Multilateral Context for EU-Australia Economic Cooperation

Jean Monnet Centre of Excellence on Closer Economic Cooperation between EU and Australia

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Abstract

Following the GFC, growth in global trade has been sluggish with recent trade and regional tensions providing doubt as to whether these trends will change any time soon. There is, therefore considerable uncertainty about how the EU-Australian economic relationship will evolve over the next decades. This paper first uses longer-term projections of the global economy to suggest global exports could expand to reach around 35 percent of global output by 2050 from the current level of around 30 percent. Such a change would likely be accompanied by a re-orientation of trade between regions and materially influence the EU-Australia economic relationship. It then draws on regional differences between regions in energy demand, productive capital and the distribution of real wealth to provide a wider context for EU-Australia economic cooperation over the coming decades.

Context and intended outcomes

- Contribution to Jean Monnet Centre of Excellence Grant Project on Closer Economic Cooperation between EU and Australia
  - Coordinated by Centre of European Studies ANU
- Deeper understanding of possible future trade growth trajectories in a global context
- Some implications of convergence of per capita primary energy consumption for global energy demand
- Policy implications bearing on EU-Australia economic cooperation

Methods

- Trade growth projections
  - Utilize the GDyn-FS model – a multi-region, multi-sector *dynamic* global general equilibrium model (Ianchovichina & McDougall 2012, Gretton 2021, 2022)
  - Inter-temporal variant of widely used GTAP framework (Hertel & Tsigas 1997)
  - Combines the economies of individual regions, through multilateral trade, associated transport and capital-finance flows
  - Effective tool for analysing changes in the 'real' economy over time
  - Open access
- Model projections complemented with data analysis of energy demand, capital intensities across regions and regional real wealth
- Policy implications of analysis

A summary database used – 2011 base year projected to 2021 then forward to 2050…

6 regions

Australia (AUS)
China (CHN)
Japan (JPN)
United States (USA)
European Union +1 (EU28)
Rest of the World (ROW)

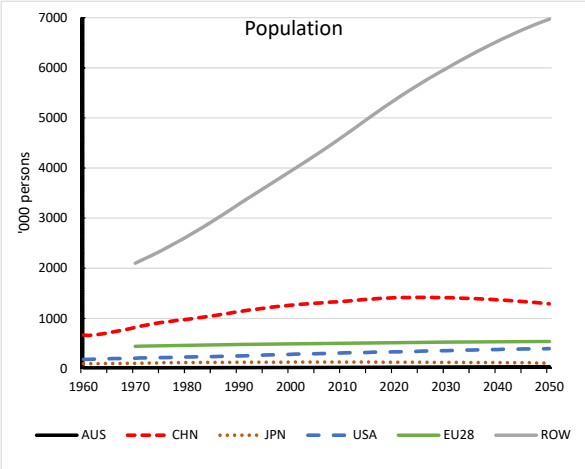
13 industry sectors

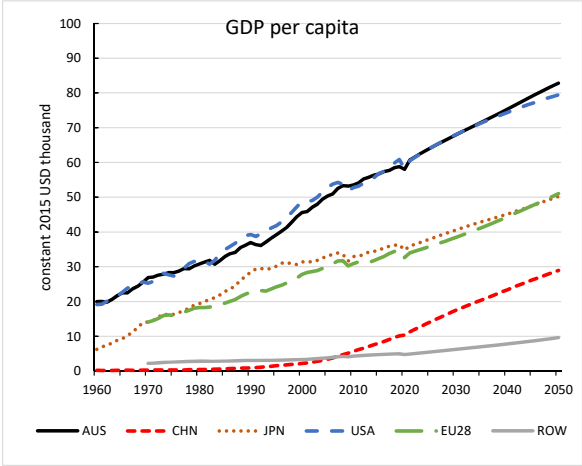
Grains, Crops, Forestry
Livestock, fishing
Mining
Processed food
Textiles and clothing
Light manufacturing
Heavy manufacturing
Utilities
Construction
Transport and communication
Financial services
Other services
Ownership of dwellings

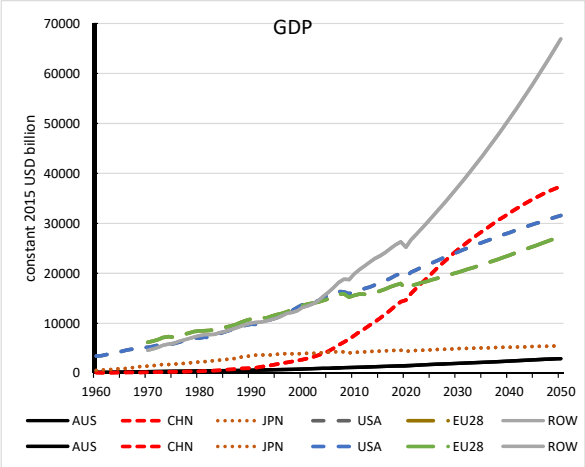
5 primary factor inputs

Land
Natural resources
Skilled labour
Unskilled labour
Capital

Global population & output are rising, per capita output gaps remain







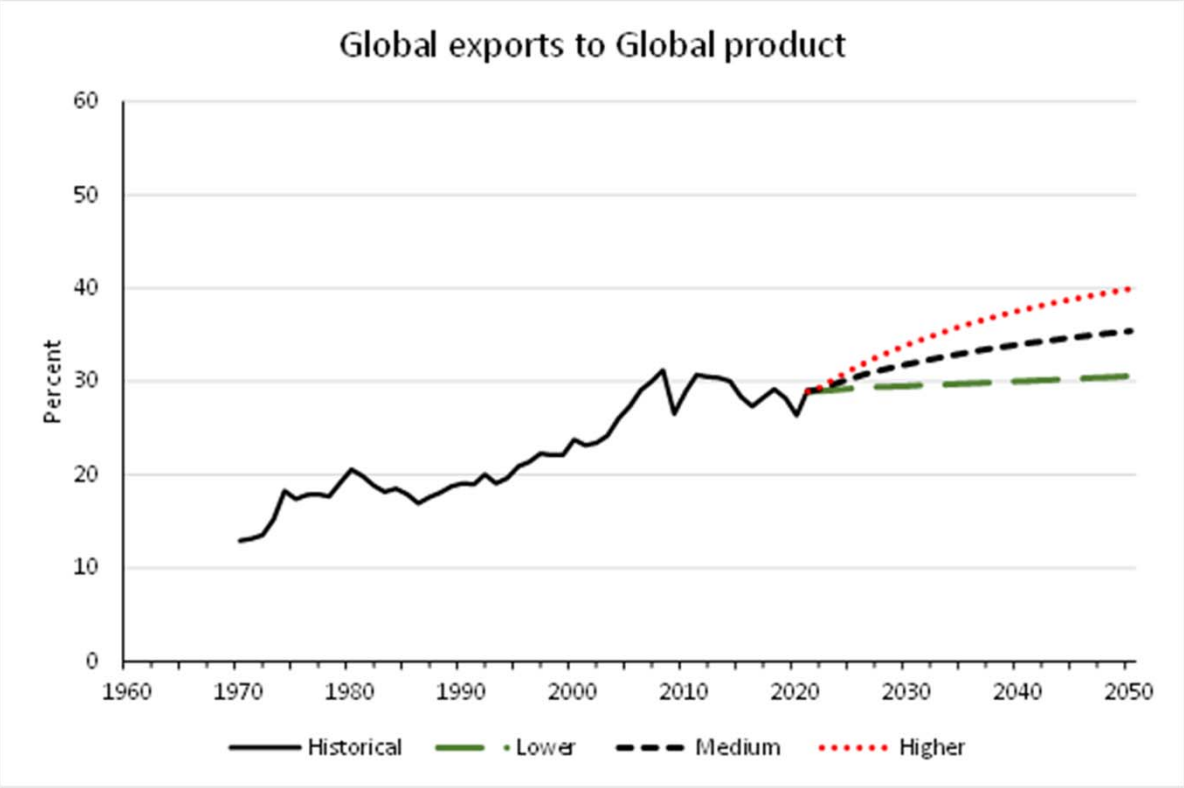
- Key points
  - Population expanding in ROW; flat/tapering elsewhere
  - GDP: expanded rapidly post-2000 in China, projected to taper; gradual build-up for ROW
  - Large differences in per capita output projected to remain
  - Likely change in the centre of gravity in global trade & commerce, but uncertain future
  - Convergence of per capita output requires energy and capital

Sources: WDI, ILO, IMF, SSP2 (LR projections), Author estimates.

Adopt a scenario approach to consider trade potential of regions

- **Scenario 1: Moderate increase – central case**
  - Export shares
    - Common criteria except China and ROW: 2019 value *uplifted by* **10%**
    - China: Export share to *converge* to the average of Japan and the USA
    - ROW: the 2019 value *uplifted by* **10% PLUS** close half projected gap with EU28
  - BoT share: Average across data years (circa) 1960 to 2019
  - Import share: Target Export share ***less*** target BoT share
- **Scenario 2: Lower potential**
  - Scenerio 1 with Uplift of 2.5%; ROW does not close gap with EU28
- **Scenario 3: Higher potential**
  - Scenario 1 with Uplift of 20%; ROW closes 75% of gap with EU28
- Source: Gretton 2021 at: https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=6299

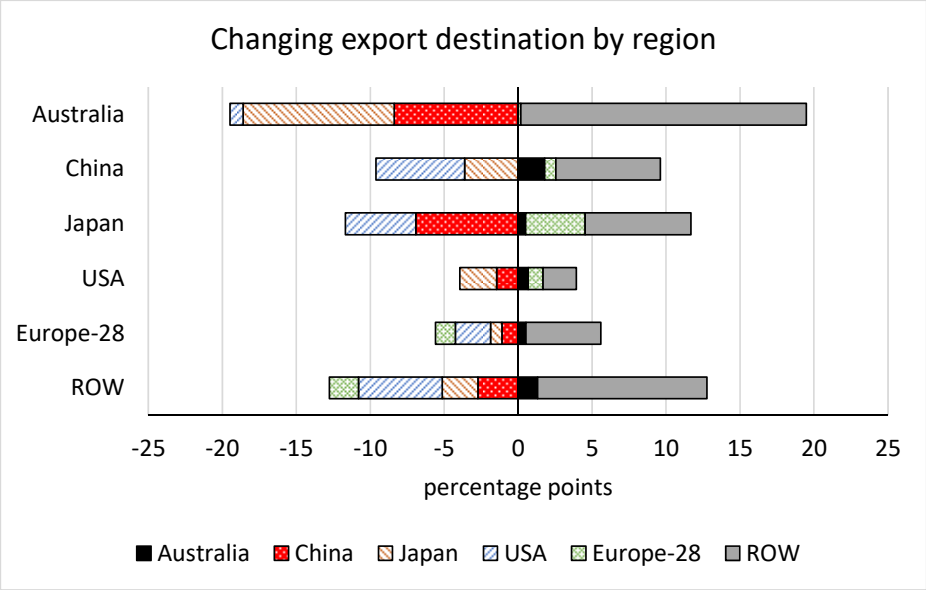
The forward scenarios reflect different potentials compared to history

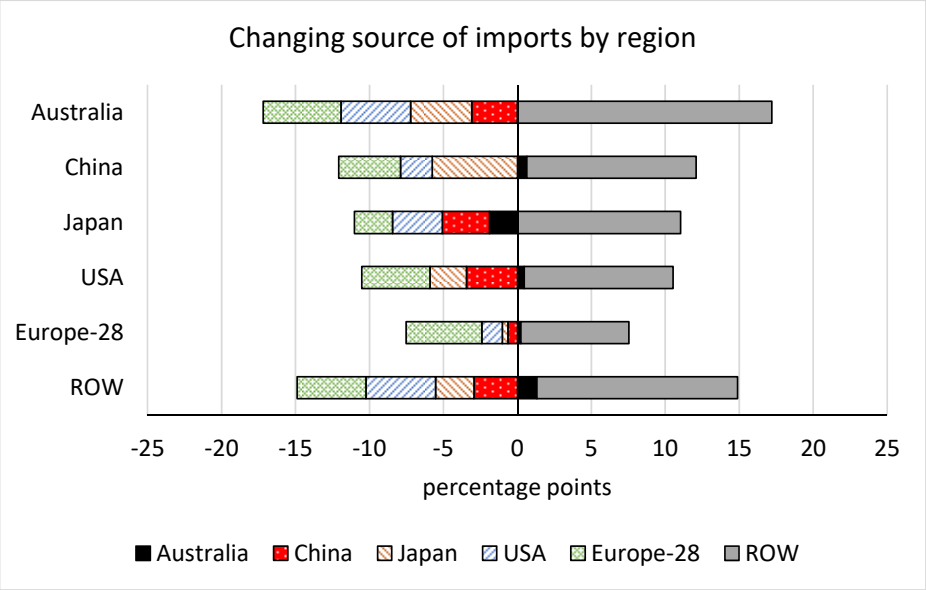


Sources: WDI, Author projections.

- Under medium growth scenario, exports could reach around 35% of global product by 2050
- Implying a trade elasticity of ~1.2 over the 2020 to 2050 period
- Higher growth resumes historical growth path
- Lower growth represents continuation of status quo

And the trade orientation of all regions likely to shift towards the developing world, 2020 to 2050

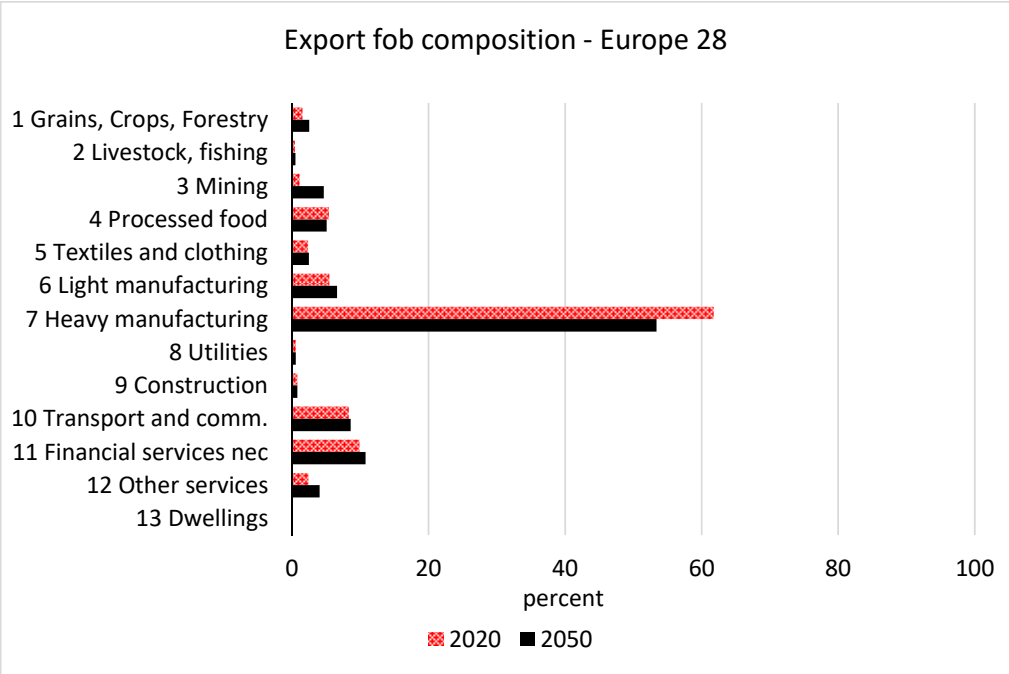


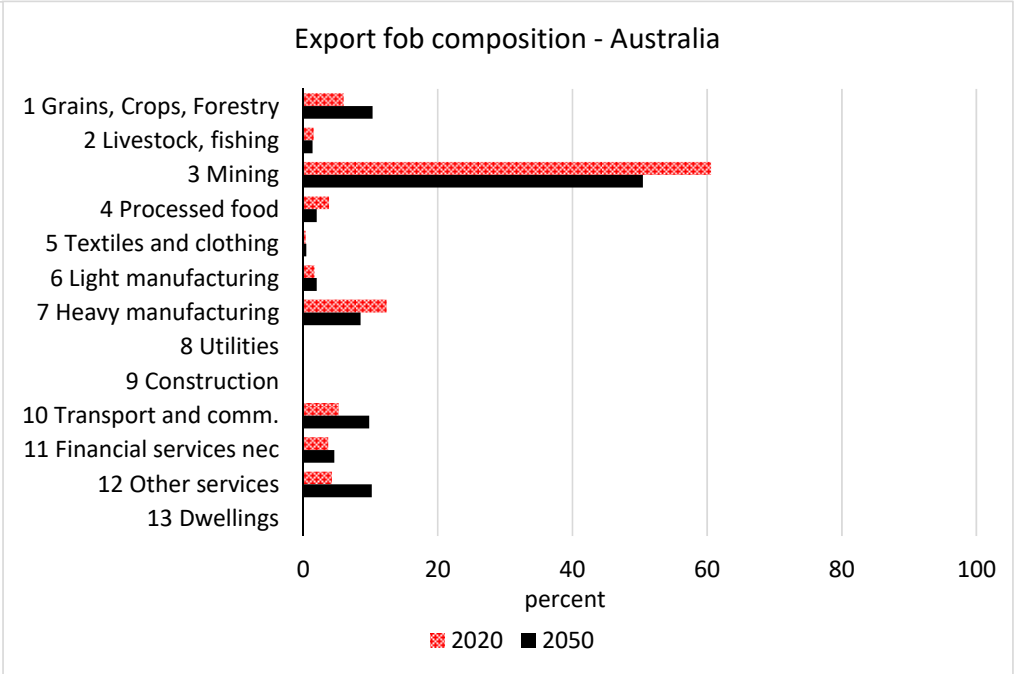


Source: Author GDyn-FS projections – medium trade growth scenario.

- As economic gravity shifts towards the ROW, countries across that area are projected to increase in importance as a destination for exports & as a source of imports
- Trade footprint between countries in the ROW area likely to increase

Export focus remains on traditional sectors, but some subtle re-orientation possible

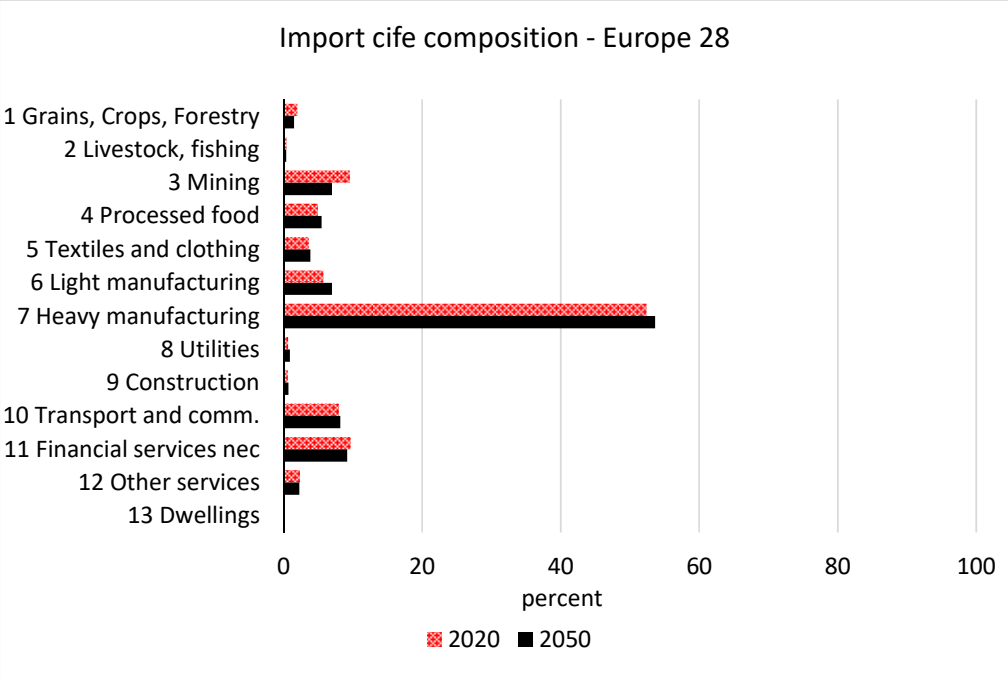


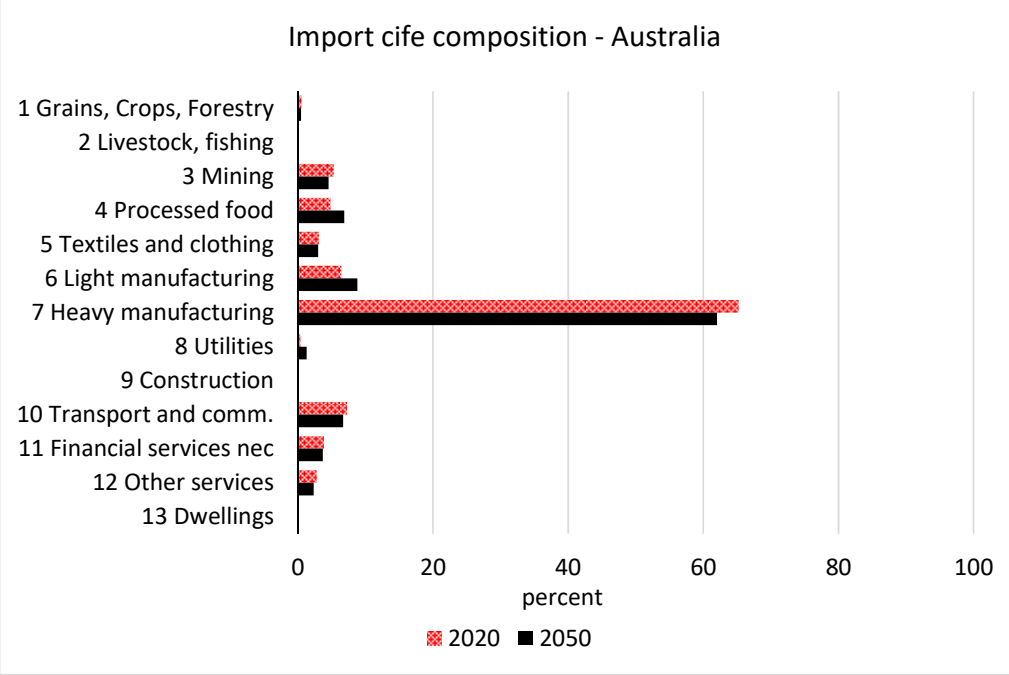


Source: Author GDyn-FS projections.

- EU export focus projected to remain with Heavy manufacturing
- Australian export focus projected to remain with Mining products
- Services exports (mainly to ROW) projected to increase in importance, more so Australia

Import focus also remains on traditional sectors, but again some subtle re-orientation possible

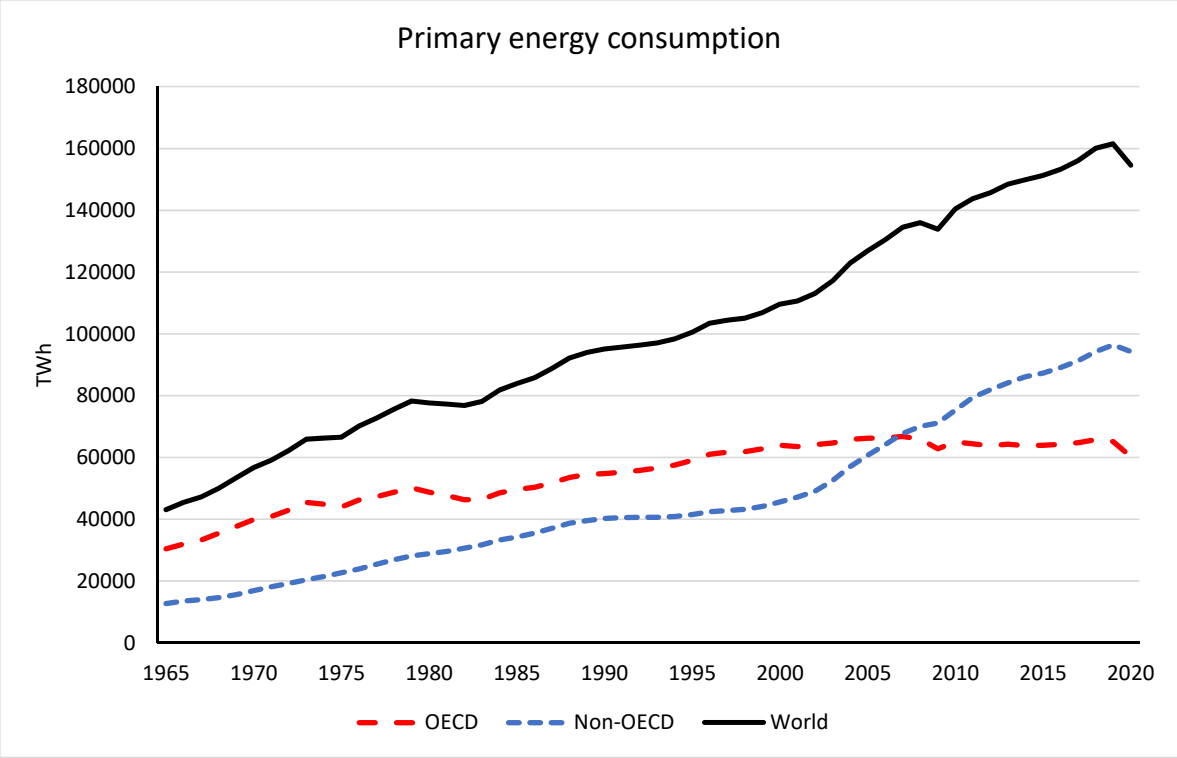




Source: Author GDyn-FS projections.

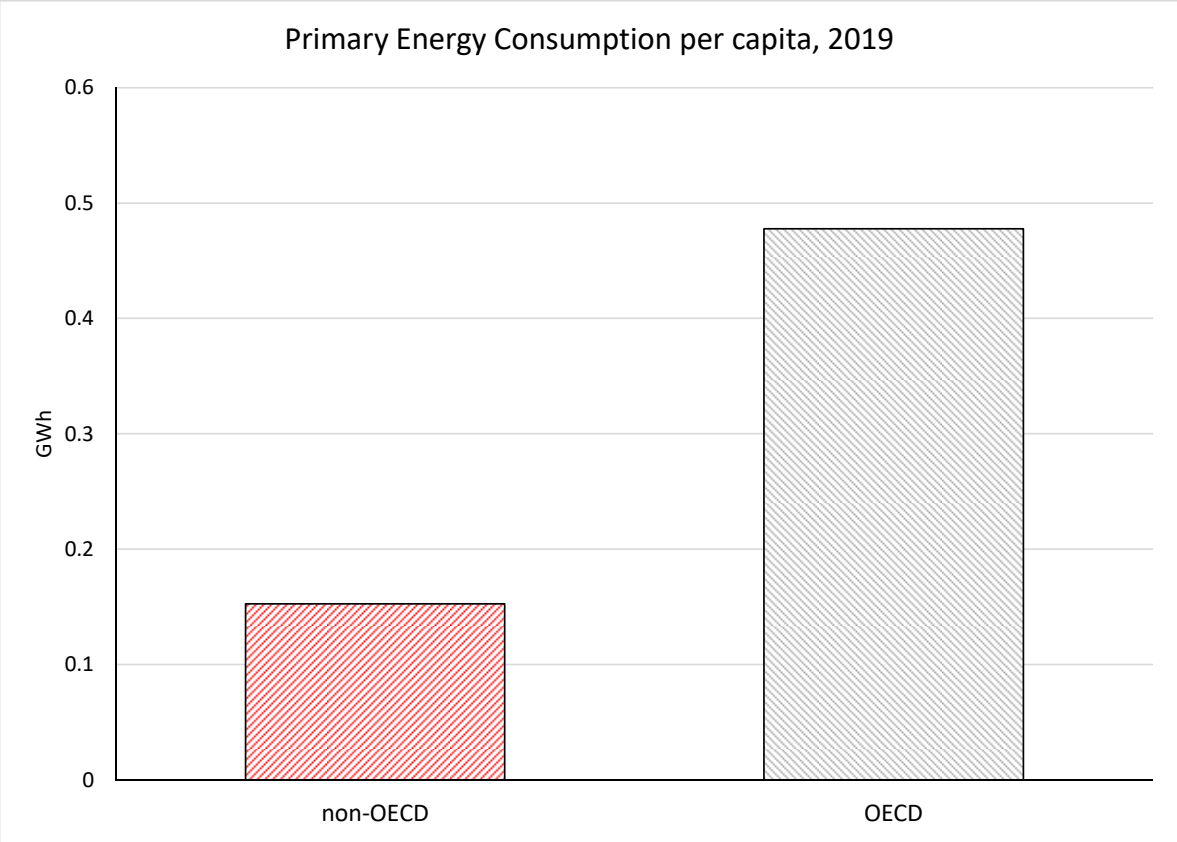
- EU import focus projected to remain with Heavy manufacturing - intra-industry trade
- Australian import focus projected to remain with Heavy manufacturing - capital goods, vehicles

Trade & economic growth has relied on a steady increase in primary energy consumption



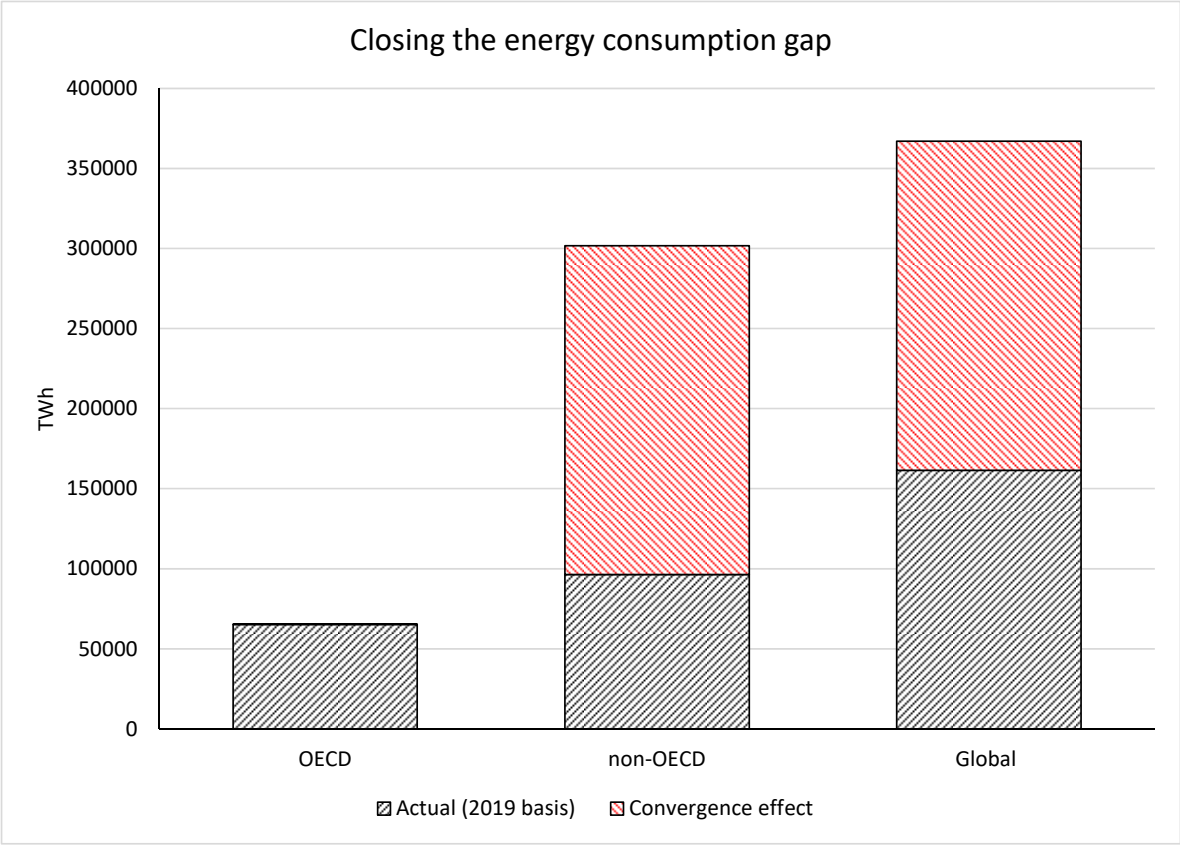
Sources: Hannah Ritchie, Max Roser and Pablo Rosado (2020) - "Energy". Published online at OurWorldInData.org at: 'https://ourworldindata.org/energy' (accessed 31 March 2022; Author aggregation.

But there remains a wide gap in per capita energy consumption between OECD & non-OECD areas



Sources: Hannah Ritchie, Max Roser and Pablo Rosado (2020) - "Energy". Published online at OurWorldInData.org at: 'https://ourworldindata.org/energy' (accessed 31 March 2022); World Development Indicators; Author calculations.

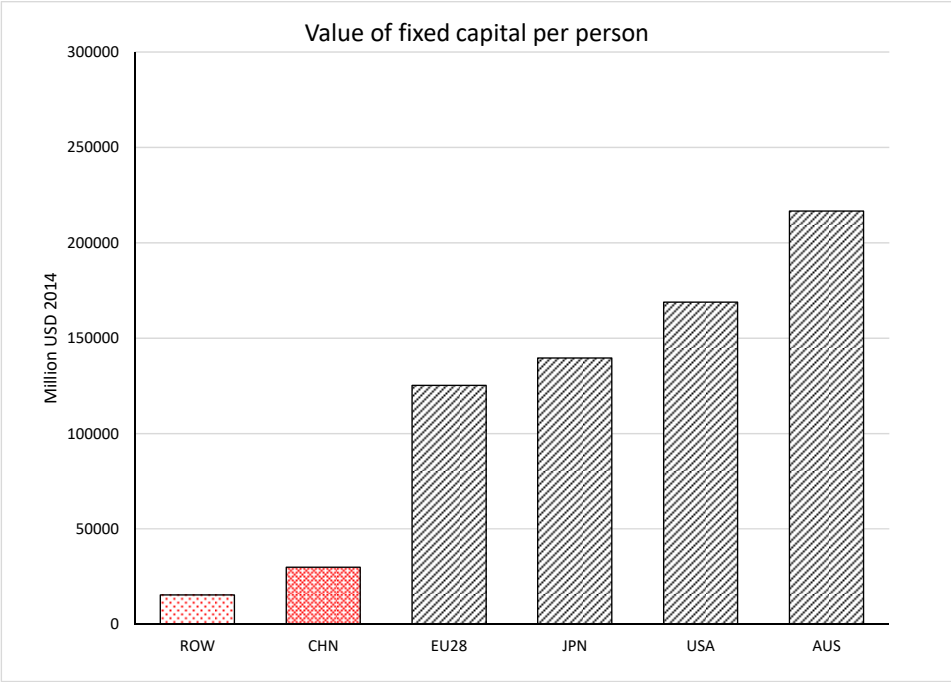
Closing the gap would imply more than doubling of global energy demand & use



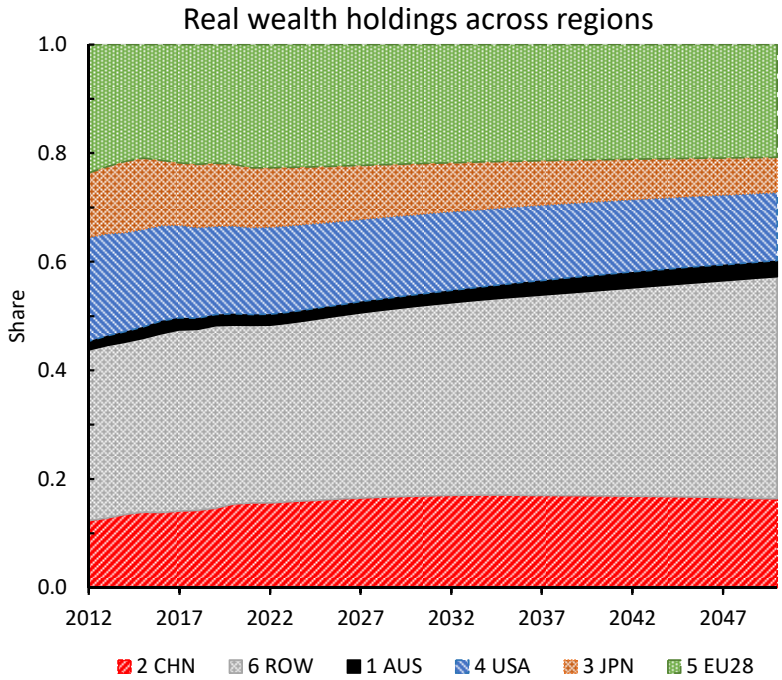
- Closing the gap would
  - Require new technologies & ways of working
  - Generate competition for resource and produced inputs (including energy, metals & minerals)
  - Compete for domestic and foreign savings to fund new capital formation
  - Benefit from open global markets, technological transfer

Sources: Hannah Ritchie, Max Roser and Pablo Rosado (2020) - "Energy". Published online at OurWorldInData.org at: 'https://ourworldindata.org/energy' (accessed 31 March 2022); World Development Indicators; Author calculations.

Capital deepening in the developing world will compete for funding and resources



Source: GTAP 10 data base.



Source: Author GDyn-FS projections.

… economic growth and associated accumulation of real wealth will see a changing balance of real wealth holding across regions

Policy implications

- Shift of economic gravity between developed and developing world likely
- Common elements of high regulatory standards and similar stages of economic development will remain between developed economies and naturally support closer relationships
  - Impacts likely most evident and rewarding through the wider cooperation that encourages *all* countries to reach their productive potential
- Premium on domestic policies that
  - Increase competitiveness of local firms in existing and *new* global markets
  - Lower the costs of trade across *all* markets
  - Avoid undue impediments to trade and commerce (eg RoO; regional conflict, bilateral trade conflicts)
- Premium on innovation and the development of new energy technologies and ways of working that help: (i) meet ongoing global energy demand; and (ii) close the energy gap between OECD and non-OECD economies
- Premium on non-discriminatory multi-lateral, plurilateral and open regional institutions that promote cooperation, a non-discriminatory global order and technological transfer

Selected references

- Gretton, P. 2021, 'Historical validation of saving and trade intensities using the GDyn-FS model and historically informed baseline projections', Presented at the 24nd Annual Conference on Global Economic Analysis, Virtual Conference at: https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=6299
- Gretton, P. 2022, 'National and Sectoral Effects of a Decline in the Desirability of Investing in Australia', *Australian Economic Review*, Vol. 55 No.1 March 2022, pp. 91-121 at: https://doi.org/10.1111/1467-8462.12441.
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- Ianchovichina, E. and McDougall, R. 2012, 'Theoretical Structure of Dynamic GTAP', Chapter 2 in Ianchovichina, E. and Walmsley, T., *Dynamic Modelling and Applications for Global Economic Analysis*, Cambridge.