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Demographics

This story does not get old

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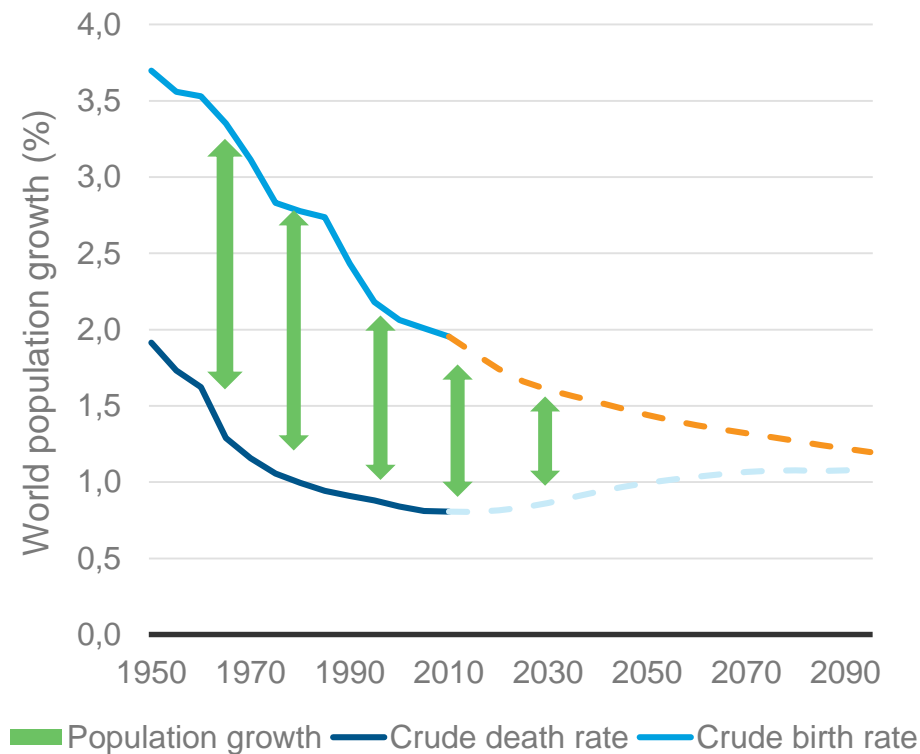
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The demographic story

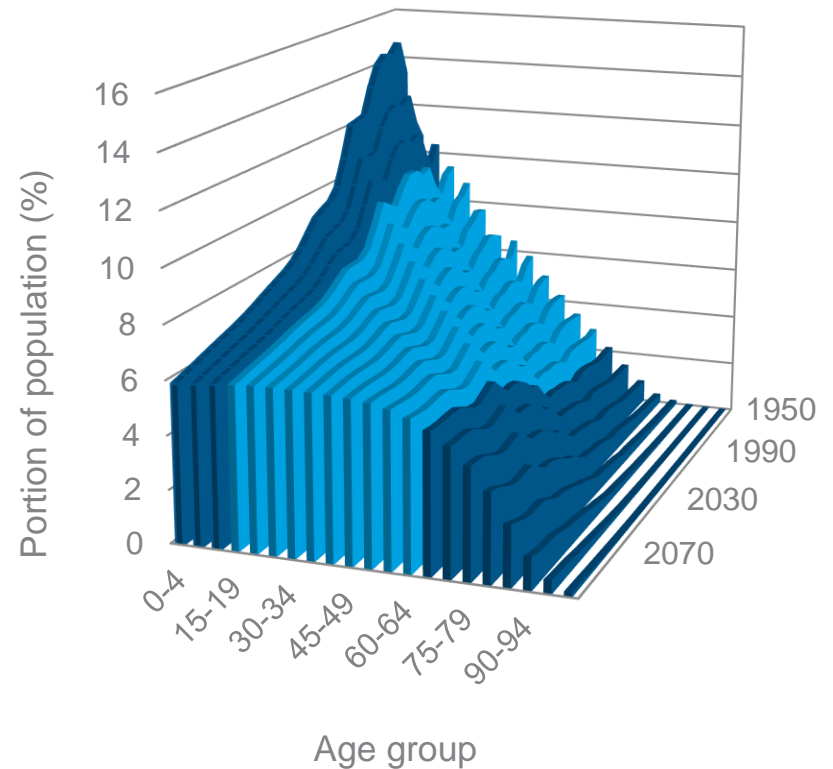
Demographic change

....includes population growth AND ageing

World population growth



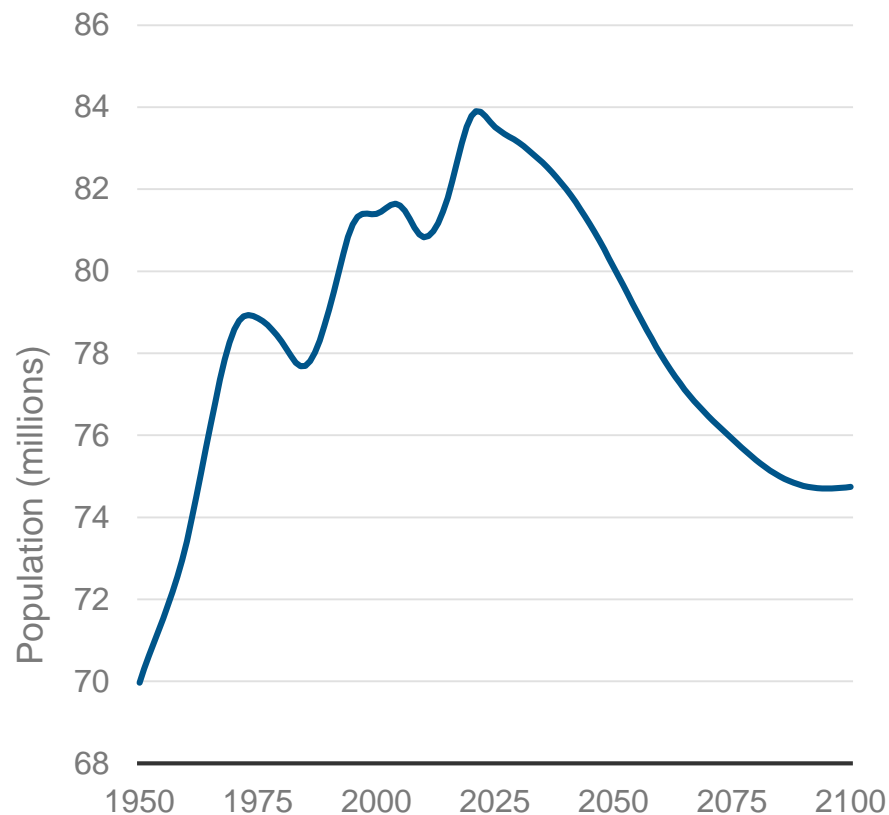
Changing world population structure 1950-2100



Demographic change

European example | For Germany, demographics are real

German population growth



- Germany's population in 2019 is estimated at 83.5 million.
- Germany has the highest percentage of immigrants of the 28 EU states, at over 10 million, that is 12%
- Immigration has been encouraged to offset declining fertility rates.
- The government has introduced 'family subsidies' to address the decline in the population but this seems to have had limited success.
- Estimates suggest that Germany's population could fall below 80 million by 2050 and others suggest below 70 million by 2060.
- Census: 1987 then the EU-wide in 2011 so estimates are based on extrapolated data.

The structural impact of demographic forces

The combination of **SLOWING** population growth and an **AGEING** population is having wide ranging structural impacts



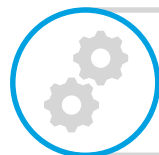
Growth | slower trend growth



Unemployment | a structural bias to lower rates



Working age cohort | trending into negative growth



Production and consumption | inflection between supply and demand



Participation rate | trending to push to lower levels



Government finances | structural pressures for higher deficits

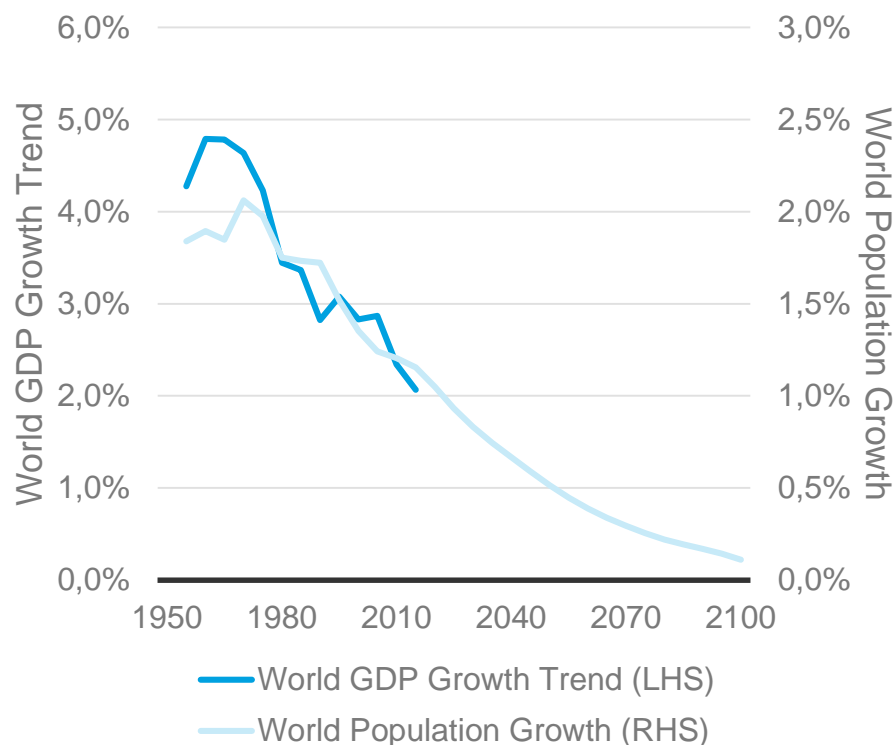


Leverage | a structural bias toward lower leverage

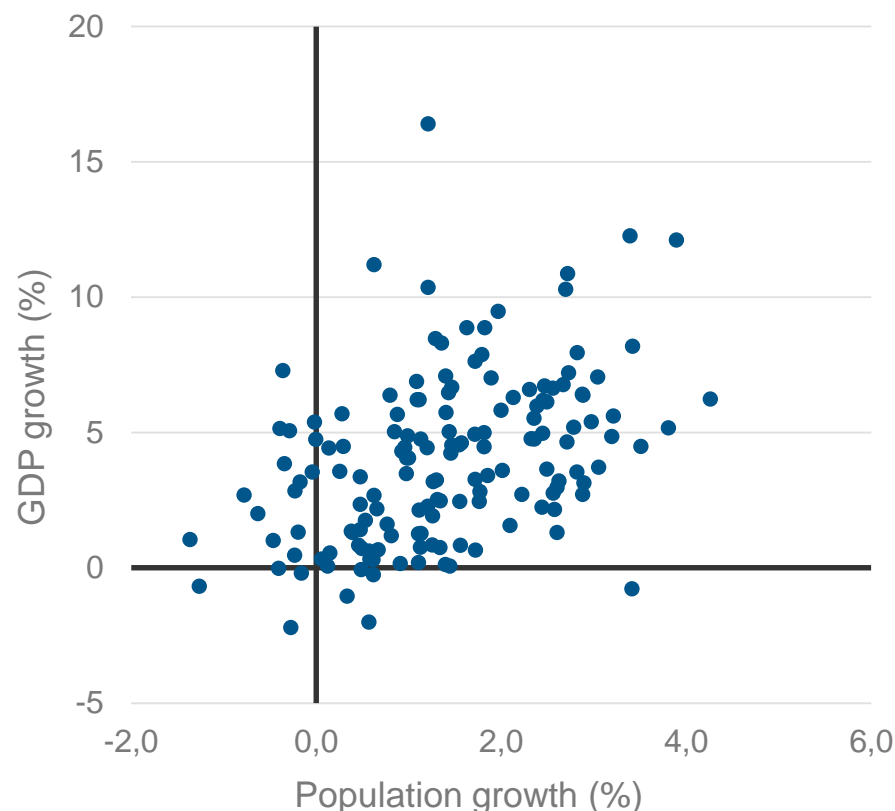
Impact on production growth

Population growth is very important for economic growth

World population and economic growth outlook



Population and real GDP growth (2005-2010)

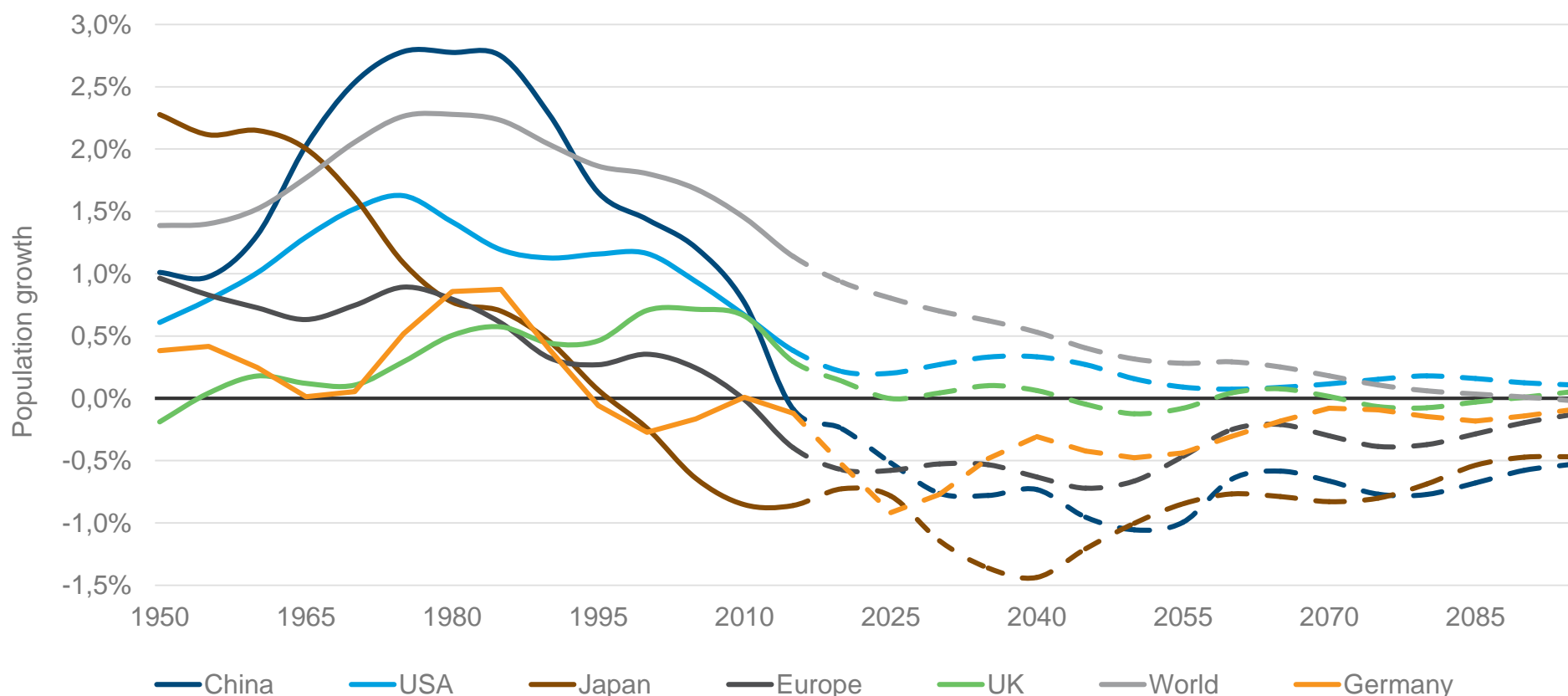


However, not all age groups are equally productive

Impact of a shrinking workforce

Young and middle age adult population growth is slowing

Middle cohort (24-54 years) population growth

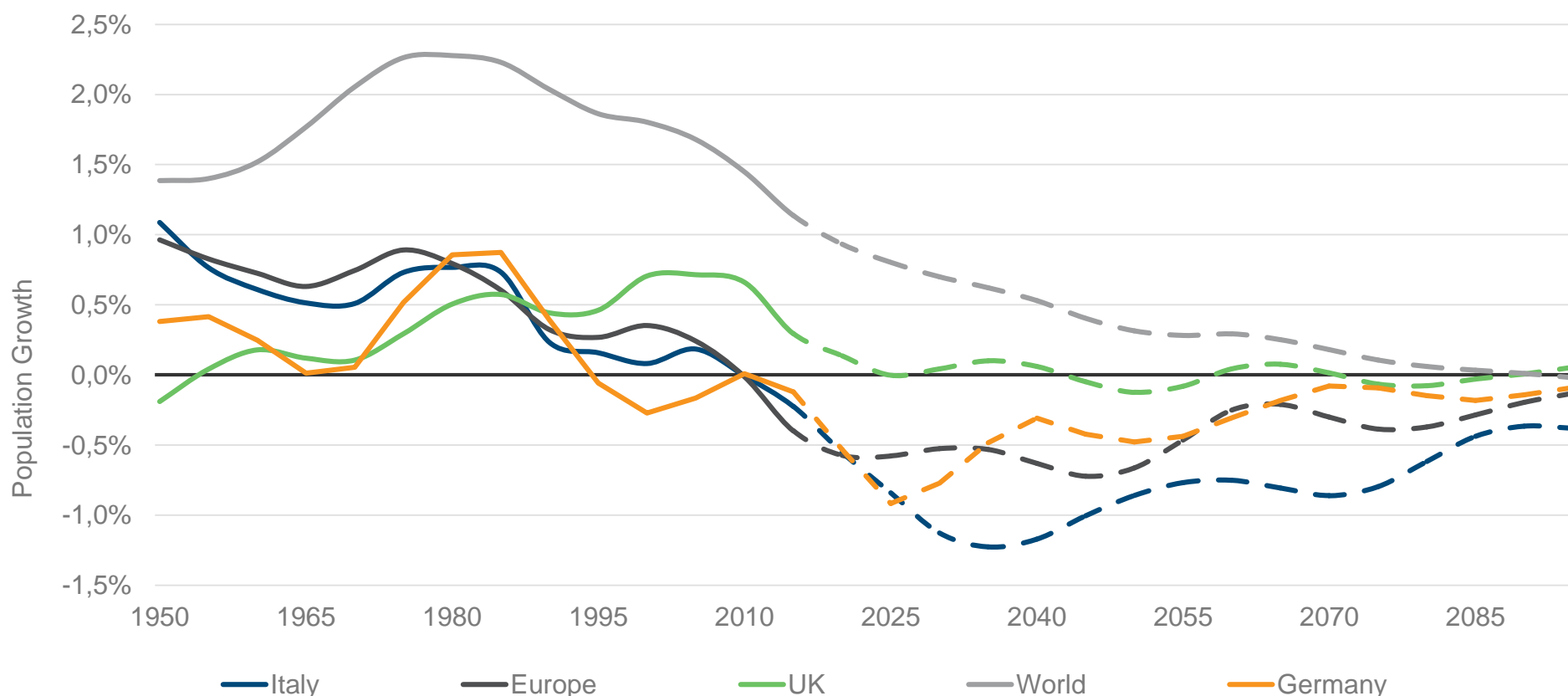


Tough headwinds faced in regions where the working age population has declined

Impact of a shrinking European workforce

Growth of the working age population has diverged across Europe

Middle cohort (24-54 years) population growth

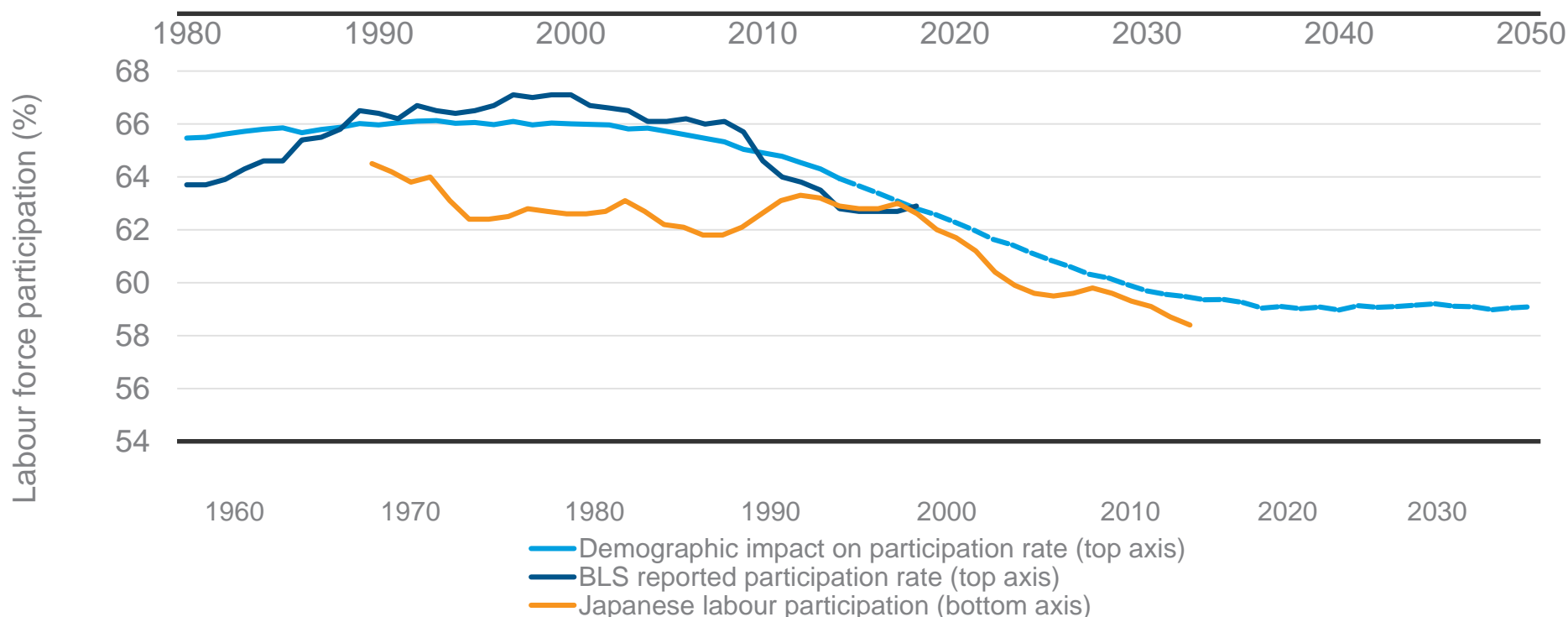


Some regions are facing a notably declining working age population

Labour force participation varies with age

An ageing population will likely have an impact on workforce participation

Demographics and labour force participation

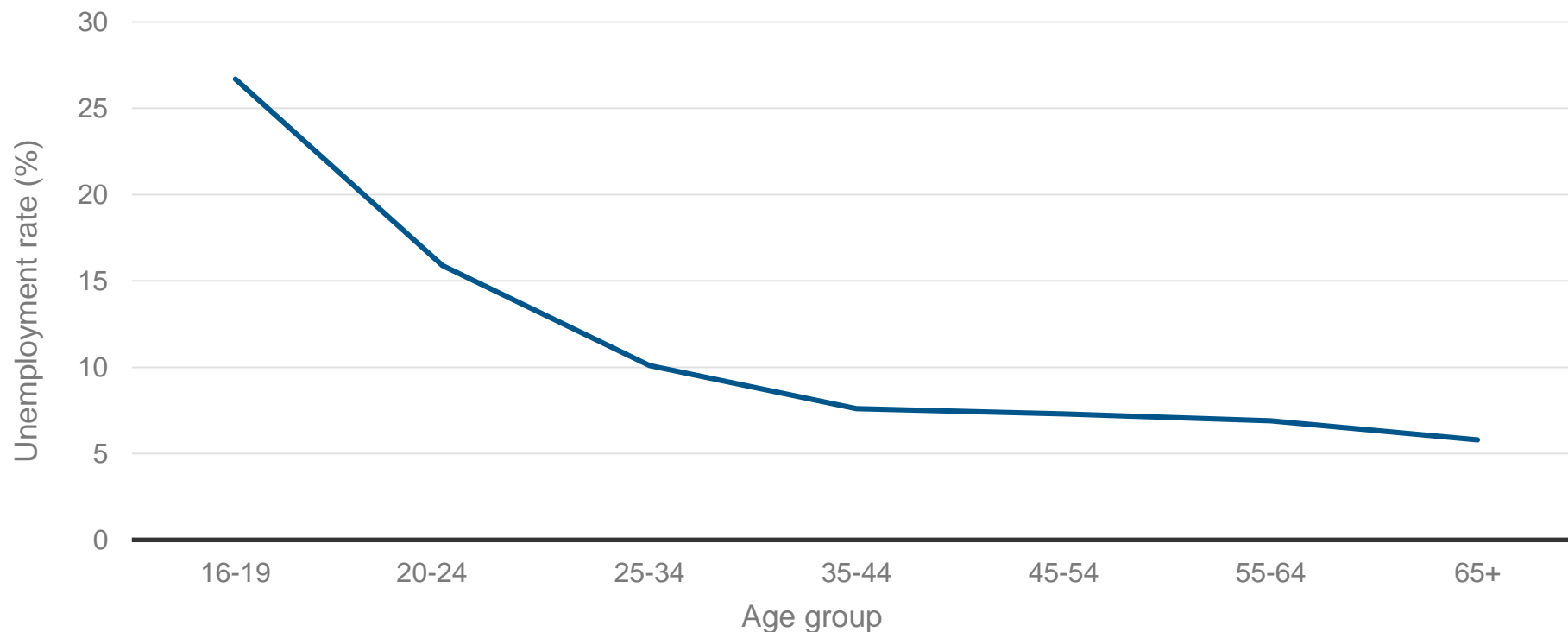


As workers age and retire, the participation rate will likely fall unless replaced by new entrants

Demographics also impacts unemployment rates

As workers age, the unemployment rate will likely trend lower

Unemployment by age

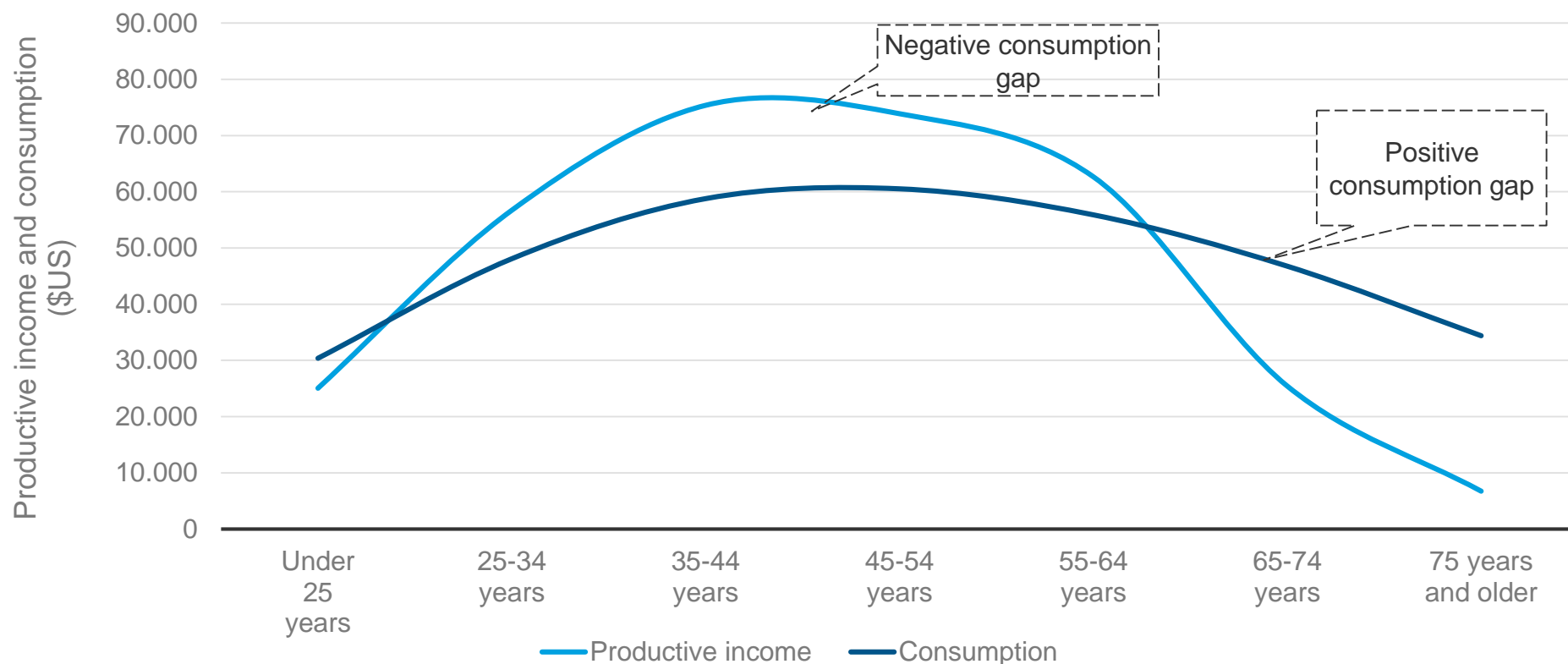


As youth unemployment is much higher than old age unemployment on average

The changing consumption/production equilibrium

As populations age, production will likely fall faster than consumption

Productive income versus consumption

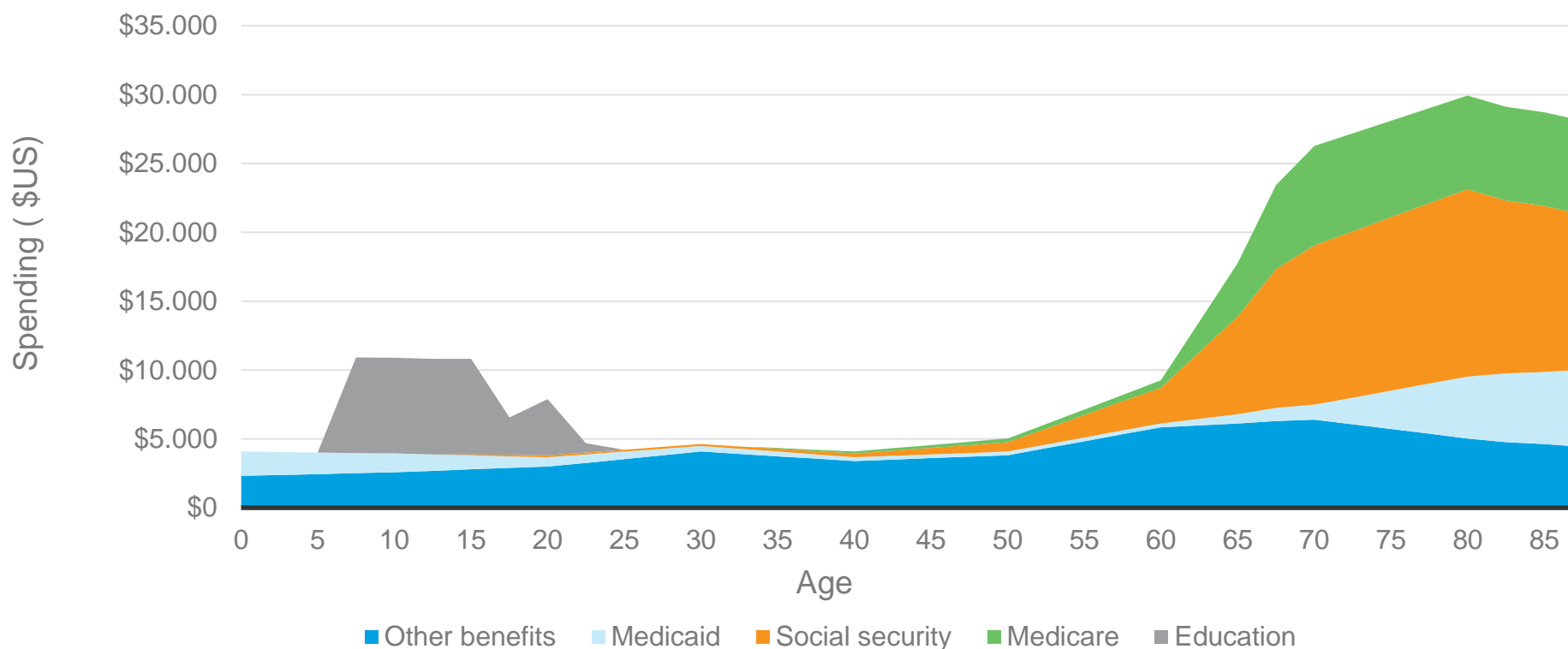


This may lead to a gap between demand and the capacity to produce

Government spending is highly dependent on age

Government spending is high for children and those over 65

Government spending per person (US)

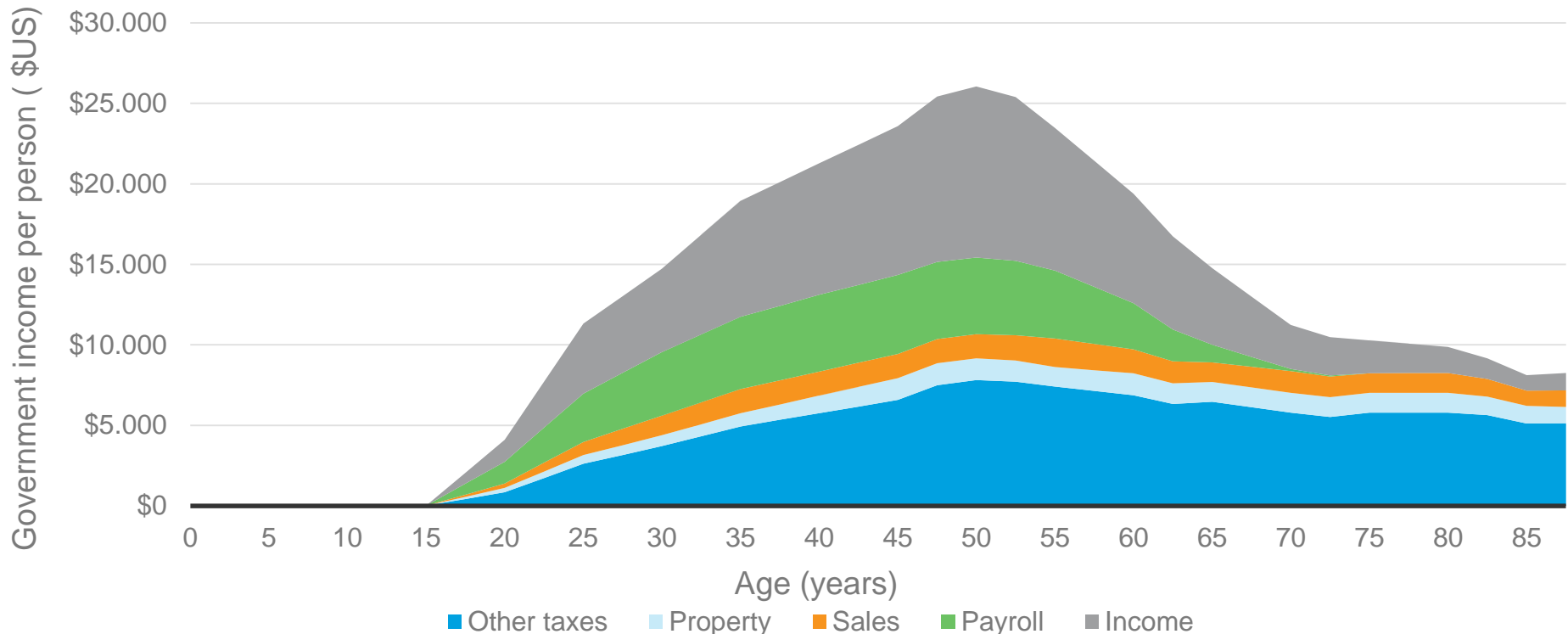


While the declining middle cohort generally depends less on government spending

Government income is also dependent on age

We find this inverse correlation between spending and revenue clearly creates very large mismatches in budget balances

Government income per person (US)

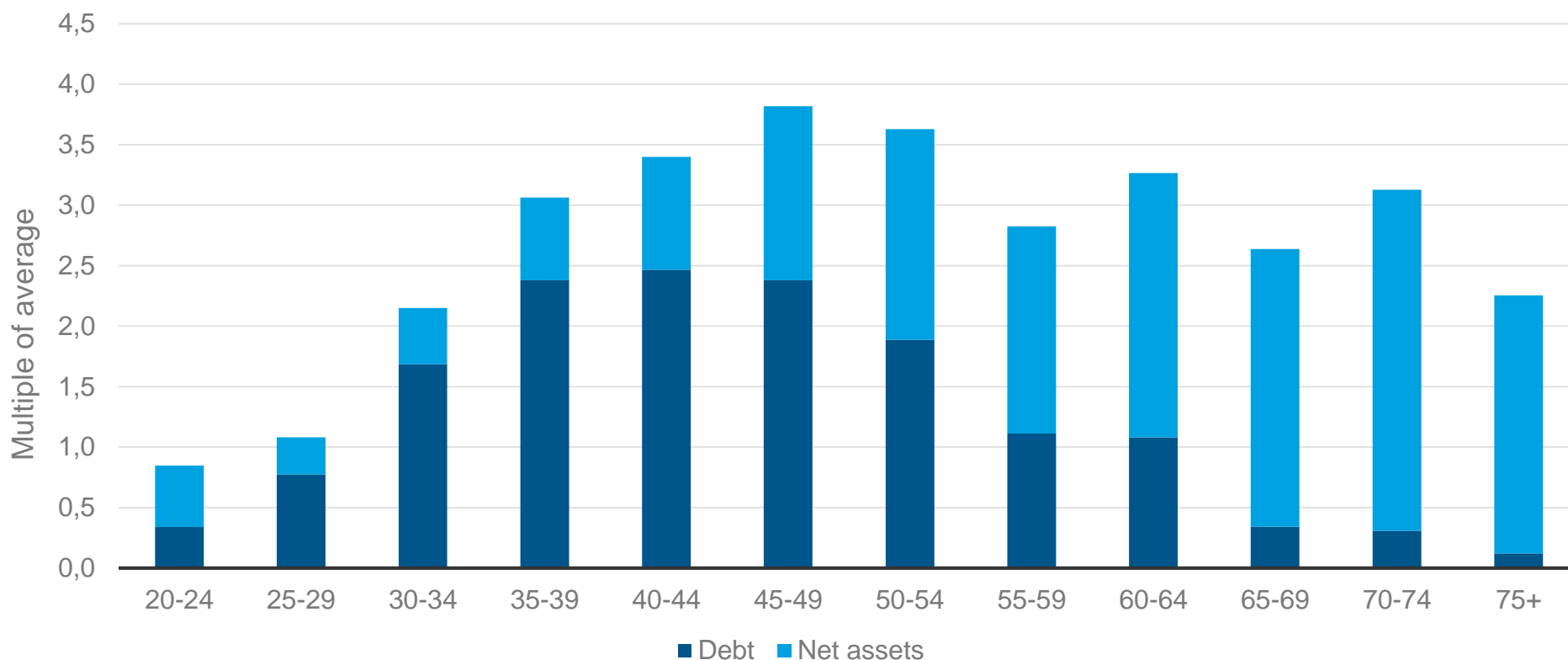


Looming population ageing will likely cause budget strains

Leverage is also affected by age

As a population ages, leverage falls and the velocity of money slows

Debt and net assets per person multiple of average (UK study)



Reducing growth in capacity, consumption, and production



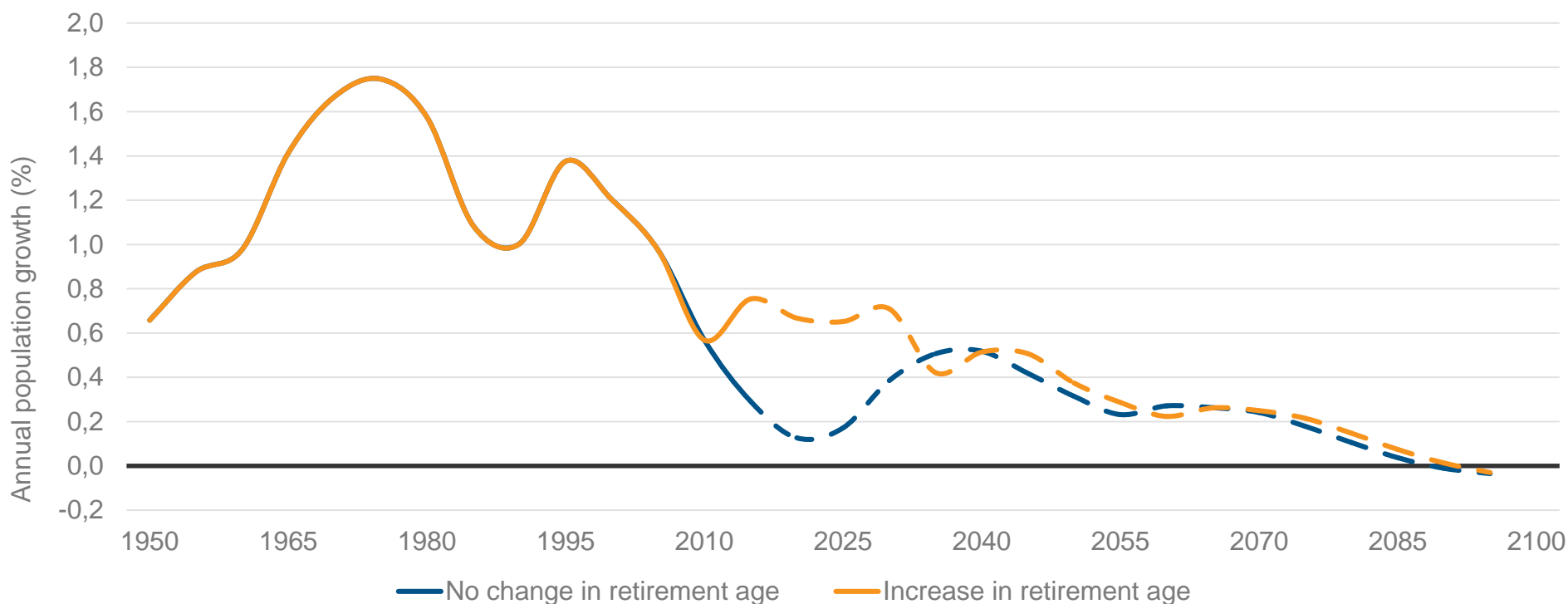
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Potential responses

Increased retirement age

Demographic influences are expected to increase demand for older workers

Working age population growth

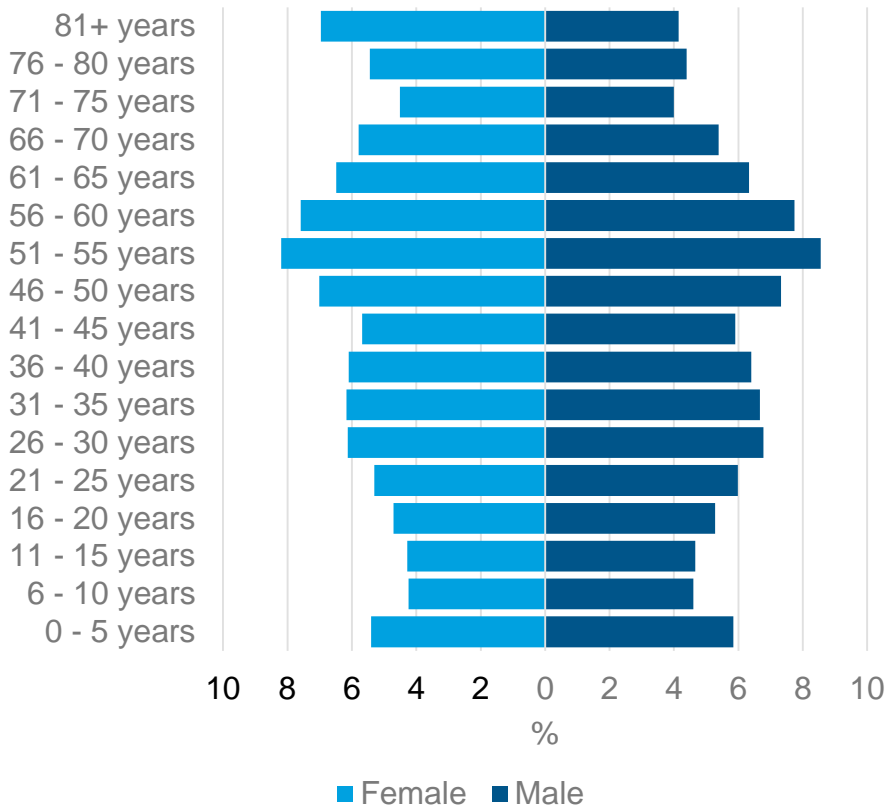


This is through a combination of an increased retirement age and reduced old age unemployment

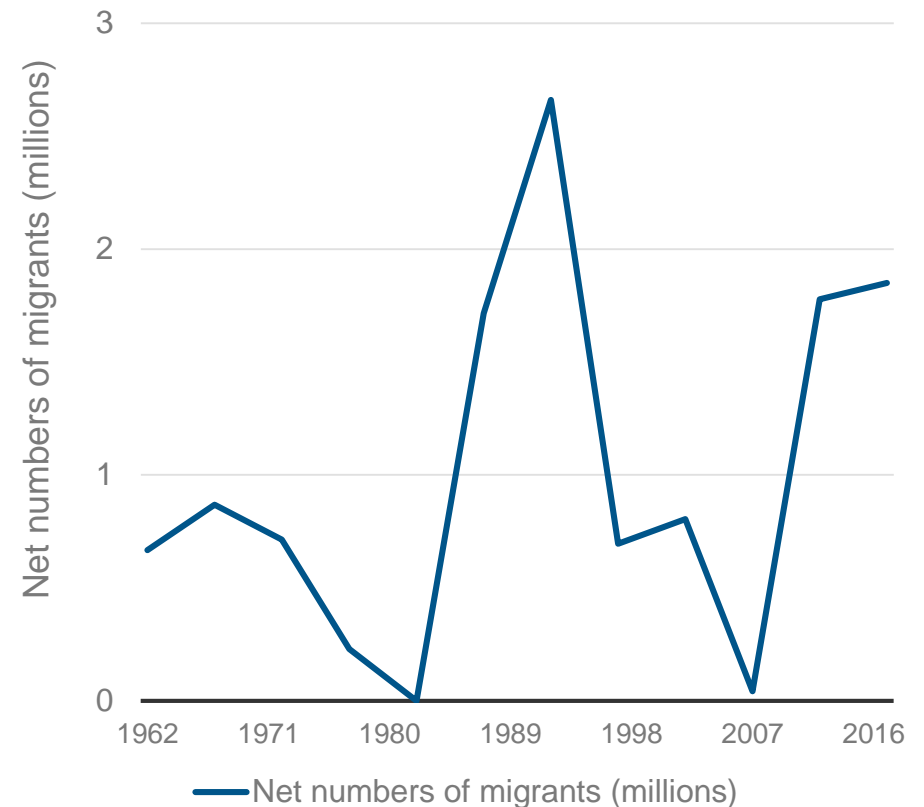
Increased immigration

Immigration can rebalance a countries age distribution and fill skill gaps.

Germany's ageing population



The German birth rate has rebounded, helped along by growing migration figures



Immigration could stimulate fertility rates



03

Implications of demographic changes

Demographics just 'one' structural challenge

There are 5 'D's' at work, with de-globalisation rising to the surface



Demographics | Ageing populations



Dependencies | Low rates and central banks



Debt | Indebtedness continues to rise



Digitalisation | Disrupting low-skilled jobs



De-globalisation | A consequence of rising inequality

- No escape from the 'structural' themes
- And they are getting worse
- Global debt levels are higher than 2008 and credit quality lower
- Globalisation is in retreat – shift toward isolationist policies
- The growing structural challenges are not assisted by trade disputes and use of tariffs

Policies need to focus on addressing address the structural forces

Some 'mysteries' explained by demographics

Demographics impact inflation, growth and trade

Observations as middle cohort growth declines



Correlated with the 'lost years' (low growth) for the economy (1995 – current)



Marked the beginning of the sovereign debt crisis and growth recession (2010 – current)



Coincided with slower growth, currency crisis and policy shift (2015 – current)



US, Australia and to a lesser extent the UK with migration are countering the pressure on the growth rate of the middle cohort population growth

Economic considerations

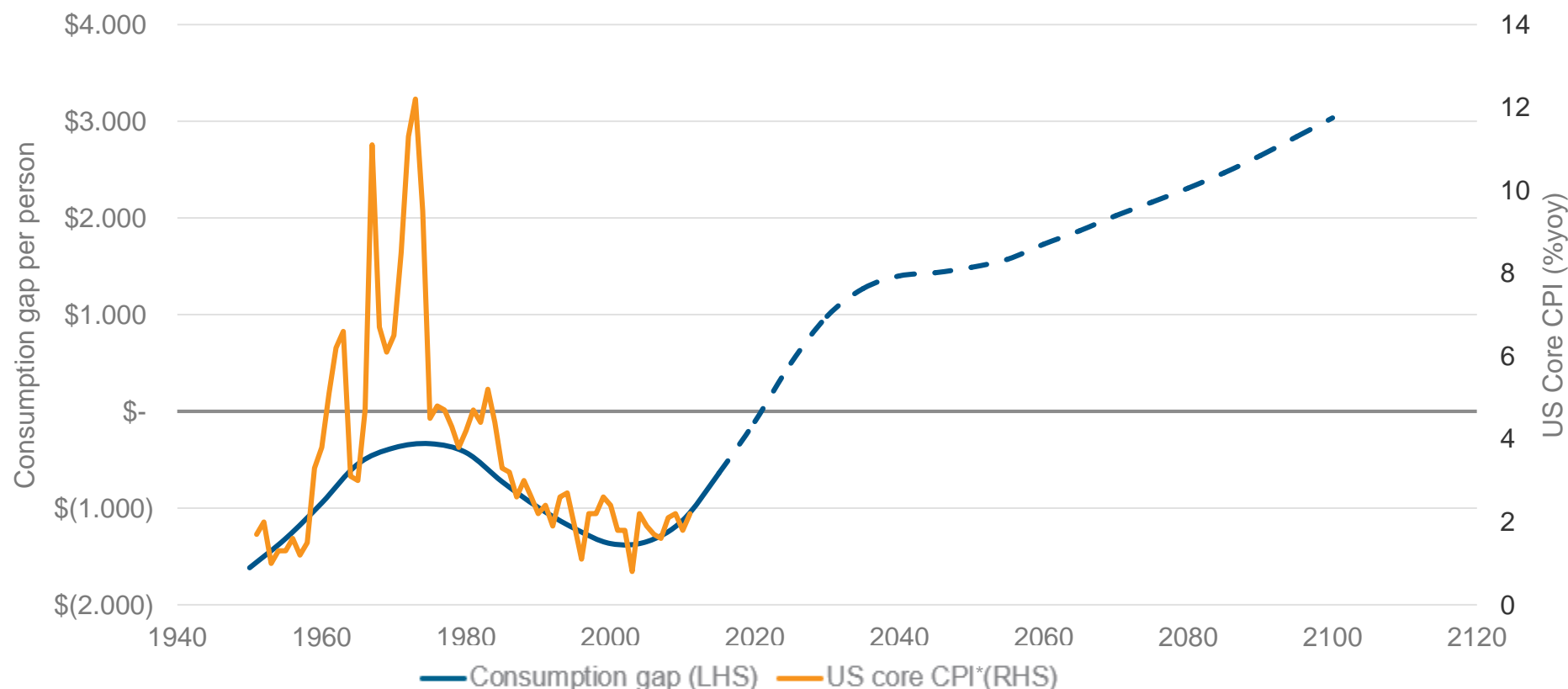
- Demographics is just ONE of the 5-structural themes impacting economies.
- Demographics can explain why inflation has struggled in recent years
- Demographics can explain why central bank easing has become less effective
- Demographics can explain the shift to ever lower bond yields
- Demographics can explain lower equity returns

And demographic forces will drive global macroeconomics for several more years

Economic risks from demographic change

As populations age, production will likely fall faster than consumption

Consumption gap and core inflation

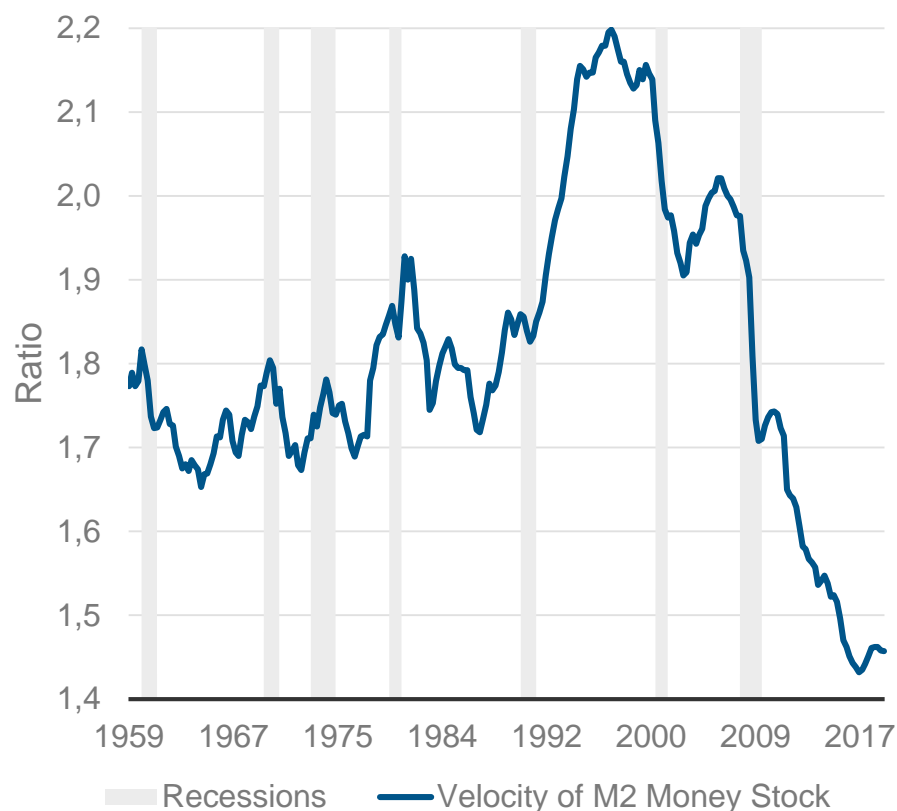


Longer term hope.....potentially creating conditions for higher growth and inflation!

Economic risks from demographic change

As populations age, the incentive to save increases

Velocity of money



Savings rate (%)

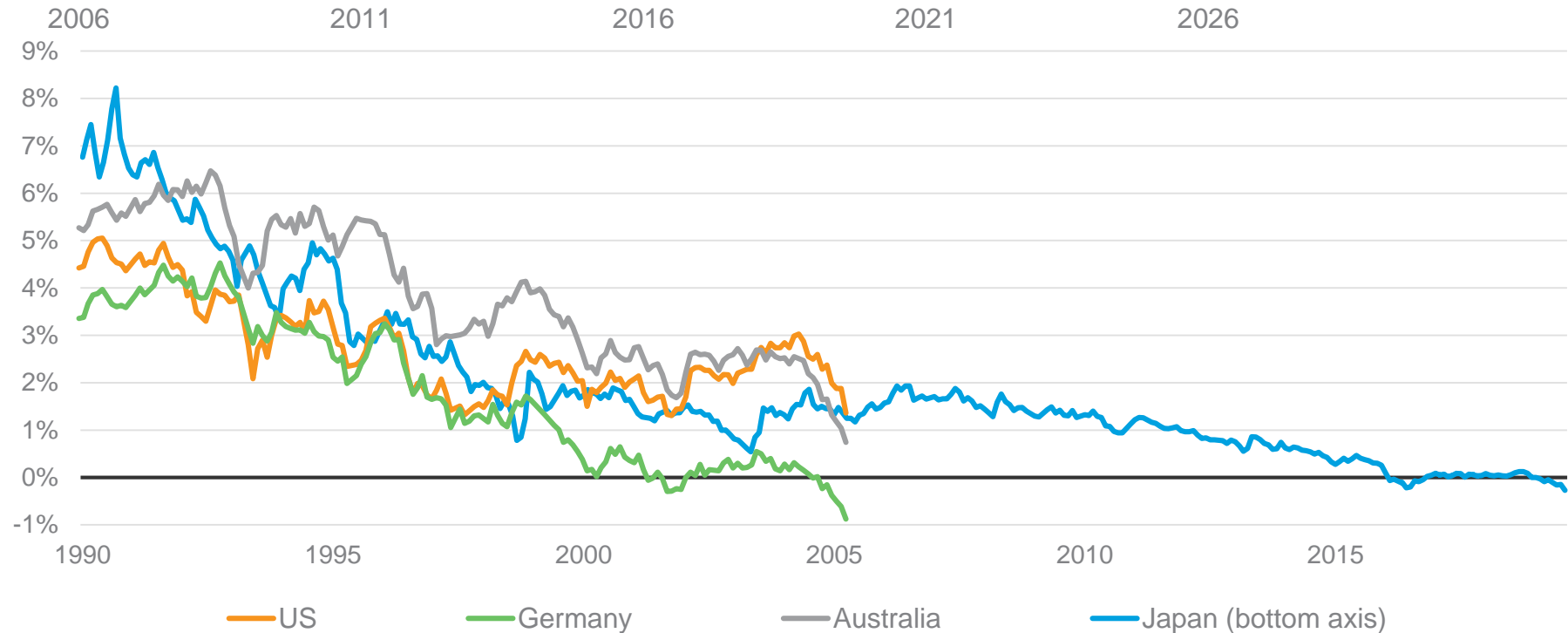


Lower interest rates fall = lower income for older cohorts = incentive to save even more

Economic risks from demographic change

The fall in global yields reflects the grinding impact of structural issues

10 year Treasury yields



Many investors ignored duration at their peril

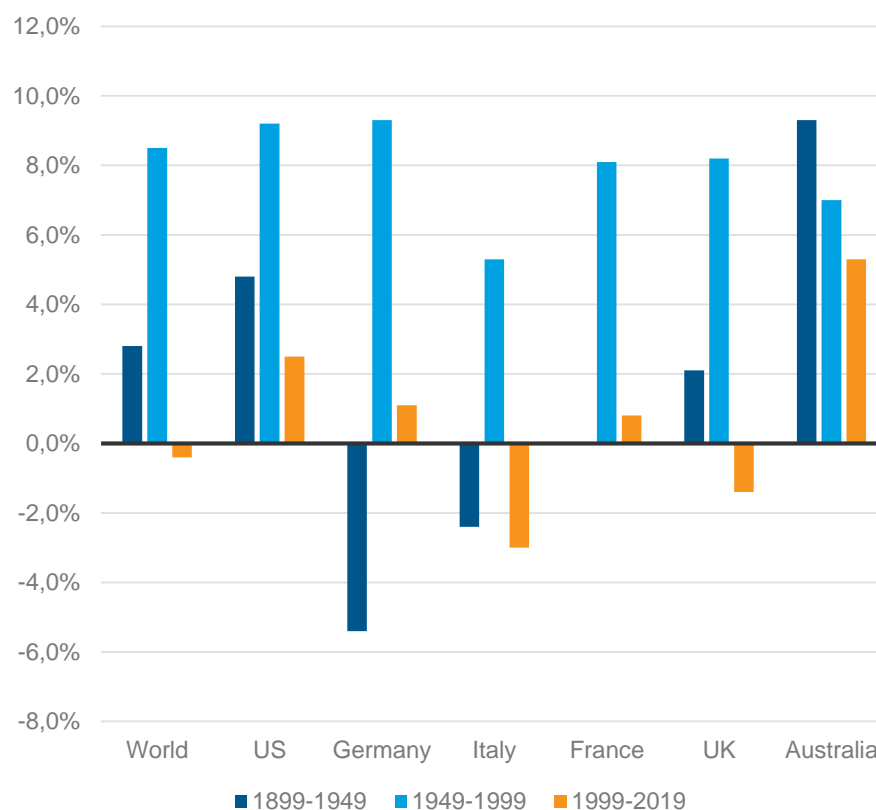
Economic risks from demographic change

Lower growth will likely impact equity returns

Declining equity risk premiums

Century	ERP (US)	ERP (UK)
18 th	N/A	0.5%
19 th	0.3%	0.5%
20 th	5.5%	4.0%
21 st (to 2018)	2.5%	-1.4%

Falling equity real returns globally



With global equity risk premiums already trending lower

Structural influences are expected to continue to being a headwind



Demographic changes are likely to drive world economies for the next 10-20 years



Economic growth and investment returns are likely to be lower



Pension funds are likely to struggle as defined contribution plans just pass the problem to someone else



Pressure for action is increasing: increased retirement age; immigration policy; budget policy.

Investment implications

Demographics have been and will be a major driver of:

- Lower growth
- Lower returns
- Lower for longer bond yields



What can we do?

- We can innovate, increase labour flexibility, and increase the retirement age
- Increase immigration
- Increase government spending on education and infrastructure



Impact on investment management

- Persistent demographic pressure prevents a return to normal
- Regional difference can create relative value opportunities
- Investors need to adapt to a lower return framework



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