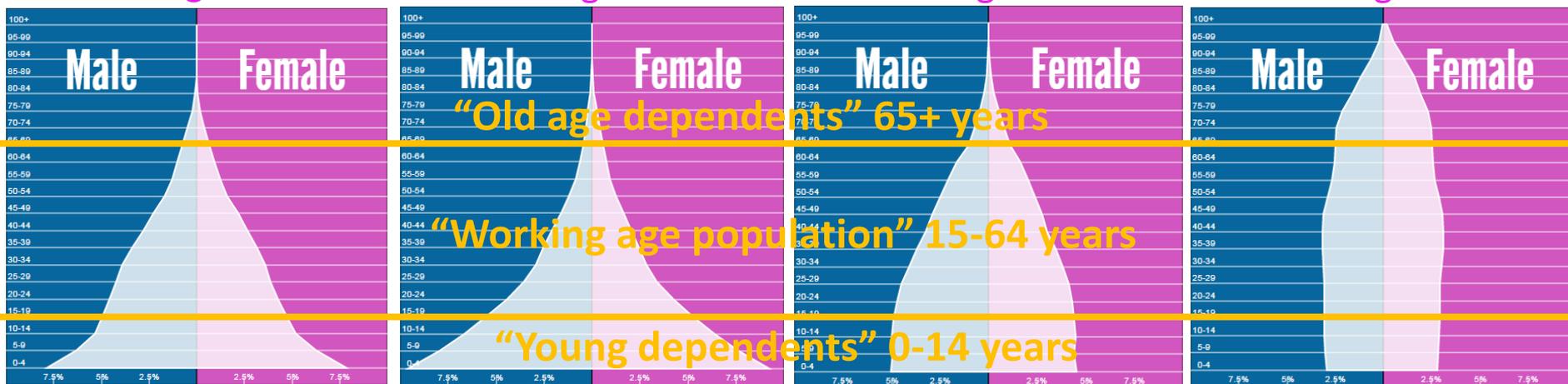
Dependency ratios

Stage 1

Stage 2

Stage 3

Stage 4

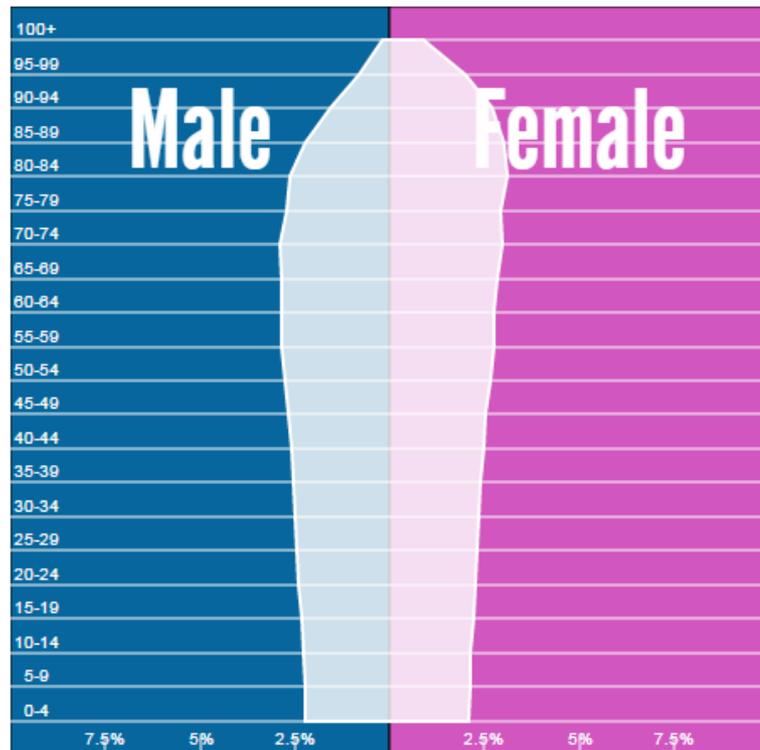


- Ageing is an inevitable feature of the demographic transition.
- It is self-limiting: once Stage 4 (stationary population) is established, proportion in each age cohort remains constant.
- The majority of people are working-age (stabilises around 55%).
- Lower fertility with compensating immigration means higher median age, but also higher % in prime working age:
 - *UK low-fertility projection: Below replacement fertility (1.64) with top-up immigration (0.2%) + pension age of 68 leads to stable ratios around Japan’s current level (22% pension age, 62% working age)*

Even a shrinking population may be socially and economically successful.

Japan
2070

Population: **96.464.000**



- Even the feared “coffin” shaped demographic is stable and manageable, until population declines to preferred levels.
- Japan’s population is forecast to “crash” at a reckless 0.6% p.a. (one third of Australia’s growth rate).
- Over-65s stabilise around 36%, working age still >50%.
- A declining population can be readily stabilised through a small rise in fertility – there is no inexorable spiral into oblivion.

Myth 1: that we'll all be stranded in our nursing homes with no-one left to look after us.

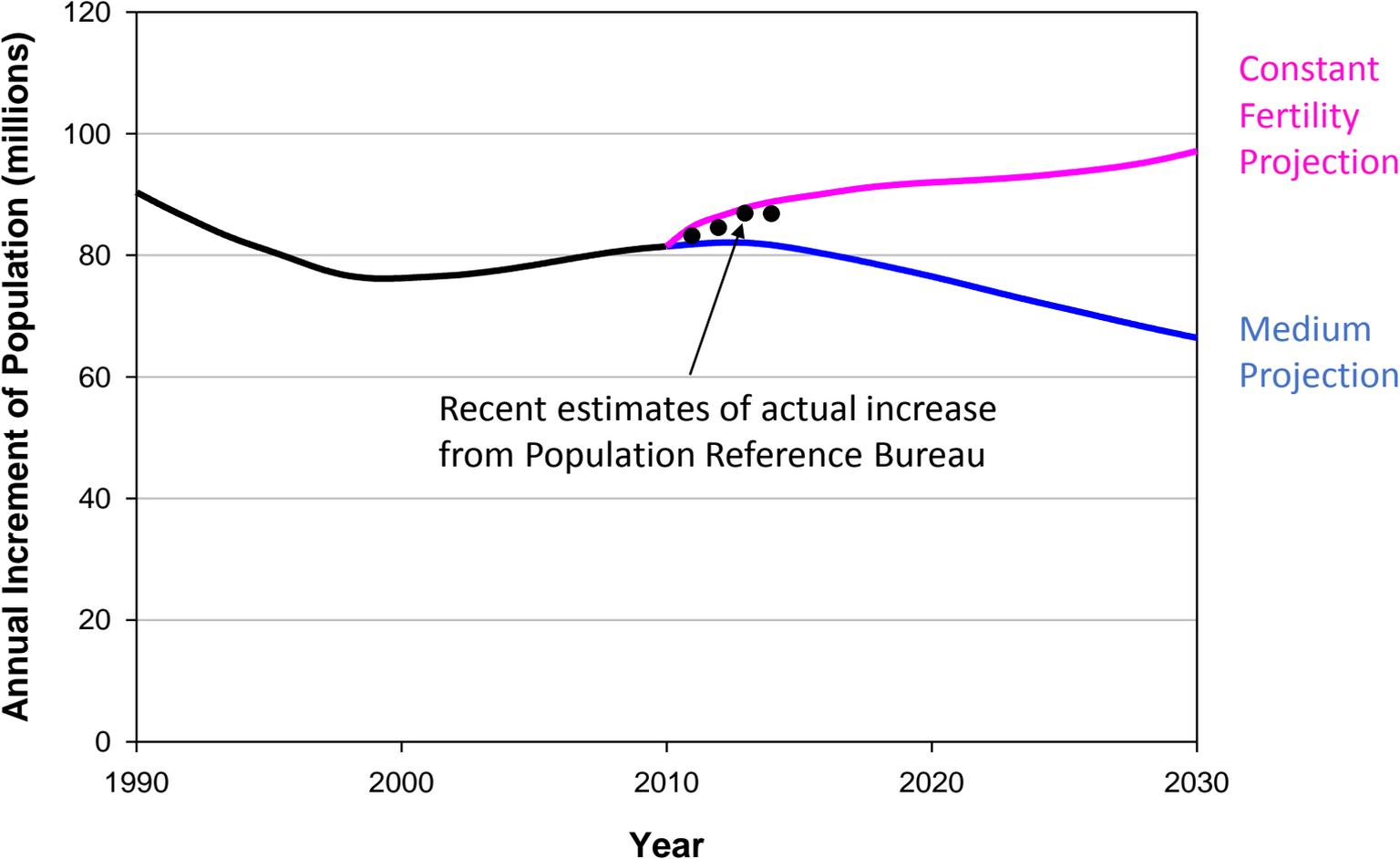
BUSTED!

Australia is not alone in ageing paranoia.

- Ageing is the main excuse for maintaining population growth.
- Population growth is a policy variable (a choice).
- A significant shift in policy in the past 20 years:
 - High fertility nations have reduced family planning.
 - Low fertility nations have resisted stabilisation.
- A consequent resurgence in global population growth.

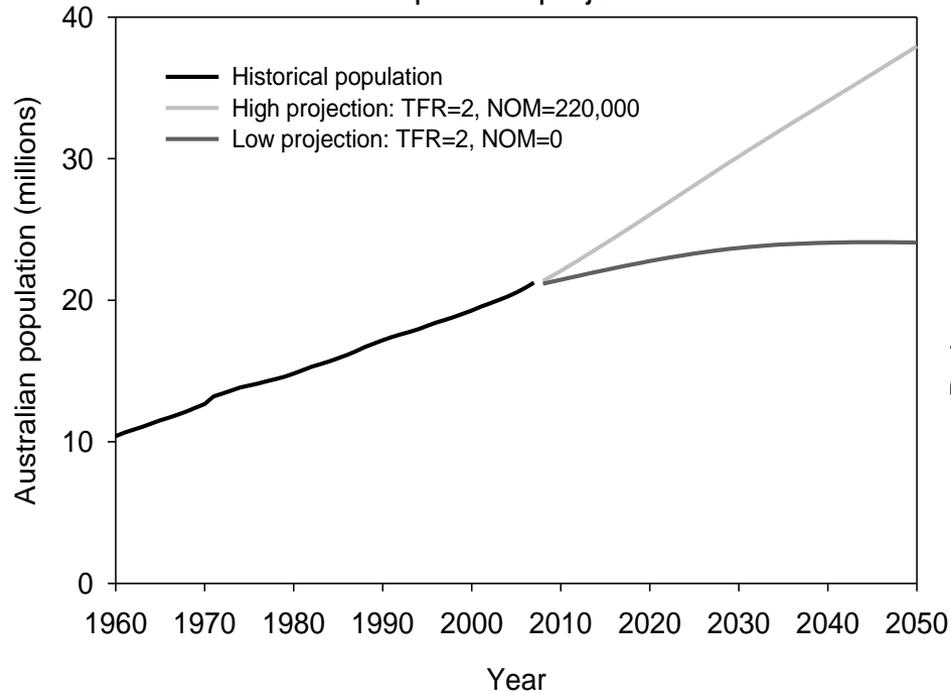
Global population won't peak unless individual nations embrace stabilisation or descent.

Annual Increment of Population

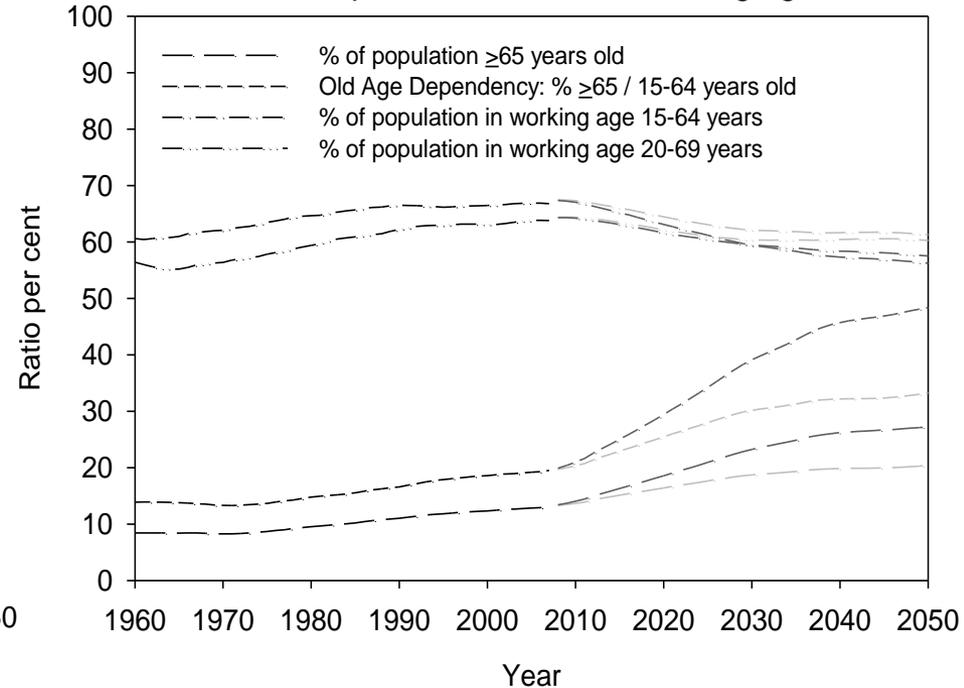


Population growth only partly delays ageing

A. Population projections



B. Proportion over 65 and working age



- Our current low dependency ratio is a transitory artefact of the demographic transition.
- We will return to the sort of ratio we had in the 1960s (boom time).
- A very large, ever expanding population translates into a very small increase in proportion of working age.

All experts agree that high immigration will not keep us young.

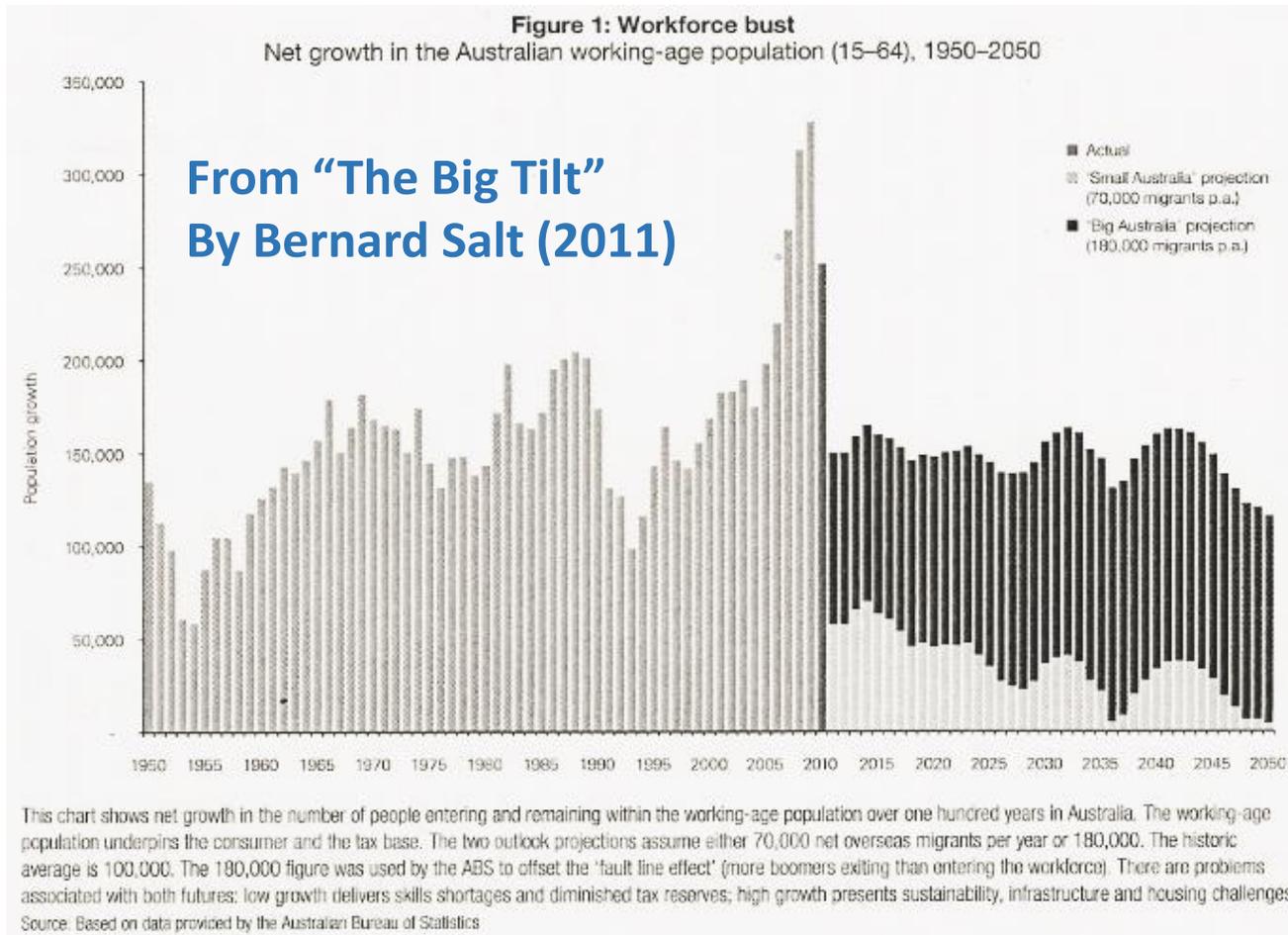
- Productivity Commission 2011
 - “Plausible increases in fertility and net migration would have little impact on ageing trends.”
 - “any effect would be short lived. This is because immigrants themselves age”
 - “to maintain the age structure of 2003-04 in 2044-45, annual migration during that period would need to be above 3 per cent of Australia’s population, leading to a population of over 100 million by the middle of this century”
- Sustainable Australia Report 2013:
 - “every 50,000 new migrants have roughly half the impact on ageing trends than the previous 50,000.”

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Myth 2: that increasing immigration will keep us young.

BUSTED!
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What about Bernard Salt's "big tilt"?

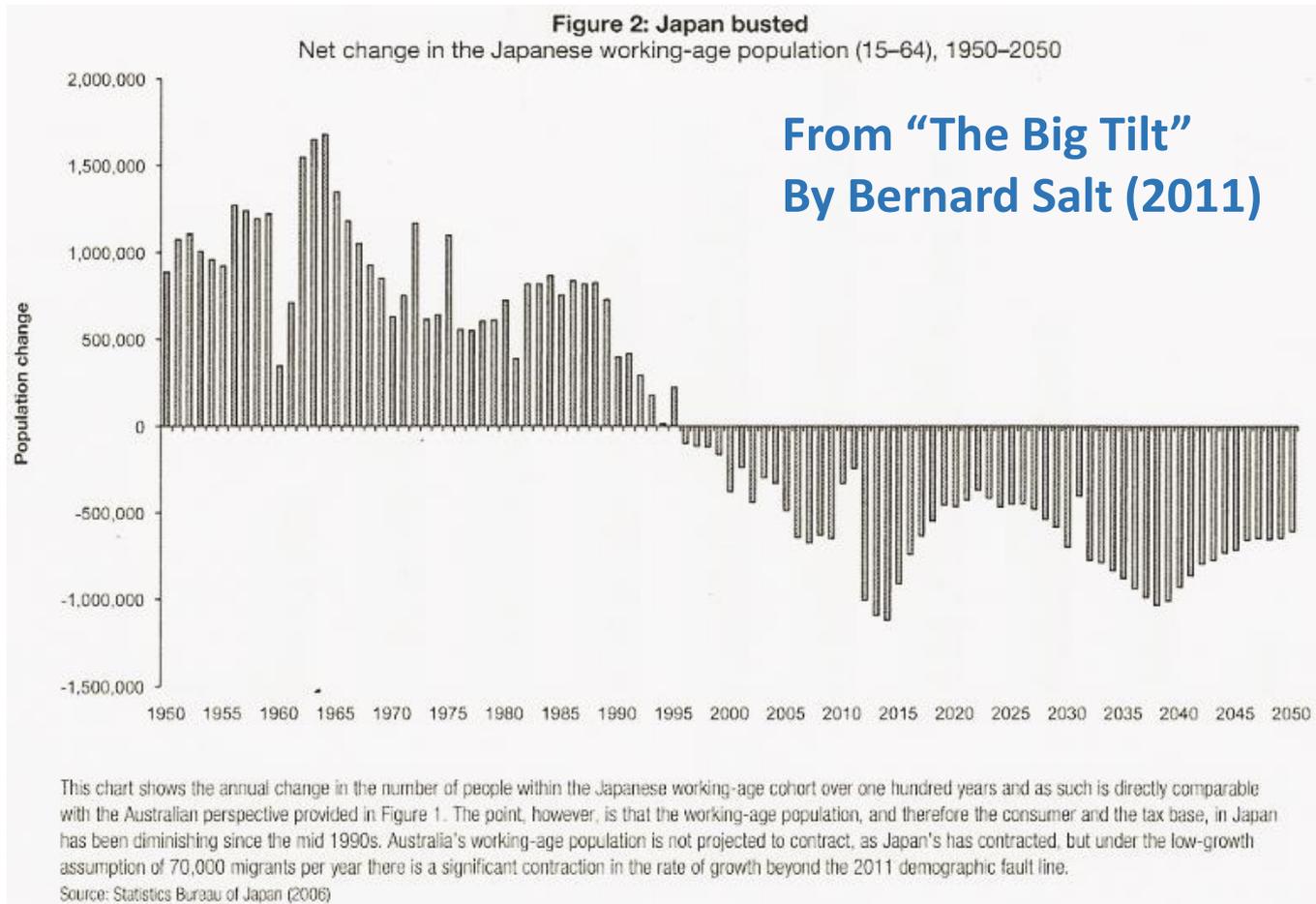


Salt says: **"2011 is a break point year.** From this year onwards, more baby boomers exit the workforce than generation Ys enter."

What is this chart saying?

- 2011 was merely the change between historical data and outdated projections.
- In neither projection is there negative growth in workforce.
- Not all working age people are actually employed.

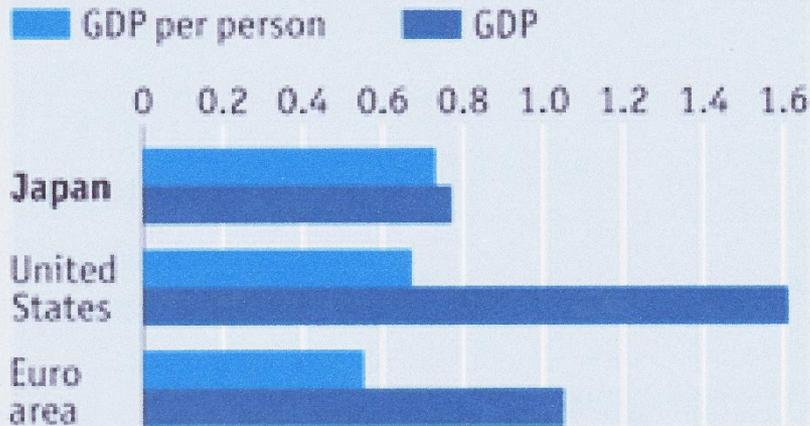
Salt says Japan is “busted”



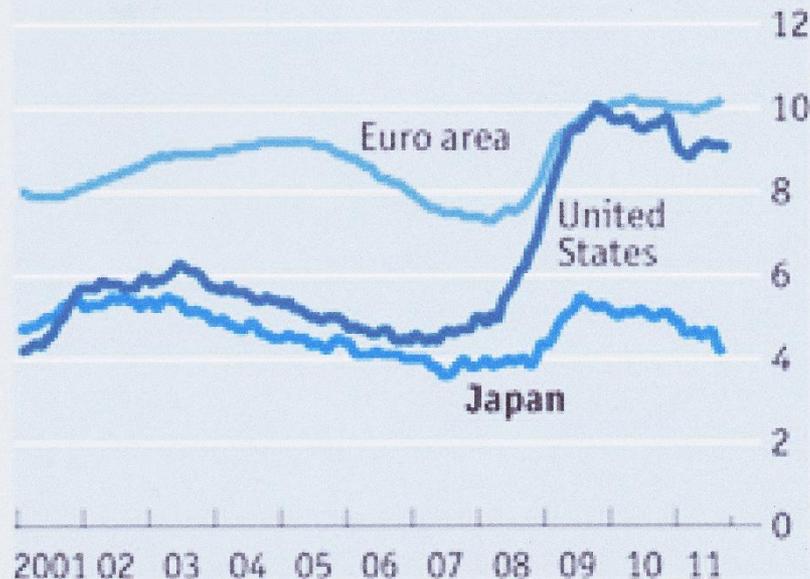
- What happens when workforce starts to shrink?

And the laggard is...

Annual average % increase, 2001-10



Unemployment rates, %



Sources: IMF; Eurostat; Thomson Reuters

The myth that Japan is broke

Ellen Brown 2012:

“By 2006, Japan’s exports were three times what they were in 1989”

Financial Times 2011:

"If the business of a state is to project economic vigour, then Japan is failing badly" wrote David Pilling. "But if it is to keep its citizens employed, safe, economically comfortable and living longer lives, it is not making such a terrible hash of things."

(That was before Abenomics...)

What is Australia's "business of state"?

- To keep its citizens employed, safe, economically comfortable and living longer lives?
- – in a stable, bountiful and beautiful environment, for many generations to come?
- The largest possible GDP growth?
- The most spending per person (regardless of debt)?
- The biggest profits for big investors?
- The greatest speculative gain for property traders?

What is Australia's "business of state"?

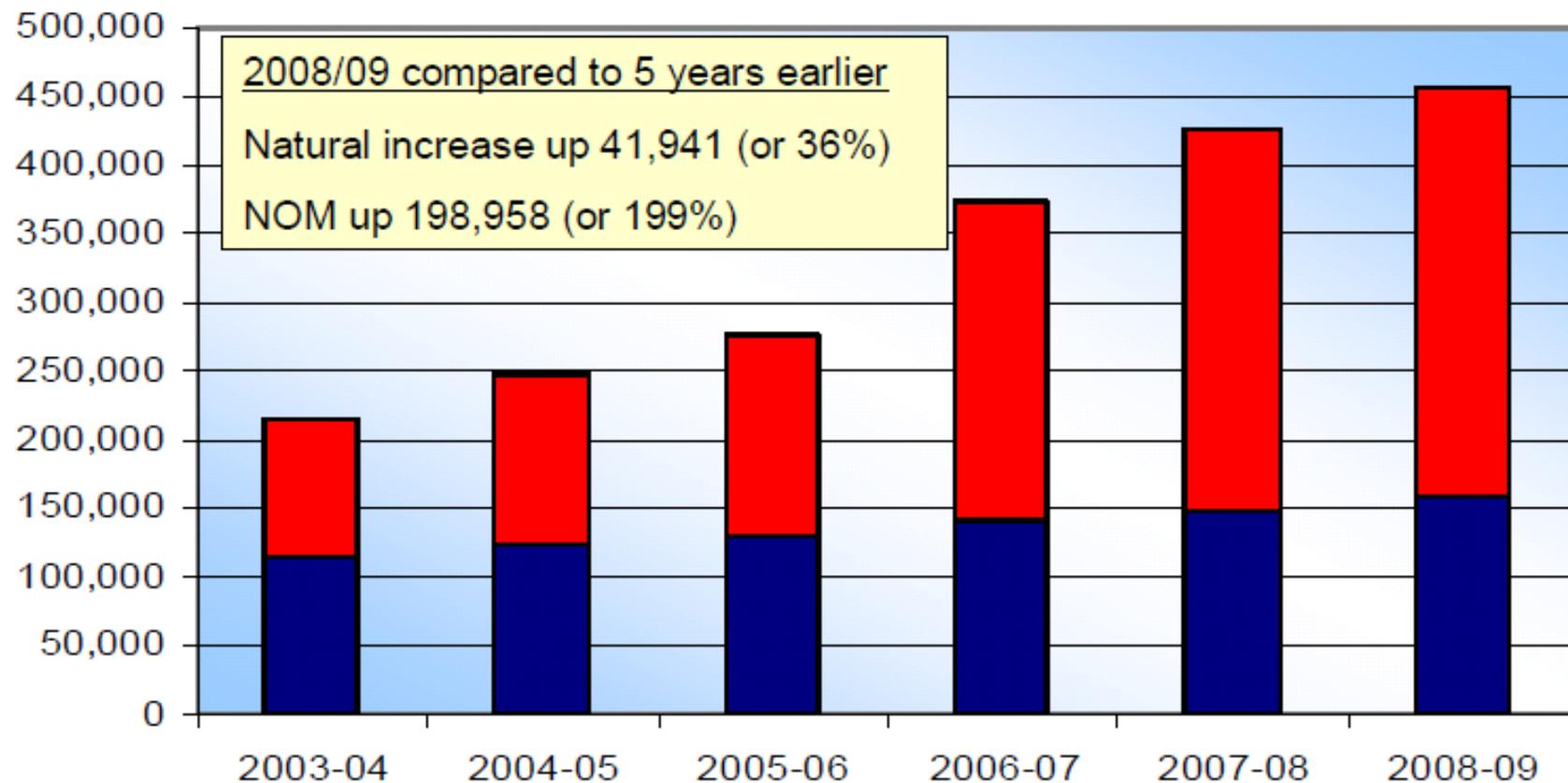
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- **The greatest speculative gain for property traders**

Intergenerational Reports

- Introduced in 2002 to build public support for accelerated population growth.
- Constructed two myths:
 - Ageing as an economic disaster,
 - Immigration as a means to “rebalance” our demography.
- Greatly exaggerate the costs of ageing,
- Completely omit the costs of population growth.
- Deficits are projected by assuming tax and welfare policies will not adapt.

Hockey's IGR meaningless forecasts based on magical thinking - Richard Denniss, Crikey 5/3/2015

Australia's population growth surges...



■ Natural increase ■ Net overseas migration

Australia's population = 22m growing at 2.1% (2008-09)

Canada 33m 0.8%, USA 307m 1.0%, China 1,324m 0.5%, Indonesia 240m 1.1%

Years ending June



The “3 Ps”: IGR’s central narrative

$GDP = Population \times Participation \times Productivity$

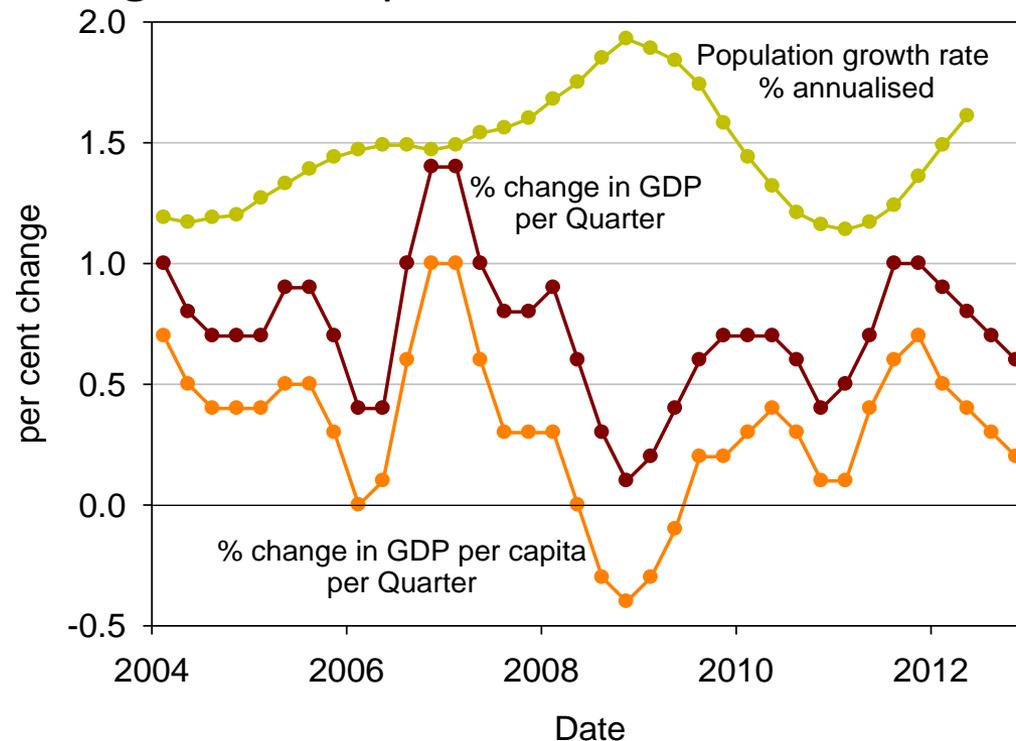
Four very problematic assumptions:

- Natural resources don’t matter.
 - Diluting, degrading and depleting them will not affect per capita wealth, because they are not in the model.
- Job seekers create jobs.
 - The size of the economy will be proportional to the number of working age people.
- The 3 factors are independent.
 - Population growth will not reduce participation (competition for jobs) or productivity (competition for resources and markets).
- Growth rate costs nothing.
 - The infrastructure, equipment and professional personnel that added people need will be created without penalty.

The first "P": Population

- but wealth is a per capita thing!

- Did population growth help Australia avoid the GFC?



- Negative *per capita* growth for >4 quarters – made deeper by population growth.
- Population growth *delinks* GDP from wealth.

The second “P”: Participation

- **Assumes “Job seekers create jobs”!**
- Theory that a larger proportion of working age people means a larger workforce.
 - (Bernard Salt uses the words interchangeably.)
- *“Workforce participation measures labour supply”*
(or is it a product of supply, demand, cultural expectations, cost-of-living pressures, welfare options, terms of trade...)

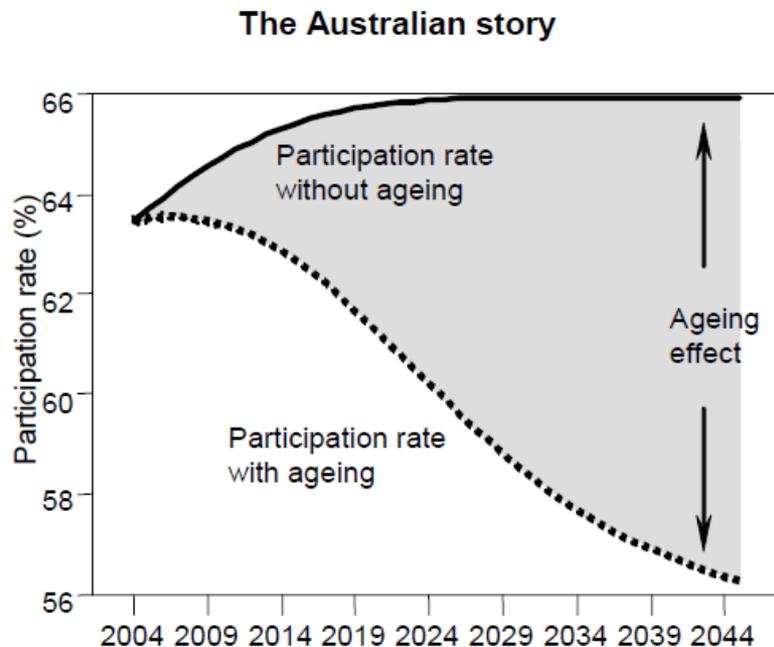
The second “P”: Participation

Modelling assumes current patterns of participation will continue.

From Productivity Commission (2005)

“Economic Implications of an ageing Australia”:

Figure 8 **Aggregate participation rates fall with ageing**
2003-04 to 2044-45



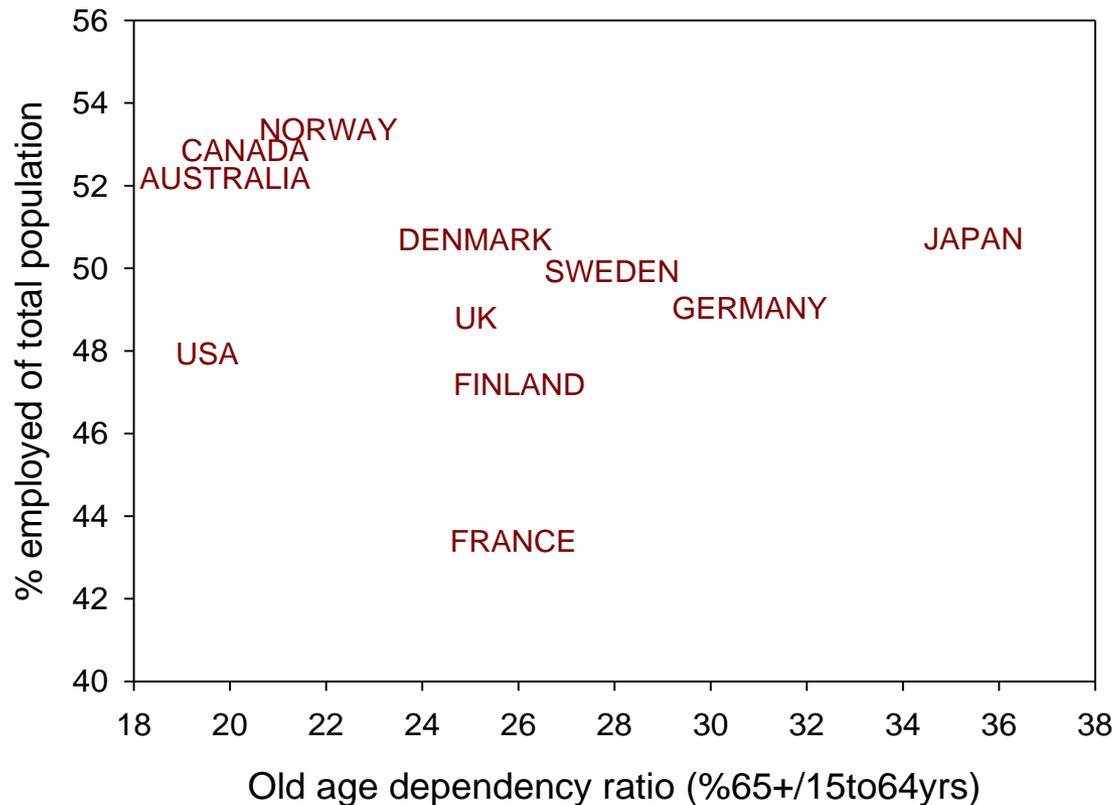
They assert that the unemployed are unlikely to take up the slack because:

“Unemployed people and people outside the labour force are generally different from the employed in skill, motivation and aptitude.”

(I would be surprised if those employers left on the shelf were not the least skilled and motivated!)

The real world experiment

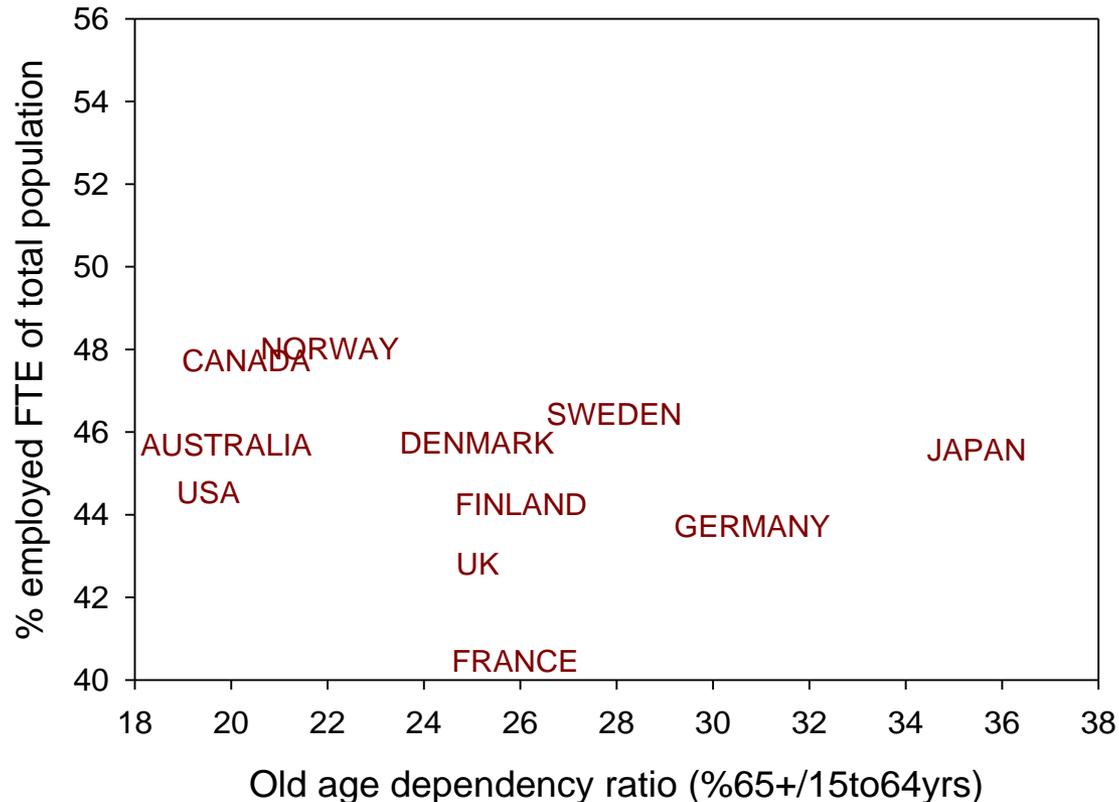
- Is the proportion of people employed governed by the supply of people of working age, or by the supply of work?



- There is no correlation between ageing and proportion of people employed.

The real world experiment

- Is the proportion of people employed governed by the supply of people of working age, or by the supply of work?



- The differences are even smaller when part-time work is considered.

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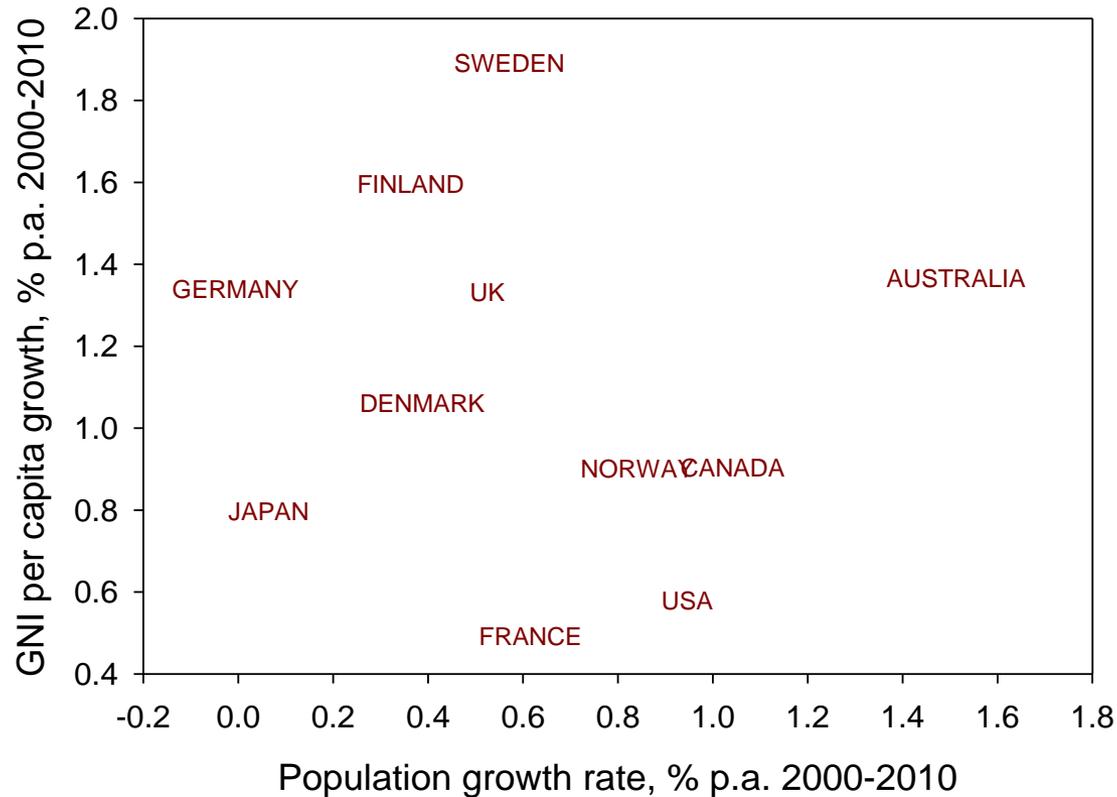
Myth 2: that increasing immigration will keep us young.

**Myth 3: that a smaller proportion of working-age
people means fewer people actually working.**

BUSTED!
BUSTED!
BUSTED!

The third "P": Productivity

- Does population growth increase productivity?



- There is no trend among nations, nor among municipalities (USA).

Are we measuring productivity decline as GDP growth?

- Density diseconomies:

- “The cost of providing new infrastructure is rising faster than the rate of inflation — in part, because costlier construction options, such as tunnelling for new roads, now need to be adopted in the large cities.”

Infrastructure Australia (2011)

- Unremunerated costs of labour:

- “on the perimeters of Brisbane, Sydney, Melbourne and Perth, more than 90 per cent of jobs are at least an hour away on public transport.”

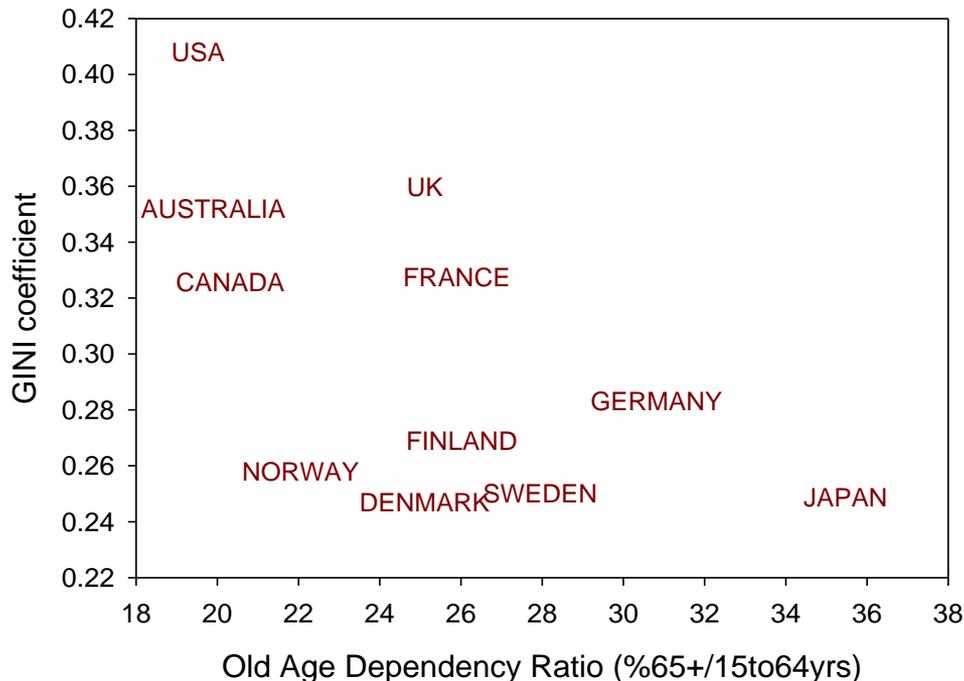
Grattan Institute (2013)

- Residential housing debt tripled since 2003.

- Servicing that extra debt takes 3% of GDP.

What about wealth distribution?

- The GINI coefficient measures inequality of income:



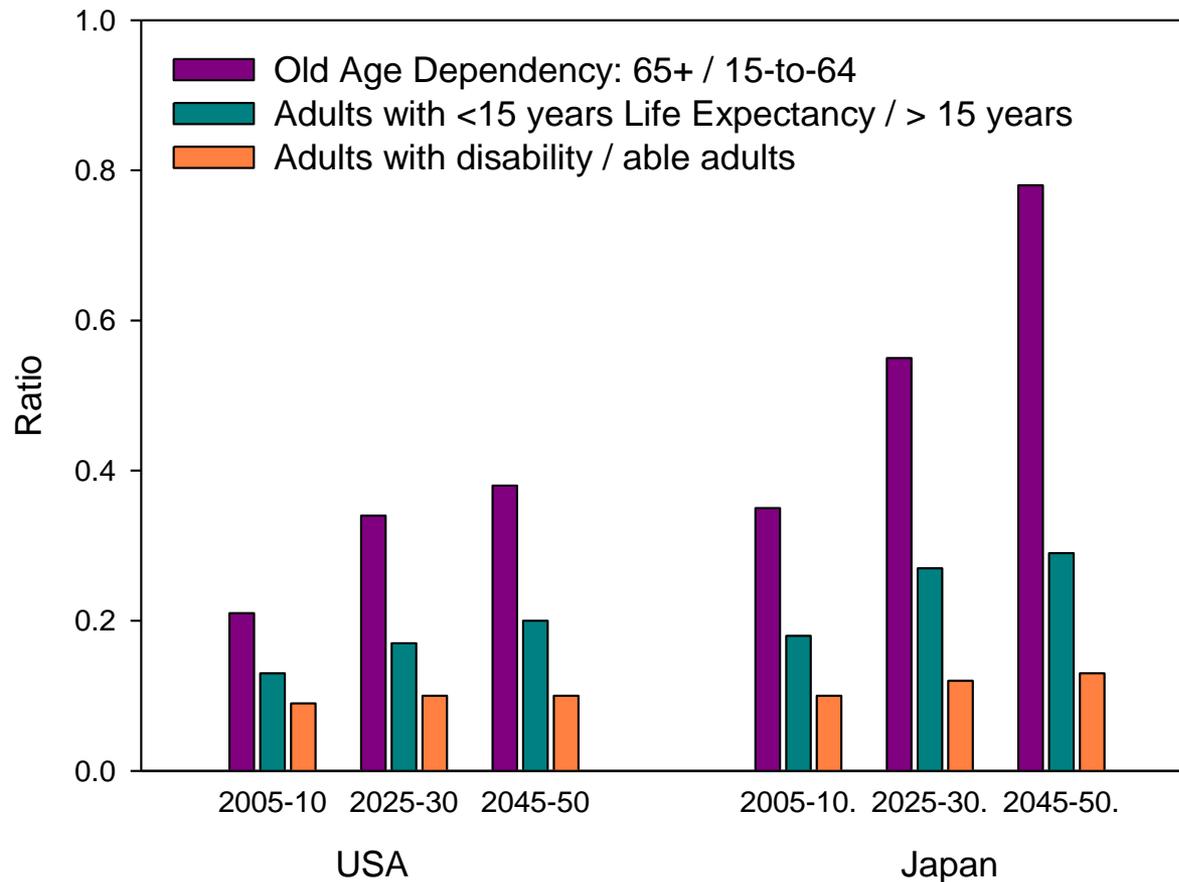
- The most youthful nations have the poorest poor.
- “Because immigration makes labour more abundant relative to the existing stock of capital and land, it tends to increase the returns to the latter at the expense of labour.”

– *Productivity Commission 2011*

- Greater inequality is associated with worse physical health, mental health, drug abuse, education, imprisonment, obesity, social mobility, trust and community life, violence, teenage pregnancies, and child well-being (Wilkinson & Pickett, “The Spirit Level” 2009)

Remeasuring Ageing

Health and disability needs are more related to proximity to death than to age.



Data from Sanderson & Sherbov (2010) "Remeasuring Ageing" Science 329:1287-1288.

Can we afford pensions?

- If the labour market is oversupplied, pensions only replace unemployment and disability benefits.
- Raising the pension age by 3-5 years negates change in working age proportion.
 - ... but is not needed if rising participation maintains labour supply.*
- Reducing over-generous superannuation tax breaks would more than compensate for extra pensions.
- Pensions are efficient economic stimulus (mostly spent, returning taxes to govt); super payments reduce consumption spending.
- The *worst* trends for retirement funding are housing inflation and casualisation of work.
 - ... a generational time-bomb imposed by population growth.*

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Myth 2: that increasing immigration will keep us young.

Myth 3: that a smaller proportion of working-age people means fewer people actually working.

Myth 4: that pension and health care costs will blow the budget.

BUSTED!
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What about the cost of growth rate?

- A higher population growth rate means a greater proportion of total economic activity dedicated to expanding infrastructure, equipment and skills.
 - For each 1% p.a. population growth, around 7-10% of GDP is needed for expansion.
 - Govt infrastructure spending has been around 1.85% of GDP per 1% p.a. growth.
- The increased burden is proportional to the lifespan of the assets to be multiplied.
 - If infrastructure lasts 50 years, maintenance requires creation of 2% of the stock per year. 2% population growth doubles this burden: 100% more cost for 2% more revenue.
- This is an “opportunity cost” – income that would otherwise be available for wellbeing of existing people.

Cost of ageing vs. growth

- Difference in all age-related costs between stabilising around 25 million (IGR1) and “Big Australia” projection (IGR3) is 1% of GDP by 2050.
- Public infrastructure cost of growth has historically been around 2.6% of GDP (1.85% per 1% population growth) but is currently over 3.3% and rising. (Not included in the IGRs.)
- Expect energy and materials costs to outpace inflation – better to have a labour-intensive burden (health) than resource-intensive (construction).
- More than doubles the cost of decarbonising the economy.
- Non-monetary costs: loss of biodiversity, food and water security, public amenity and quality of life.

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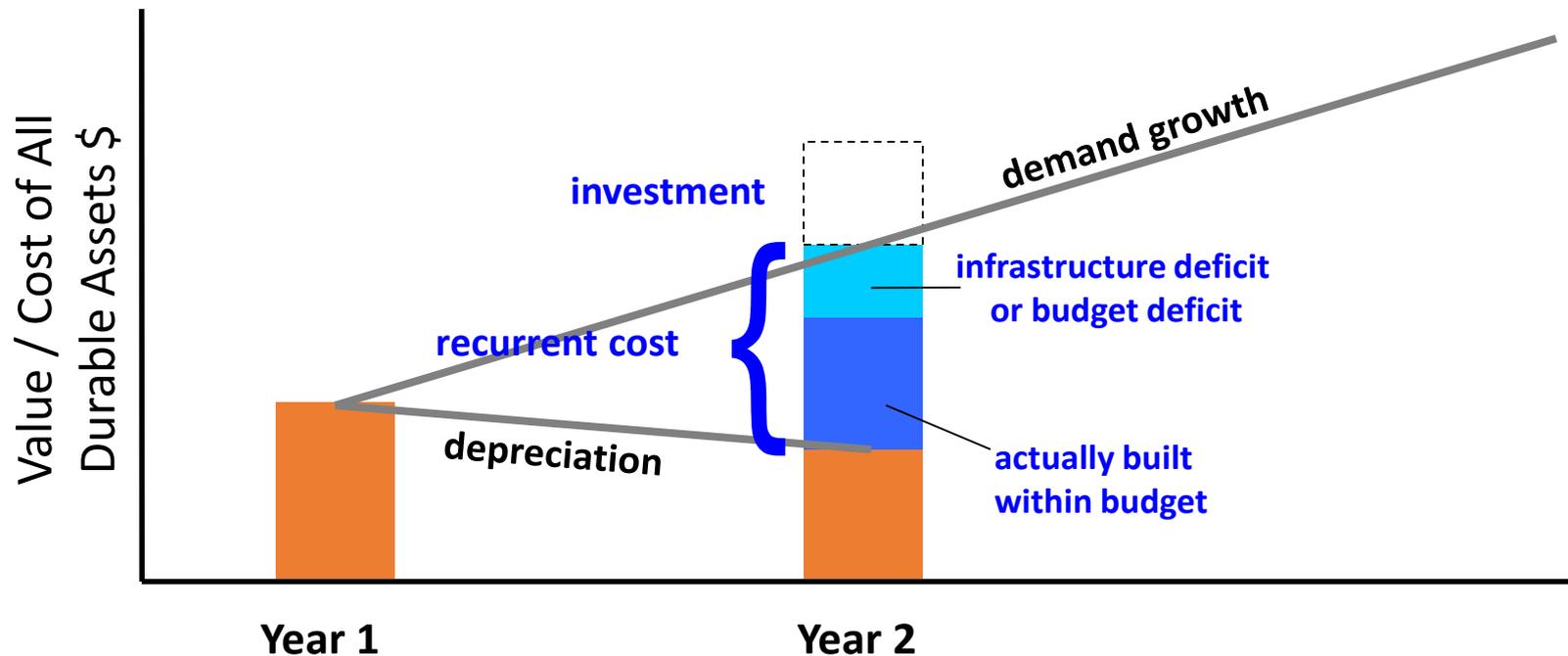
Myth 4: that pension and health care costs will blow the budget.

Myth 5: High population growth will ease fiscal pressures.

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Treading water, or drowning?

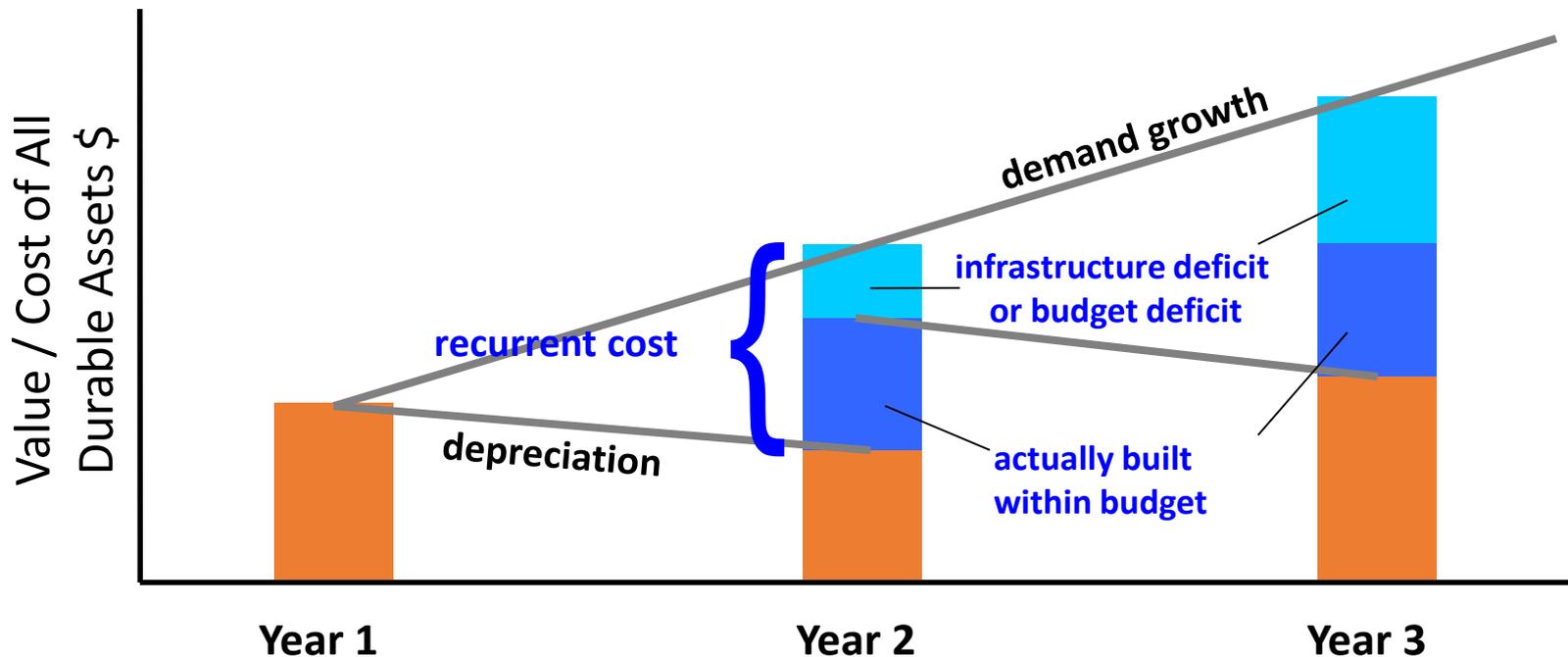
If we fail to increase inventory at the same rate as population, the shortfall or 'backlog' rapidly reduces access to and quality of services for the whole population.



Treading water, or drowning?

If we fail to increase inventory at the same rate as population, the shortfall or 'backlog' rapidly reduces access to and quality of services for the whole population.

If funded by debt, the repayments add to next year's deficit.



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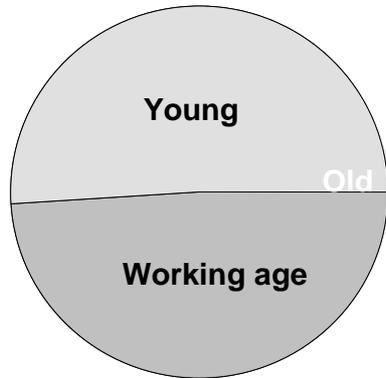
Myth 5: High population growth will ease fiscal pressures.

Myth 6: Expanding infrastructure is an investment that will pay for itself in the future.

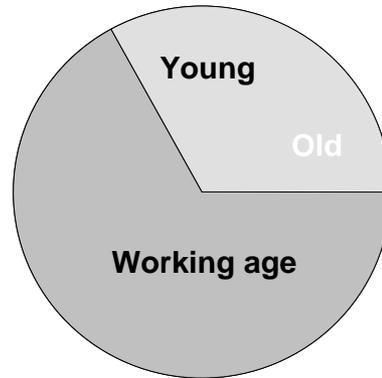
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The “not yet added” are fully dependent on current workers

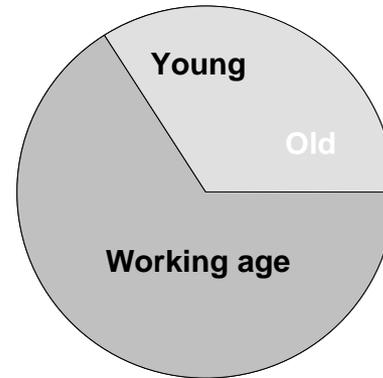
A: Gross National Income (GNI) distributed per capita to age categories



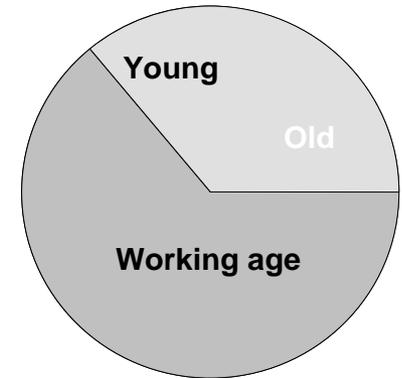
Uganda



Australia



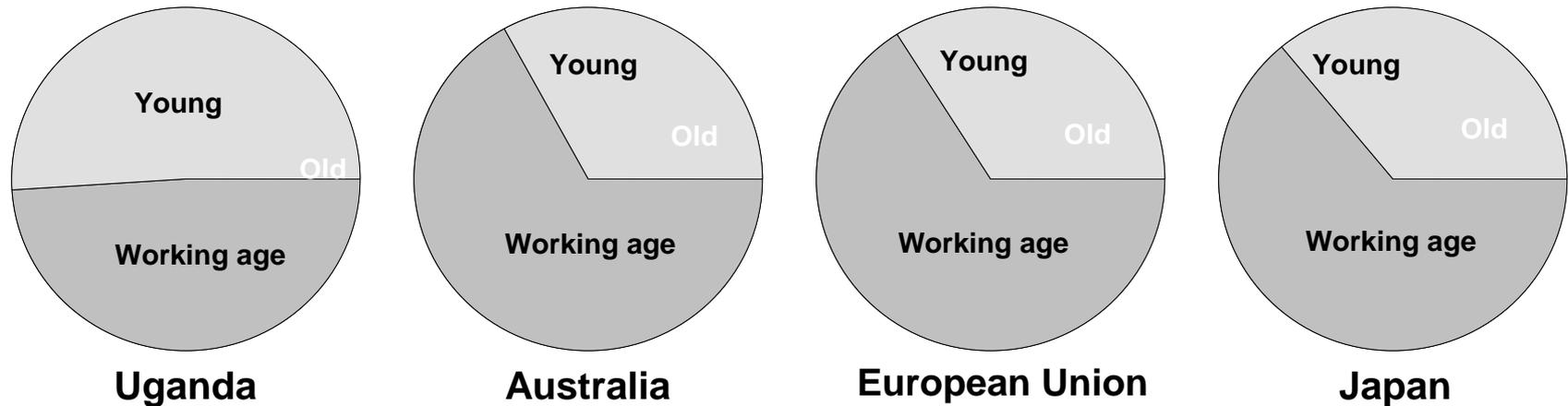
European Union



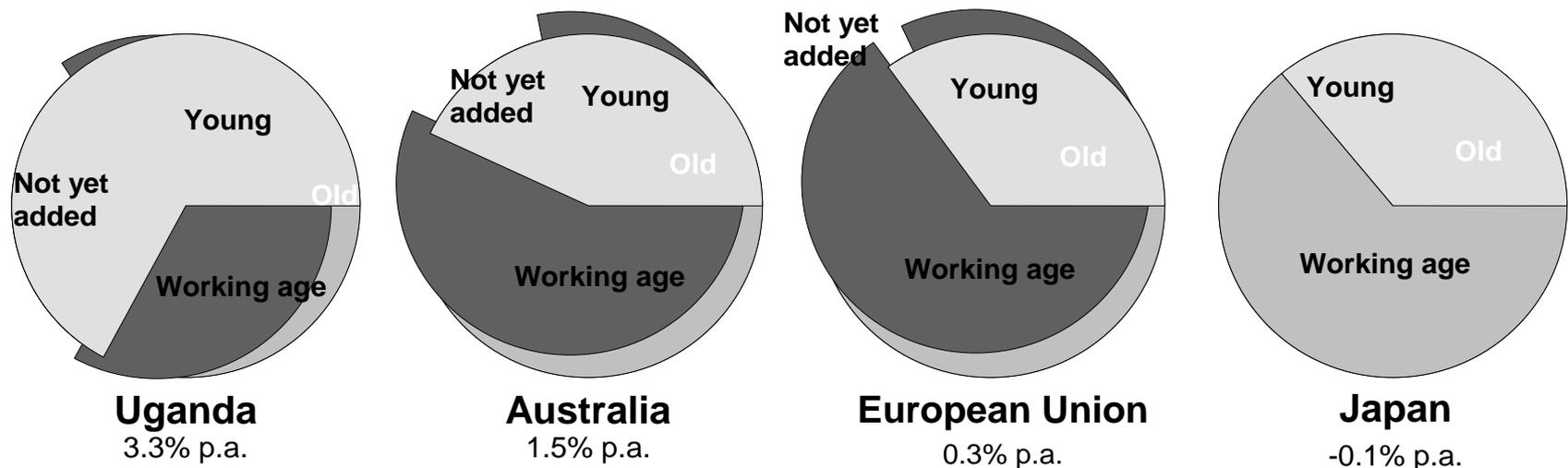
Japan

The “not yet added” are fully dependent on current workers

A: Gross National Income (GNI) distributed per capita to age categories



B: Inclusion of capacity expansion (on behalf of the not-yet-added) to distribution of GNI



How would you spend \$30 Billion?

- Each added person costs around \$125,000 for public infrastructure.
- Net immigration, not counting refugees, is around 240,000 per year.
- A balanced migration program would free up enough money for
 - Restoring welfare and community services
 - Restoring university funding
 - Environmental rehabilitation programs
 - Renewable energy investment
 - Gonski reforms of education
 - Universal dental health
 - High speed rail etc
 - And much more...

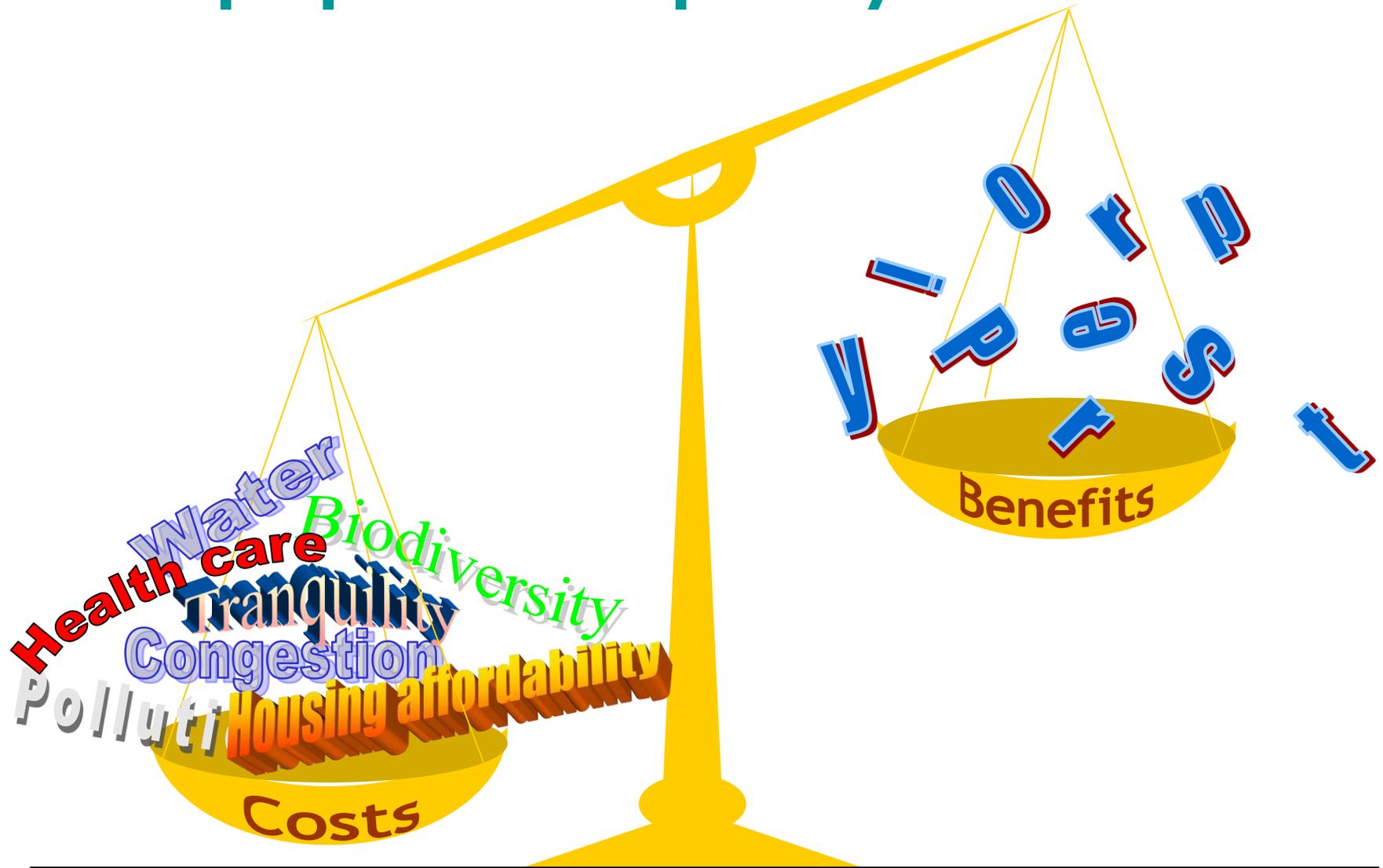
What's your preference?



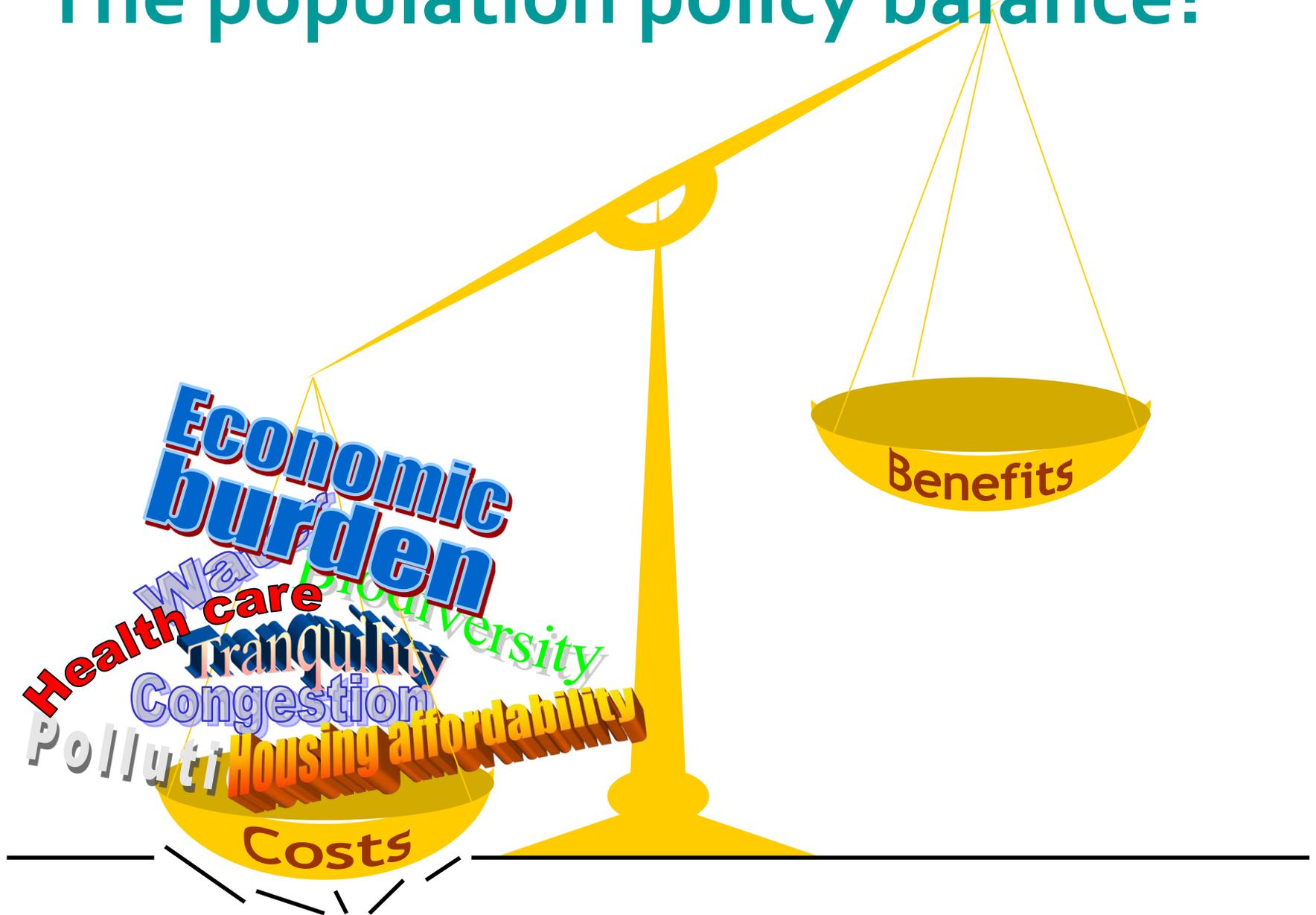
The population policy balance?



The population policy balance?



The population policy balance?



Depopulation Dividends

Could a shrinking, ageing population be :

- ***Smarter?*** - greater proportion with higher ed.
- ***Cleaner?*** - fewer greenhouse gases.
- ***Richer?*** - concentration of inheritance.
- ***Healthier?*** - greater proportion of life in wellness.
- ***Happier?*** - more leisure in the life cycle.

Kluge et al. 2014. The Advantages of Demographic Change after the Wave: Fewer and Older, but Healthier, Greener, and More Productive? *PLOS one* 9(9): e108501.



Thank You!

j.osullivan@uq.edu.au