



Australian Government

**Department of Agriculture,
Fisheries and Forestry**
ABARES

Megatrends influencing Australian agriculture



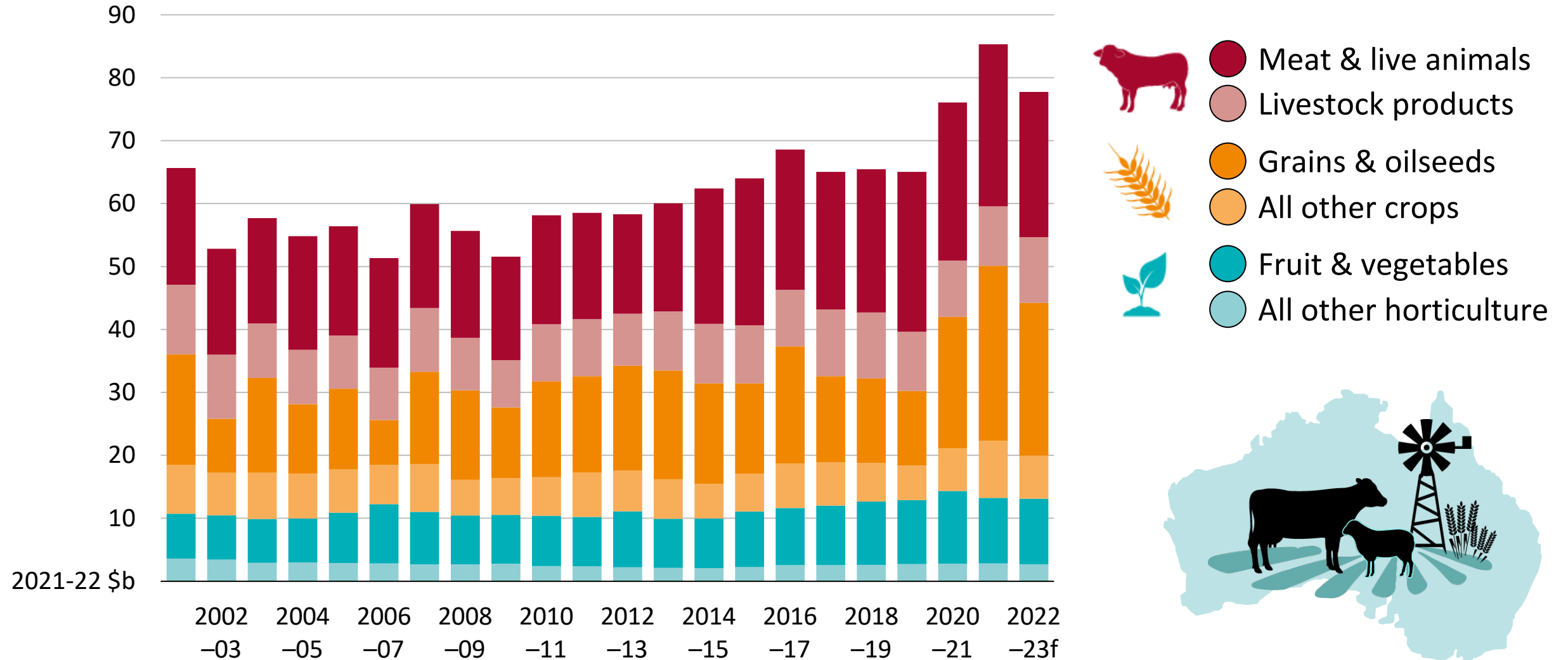
Peter Gooday – Farm Performance, Biosecurity and Information Branch

**ABARES: the Australian Bureau of Agricultural
and Resource Economics and Sciences**

29 November 2022

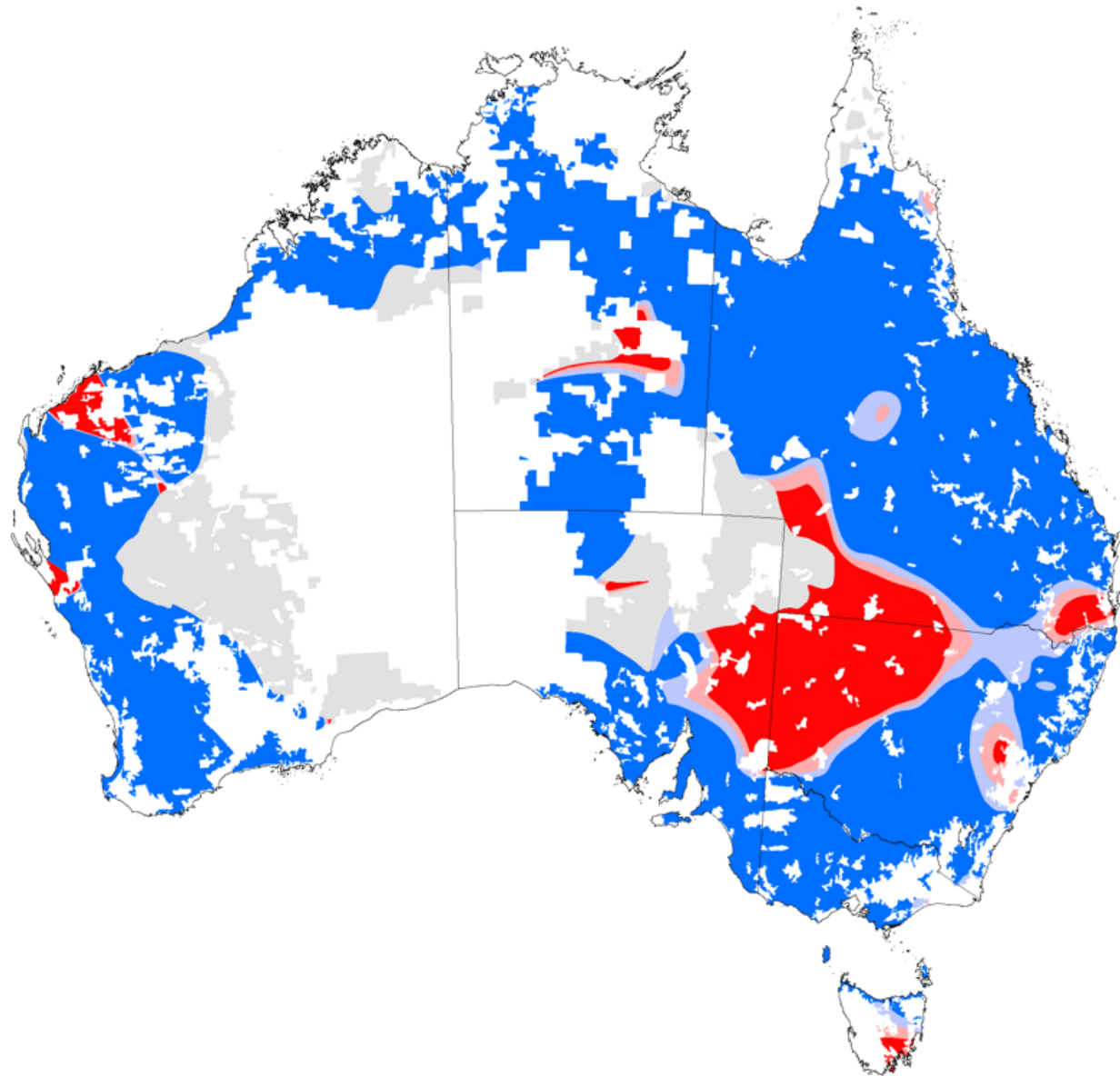
Research by the
Australian Bureau of Agricultural and Resource Economics and Sciences

Australian agriculture's coming off high point



Real value of Australian agricultural production. f Forecast.

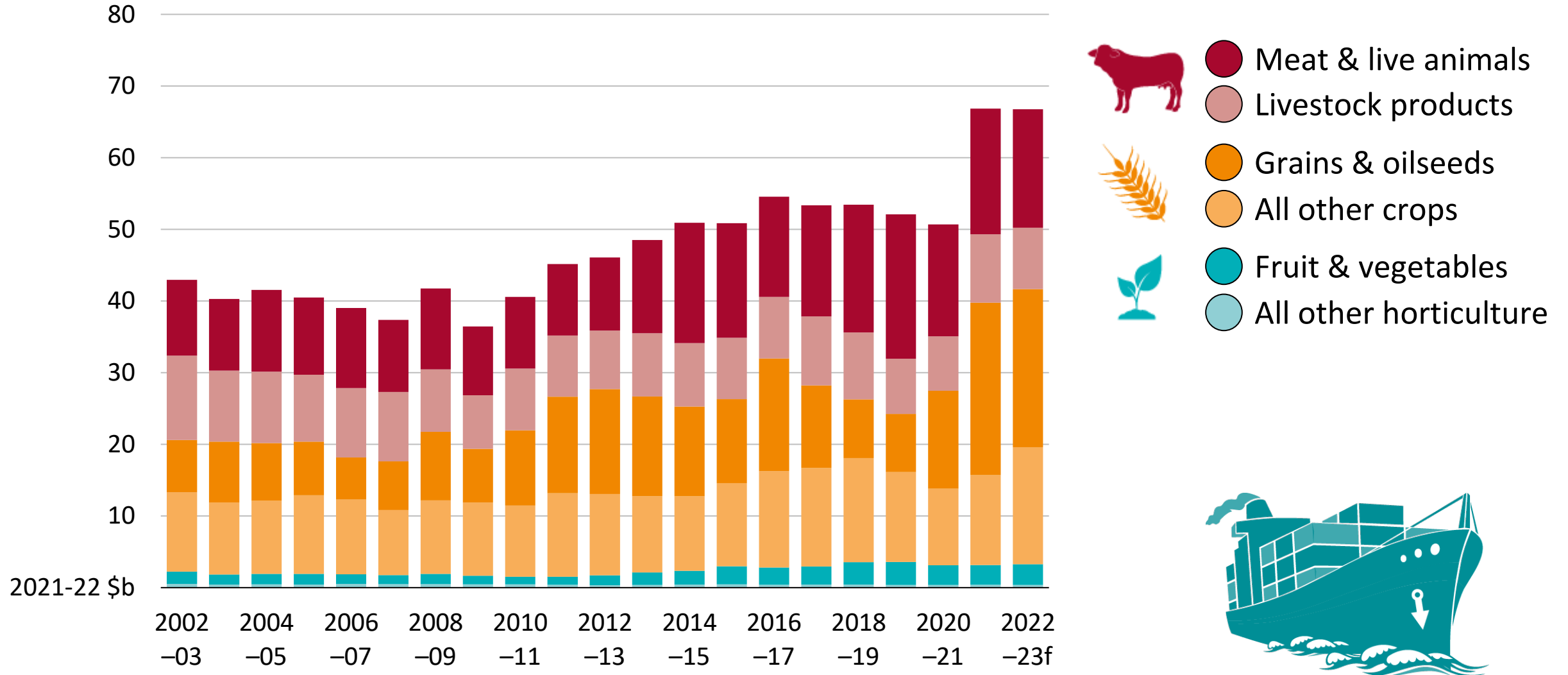
On the rebound: 2021-22 farm cash incomes



**Current broadacre farm cash
income compared to the 10-year
average from 2011–12 to 2020–21**

- >25% below average
- 0-25% below average
- 0-25% above average
- >25% above average
- Insufficient data
- Non-agricultural land

Agricultural trade also at record levels

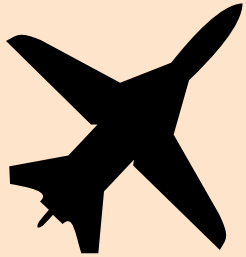


Real value of Australian agricultural exports. f Forecast.

High prices and uncertainty to feature in 2022-23



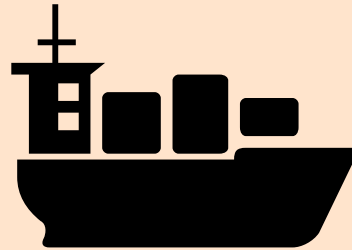
War in Ukraine



Impacts on Ukraine supply, uncertainty over nature of Russian exports

Implications for global growth

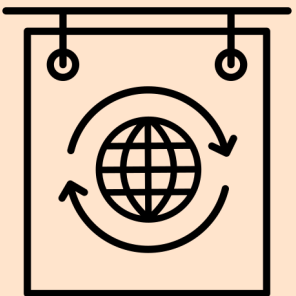
Freight & logistics



Costs have increased worldwide for bulk & container shipping

Record harvests pose logistics challenge

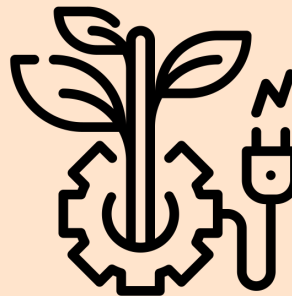
Trade relations



Responses to global conditions and risks of export restrictions.

Tense trading environment

Climate conditions



Seasonal outlook suggests below average production in major grain and oilseed regions



Long-term Megatrends

A more contested
international trading
landscape

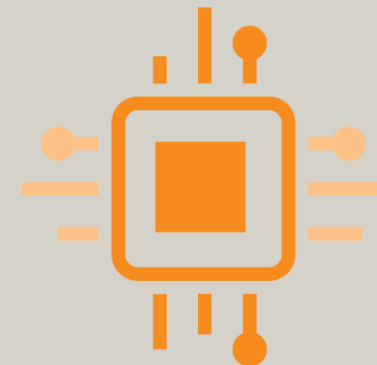


A changing climate

The need for
continued productivity
growth



An increasing number of
high-income consumers



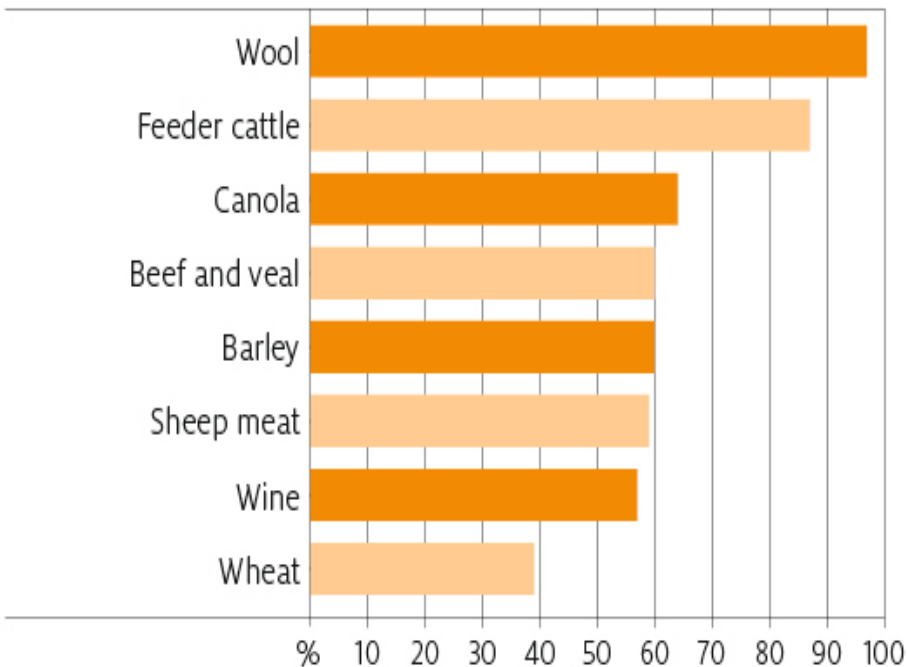
Disruptive
technologies



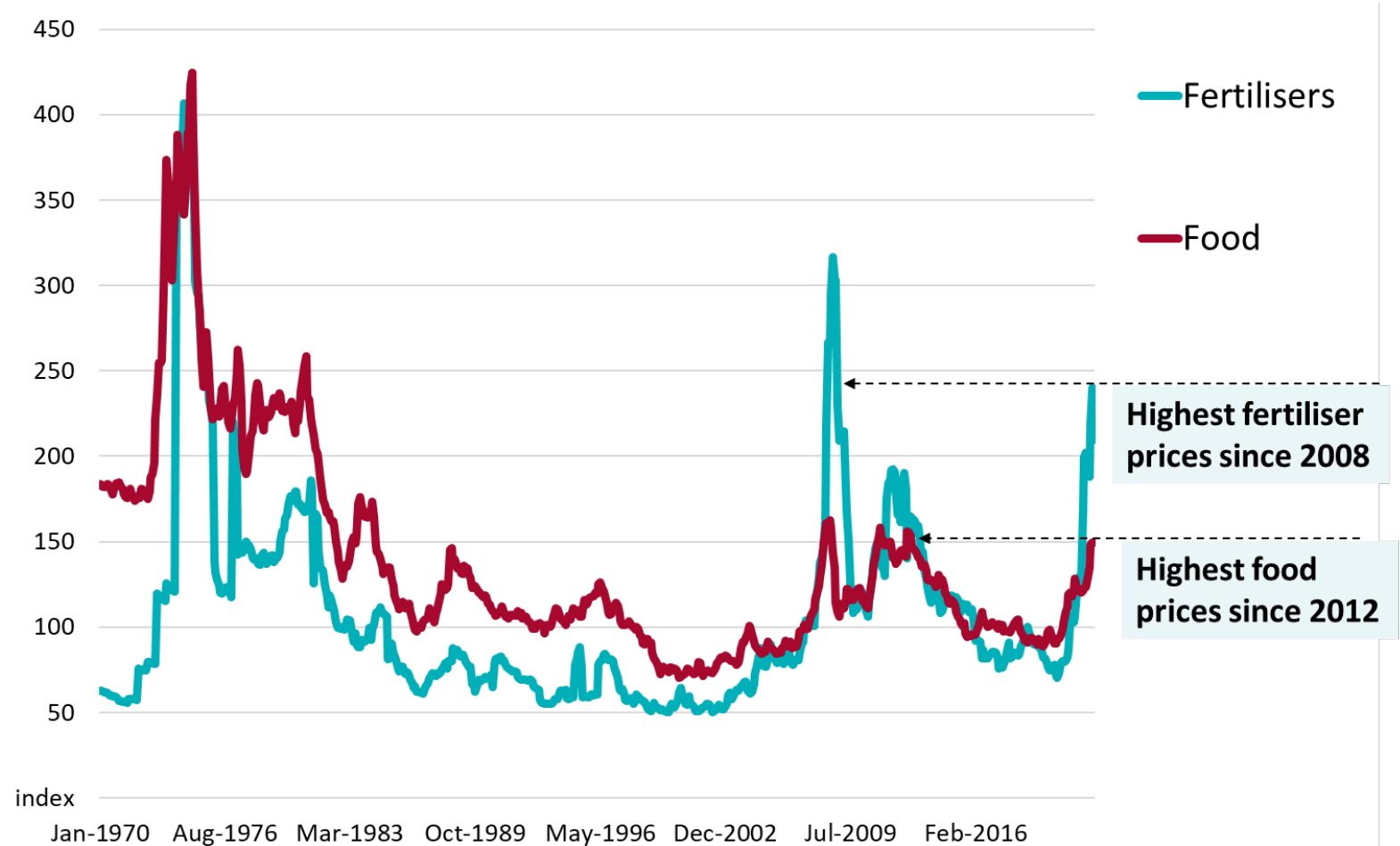
International trading is becoming more contested



Export market concentration in one market for key commodities



Food and fertiliser prices at decade highs



Note: Data shown in real terms. Original data is in nominal US dollar terms and is deflated by the US Consumer Price Index for All Urban Consumers.
Source: [World Bank](#).



What is foot-and-mouth disease and what happens if it enters Australia?

10 hours ago

Foot-and-mouth disease fears spark extra \$14m in government funding to keep it out of Australia

3 hours ago



Costs of FMD outbreak estimated to be around \$80 bn over 10 years (ABARES)

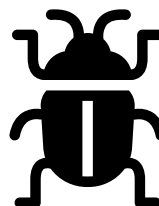
New import rules to stop invasive beetle

21 Apr 2022



Khapra beetle endangers grain security in Australia

30 Sept 2021

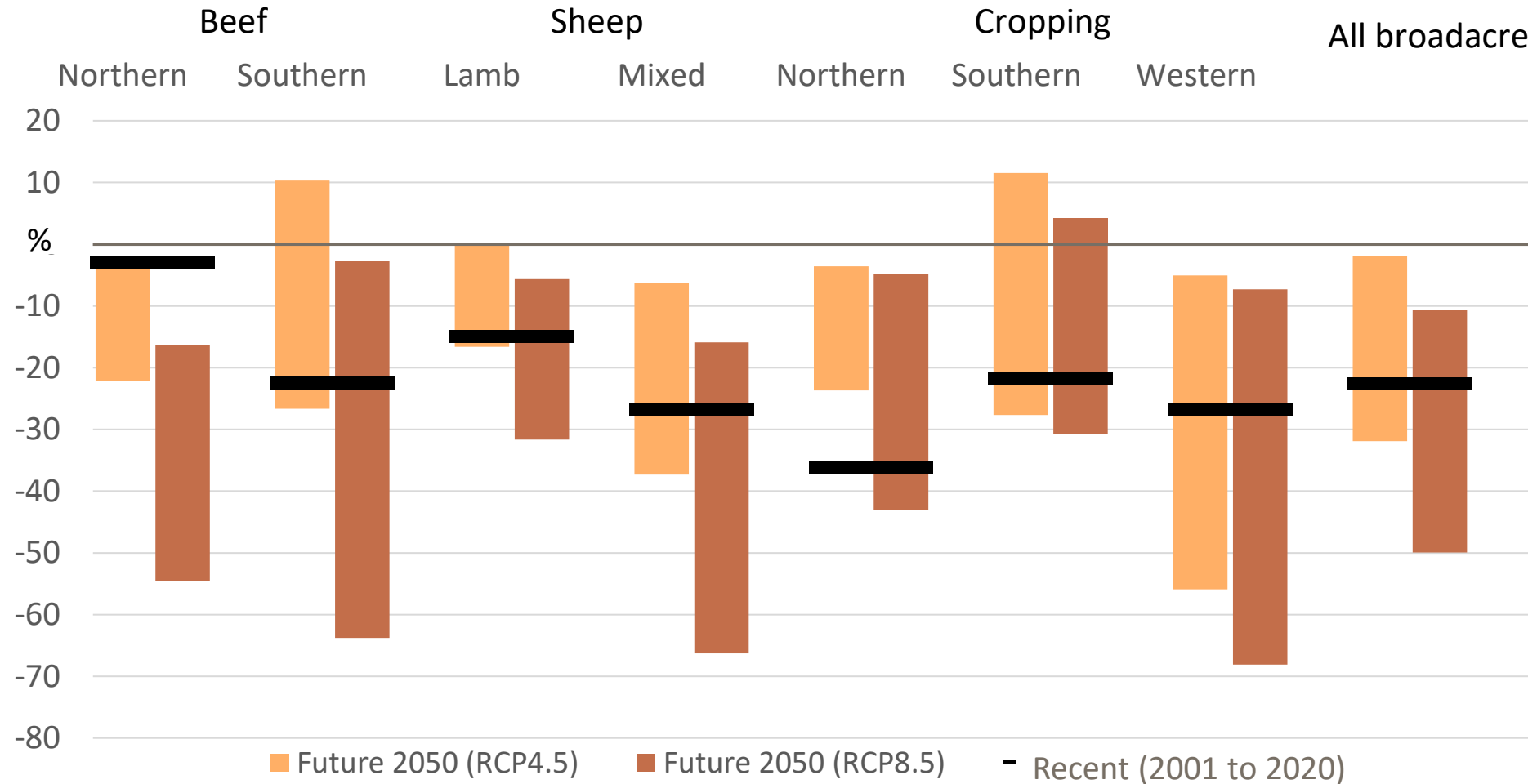


Costs of Khapra beetle incursion estimate to be \$15.5 bn over 20 years in 2014 (ABARES)

Our future climate is uncertain, but it won't look like the past



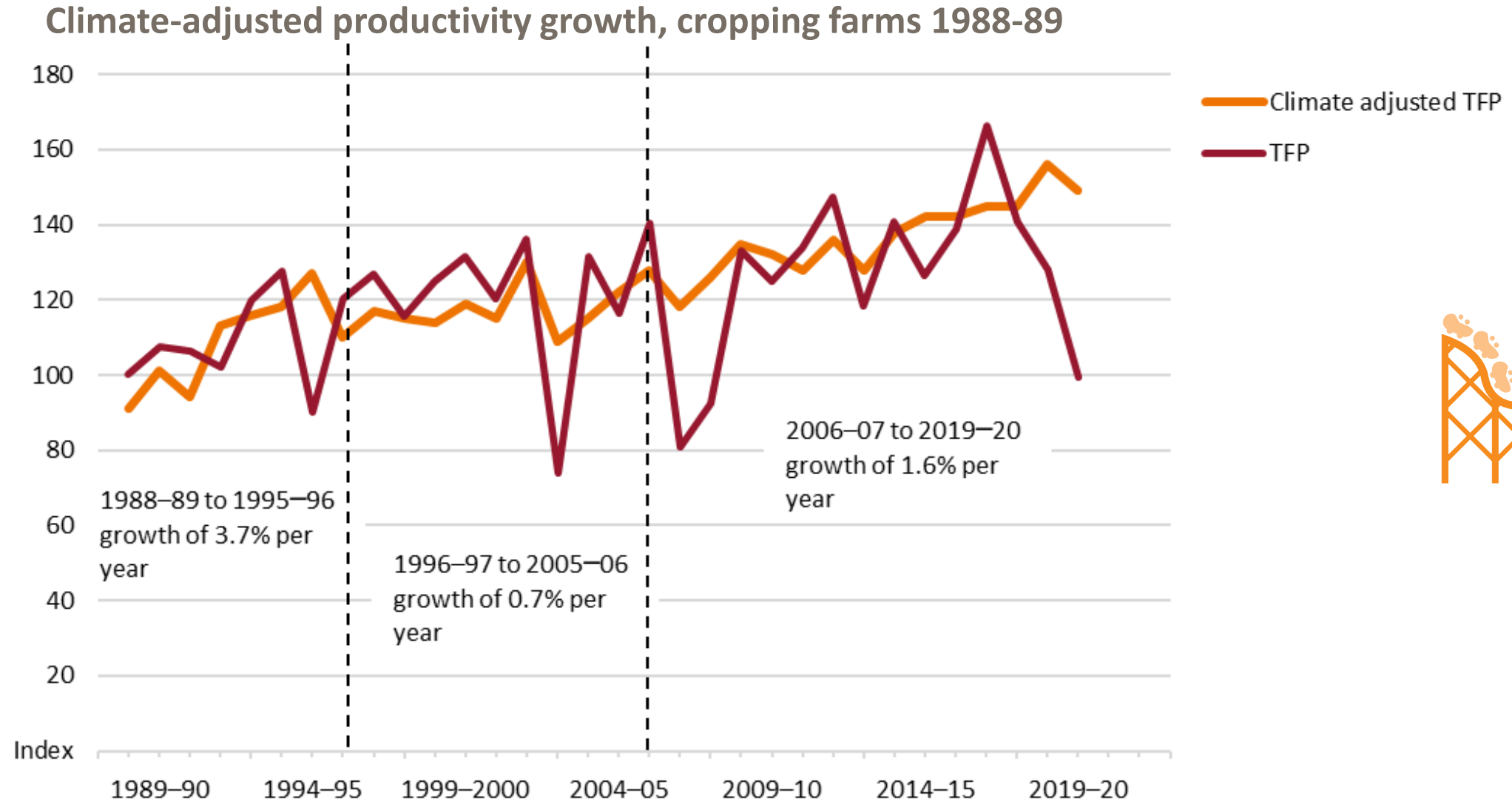
Percentage change in farm profits relative to the *Historical (1950 to 2000)* period by farm group



RCP4.5 ~+2.4°C
-2% to -32%

RCP8.5 ~+4°C
-11% to -50%

Ongoing productivity growth needed to weather the future



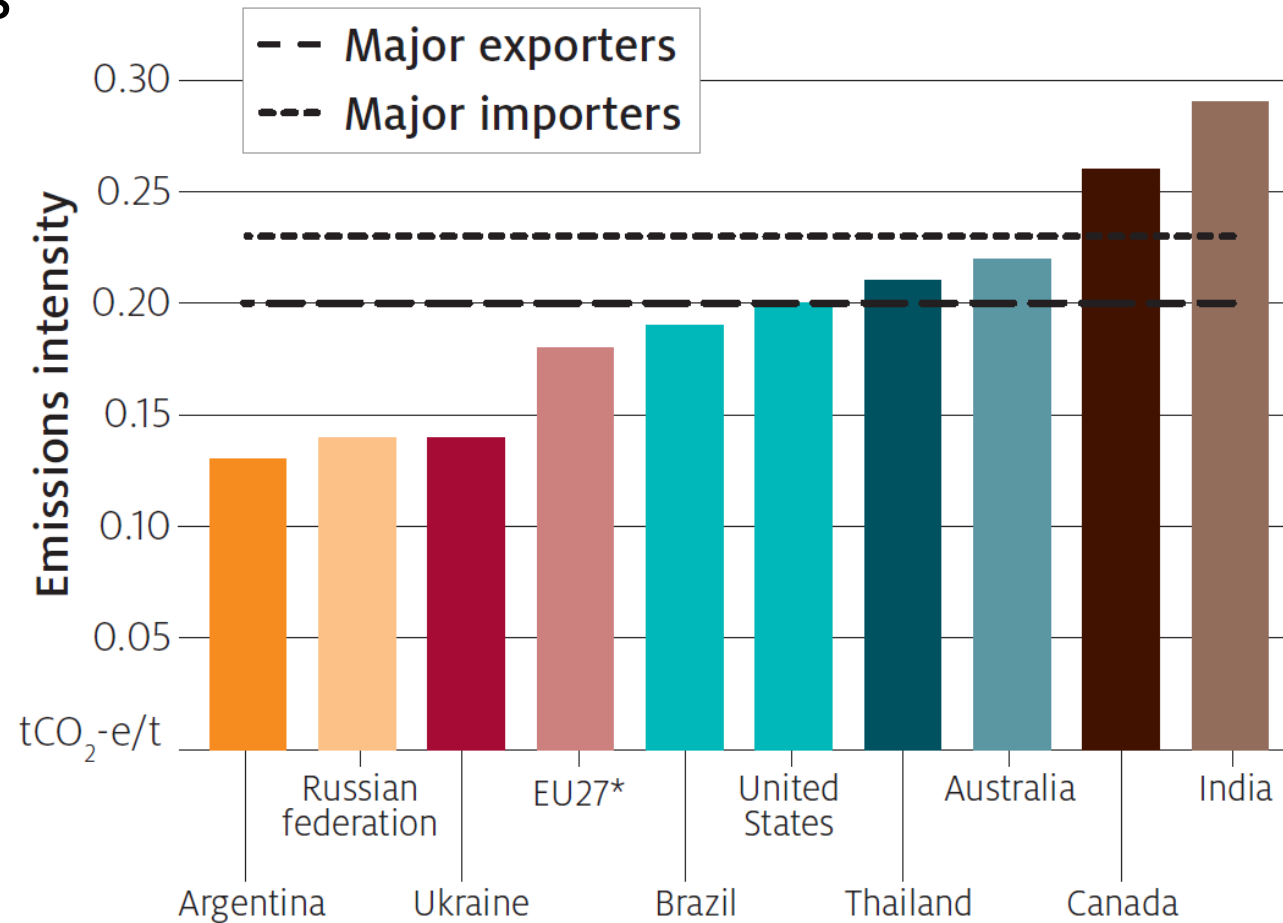


**More from
less to stay
competitive
and be
competitively
sustainable**



Opportunities also exist: emission intensity

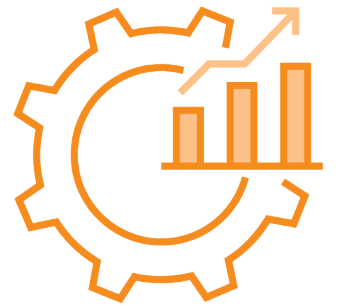
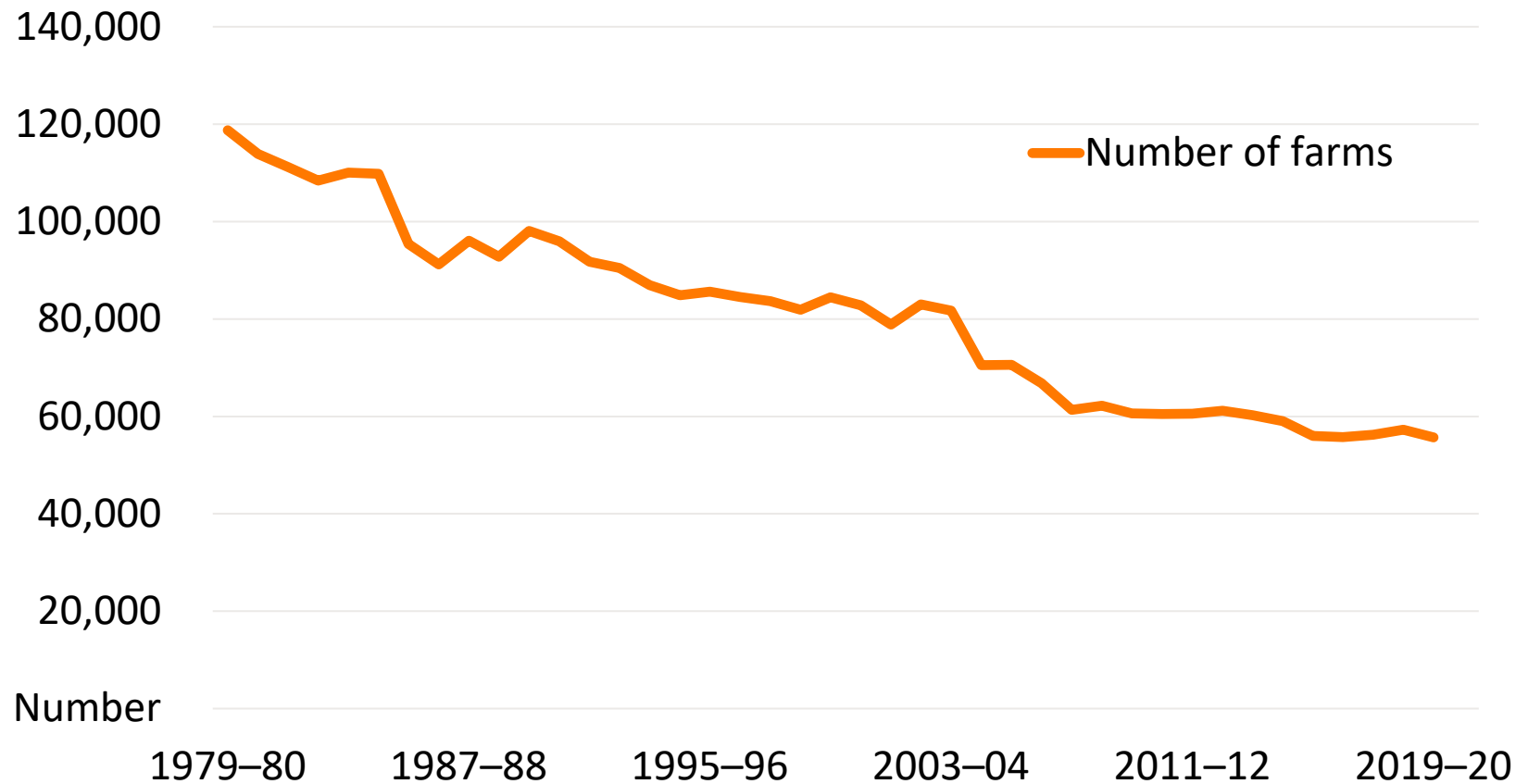
Beef emissions



Structural change ever present with growth



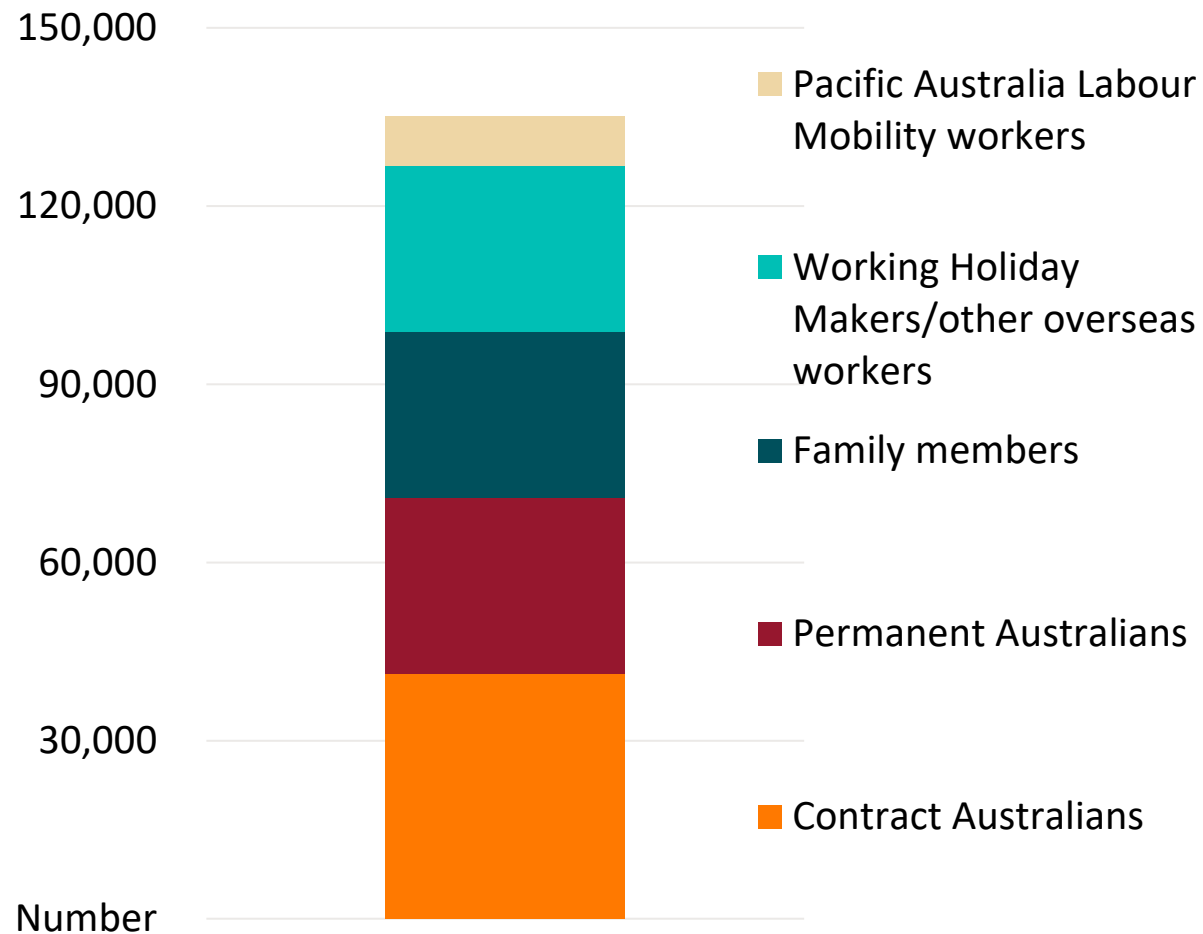
Number of farms has fallen



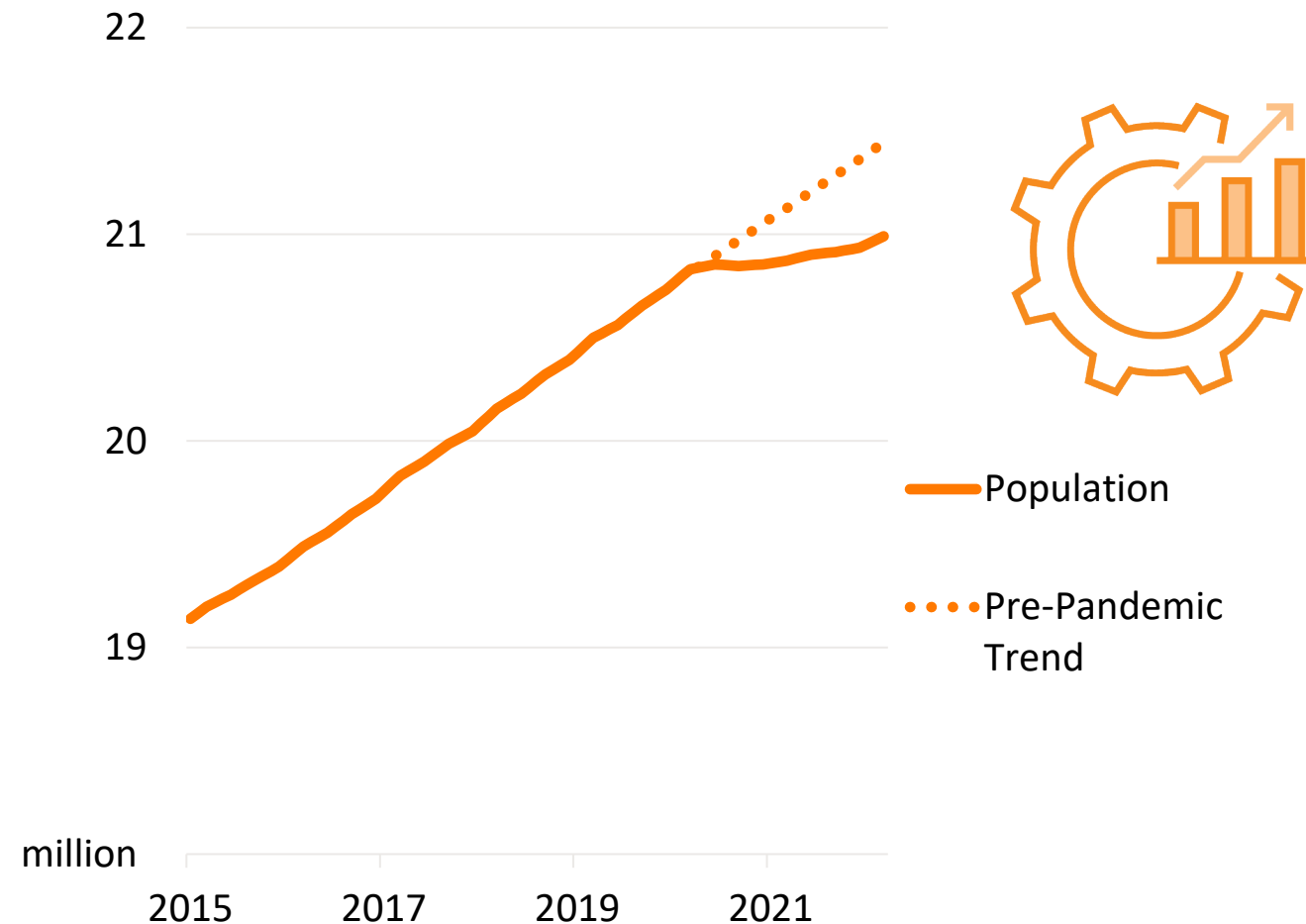
Growing pains also seen in some sectors



Farm workforce by type of employment, horticulture, Australia, 2020–21



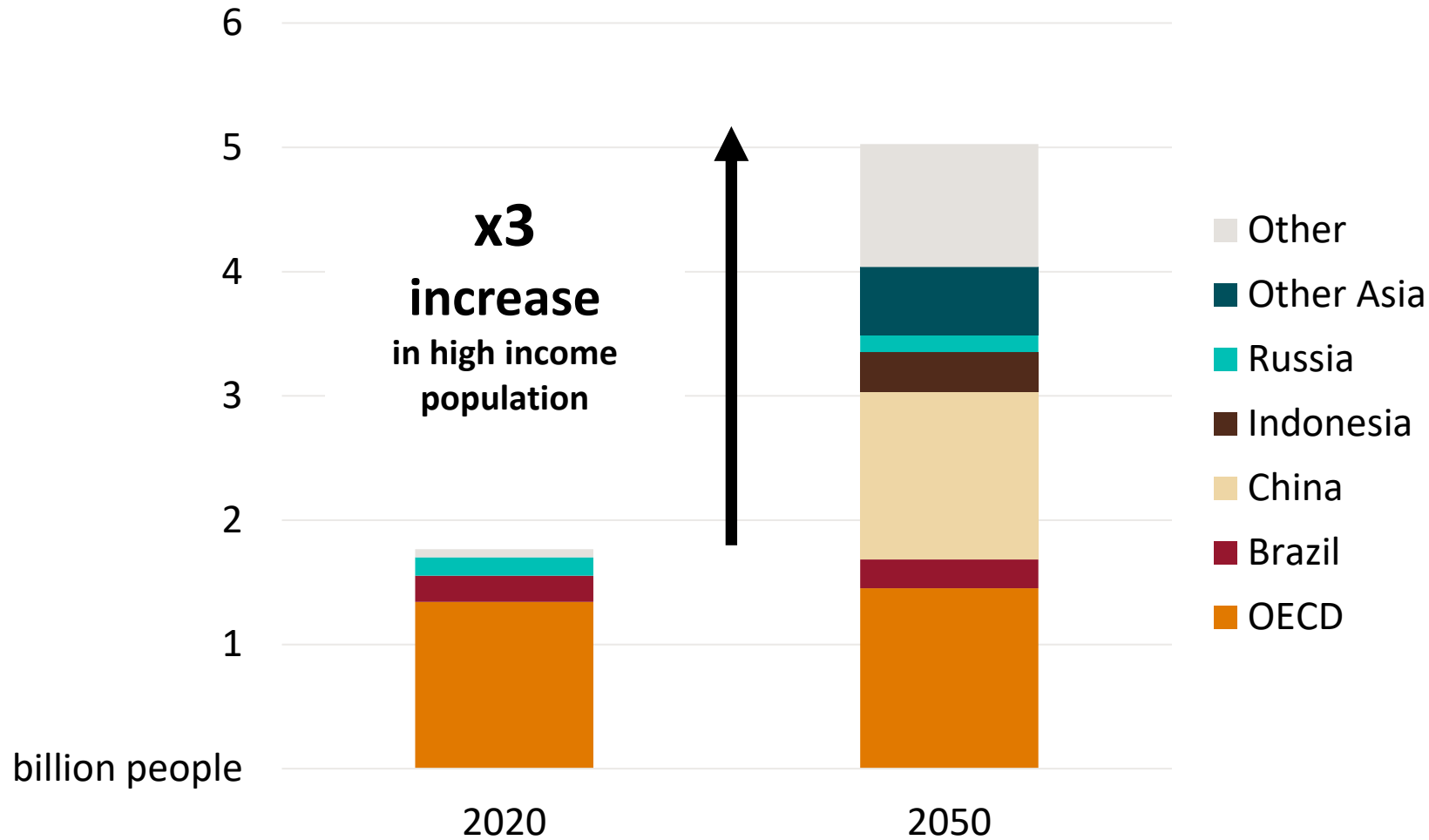
Working-age population, actual and long-run trend, January 2015 to March 2022



3 billion more good reasons for optimism

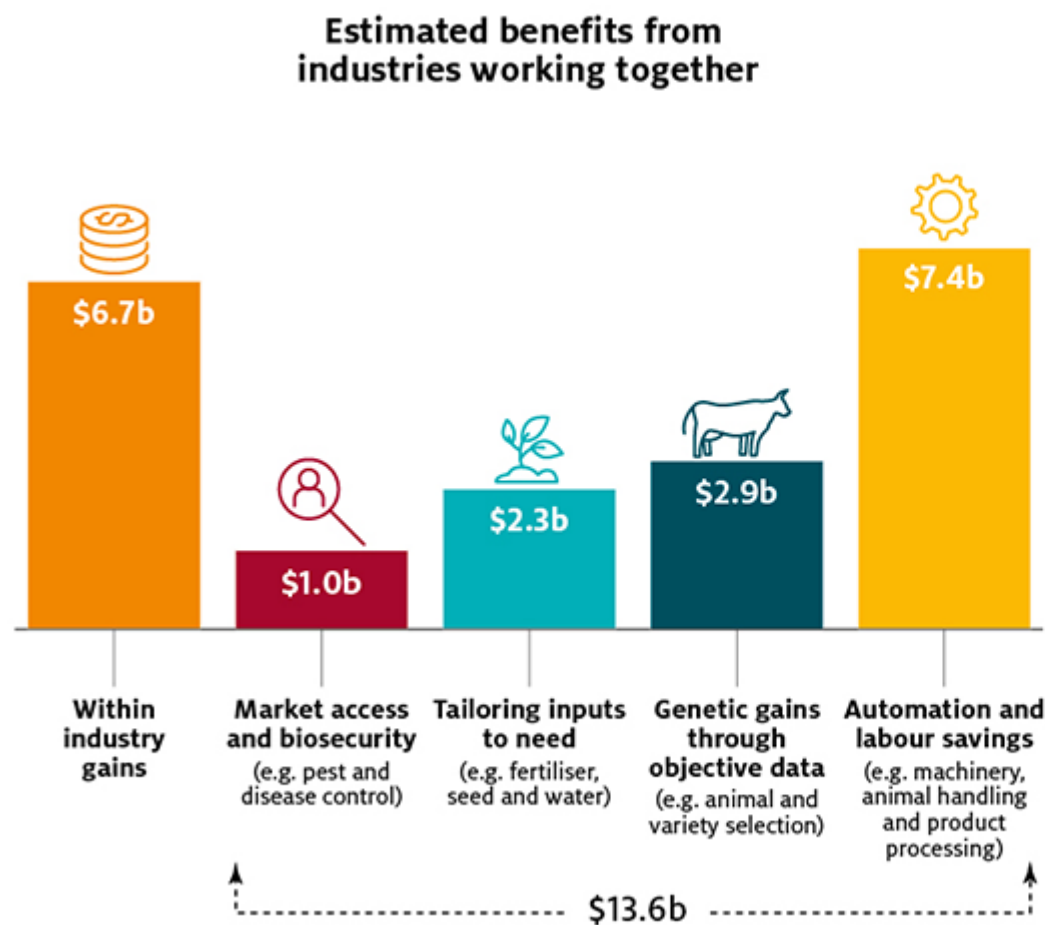


Population in countries exceeding high income threshold, 2020 and 2050

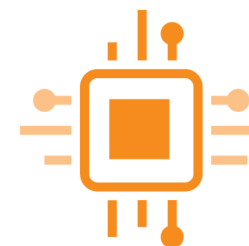
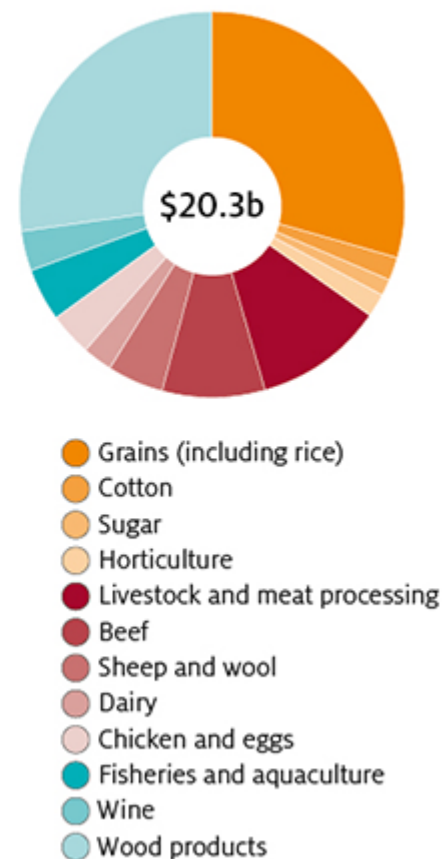


Notes: Figure shows modelled real GDP per capita by countries and regions, for 2020 and 2050, in 2015 dollars (excluding the effect of inflation). The high income threshold is US \$12,000 GDP per capita, based on World Bank (2014). OECD Includes Asian OECD nations Japan and South Korea, and non-OECD countries Bulgaria, Croatia, Lithuania and Romania.
Data Source: unpublished data for Existing Trends scenario, IRP (2019)

Digital agriculture could unlock significant benefits



Estimated total benefits by industry





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