

THE CHANGING INTERNATIONAL ECONOMIC ORDER – AND ITS IMPLICATIONS FOR AUSTRALIA

PRESENTATION TO THE
ECONOMICS TEACHERS ASSOCIATION OF WA
ANNUAL CONFERENCE

PERTH, 30TH NOVEMBER 2018

The global economic 'leader board' has changed slowly since 1950 – but will change more rapidly over the next three decades

The world's ten largest economies – 1950-2050

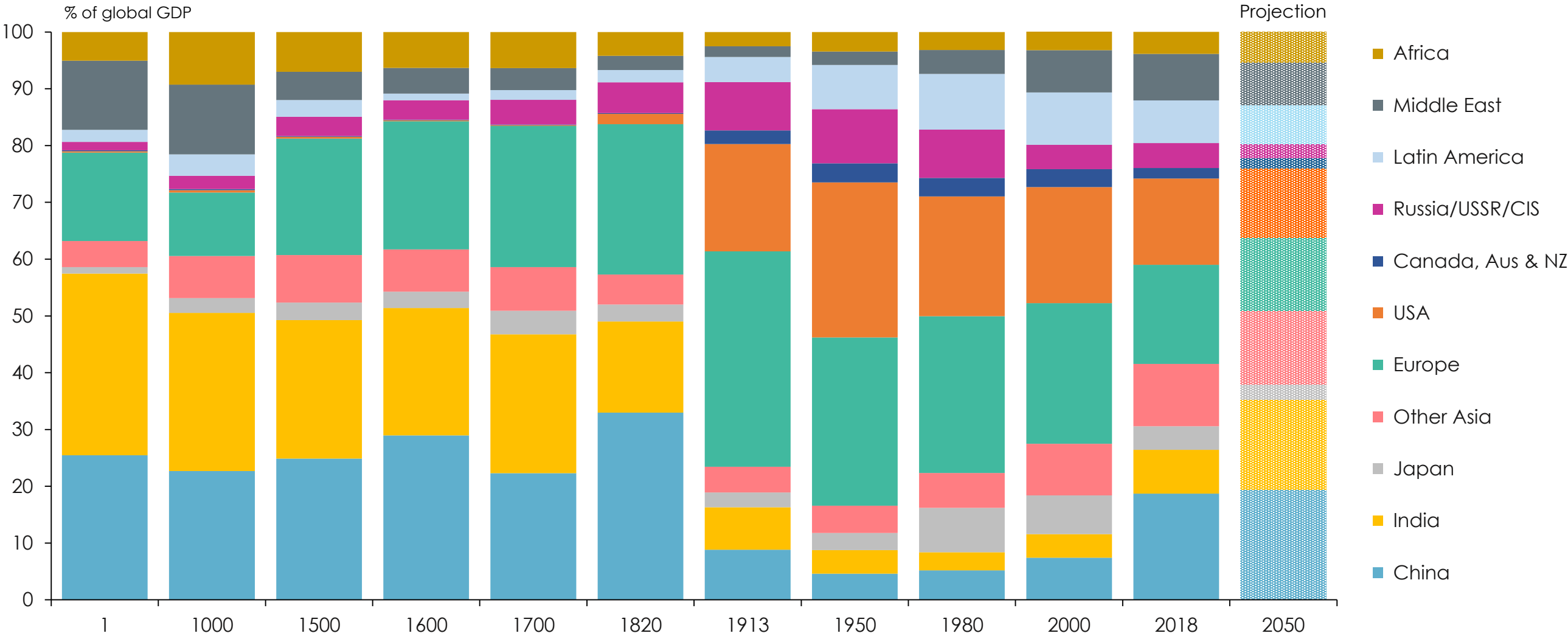
1950	1960	1970	1980	1990	2000	2010	2015	2030(f)	2050(f)
US	US	US	US	US	US	US	China	China	China
USSR	USSR	USSR	USSR	Japan	China	China	US	US	India
UK	W Germany	Japan	Japan	USSR	Japan	India	India	India	US
India	UK	W Germany	W Germany	China	Germany	Japan	Japan	Japan	Indonesia
France	Japan	UK	France	Germany	India	Germany	Germany	Indonesia	Japan
W Germany	France	France	Italy	India	France	Russia	Russia	Germany	Turkey
Italy	India	Italy	UK	France	Russia	Brazil	Brazil	Brazil	Brazil
Japan	Italy	India	China	UK	Italy	France	Indonesia	Russia	Germany
Canada	China	China	Brazil	Italy	Brazil	UK	UK	Turkey	UK
China	Brazil	Brazil	India	Brazil	UK	Italy	France	UK	Mexico

Note: Rankings are based on estimates of GDP in US dollars at purchasing power parities (PPP) rather than market exchange rates.

Sources: The Conference Board, *Total Economy Database* (2016); International Monetary Fund, *World Economic Outlook* database (October 2018); Organization for Economic Co-operation & Development (OECD), *Economic Outlook No 103* (July 2018), Long-term baseline projections.

Economic rankings have changed substantially over the course of the past two millennia

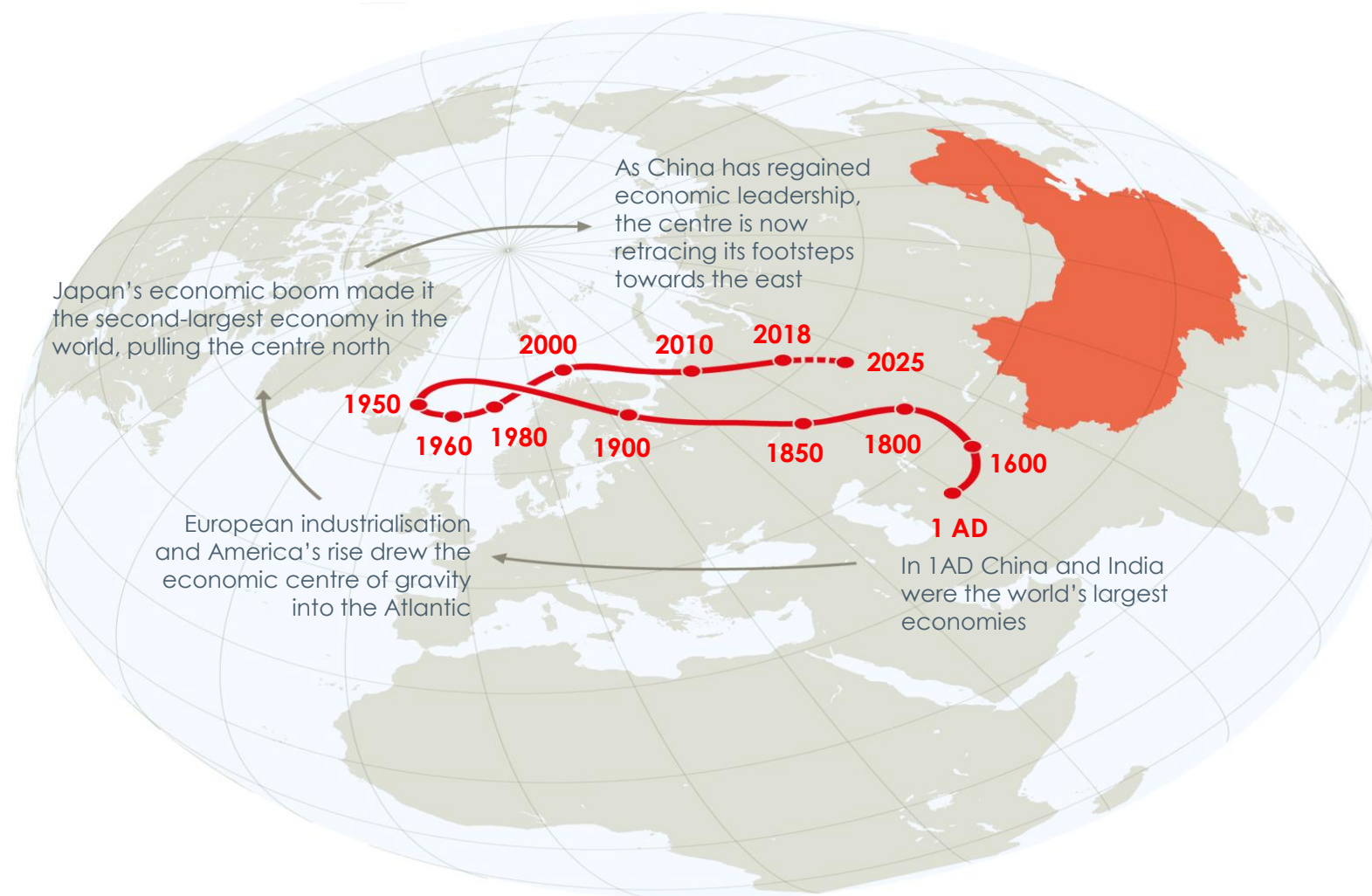
Shares of world GDP, 1AD - 2050



Note: Estimates of GDP are in US dollars at purchasing power parities. Egypt and Turkey are included in 'Middle East'; 'Other Asia' includes Pacific Islands, Pakistan and Afghanistan; Baltic States are included in Russia/USSR before 1980, and in Europe after then. Sources: Groningen Growth & Development Centre, *Maddison Database 2010* (1-1980); IMF, *World Economic Outlook* database, October 2018 (2000 and 2018); OECD, *The Long View: Scenarios for the World Economy to 2060* (OECD Economic Policy Paper No. 22, July 2018) (2050, based on projected growth rates for 2020-2050); Corinna Economic Advisory.

The world's 'centre of economic gravity' is moving back east

The world's 'centre of economic gravity' 1AD -2025



Note: The economic centre of the globe is calculated using an average of countries' locations weighted by their GDP
Source: *The Economist*, 27th October 2018.

A useful way of thinking about where economic growth comes from

$$\text{GDP} = \text{population} \times \frac{\text{GDP}}{\text{population}} = \text{population} \times \text{per capita GDP}$$

$$\text{GDP} = \text{population} \times \frac{\text{employment}}{\text{population}} \times \frac{\text{hours worked}}{\text{employment}} \times \frac{\text{GDP}}{\text{hours worked}}$$

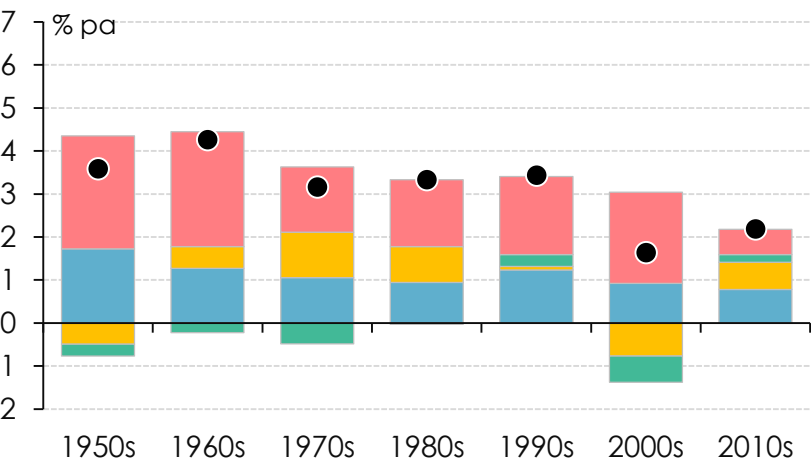
$$= \text{population} \times \text{'employment rate'} \times \text{average hours worked} \times \text{labour productivity}$$

$$\Delta \text{GDP} = \Delta \text{population} \times \Delta \text{'employment rate'} \times \Delta \text{average hours worked} \times \Delta \text{labour productivity}$$

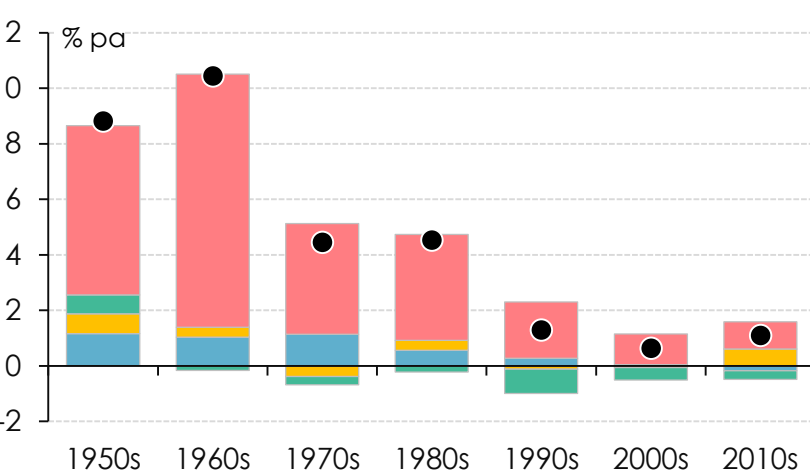
Productivity growth – and in some cases increased participation in employment – have driven rapid GDP growth in Asian economies

Sources of real GDP growth in selected economies, 1950-2018

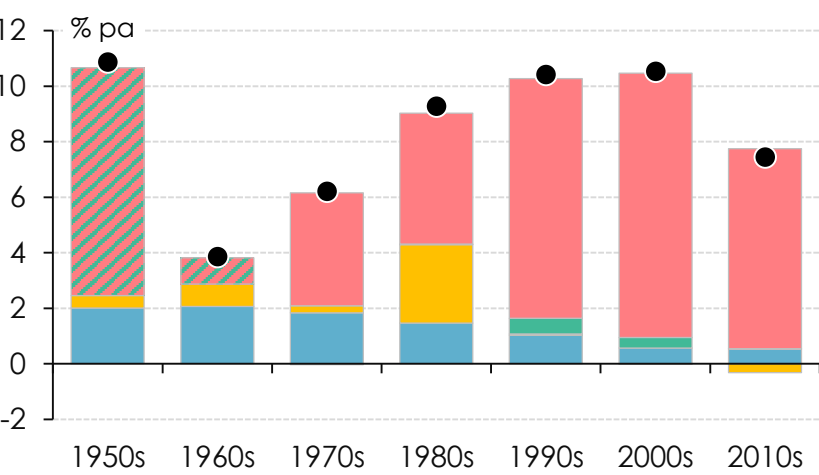
United States



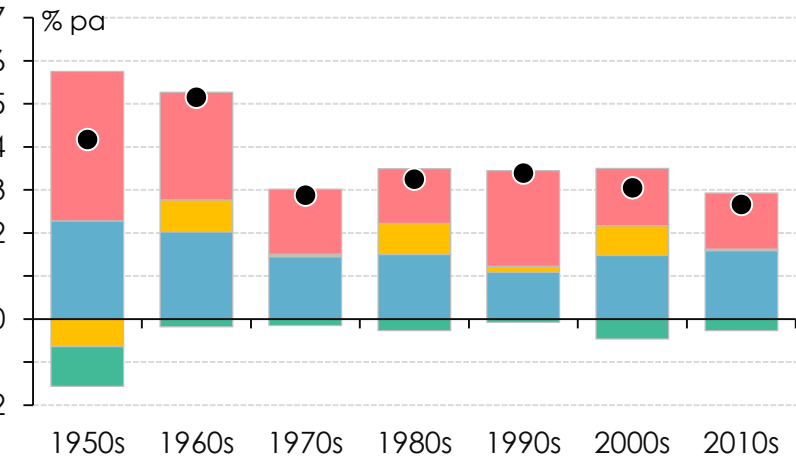
Japan



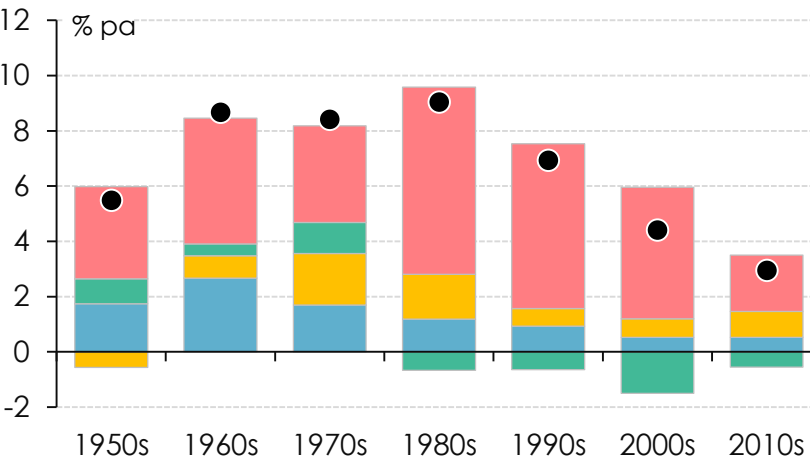
China



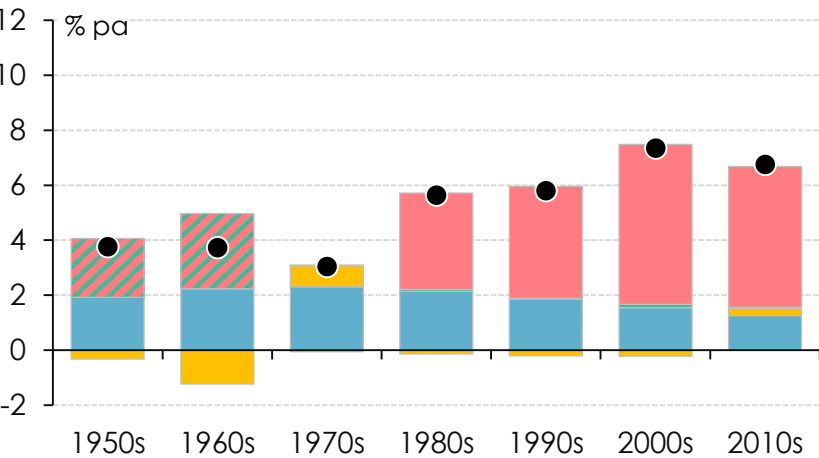
Australia



Korea



India



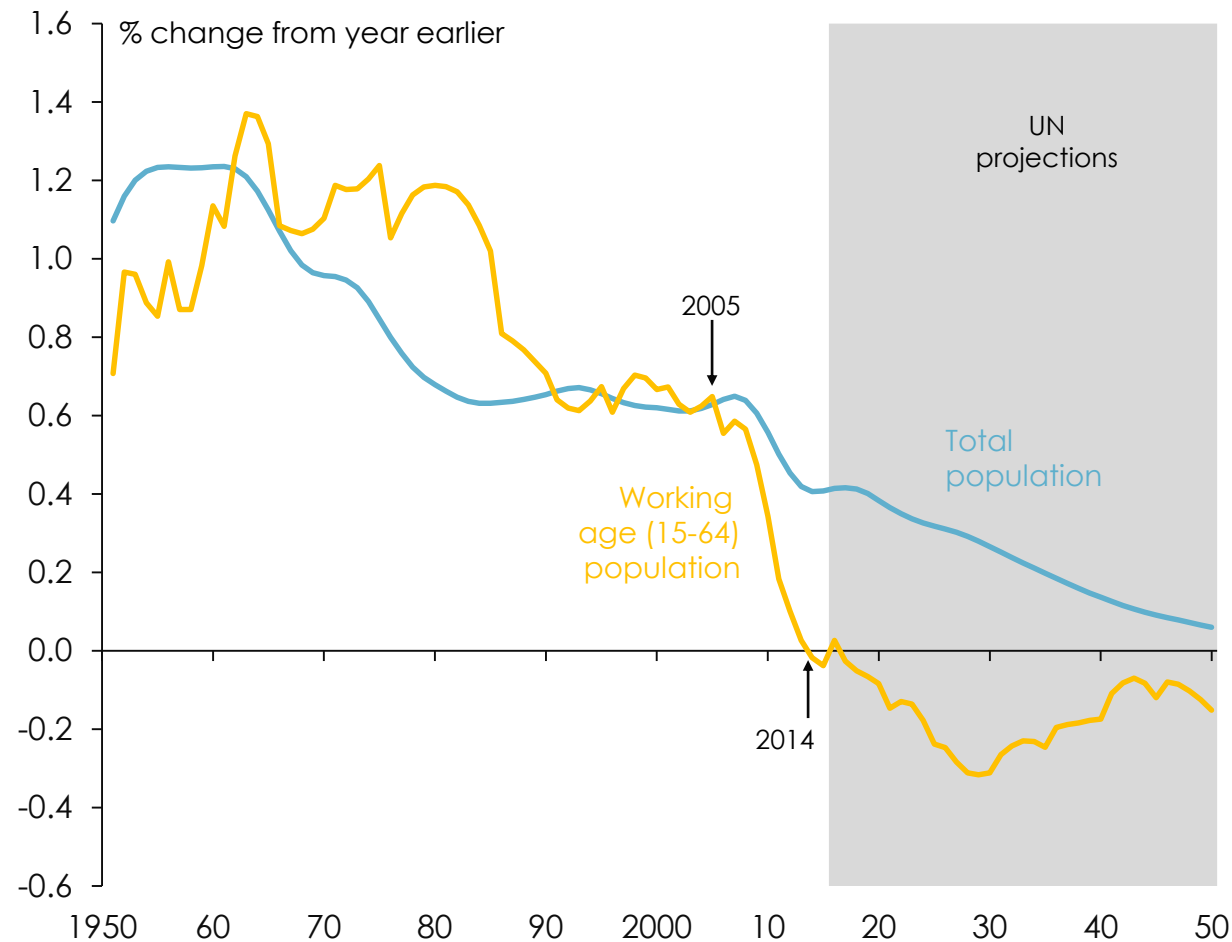
Population Employment-to-population ratio Average hours worked Labour productivity • Real GDP

Note: '2010s' is 2011 through 2018 (at an annual rate). Separate estimates for hours worked and output per hour not available for 'emerging' economies prior to 1970 so labour productivity for China and India in the 1950s and 1960s is output per person employed, rather than output per hour worked.
Sources: The Conference Board, *Total Economy Database* 2018; Corinna Economic Advisory.

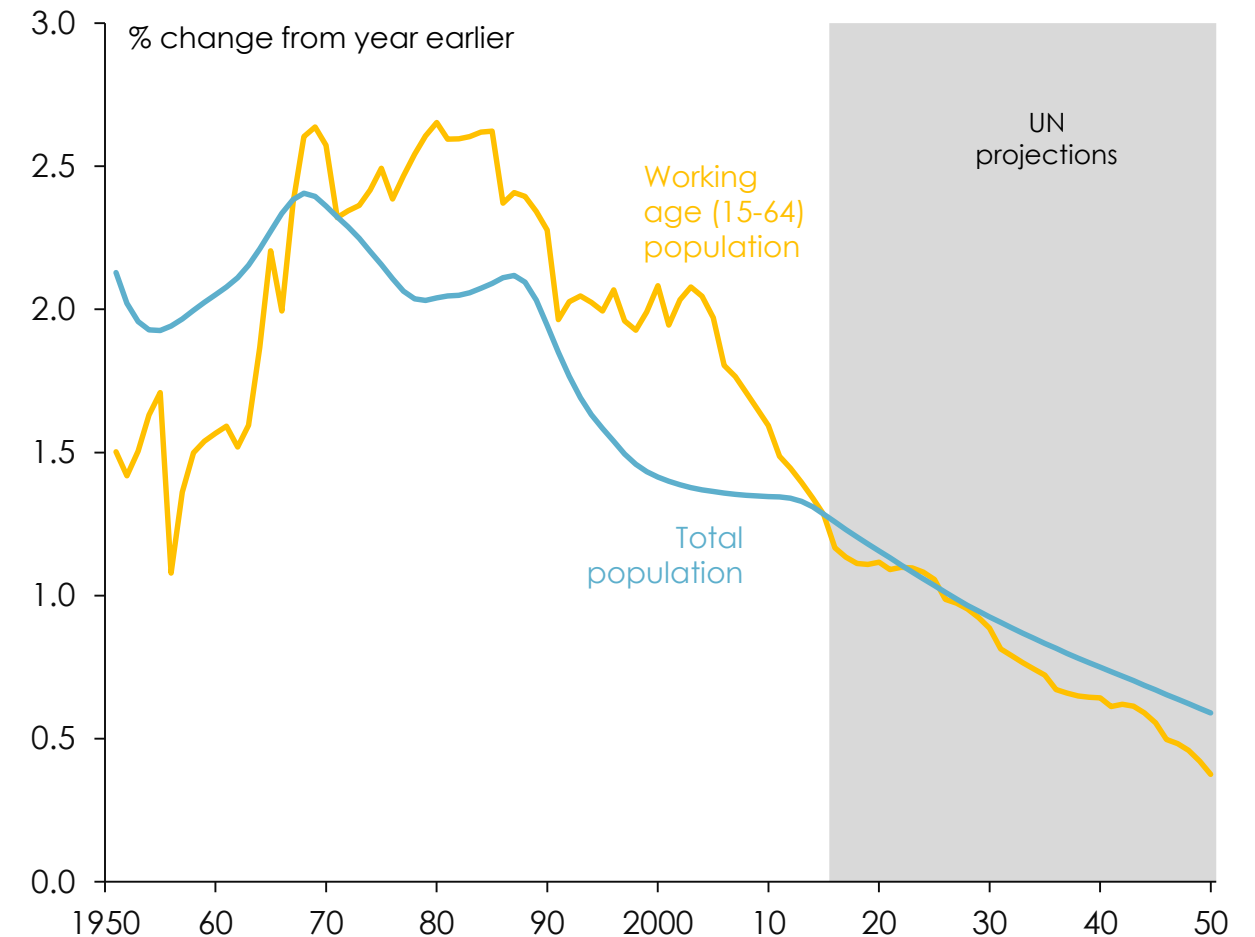
The growth rate of 'advanced' economies' working-age populations has slowed sharply since just before the financial crisis

Total vs 'working age' (15-64) populations in 'advanced' and 'emerging' economies, 1950-2050

'Advanced' economies



'Emerging and developing' economies

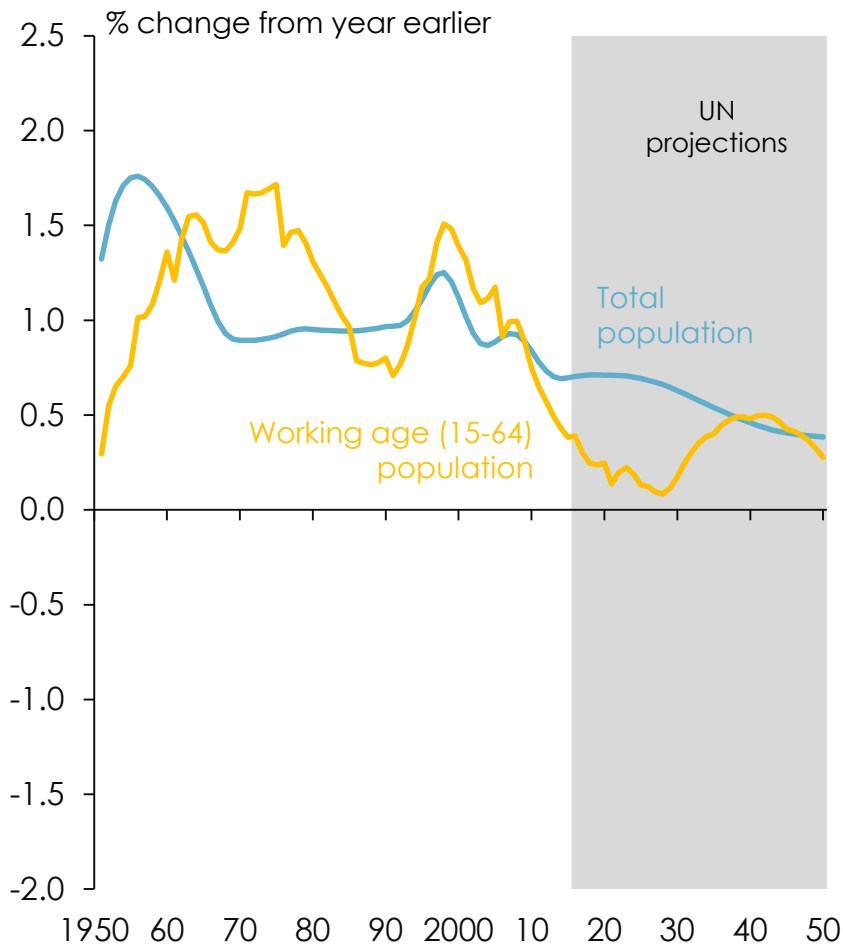


Note: 'Advanced' economies are as defined by the IMF in its *World Economic Outlook* (ie, Australia, Canada, Czech Republic, Denmark, the 19 members of the euro area, Hong Kong, Israel, Japan, Korea, Macao, New Zealand, Norway, Puerto Rico, San Marino, Singapore, Sweden, Switzerland, Taiwan, United Kingdom and United States).
Sources: United Nations Department of Economic and Social Affairs Population Division, *World Population Prospects 2017*, 21st June 2017; Corinna Economic Advisory.

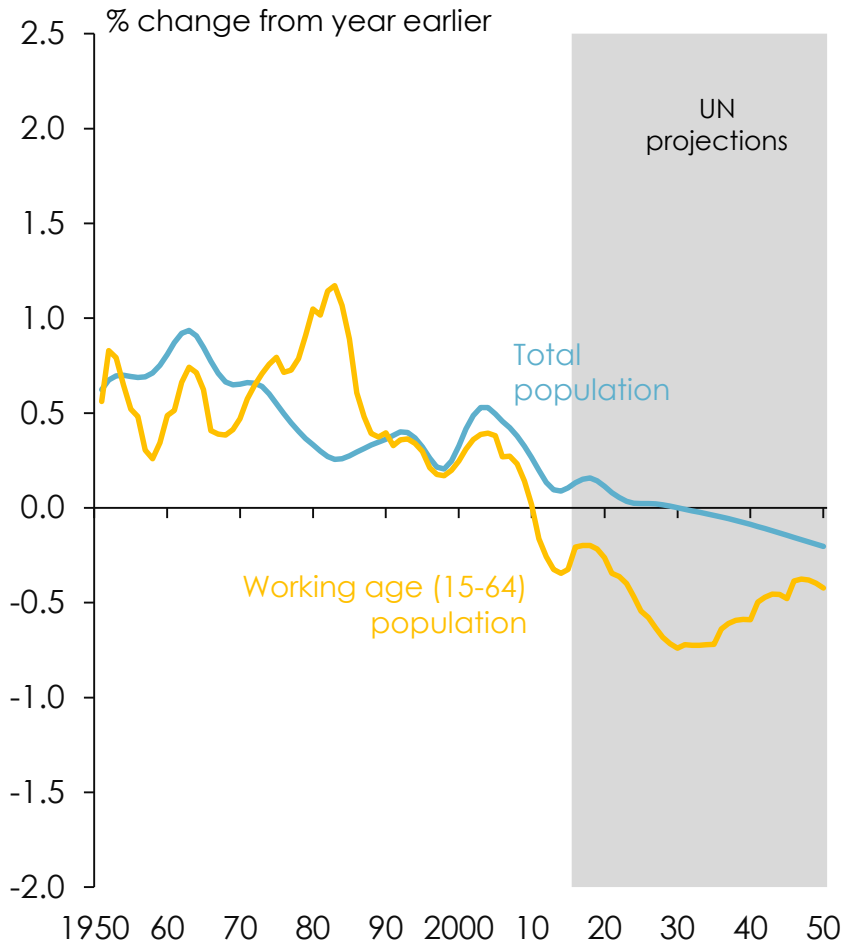
The working age populations of the euro area and Japan are already declining, while in the US working age population growth has slowed sharply

Total vs 'working age' (15-64) populations in major 'advanced' economies, 1950-2050

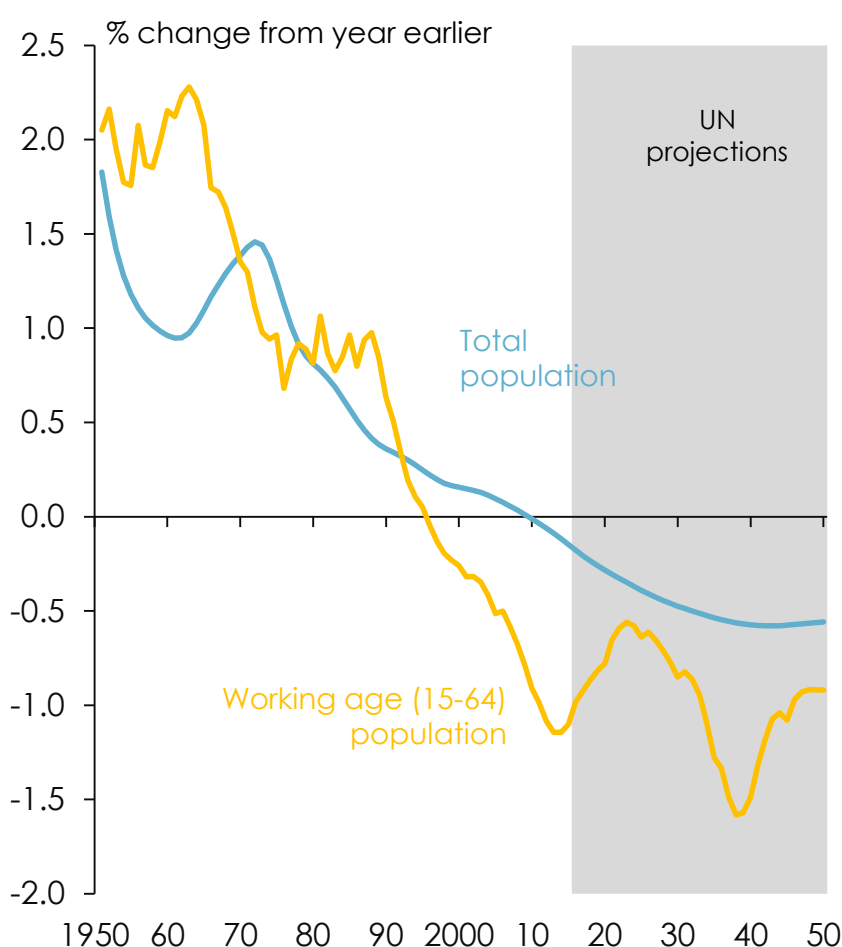
United States



Euro area



Japan

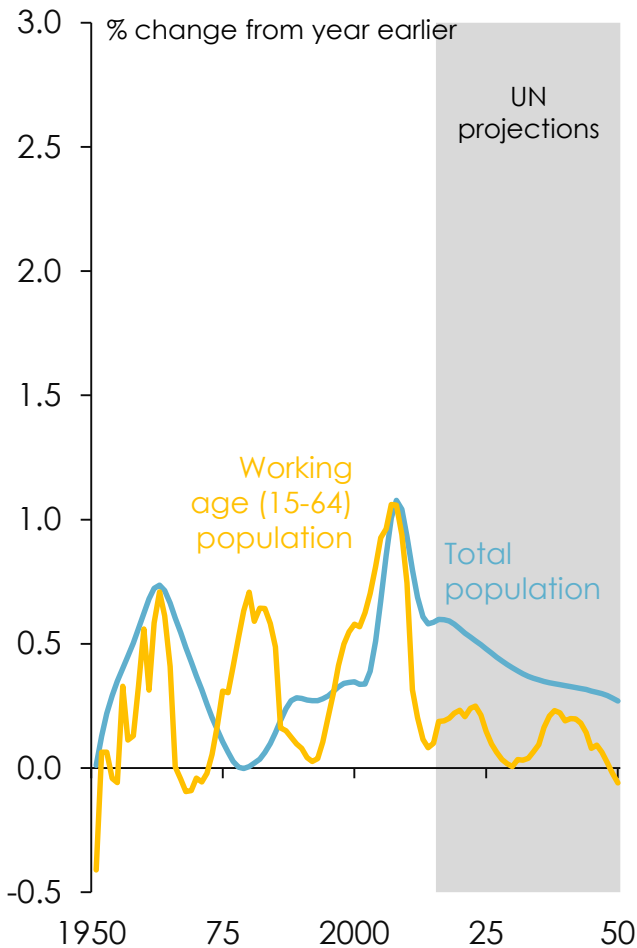


Sources: United Nations Department of Economic and Social Affairs Population Division, *World Population Prospects 2017*, 21st June 2017; Corinna Economic Advisors.

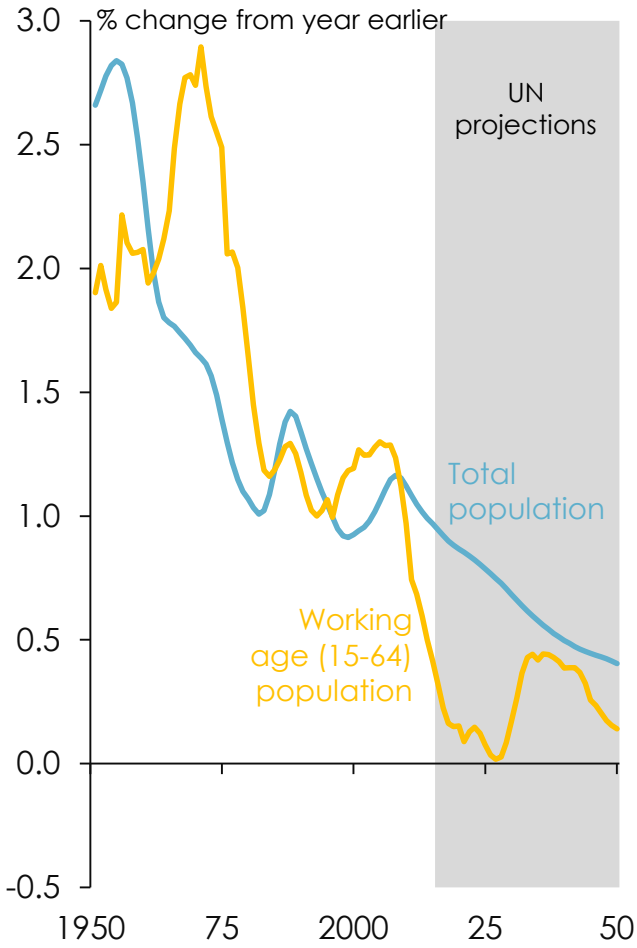
'Anglo' countries' immigration programs are mitigating the impact of population ageing – although 'Brexit' may remove that effect for the UK

Total vs 'working age' populations in 'Anglo' countries, 1950-2050

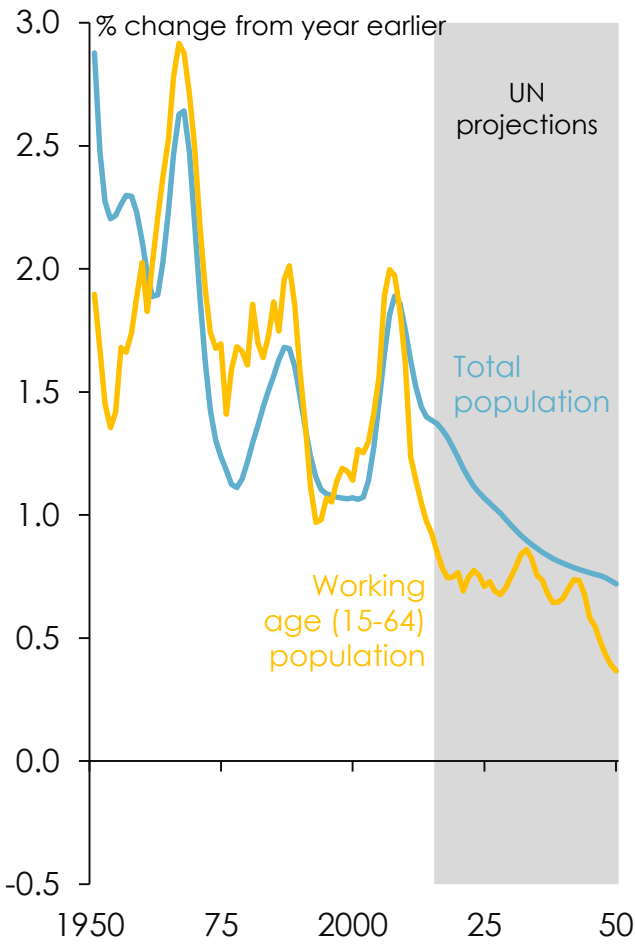
United Kingdom



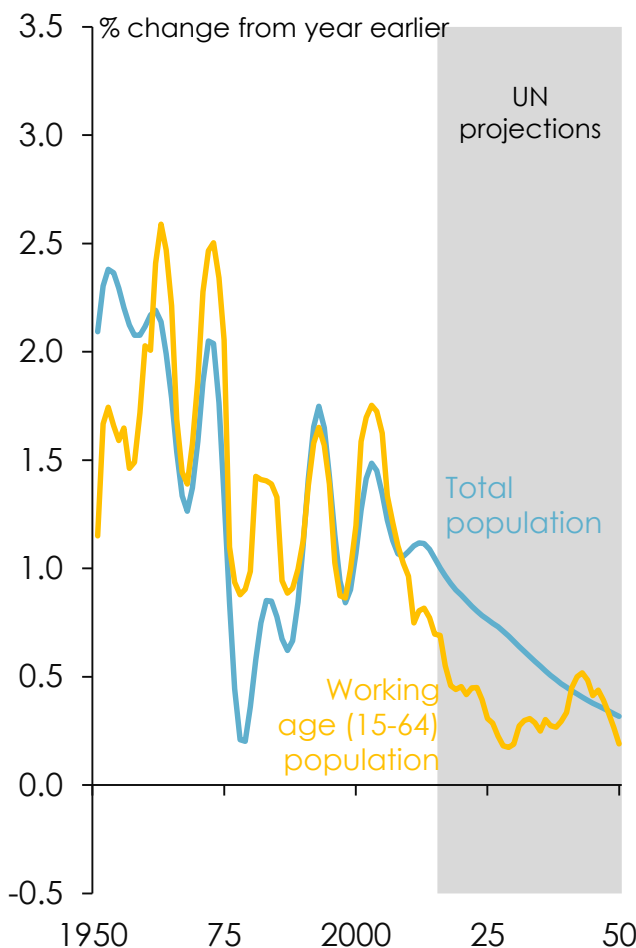
Canada



Australia



New Zealand

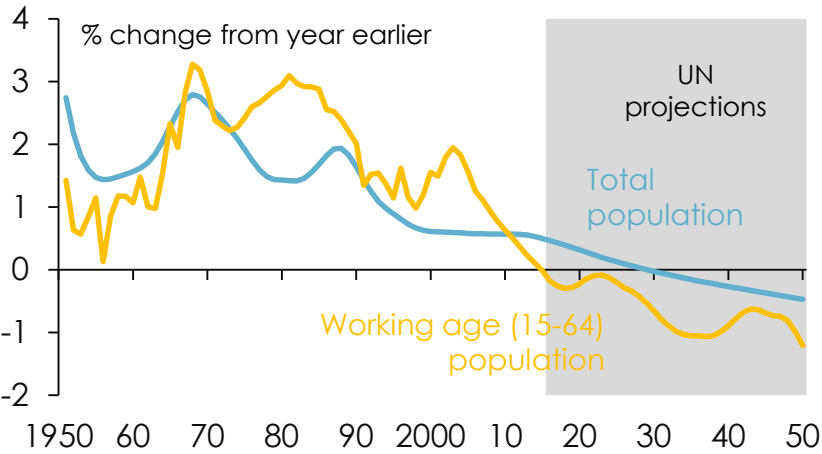


Sources: United Nations Department of Economic and Social Affairs Population Division, *World Population Prospects 2017*, 21st June 2017; Corinna Economic Advisors.

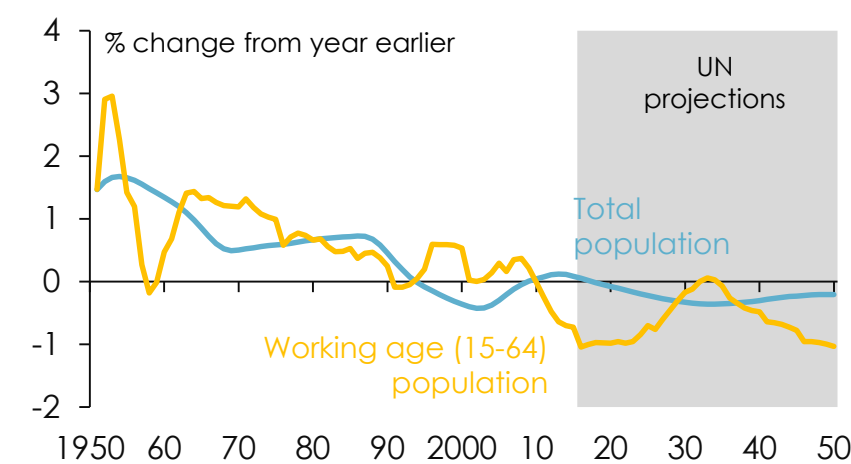
Demography is a huge challenge for China and Russia – but an advantage for other major ‘emerging’ economies

Total vs ‘working age’ populations in major ‘emerging’ economies, 1950-2050

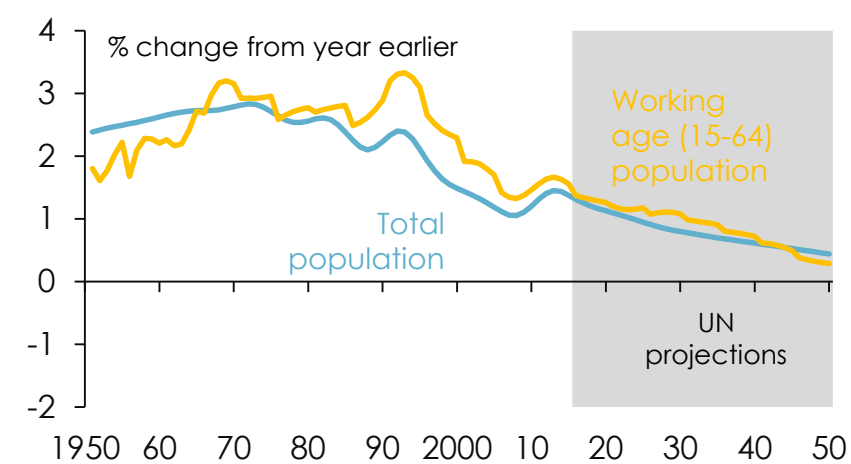
China



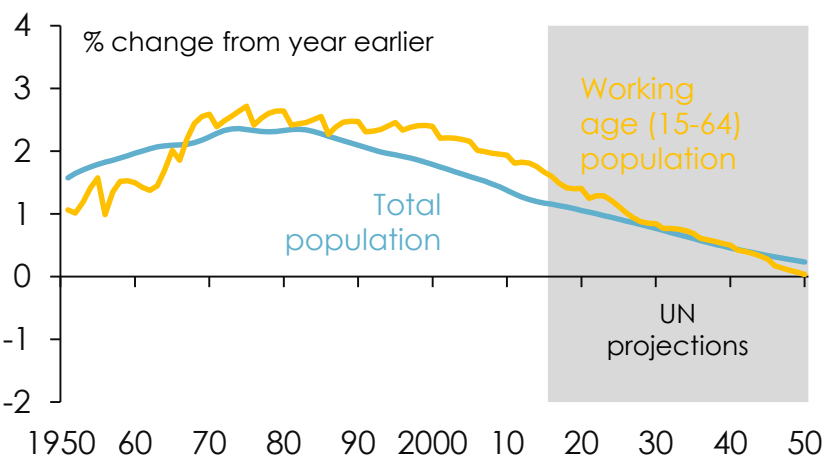
Russia



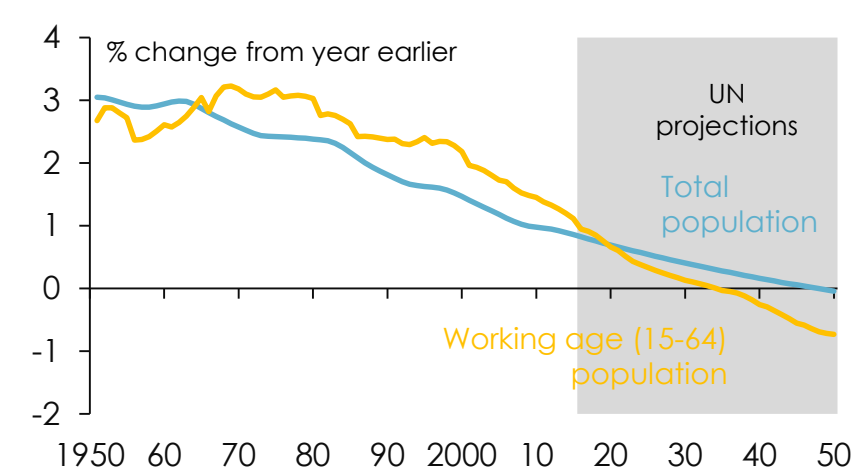
South Africa



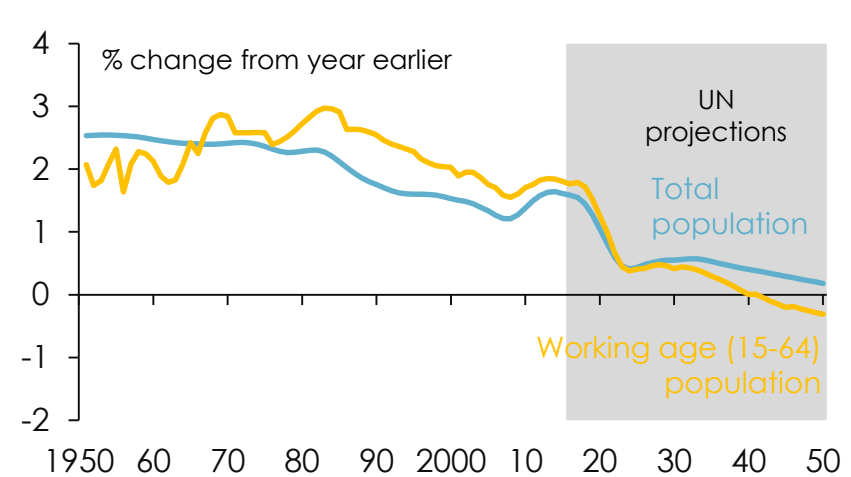
India



Brazil



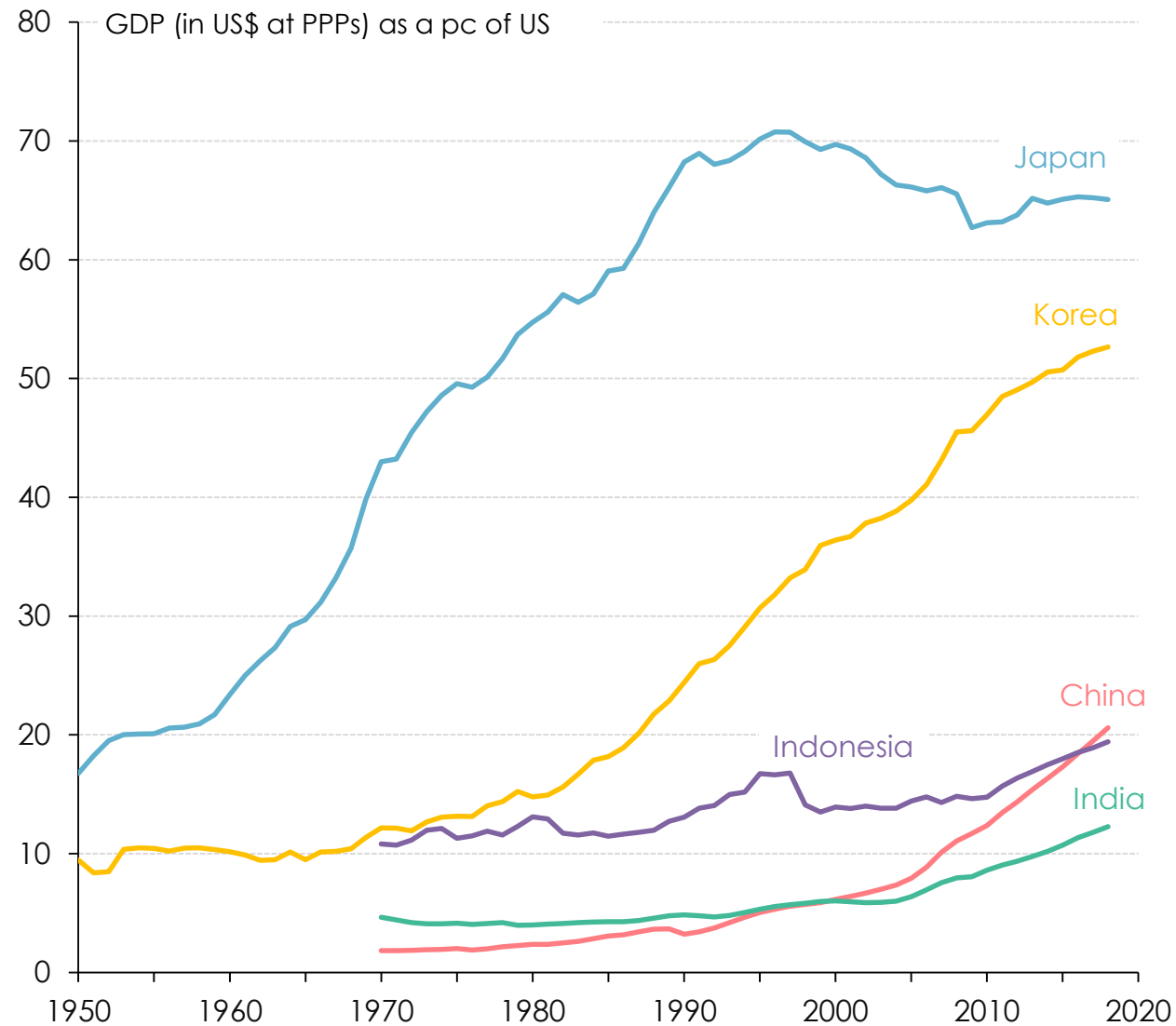
Turkey



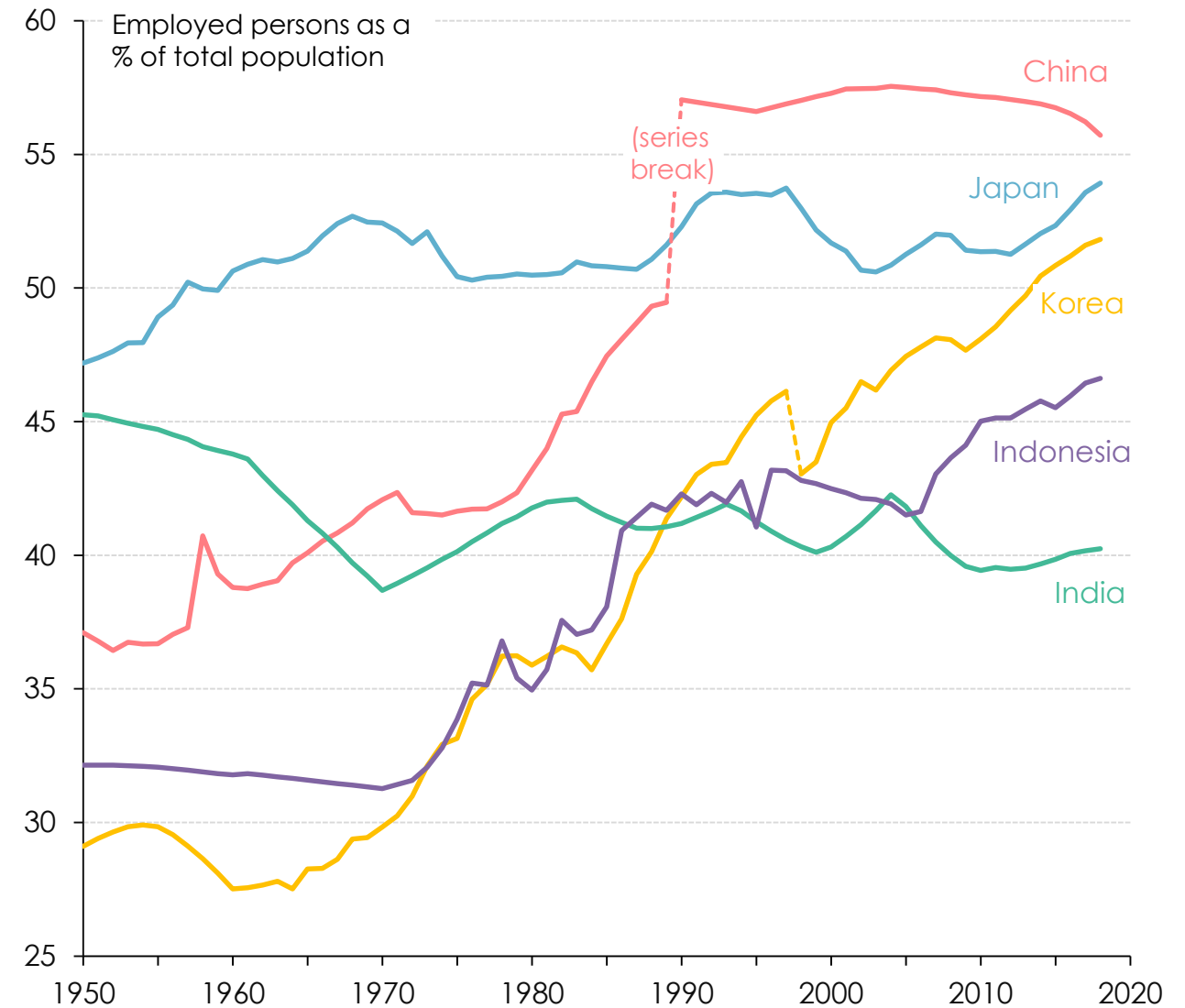
Sources: United Nations Department of Economic and Social Affairs Population Division, *World Population Prospects 2017*, 21st June 2017; Corinna Economic Advisors.

Labour productivity in China and (even more so India) is still well below 'advanced' economy levels, and India has a very low employment rate

Labour productivity as a pc of US



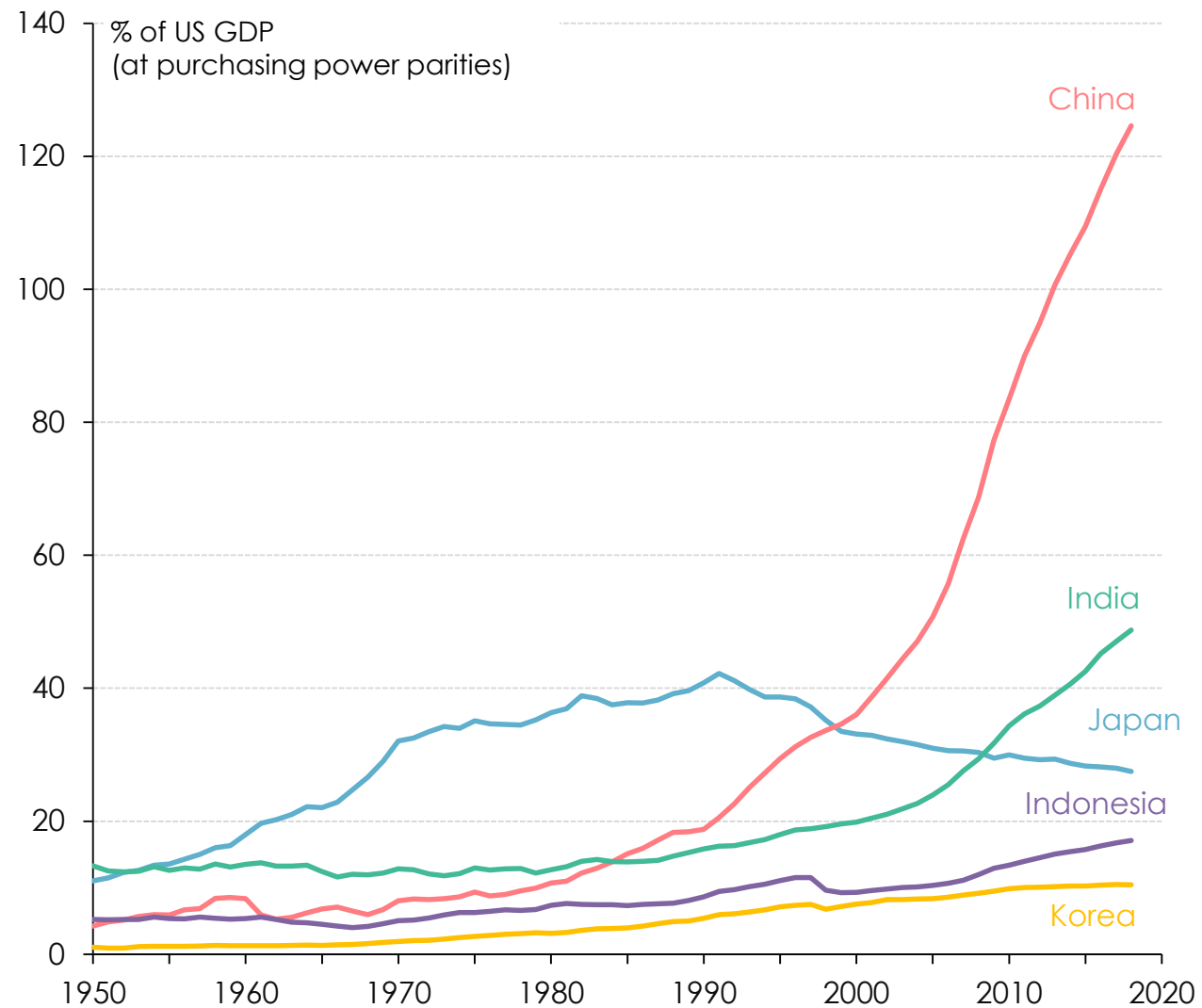
Employment-to-population ratios



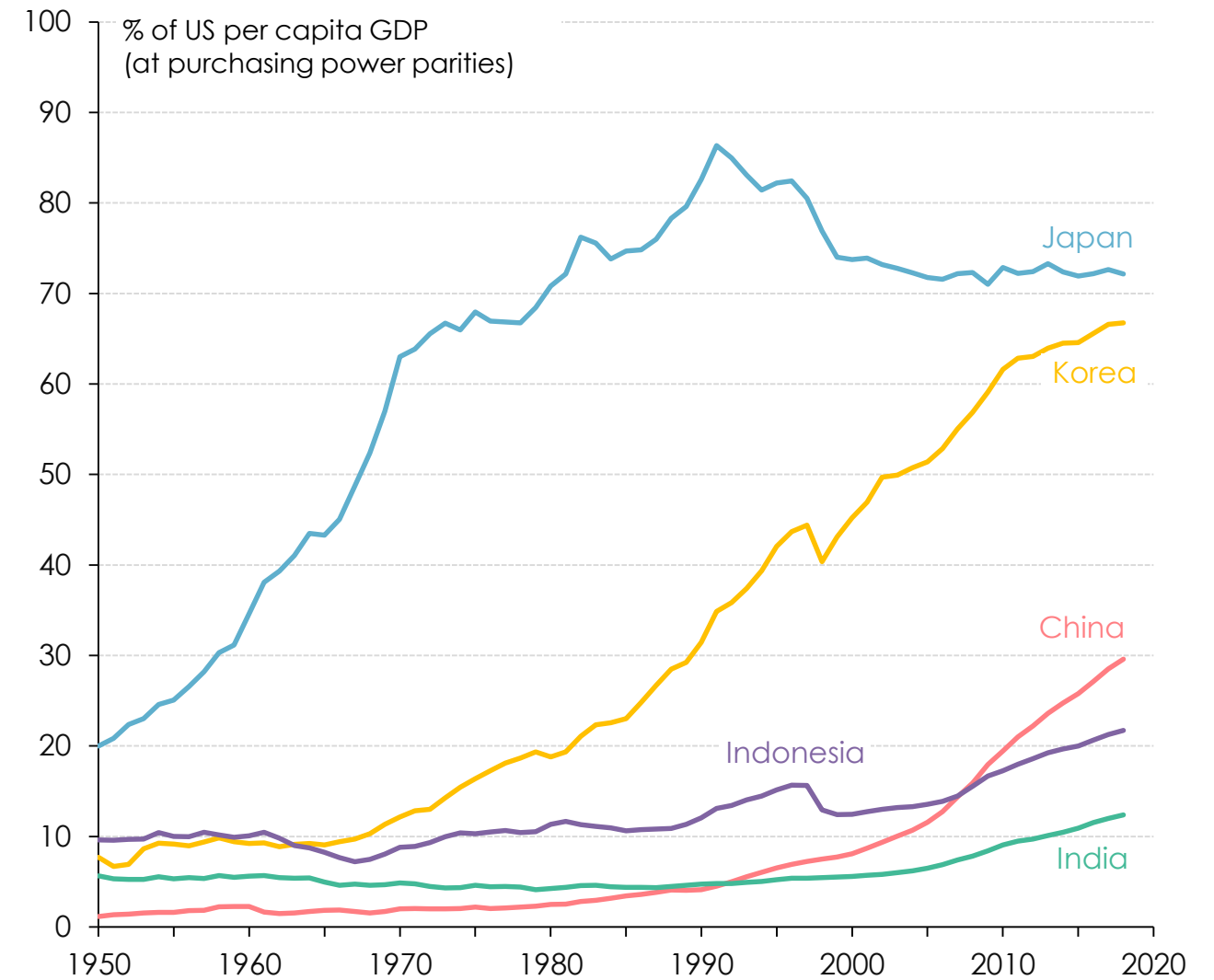
Sources: The Conference Board, Total Economy Database 2018; Corinna Economic Advisory.

While China's economy is now larger than the US's, and India's is larger than Japan's, both of them remain relatively poor relative to the US

GDP as a pc of US



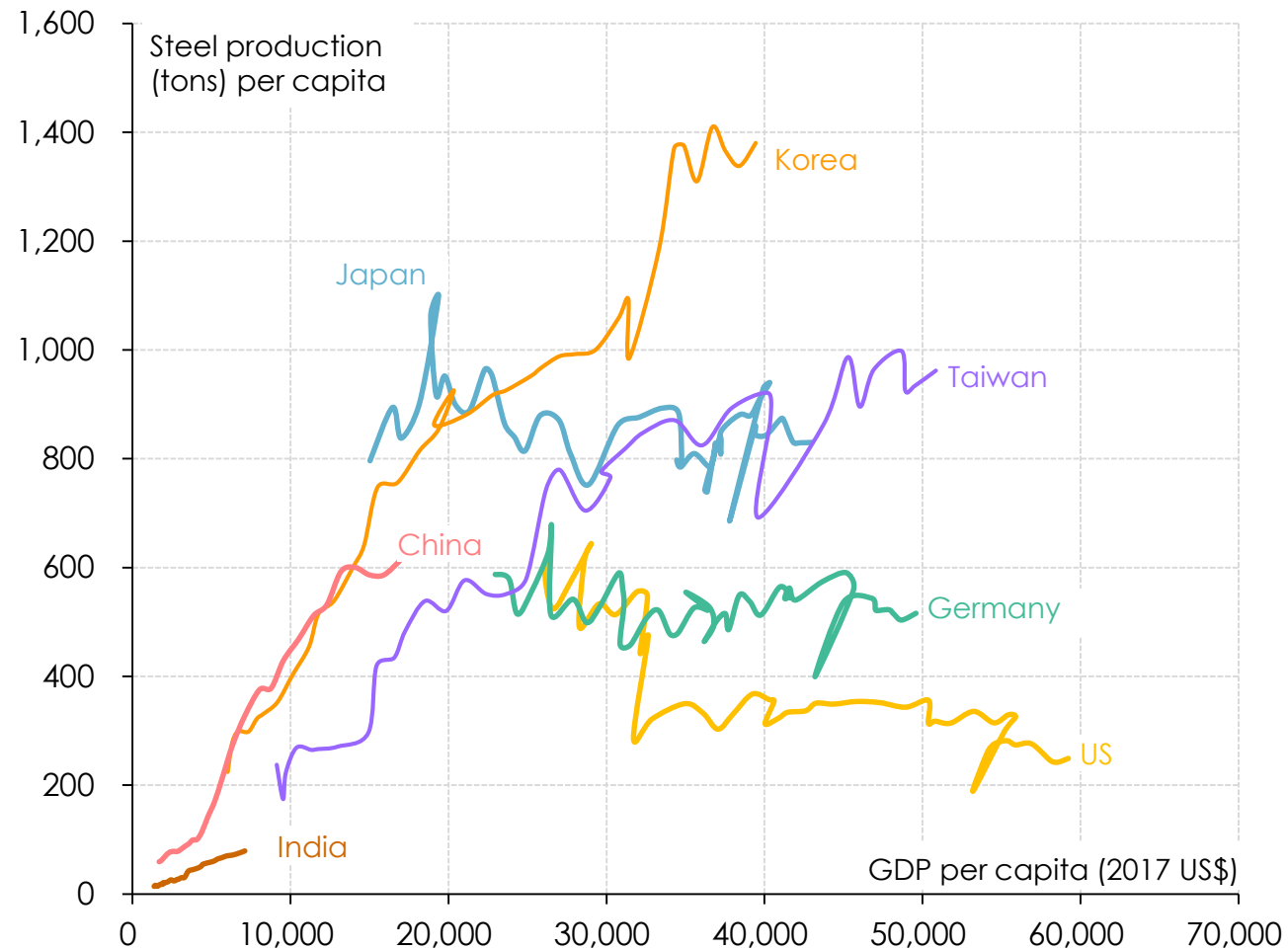
Per capita GDP as a pc of US



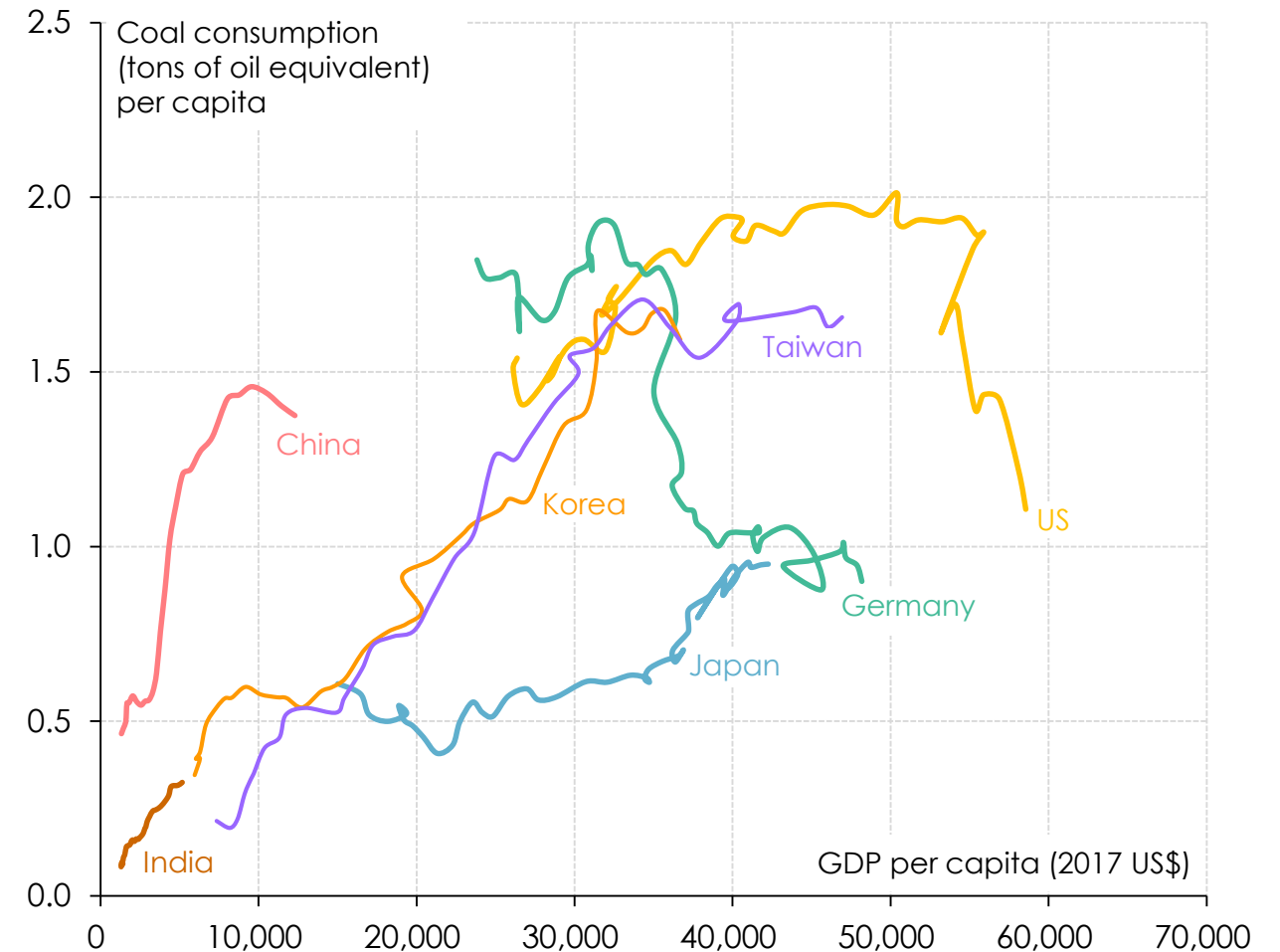
Sources: The Conference Board, *Total Economy Database* 2018; Corinna Economic Advisory.

China has reached advanced-economy levels of steel and coal intensity at relatively low levels of per capita GDP

Steel intensity of economic activity, 1969-2017



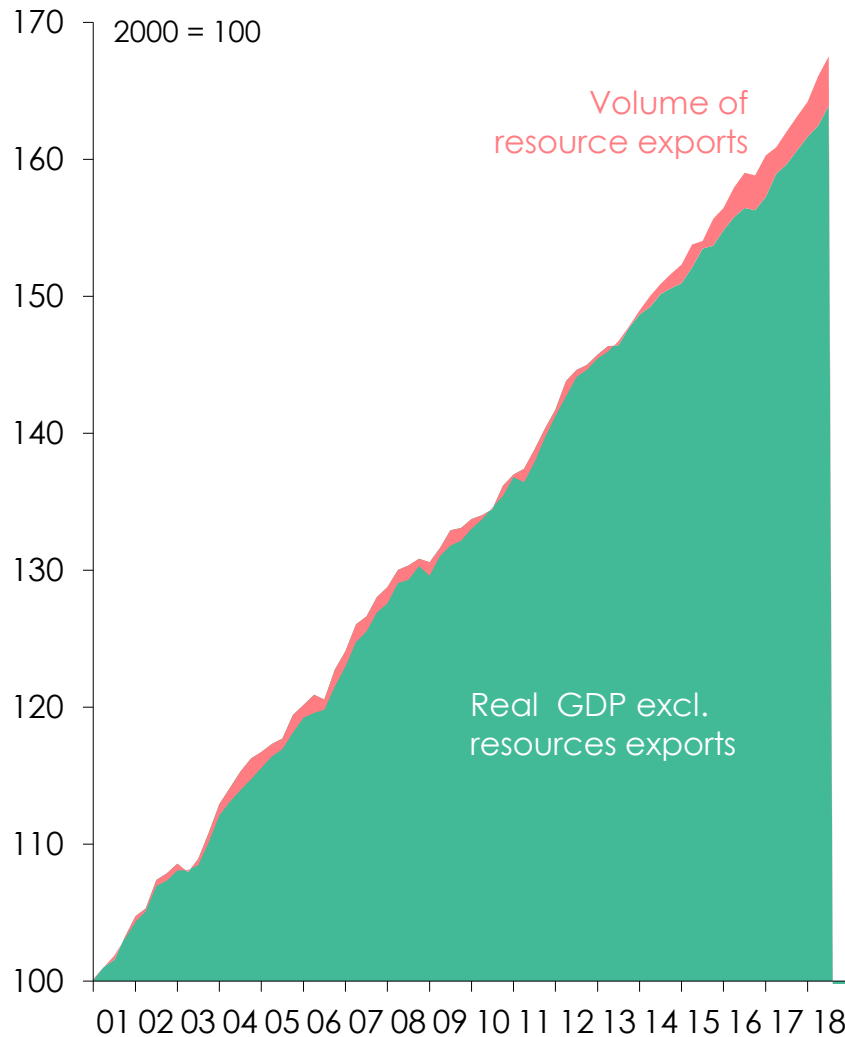
Coal intensity of economic activity, 1969-2016



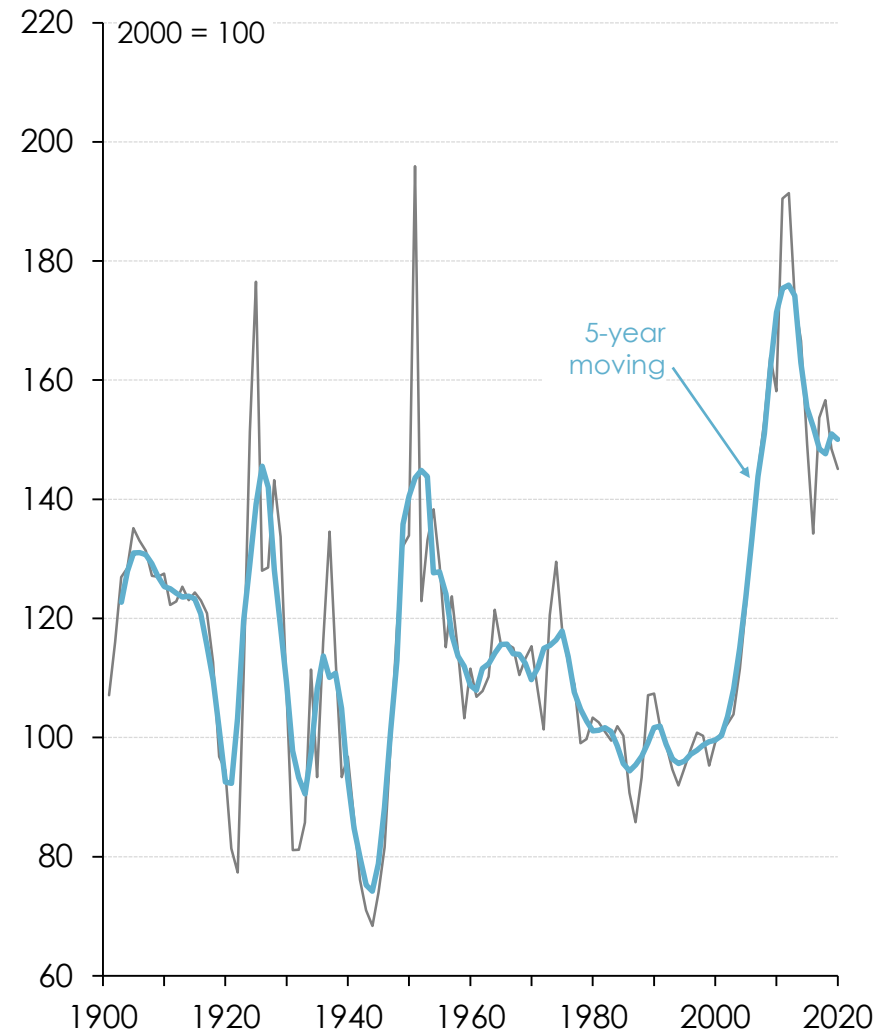
Sources: World Steel Institute; BP; The Conference Board; Corinna Economic Advisory.

Australia's economy has derived enormous gains from China's rapid growth, especially as a result of the impact on our 'terms of trade'

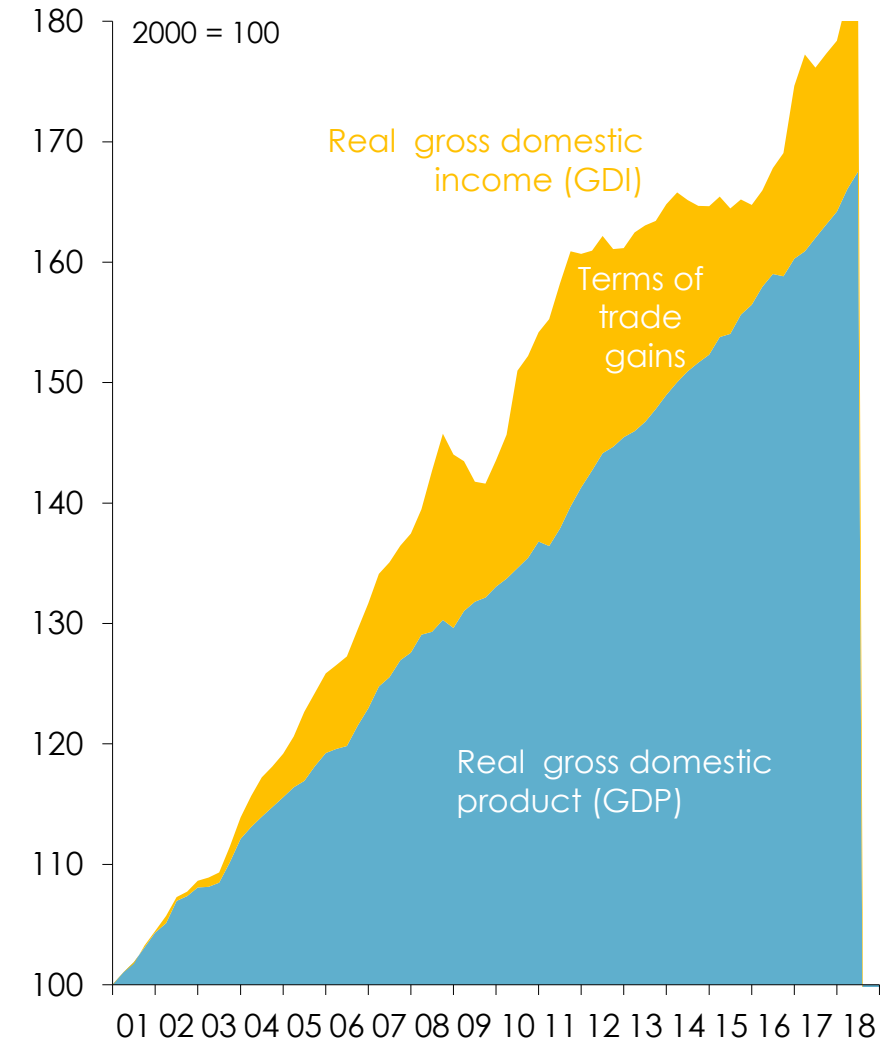
Resources exports contribution to Australia's real GDP



Australia's 'terms of trade'



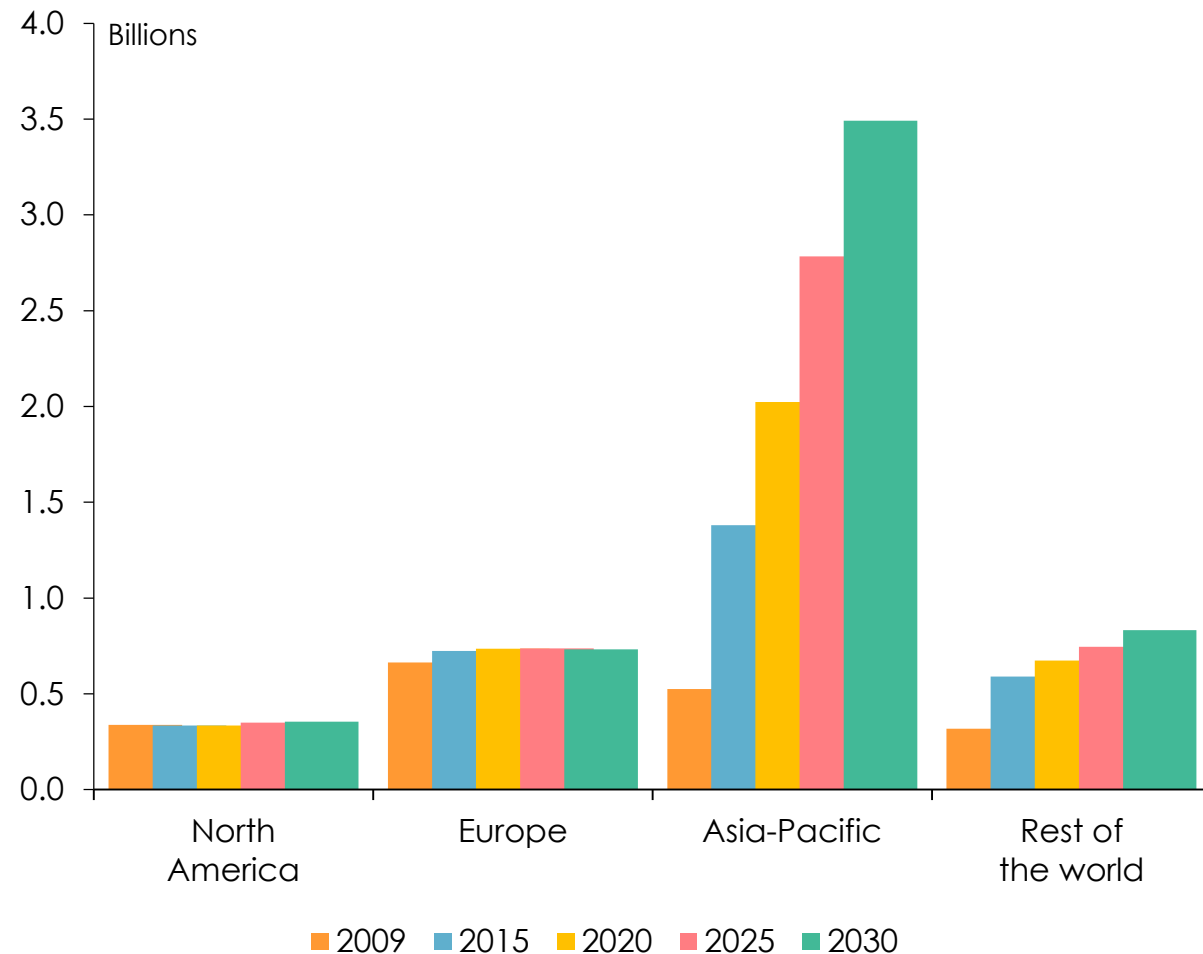
Australia's real gross domestic income (GDI) vs GDP



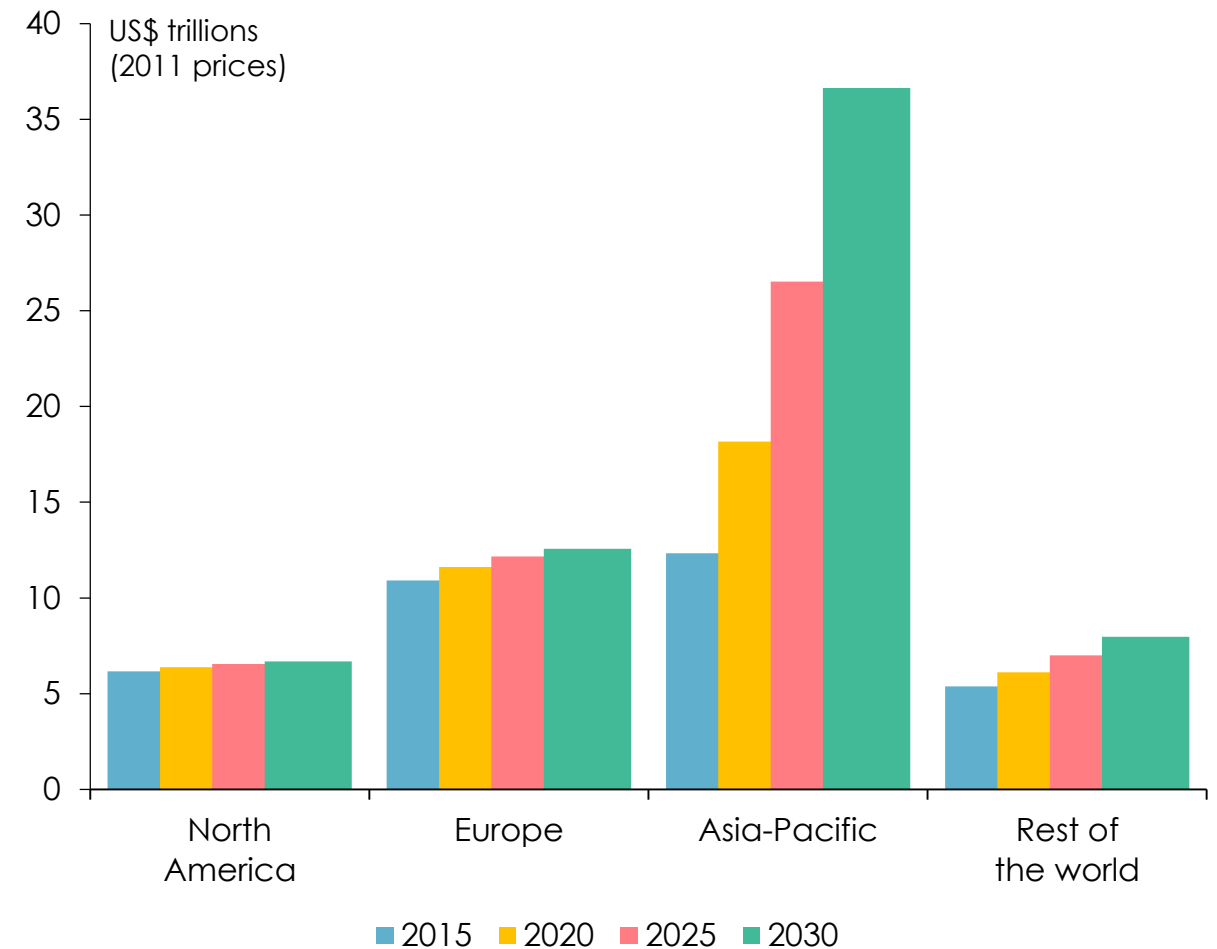
Note: The 'terms of trade' is the ratio of the implicit price deflator of exports of goods and services to that of imports of goods and services. Real gross domestic income (GDI) is real GDP with exports deflated by the implicit price deflator of imports (rather than exports) so as to capture the change in the 'command' over foreign-produced goods and services (imports) resulting from changes in the terms of trade. Sources: ABS; Department of Foreign Affairs & Trade.

The numbers and spending power of 'Asian middle classes' will increase dramatically over the next 15 years

Number of 'middle class' consumers



'Middle class' consumer spending



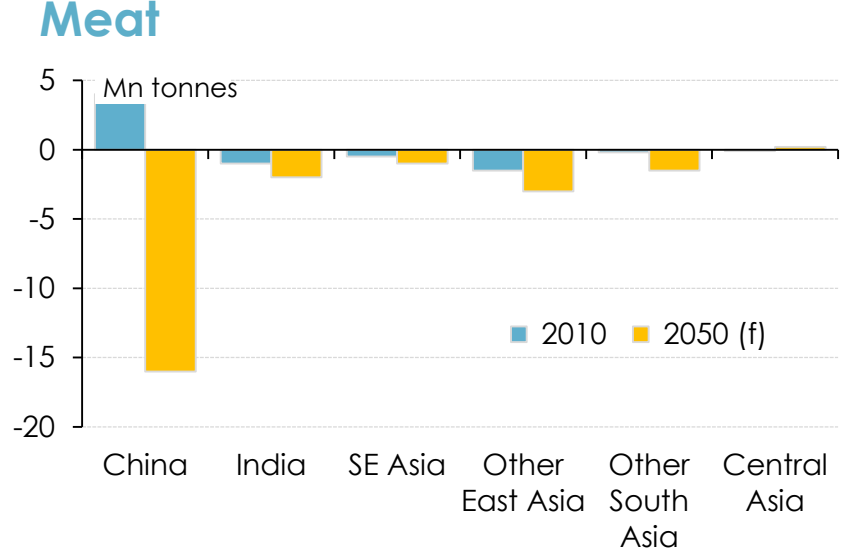
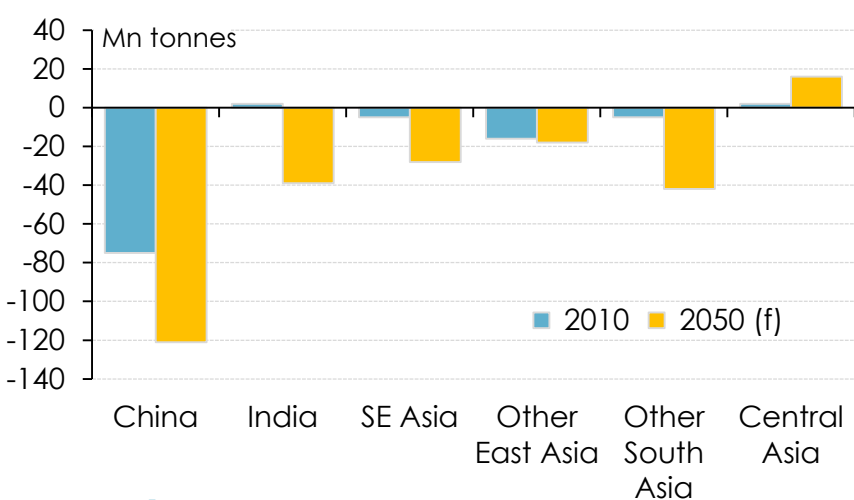
Note: 'Middle class' is defined as people with daily spending of between US\$11 and US\$110, in 2011 prices converted at purchasing power parity exchange rates.

Sources: Homi Kharas and Geoffrey Gertz, "The New Global Middle Class: A Cross-Over from West to East", Wolfensohn Centre for Development, The Brookings Institution, Washington DC, 2010; and Homi Kharas, "The Unprecedented Expansion of the Global Middle Class: An Update", Brookings Global Economy & Development Working Paper No. 100, February 2017.

Rapid growth in Asian middle classes should boost demand for food & beverages – but there's more competition here than there was in resources

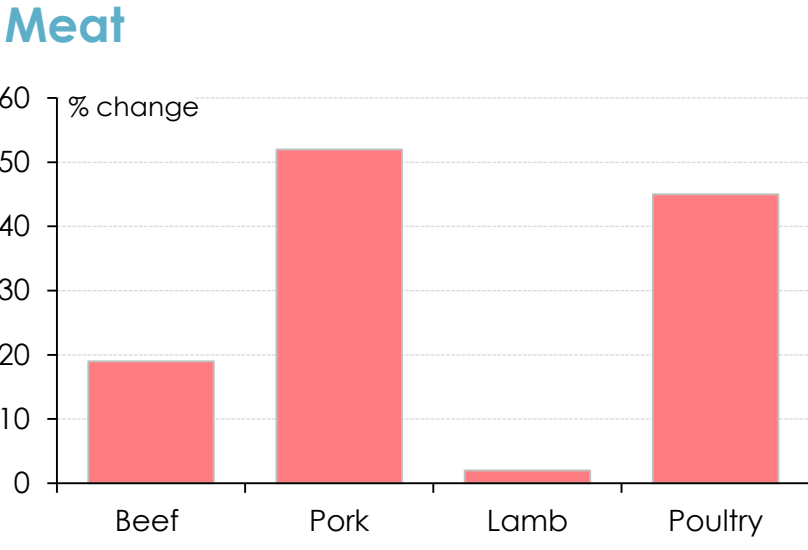
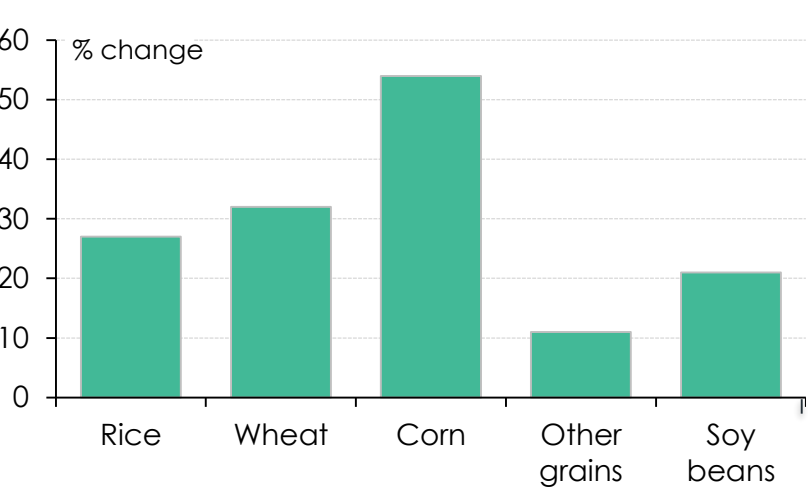
Asia's net food trade

Cereals



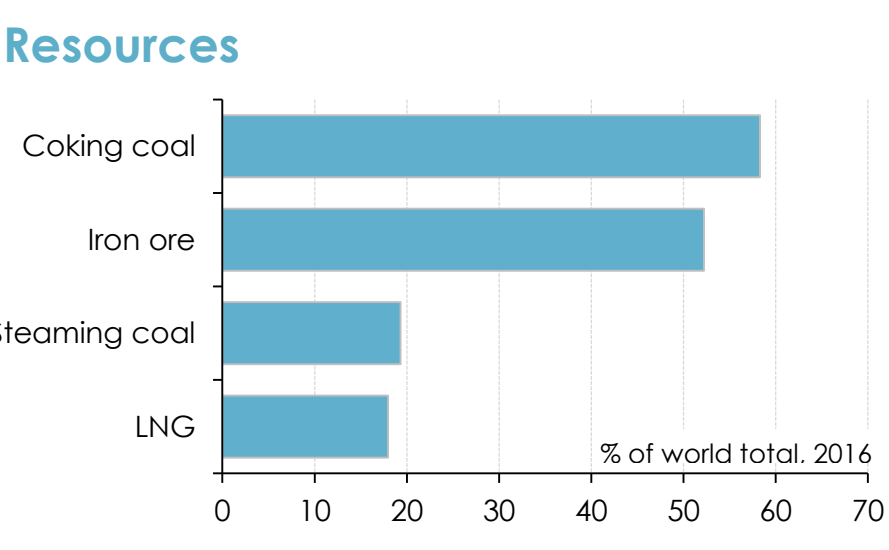
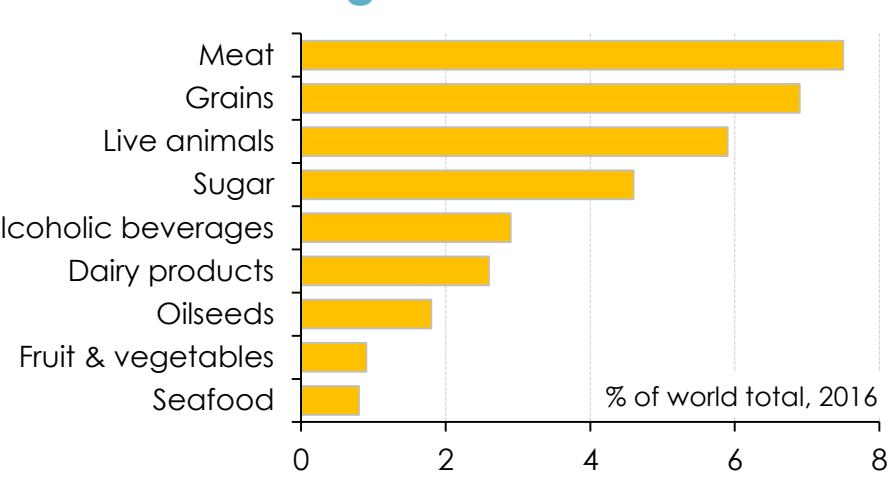
Commodity prices, 2010-50

Cereals



Australia's share of world exports

Food & beverages



Source: Mark Rosegrant (International Food Policy Research Institute), *Food Supply & Demand in Asia*, Presentation to International Conference on Asian Food Security, Singapore, August 2014; Australian Bureau of Agricultural and Resource Economics & Sciences; Office of the Chief Economist, Australian Department of Industry, Innovation & Science.

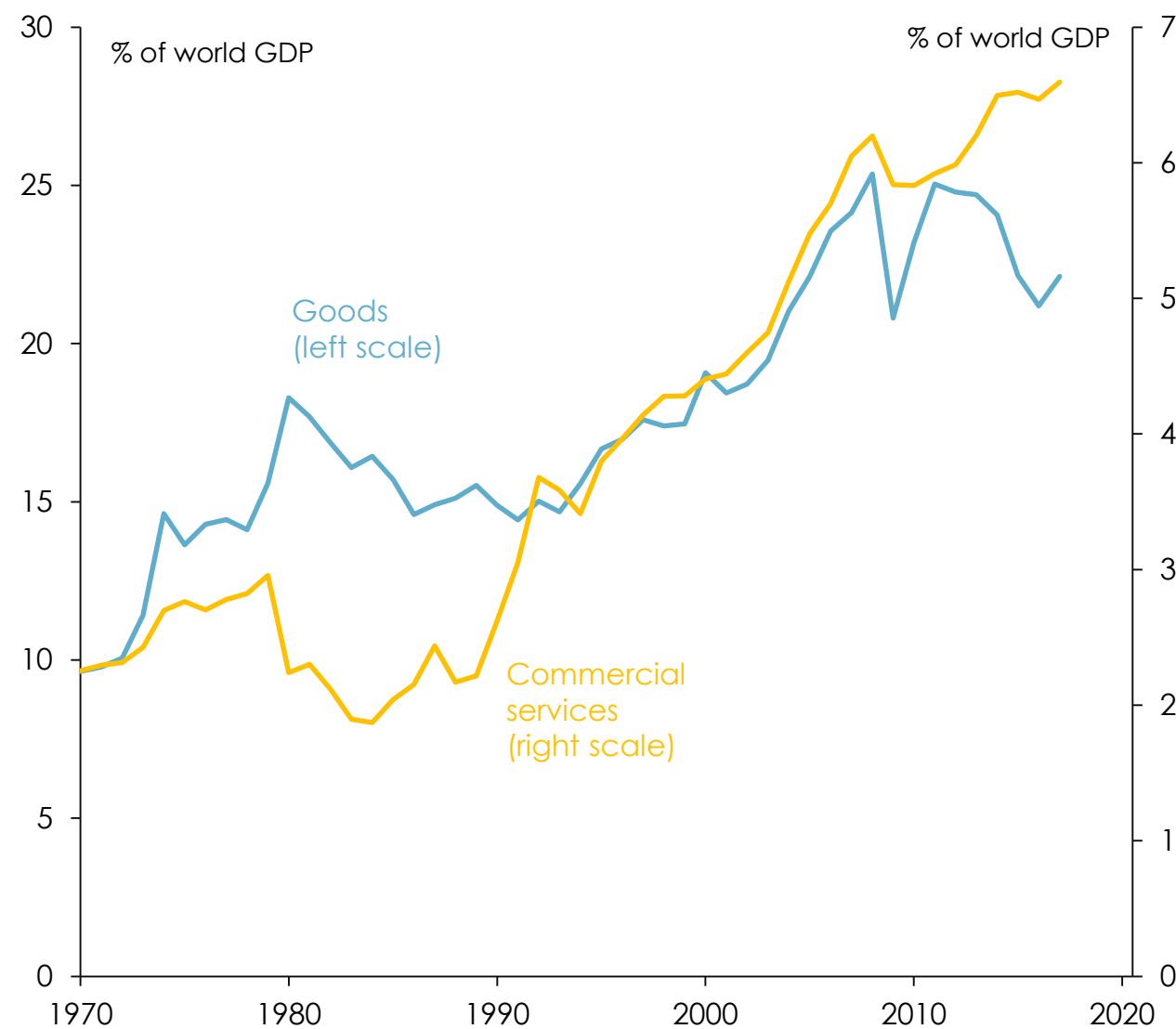
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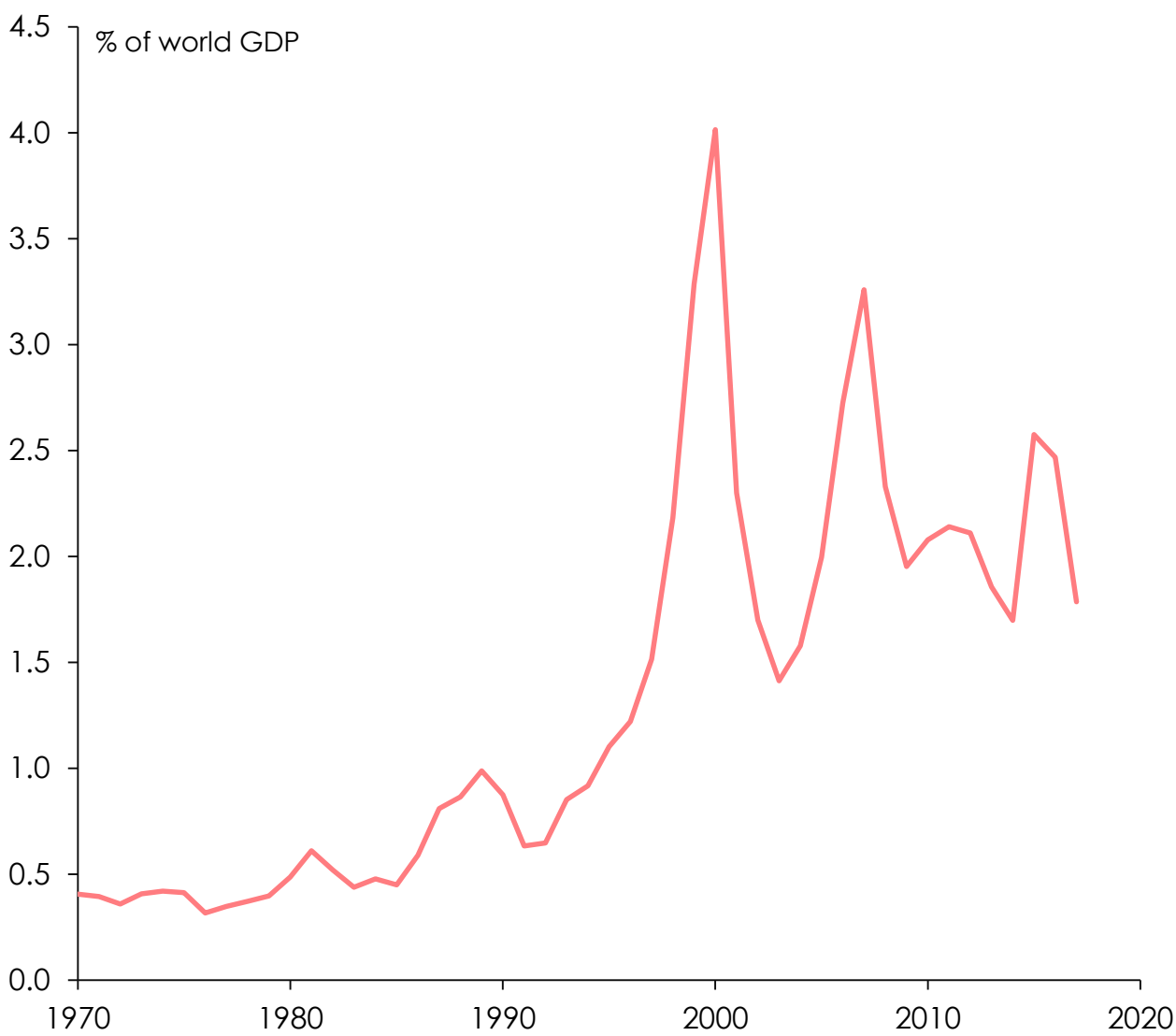


Has the world economy reached (or passed) 'peak globalization'?

World trade in goods and services



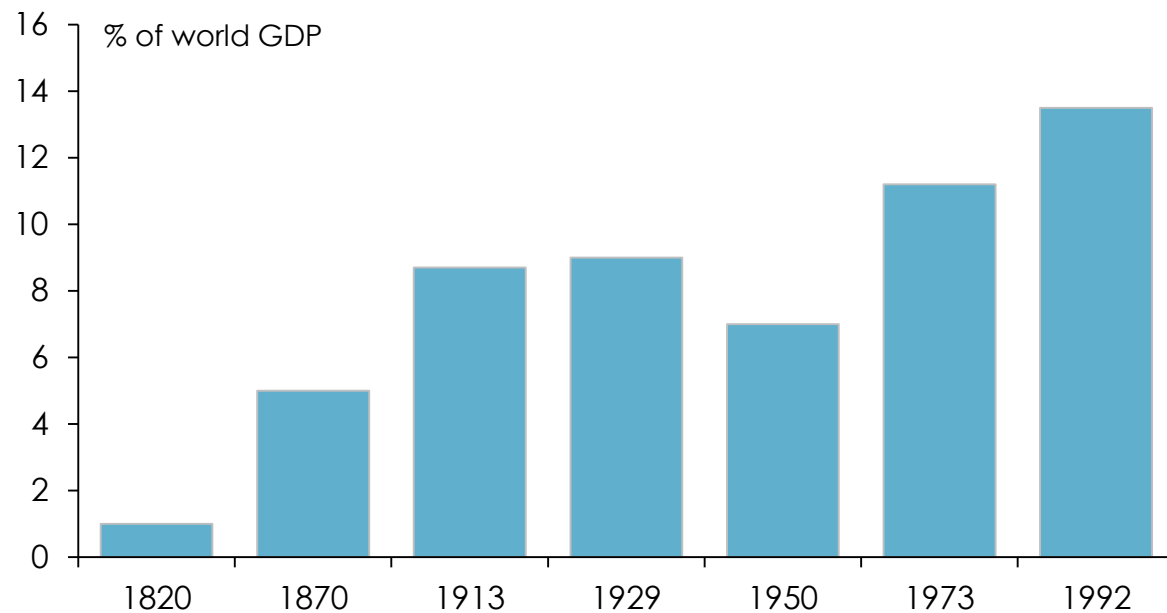
World wide foreign direct investment



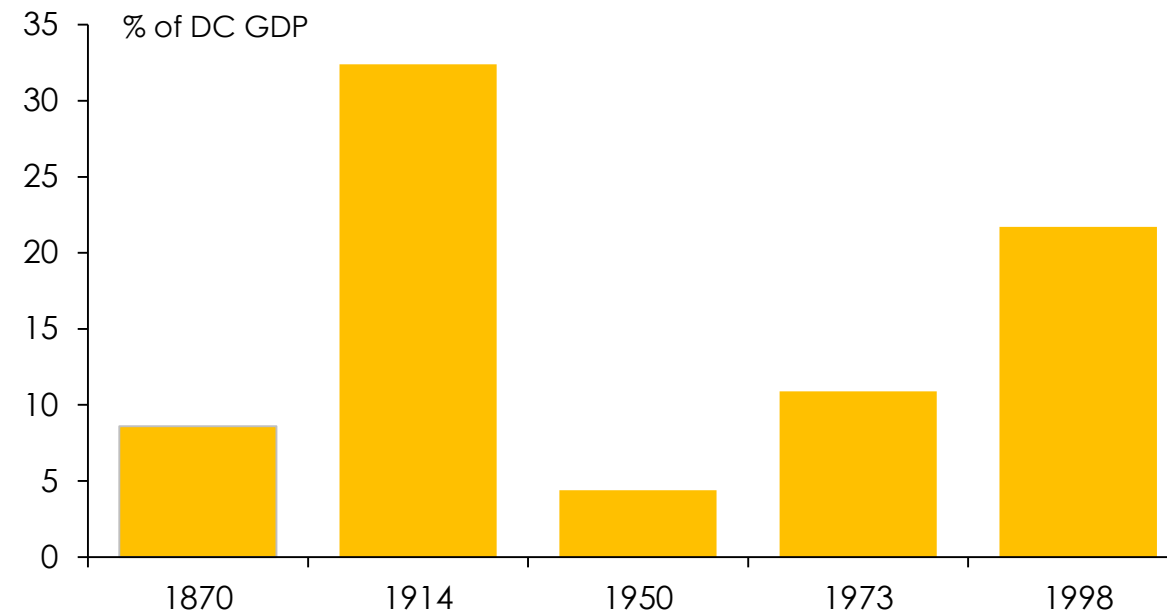
Note: World GDP is measured in US\$ at market exchange rates.
Sources: World Trade Organization; International Monetary Fund; United Nations Council on Trade & Development.

We have of course been here before – albeit for different reasons

World trade as a pc of GDP,
1820-1950



Stock of foreign investment in 'developing countries' as a pc of GDP, 1870-1998



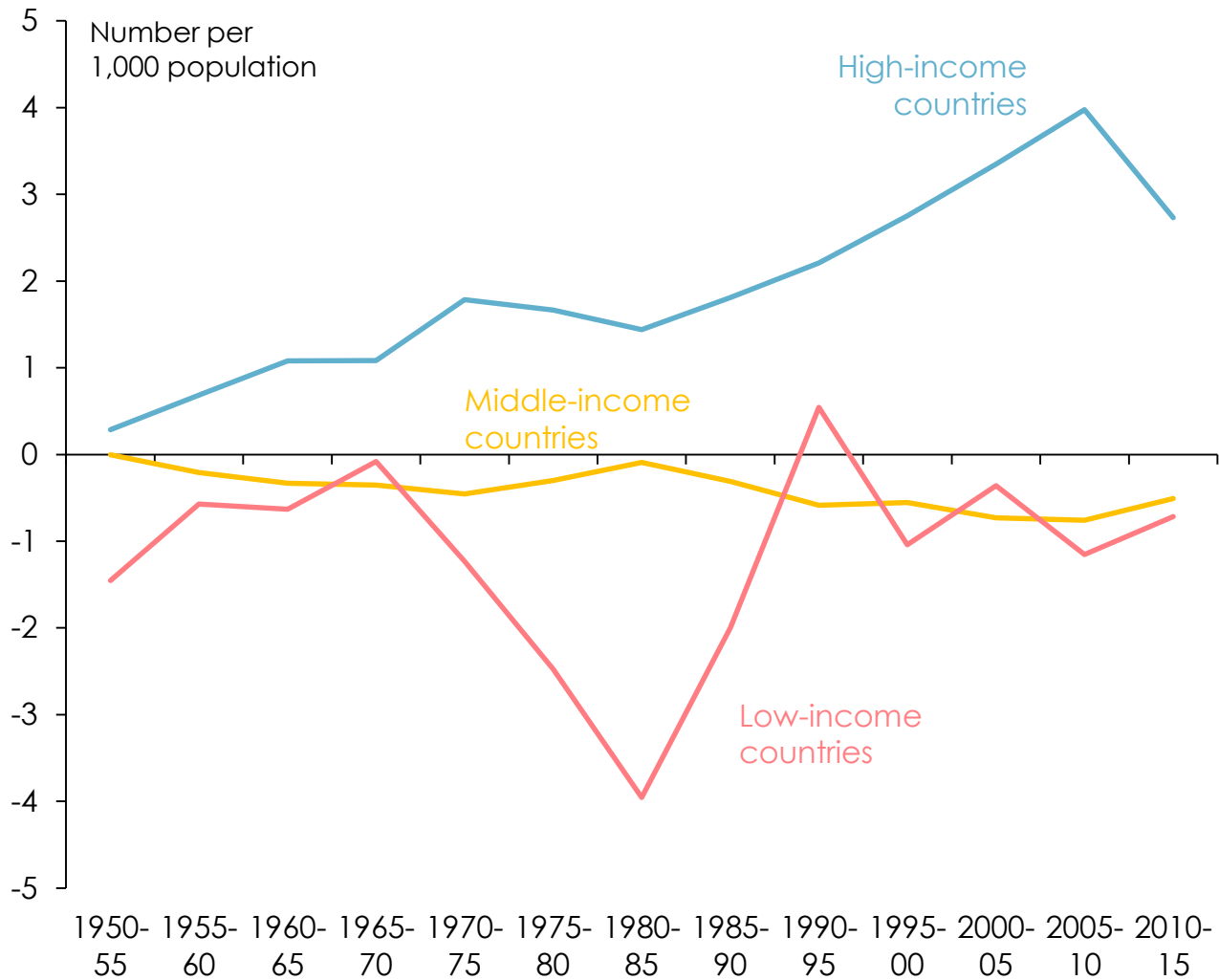
'The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantities as he might see fit, and reasonably expect their early delivery on his doorstep. He could at the same moment and by the same means adventure his wealth in the natural resources and new enterprises of any quarter of the world, and share, without exertion or even trouble, in their prospective fruits and advantages ... He could secure forthwith, if he wished it, cheap and comfortable means of transit to any country or climate without passport or other formality, could dispatch his servant to the neighbouring office of a bank for such supply of the precious metals as might seem convenient.'

– John Maynard Keynes, describing 'the age which was come to an end in 1914', in *The Economic Consequences of the Peace* (1919)

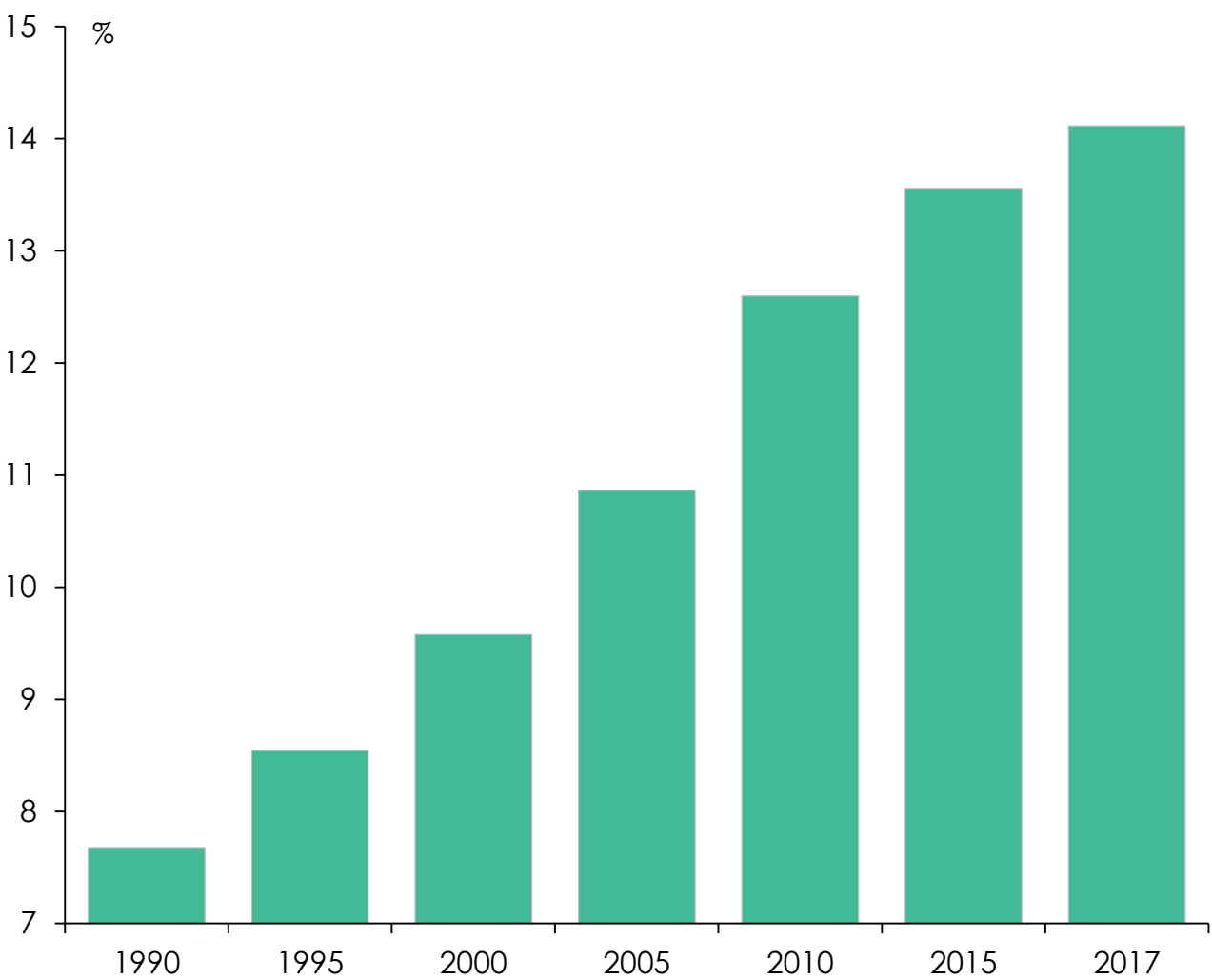
Sources: Angus Maddison, *Monitoring the World Economy*, OECD, 1995; and *The World Economy – a Millennial Perspective*, OECD, 2001

High-income countries may also have passed ‘peak immigration’

Net migration flows



Migrants as a proportion of population – high-income countries



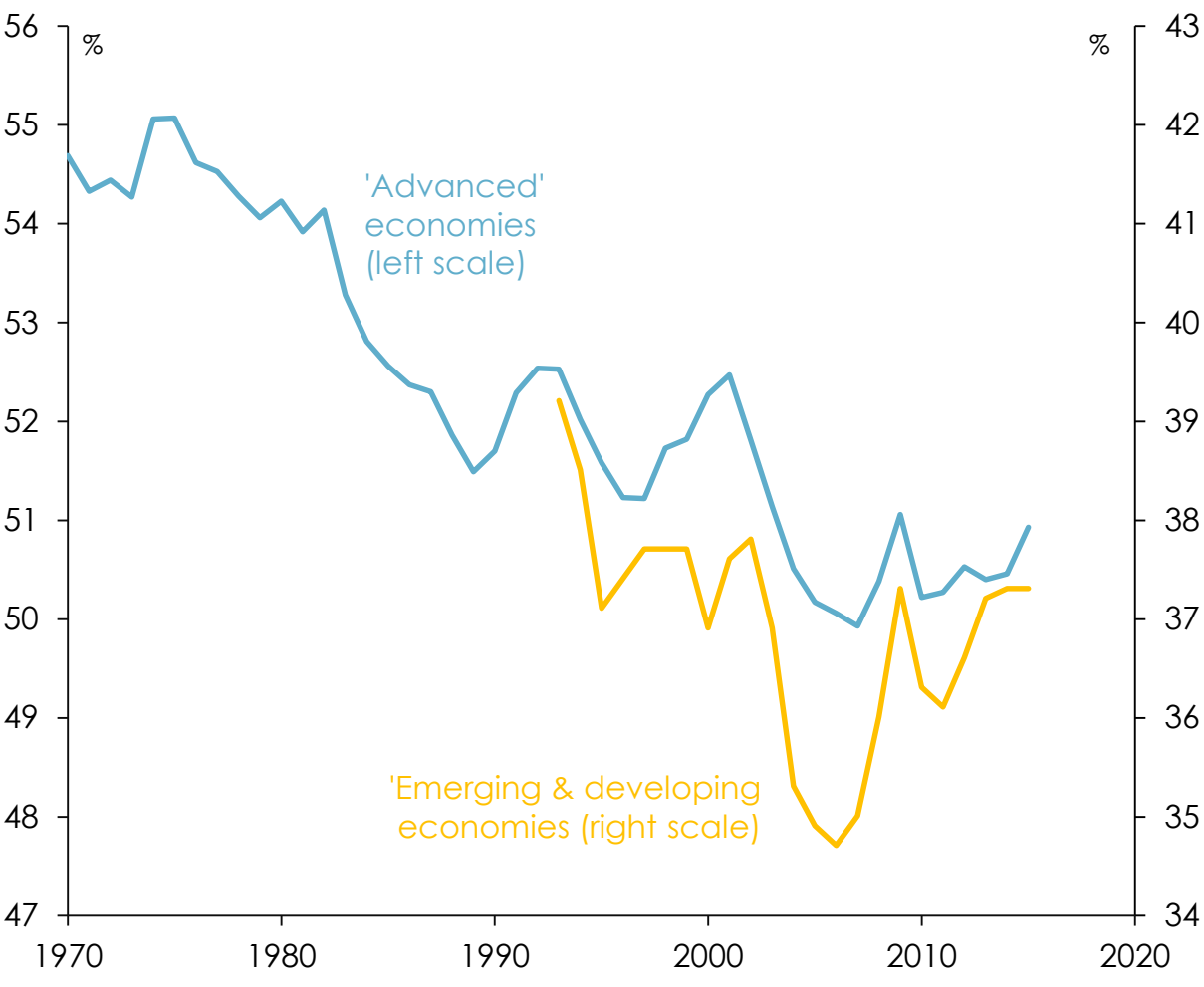
Source: United Nations Department of Economic & Social Affairs, Population Division.

Widespread anger at perceived inequities in the distribution of global income is one of the factors driving political trends in 'western' countries

Growth in real income by percentiles of the global income distribution, 1988-2008



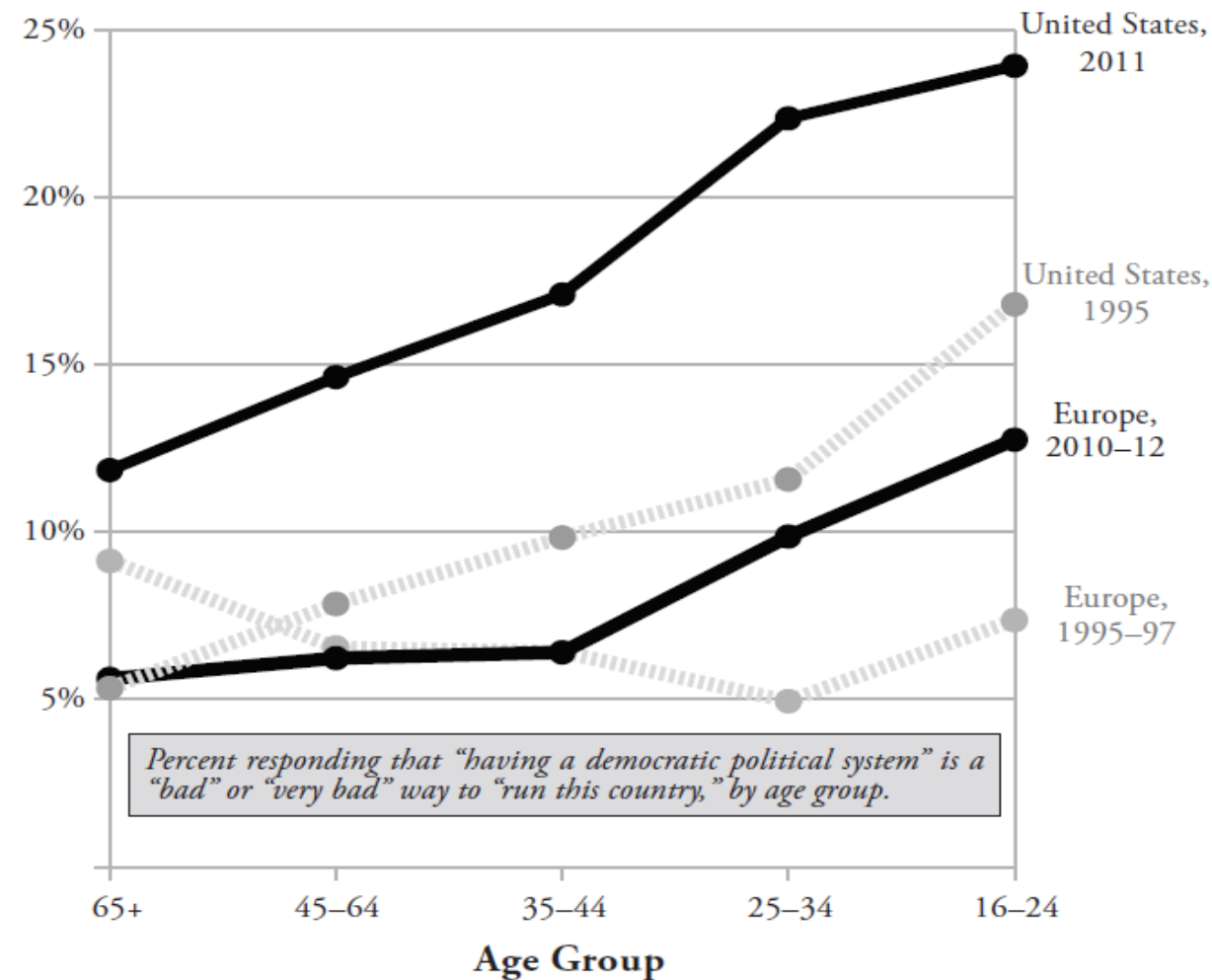
'Wages share' of total income, 'advanced' and 'developing' economies, 1970-2015



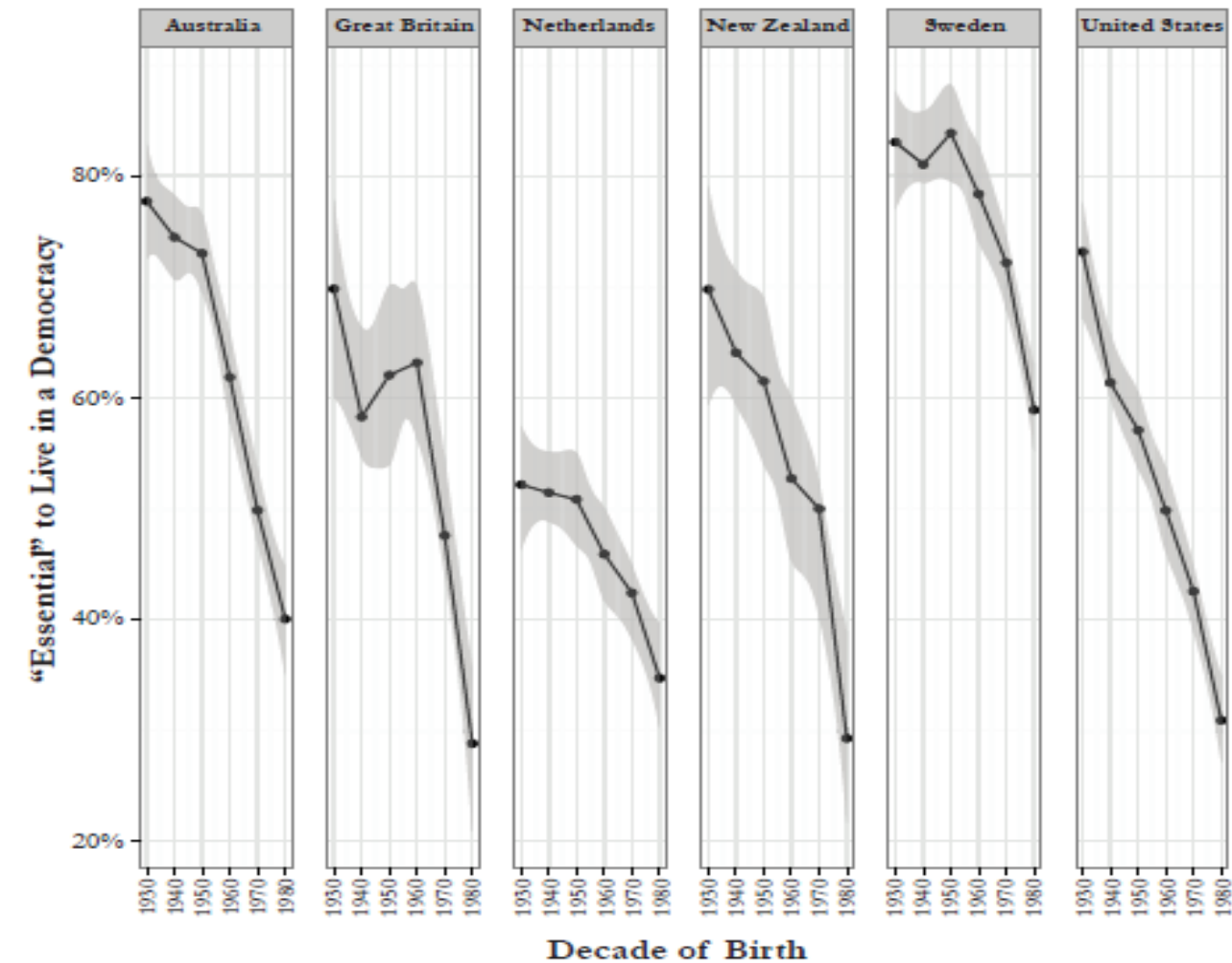
Note: Real income measured in 2005 US dollars (converted at purchasing power parities).
Sources: Christoph Lakner and Branko Milanović, *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession*; IMF, *World Economic Outlook*, April 2017.

Belief in democracy as ‘the best system of government’ is declining – in democracies – especially among younger people

Proportion of people thinking a democratic system is a ‘(very) bad way to run this county’



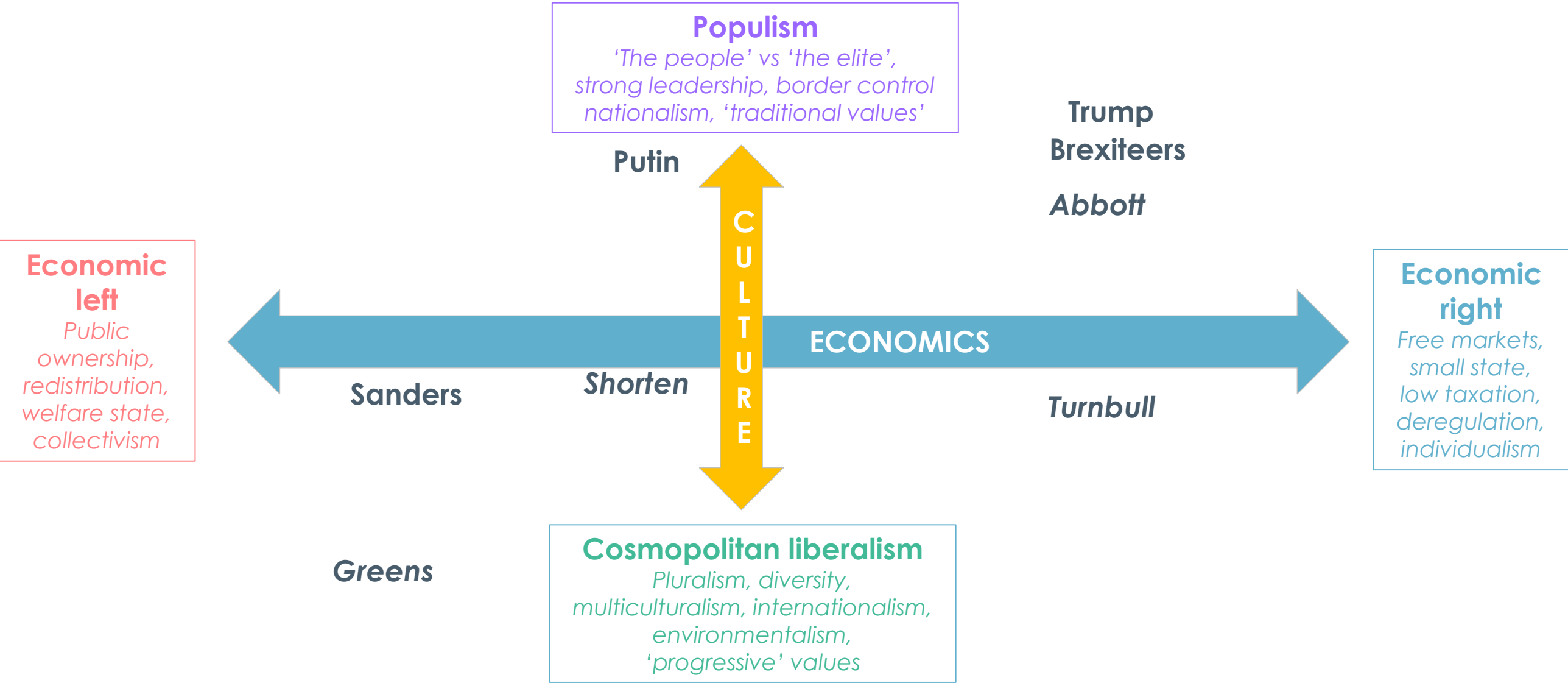
Proportion of respondents agreeing ‘it is essential to live in a democracy’, by decade of birth



Sources: Roberto Stefan Foa and Yacha Mounk, ‘The Democratic Disconnect’, *Journal of Democracy* Vol 27, No. 3, July 2016 (based on Waves 3-6 of World Values Surveys, 1995-2014; ‘Europe’ comprises Germany, Sweden, Spain, the Netherlands, Romania, Poland and the UK; Foa and Monk, ‘The Signs of Deconsolidation’, *Journal of Democracy* Vol 28, No. 1, January 2018 (based on Waves 5 and 6 of World Values Survey, 2005-07 and 2010-14).

Political divisions are no longer exclusively – or even primarily – about economics

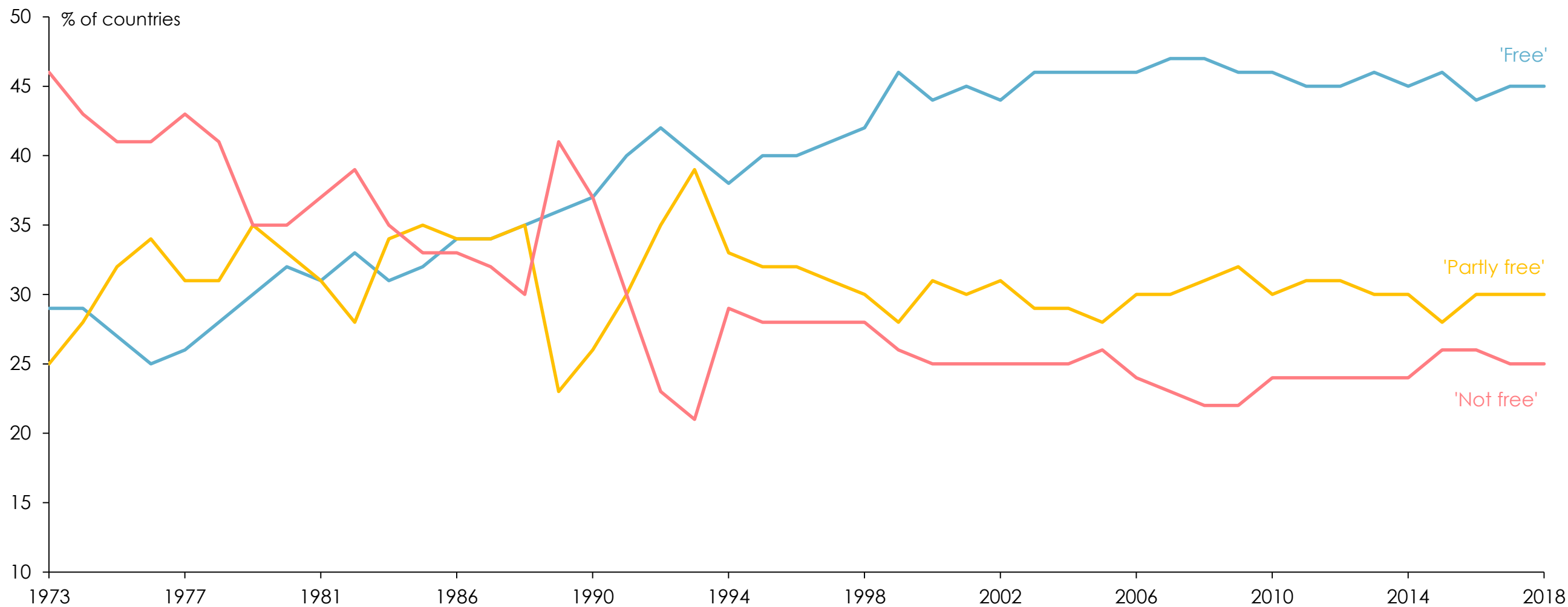
The ‘political compass’



Source: Patrick Foley, Marakon.

The world may also have passed ‘peak freedom’

‘Freedom in the world’ 1973-2018



Note: Countries are ‘awarded’ 0-4 points for each of 10 political rights and 15 civil liberties indicators, which are then aggregated into two ratings, one for each of political and civil liberties, ranging from 1 (greatest degree of freedom) to 7 (least degree of freedom). These two ratings are then averaged, and countries are classified as ‘free’ if the average is between 1 and 2.5; ‘partly free’ if it is between 3 and 5; and ‘not free’ if it is between 5 and 7.
Source: Freedom House.

Like previous extra-territorial infrastructure programs by earlier 'great powers', China's 'Belt and Road Initiative' has multiple objectives

China's 'Belt and Road' Initiative



Source: Xinhua.

The South China Sea is a potential flash-point for tensions between China and (some of) its neighbours – and between China and the US

Overlapping/conflicting territorial claims in the South China Sea



Economist.com

"Relevant construction activities that China are undertaking in the Nansha (Spratly) Islands do not target or impact any country, and China does not intend to pursue militarization"

— Chinese President Xi Jinping, The White House Rose Garden, 25th September 2015

"it is legitimate for China to deploy necessary defence facilities in the Nansha islands"

— Chinese Defence Ministry statement, 15th December 2016

"China is now capable of controlling the South China Sea in all scenarios short of war with the United States"

— Admiral Phillip Davidson, Commander, US Navy Pacific Command, Senate Armed Service Committee, 17th April 2018

History suggests rivalry between established and rising powers more often than not results in war – although it doesn't always

Sixteen cases of an ascending power challenging an established power over the past 500 years

Period	Ruling power	Rising power	Domain	Result
Late C15	Portugal	Spain	Global empire & trade	No war
First half of C16	France	Habsburg Empire	Land power in Western Europe	War
C16 & 17	Habsburg Empire	Ottoman Empire	Central & Eastern Europe, Mediterranean	War
First half of C17	Habsburg Empire	Sweden	Northern Europe	War
Mid-late C17	Dutch Republic	England	Global empire, sea power & trade	War
Late C17 – mid C18	France	Great Britain	Global empire & European land power	War
Late C18 – early C19	United Kingdom	France	Land & sea power in Europe	War
Mid C19	France & UK	Russia	Global empire, Central Asia, eastern Mediterranean	War
Mid C19	France	Germany	Land power in Europe	War
Late C19 – early C20	China & Russia	Japan	Land & sea power in East Asia	War
Early C20	United Kingdom	United States	Global economic dominance and Western Hemisphere seas	No war
Early C20	UK, France, Russia	Germany	Land & sea power in Europe, global sea power	War
Mid C20	USSR, France, UK	Germany	Land & sea power in Europe	War
Mid C20	United States	Japan	Sea power & influence in Asia-Pacific	War
Mid-late C20	United States	USSR	Global power	No war
1990s-present	UK & France	Germany	Political influence in Europe	No war

Sources: Graham Allison, *Destined for War: Can America and China Escape Thucydides's Trap?* (Houghton Mifflin Harcourt, 2017), p. 42.