



Australia China Business Council  
澳大利亚中国工商业委员会



Curtin University

Bankwest Curtin Economics Centre

# WESTERN AUSTRALIA'S TRADE AND ECONOMIC RELATIONSHIP WITH CHINA

Benefits to  
Western Australian Households

# ABOUT ACBC AND BCEC

## Australia China Business Council (ACBC)



Australia China Business Council  
澳大利亚中国工商业委员会

ACBC is a national not-for-profit membership organisation with branches in every State and Territory in Australia. It has a network of over 20,000 professionals and a membership of around 500 organisations focused on furthering Australia-China trade and investment.

ACBC actively promotes two-way trade and investment, economic cooperation and understanding between the business communities of Australia and China. ACBC also works closely with state and federal governments on commercial relations with China.

ACBC is one of the largest, most active and diverse business councils in Australia. Prior to COVID19, ACBC would regularly host delegations from China for business to business matching opportunities and provide a range of business-focussed activities and events for our members.

The Australia China Business Council (ACBC) has been at the heart of the Australia-China trade relationship for nearly five decades – acting as Australia's business network for China and the independent voice of business within this relationship.

ACBC helps Australian companies develop and grow their business with China, and Chinese companies expand and invest in Australia. Despite diplomatic tensions between Australia and China, it has never been more important to understand what drives the world's second largest economy and Australia's number one trading partner. Membership of the ACBC is about joining a collective force of companies who believe in the opportunities and potential of deepening the Australia China bilateral business relationship.

## Bankwest Curtin Economics Centre (BCEC)



### Bankwest Curtin Economics Centre

The Bankwest Curtin Economics Centre is an independent economic and social research organisation located within the Curtin Business School at Curtin University. The Centre was established in 2012 through the generous support of Bankwest, a division of the Commonwealth Bank of Australia.

The Centre's core mission to deliver high quality, accessible research that enhances our understanding of key economic and social issues that contribute to the wellbeing of West Australian families, businesses and communities.

The Bankwest Curtin Economics Centre is the first research organisation of its kind in WA, and draws great strength and credibility from its partnership with Bankwest, Curtin University and the Western Australian government. The Centre brings a unique philosophy to research on the major economic issues facing the State.

By bringing together experts from the research, policy and business communities at all stages of the process – from framing and conceptualising research questions, through the conduct of research, to the communication and implementation of research findings – we ensure that our research is relevant, fit for purpose, and makes a genuine difference to the lives of Australians, both in WA and nationally.

The Centre is able to capitalise on Curtin University's reputation for excellence in economic modelling, forecasting, public policy research, trade and industrial economics and spatial sciences. Centre researchers have specific expertise in economic forecasting, quantitative modelling, micro-data analysis and economic and social policy evaluation. The Centre also derives great value from its close association with experts from the corporate, business, public and not-for-profit sectors.

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# FOREWORD



**James Clarke**

President, Australia China Business Council  
(WA Branch)



Despite recent tensions, Australia continues to benefit from a strong economic partnership with China, thriving on trade relations built over decades in areas such as the export of minerals, energy, agricultural products, education, tourism and health. In 2021-22 Western Australia exported over A\$135 billion of goods to China. China is Western Australia's largest export market for iron ore, the largest export market for gold and the second largest export market for petroleum. In 2020-21, Western Australia was responsible for 81% of Australia's goods exports to China.

As this report shows, Australia's (and more specifically, Western Australia's) strong economic performance through and coming out of COVID cannot be decoupled from its trade and investment relationship with China. The report speaks to the positive impacts that the China Australia Free Trade Agreement (ChAFTA) has had on bilateral trade. This is cause for optimism; not only toward the positive impacts bilateral agreements such as ChAFTA can and do have on Australia-China trade volumes, but also optimism toward the potential upside multilateral agreements such as RCEP can deliver for bilateral trade volumes between Australia and China in the future.

This report affirms that the complementarity of these two economies, realised through the fruit of many hard-earned long-term relationships, plays a crucial role in the average Western Australian household today, and has the potential to continue to do so for many years to come.



## Professor Alan Duncan

Director, Bankwest Curtin Economics Centre  
Curtin Business School, Curtin University



China is the second largest economy in the world and Western Australia's largest trading partner. In 2021 China accounted for 60 per cent of the state's exports and a fifth of the state's imports.

The Western Australian economy has remained strong and resilient throughout the COVID-19 pandemic, with much of this strength drawing on WA's global economic partnerships.

As work continues to repair diplomatic tensions between Australia and China, it is instructive to quantify the benefits to both partners from maintaining markets and bilateral trade relationships.

This report establishes a firm evidence base on the economic impact of trade with China on Western Australian households. Our findings demonstrate that China-WA trade offers measurable benefits to the average Western Australian household through the channels of increased employment, higher household income, and a lower cost of living. And taken together, these benefits are sizeable.

Iron ore remains a major part of the narrative, of course. But Western Australia's agriculture, tourism and international education sectors, as well as advanced manufacturing, have also played a significant role.

And China presents many opportunities to the Western Australian economy into the future as the WA government looks to diversify its product and service offerings – not least through its commitments to green energy, critical minerals and climate change initiatives.

It is imperative that China-WA relations are supported by both jurisdictions to ensure that the full benefits of economic trade are afforded to the two economies and their communities.

# EXECUTIVE SUMMARY

China is the second largest economy in the world and is Australia's largest trading partner. Given that Western Australia accounts for some 44 per cent of Australian exports, the China-WA economic relationship is an important one for the Australian nation. In 2021 China accounted for 60 per cent of the state's total exports and 19 per cent of the state's total imports. WA provides China with reliable and high quality mineral exports which support China's rapid growth, with iron ore in particular supporting China's steel production to meet the nation's infrastructure program. However, WA's agriculture, education, tourism and manufacturing sectors also play an essential role towards the provision of food and services to meet the demand from China's vast population and the emerging needs of a growing middle class.



*Mining*



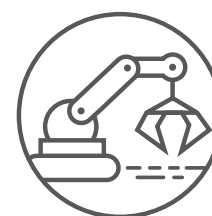
*Agriculture*



*Education*



*Tourism*



*Manufacturing*

With such strong economic ties and with diplomatic tensions between Australia and China, it is more important now than ever before to understand the benefits of China-WA trade to Western Australian households.

After setting out a detailed review of the commodities and services traded between China and WA, this report considers the primary channels through which China-WA trade affects the welfare of WA households. In particular, three channels are considered in this report, namely, income effects; labour market effects; and cost of living or price effects.

Applying rigorous economic modelling, this report estimates that WA's trade intensity with China increased household disposable income to the region of \$7,900 in 2020-21. This equates to 5.5 per cent of household disposable income per capita and \$8.4 billion on aggregate for WA households.

In terms of labour market effects, 2020-21 levels of trade with China are estimated to have contributed 244,000 jobs, and led to a 1 percentage point reduction in unemployment rates in Western Australia.

WA's relationship with China is also found to reduce the cost of living for the state's households. The total cost of WA's imports would increase by around \$3.9 billion (10.4 per cent) above the current \$37.5 billion if Chinese imports were to be sourced from countries other than China.

And taking account of the share of imports that go towards final consumption, WA households would pay 3.4 per cent more for the same consumption items without China as a major import partner.

What is also evident in this report is that there is further opportunity for investment growth from China to Australia. Currently, China accounts for \$91.8Bn, which equates to 2.2 per cent of foreign investment in Australia. This compares to \$1,053Bn (26% share) from the United States, and \$763Bn (18.4% share) from the EU.

While the number of Australian investment approvals for China accounted for 28 per cent of all approvals in 2020-21, in value terms, China accounted for only 6.5 per cent of Australian investment approvals. This equates to an average of \$5m per approval, and compares to an average of \$61.2m per approval from the United States.



That said, together, the benefits from China-WA trade and investment are substantial for Western Australian households. There are of course many other benefits emerging from trade with China that are not fully captured in this report. For example, the benefits from taxation and royalties for regions need further investigation. Increased international education increases cultural awareness for both nations, creates relationships for future trade and investment partnerships and provides an additional pool of skilled workers for Western Australian businesses.

Diplomatic tensions are one of the key threats to the economic benefits from China-WA trade over the short to medium term. Over the medium to longer term China, both as a trading partner and investor perspective, presents many opportunities to the Western Australian economy, particularly as the state looks to diversify product and service offerings. One case in point is building on existing strengths in mineral resources, to meet the global demand for green energy and related green technology to support global net zero emissions targets.

It is imperative that China-WA relations are supported by both jurisdictions to ensure that the full benefits of economic trade are afforded to the two economies and their citizens.



## WELFARE GAINS FOR WA HOUSEHOLDS DUE TO TRADE WITH CHINA



### LABOUR MARKET EFFECTS

**244,000**

Additional employed persons in 2020-21

**1.0ppt**

Reduction in the WA unemployment rate in 2020-21



### HOUSEHOLD INCOME EFFECTS

**\$7,900**

Household disposable income in 2020-21

**5.5%**

Gross household disposable income per capita in 2020-21



### COST OF LIVING EFFECTS

**3.4%**

If WA households had to source Chinese imports from other import partners



### SHARE OF EXPORTS

**\$134.4Bn**

Value of exports to China in 2021-22

**60%**

China's share of WA's exports in 2021



### SHARE OF IMPORTS

**\$6.9Bn**

Value of imports from China to WA in 2021

**19.0%**

China's share of imports to WA in 2021



### FOREIGN DIRECT INVESTMENT

**\$91.8Bn**

Value of Chinese investment in Australia 2020-21

**2.2%**

China's share of investment in Australia 2020-21



### FOREIGN INVESTMENT APPROVALS

**\$13.7Bn**

Value of Chinese investment approvals in Australia 2020-21

**6.5%**

China's share of investment approvals in Australia 2020-21

# KEY FINDINGS

## *Trade intensity and household income effects*

- Between 2019-20 and 2020-21 WA's trade intensity with China increased by 10.6 percentage points.
- This increase in trade intensity led to an estimated increase in household disposable income of \$1,900.
- This equates to disposable income of \$760 per person which is 1.3 per cent of household disposable income per capita for 2020-21.
- On aggregate, the gains in household disposable income per capita due to increased trade with China in 2020-21 is estimated at \$2.02 billion.
- The total amount of gross disposable income per household attributed to overall China-WA trade in 2020-21 is estimated at about \$7,900.
- This equates to \$3,150 per person, which is equivalent to 5.5 per cent of gross household disposable income per capita, and \$8.42Bn on aggregate.

## *Labour market effects*

- WA's employment increased sharply after the signing of the China-Australia free trade agreement (ChAFTA), which reduced or eliminated most of the tariffs on WA exports to China.
- WA's employment ratio increased by approximately 6 percentage points due to increased trade with China following ChAFTA.
- In 2020-21, the benefit from overall China-WA trade intensity on employment in WA is estimated to be in the region of 244,000 jobs.
- In the immediate years after ChAFTA was signed, WA's unemployment rate is estimated to have been 1 percentage point lower due to increased trade with China.

## *Cost of living effects*

- The inflation rate of tradable goods is lower than non-tradable goods over the last decade.
- This coincides with the sharp increase in WA's trade intensity with China in recent years, suggesting that China-WA trade lowers the cost of living for Western Australians.
- WA households would pay 3.4 per cent more for the same consumption items without China as a major import partner.

## *Investment*

- Chinese foreign investment into Australia accounted for 2.2 per cent (\$91.8Bn) of overall foreign investment in 2021.
- This compares to \$1,053Bn (25.5% share) from the USA and \$763Bn (18.4% share) from the EU.
- Overall there were almost 9,900 investment approvals in Australia in 2020-21, with a total value of (208.7Bn).
- China obtained the largest number of foreign investment approvals in 2020-21, sitting at 2,730, some 27.6 per cent of total approvals.
- However, in value terms China's approvals in 2020-21 sit at 6.5 per cent (\$13.6Bn) of the total value of approvals.
- On average, China's approvals in 2020-21 equate to \$5m per approval. This compares to \$61.2m per approval for the United States.
- The majority of investment approvals for China in 2020-21 were in real estate development (46.5%; \$6.3Bn), followed by finance and insurance services (14%; \$1.9Bn), services (11.8%; \$1.6Bn), and mineral exploration (11.7%; \$1.59Bn). Agriculture comes in at 4.8 per cent (\$0.65Bn).

- As for Australian investments abroad, the USA, UK and EU dominate and together make up over 60 per cent of Australian investments overseas.
- China represents 2.2 per cent (\$74.8Bn) of all of Australian foreign investments, with a slightly higher share going to Canada (2.9%) and Japan (3.9%).

## *Western Australia's trade with China - exports*

- WA accounted for 43.9 per cent of Australia's exports in the 12 months to August 2022.
- China accounted for 56 per cent of WA's exports in 2021-22. The value of WA's exports to China increased to \$135.60Bn in 2021-22.
- Iron ore is by far the largest commodity exported from WA comprising \$152.23Bn in 2021.
- China comprised almost 82 per cent (\$124.27Bn) of WA's exports of iron ore in 2020-21.
- China accounts for 80 per cent of WA's minerals and fuels exports, with large shares also reported for agriculture (15%), manufactures (7%) and other goods (25%).
- Agriculture, forestry and fisheries is WA's second largest export sector sitting at \$9.7Bn in 2021.
- China sits in first position for WA's wool exports (\$586.73m; 92%) and sits in fifth position for wheat exports from WA (\$212.12m; 6.4%).
- In 2018, 16.6 per cent (7,970) of international student enrolments in WA were from China. This fell to 5,360 (13.9%) in 2021.
- In 2018-19, Chinese visitors to Western Australia ranked fifth (67,455) representing 6.6 per cent of visitors to WA.

## *Western Australia's trade with China - imports*

- WA accounted for 11.2 per cent of imports to Australia in the 12 months to August 2022. This is in line with the state's share of the national population.
- China's share of overall imports to WA increased from 11 per cent in 2012 to 19 per cent in 2021.
- Of the \$5.4Bn of imported manufactures, from China, \$322m was in furniture, mattresses and cushions, \$280m in specialised machinery parts, followed by \$204m in civil engineering equipment.

## *Value of trade*

- On a per capita basis, the average gross value of WA merchandise exports and imports sits at \$103,000, with \$57,000 related to trade with China.

# INTRODUCTION

*It is the maxim of every prudent master of a family,  
never to attempt to make at home what it will cost him more to make than to buy...  
What is prudence in the conduct of every private family,  
can scarce be folly in that of a great kingdom.”*

Adam Smith, The Wealth Of Nations, Book IV Chapter II, pp. 456-7, paras. 11-12.  
Sourced from <https://www.adamsmith.org/adam-smith-quotes>

China is the second largest economy in the world and is expected to compose over 20 per cent of the world economy by 2026. China is Western Australia's largest trading partner constituting 60 per cent of the state's total exports and 19 per cent of the state's total imports in 2021.

There are many benefits to trade, with economies specialising in what they are good at or have natural endowments in. Through globalisation, countries have become increasingly interconnected and interdependent. This has been highlighted during the COVID-19 pandemic more than ever before, with lockdowns and restrictions impacting global supply chains and in turn business profitability, employment and the price of goods and services. The China-WA economic relationship has also had to contend with diplomatic tensions between the two nations.

Thus, it is important to examine the benefits and potential costs of China-WA trade. Such benefits are complex and can affect economic agents such as governments, businesses, individuals and their households as well as the broader community differently, including across both nations.

The Australia China Business Council (WA Branch) commissioned the Bankwest Curtin Economics Centre to assess the economic benefits of China-WA trade on Western Australian households. This report focuses on three key channels through which individuals in Western Australia are impacted by trade, namely, levels of employment, household income, and the price of goods consumed by the typical household.

The remainder of the report is structured as follows. Having laid out the economic trajectory of the Western Australian economy, and global growth projections for China, a detailed insight into the key commodities and services exported to and imported from China to Western Australia is provided. The evolving nature of trade across the major export sectors over the last decade is also presented.

The level of foreign investment to Australia from China is then discussed, with a look too at recent investment approval rates for Chinese investments, the sectors for such investment, and how both the number and value of investment approvals compare to other countries.

Having established this critical context and evolving dynamic, using novel techniques, this report addresses the benefits of the China-WA trade relationship on the average Western Australian individual and household. Estimated impacts of China-WA trade intensity on household income, levels of employment and unemployment rates, as well as the impact of China-WA trade on the price of a typical basket of goods are reported. Key conclusions are drawn in the final section of the report.

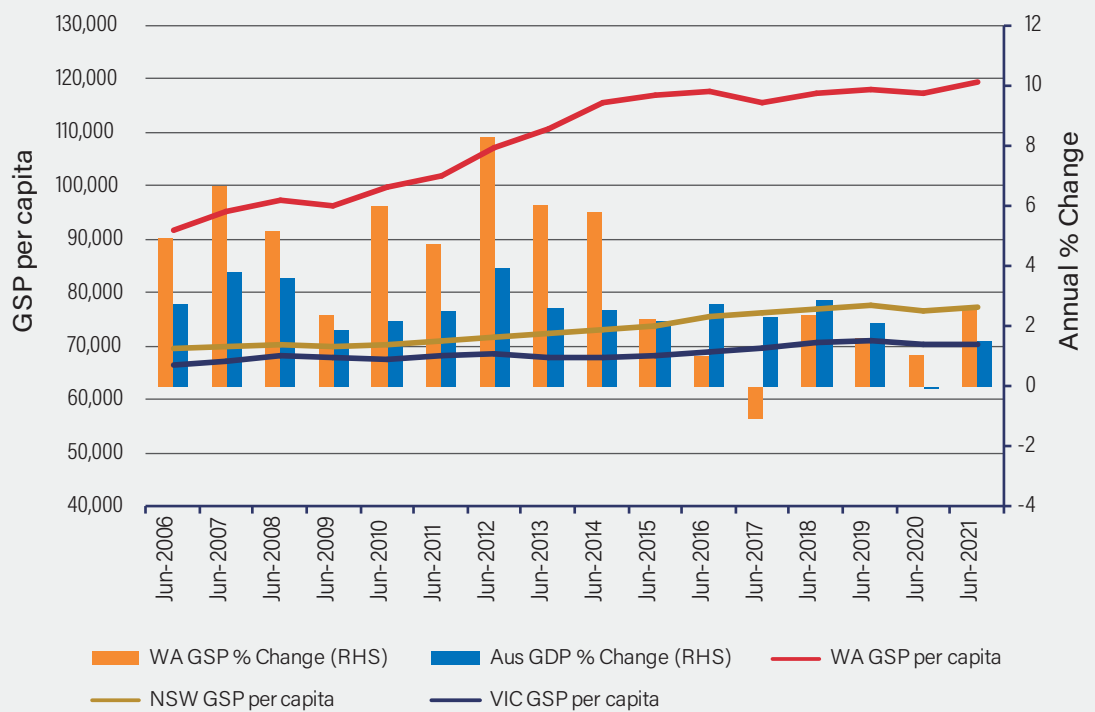
# WESTERN AUSTRALIA'S ECONOMIC TRAJECTORY

The Western Australian economy has enjoyed substantial growth in recent history, with an average annual growth of 4.13 per cent in Gross State Produce (GSP) over the last 20 years. This, compares to 2.69 per cent growth in Gross Domestic Product (GDP) nationally (Figure 1). Western Australia's growth has slowed to 3 per cent over the last decade, but this is still above that reported for Australia (2.27%).

WA's GSP per capita sat just under \$120,000 in June 2021, \$41,500 above that reported nationally.

**Figure 1**

Gross state product per capita, Australia, WA and a selection of states, 2006 to 2021



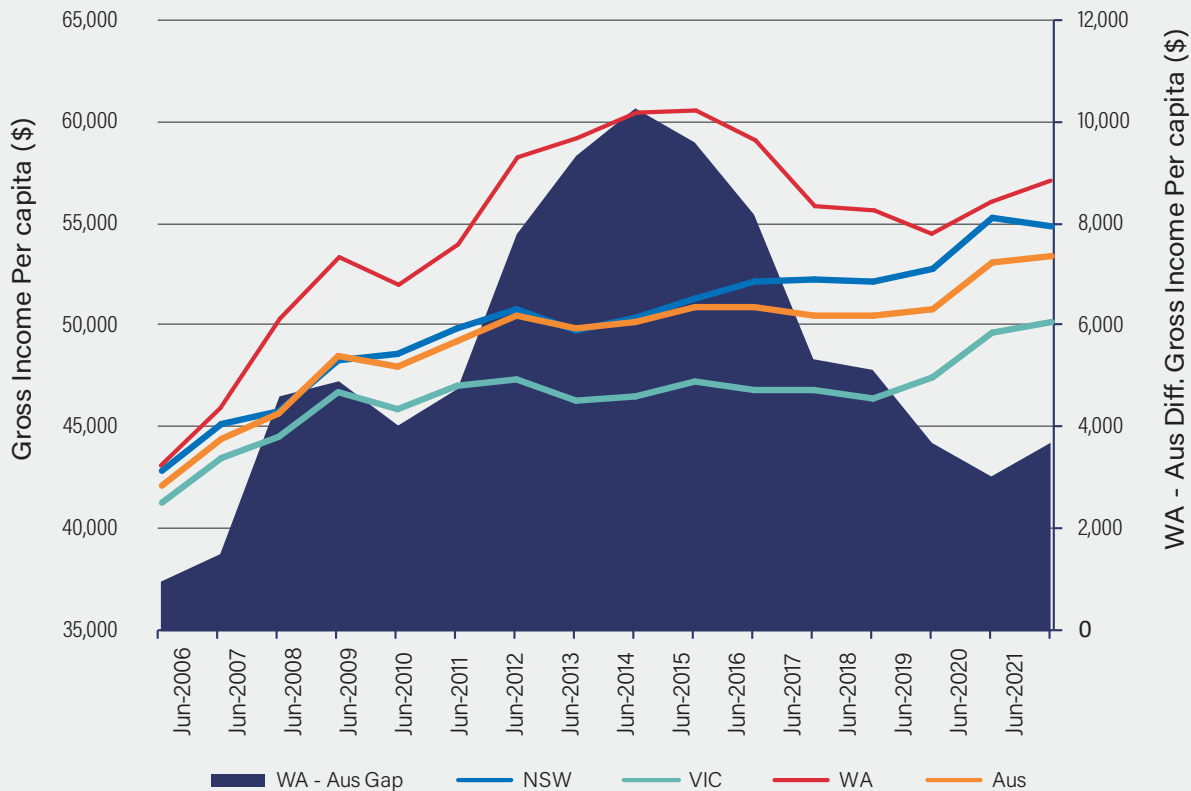
WA's household disposable income per capita sits at \$57,100, some \$3,700 above the national average.

Source: Bankwest Curtin Economics Centre | calculations based on ABS 5220 and ABS 3101

Gross household disposable income is a more relatable and meaningful measure of financial security for households. WA ranks highly on this measure, with average disposable income currently \$3,700 above the national average at around \$57,100 per capita (Figure 2). This gap was as large as \$10,000 during the highs of the early 2010's mining boom. High iron ore prices have been a significant contributor to growth over recent years, and have played a significant role in protecting the state and national economies from the impacts of the COVID-19 pandemic.

**Figure 2**

Gross household disposable income per capita, Australia, WA and a selection of states, 2006 to 2021



Source: Bankwest Curtin Economics Centre | calculations based on ABS 5220 and ABS 3101

During 2020, global growth declined by 3.4 per cent while growth in Australia decline by 2.2 per cent. Meanwhile, growth in China, WA's largest export partner, remained positive at 2.2 per cent during 2020, and recovered to 8.1 per cent in 2021. Global growth is forecast at 3.0 per cent for 2022, with growth of 4.2 per cent forecast for Australia, and 4.4 per cent for China. Beyond that, for 2023, with inflationary pressures and increasing interest rates across many nations, global growth is forecast to decline to 2.8 per cent, with a rate of 2.5 per cent forecast for Australia. However, growth in China is forecast to increase to 4.9 per cent, with gradual easing of COVID-19 restrictions likely to support such growth.

*Global growth is forecast at 3.0 per cent for 2022, with growth of 4.2 per cent forecast for Australia, and 4.4 per cent for China.*

**Table 1** Global growth 2019 to 2021 and global growth forecasts to 2023

	World Output	USA	Euro	China	India	Indonesia	Japan	Australia
Actual and Forecast Growth rates (%)								
2019	+3.3	+2.3	+1.6	+6.0	+3.7	+5.0	-0.2	+2.0
2020	-3.4	-3.4	-6.5	+2.2	-6.6	-2.1	-4.5	-2.2
2021	+5.8	+5.7	+5.3	+8.1	+8.7	+3.7	+1.7	+4.8
2022 (f)	+3.0	+2.5	+2.6	+4.4	+6.9	+4.7	+1.7	+4.2
2023 (f)	+2.8	+1.2	+1.6	+4.9	+6.2	+4.7	+1.8	+2.5

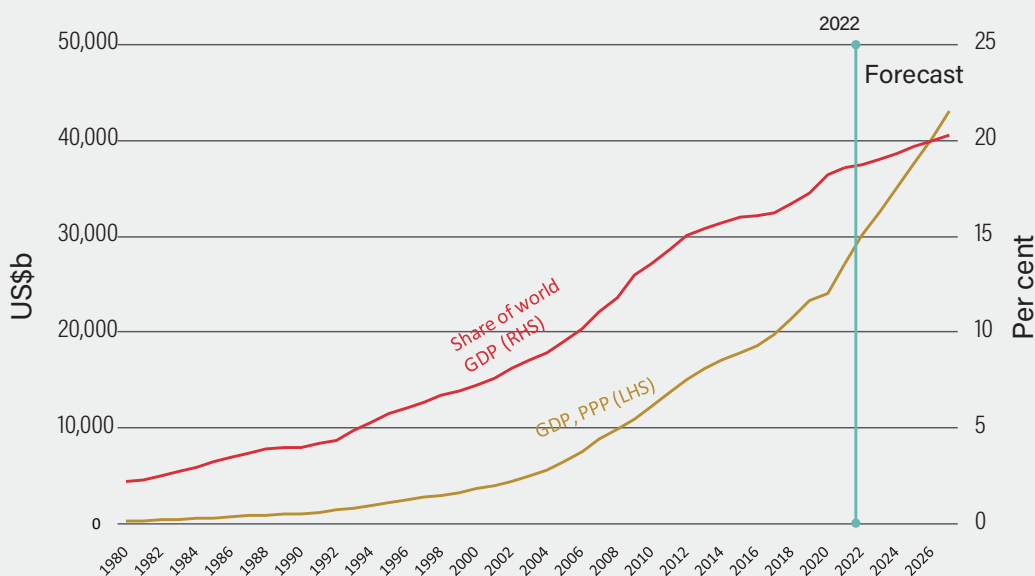
Notes: Forecast denoted by (f).

Source: Bankwest Curtin Economics Centre | taken from Organisation for Economic Co-operation and Development, 2022. OECD Economic Outlook: Volume 2022 Issue 1.

Looking further at China’s growth trajectory, Figure 3 shows that China’s economy will continue to grow at a strong rate in the coming years. By 2026, China is expected to comprise over 20 per cent of the world economy. This presents substantial economic opportunities for WA, particularly as the economies are building on a strong trade partnership.

**Figure 3**

Trends in China’s GDP and China’s share of the global output, 1980 -2027



Source: Bankwest Curtin Economics Centre | IMF WEO, April 2022

### Open for trade

Australia is an open economy, and Western Australia’s resources and iron ore sector is the country’s largest sector in export value terms. Agriculture, manufacturing and services such as international education and tourism also play an important role, with growth potential across each of these export sectors, particularly with a growing middle class in China and across Asian, African and South American countries.

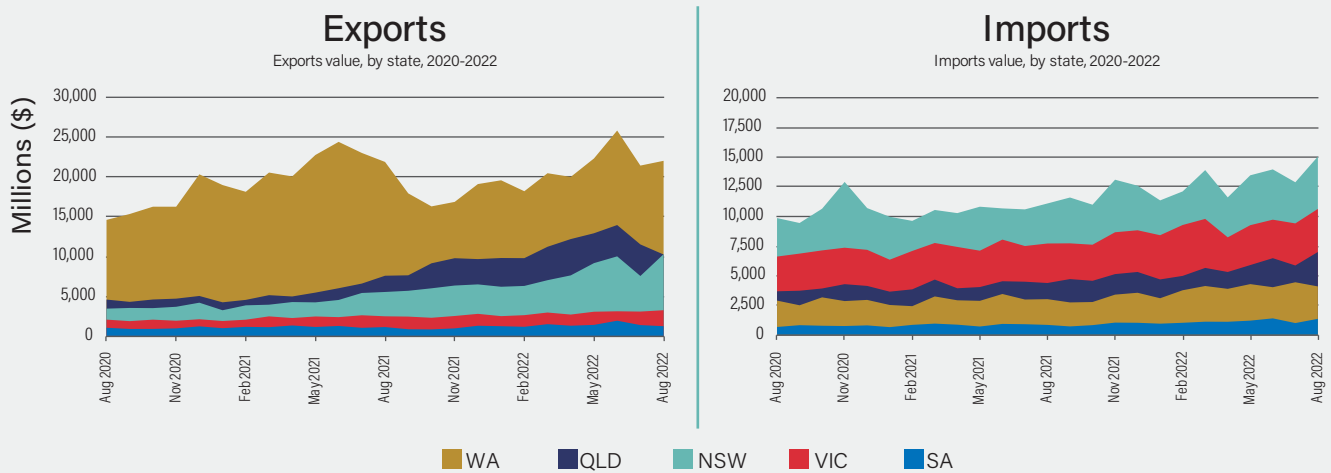
WA accounted for 43.9 per cent of Australia’s exports in the 12 months to August 2022. This is followed by Queensland at 23.3 per cent and NSW at 16.2 per cent.



As for imports, WA accounted for 11.2 per cent of imports to Australia in the 12 months to August 2022. This is in line with the state's share of the national population. The largest share of Australian imports are to NSW (38.9%), followed by Victoria (27.3%) and Queensland (16.8%).

**Figure 4**

Australian export and import values by state, 2020 to 2022



Source: Bankwest Curtin Economics Centre | Source: Bankwest Curtin Economics Centre | calculations based on ABS 5368.0 International Trade in Goods and Services, Australia, Table 15a and Table 15b

*The value of exports to China increased to \$135.60Bn in 2021-22.*

In real terms, net exports accounted for 60 per cent of the WA economy (2020-21). And, the contribution of China to WA's exports dwarfs that of any other nation. China accounted for 56 per cent of WA's exports in 2021-22, and while down from the 61 per cent share reported in 2020-21, the value of exports to China actually increased to \$135.60Bn in 2021-22. Japan comes in as WA's second largest export partner (12.5% share; \$30.32Bn), followed by South Korea, Singapore and Taiwan.

*WA accounted for 43.9 per cent of Australian exports in the 12 months to August 2022.*

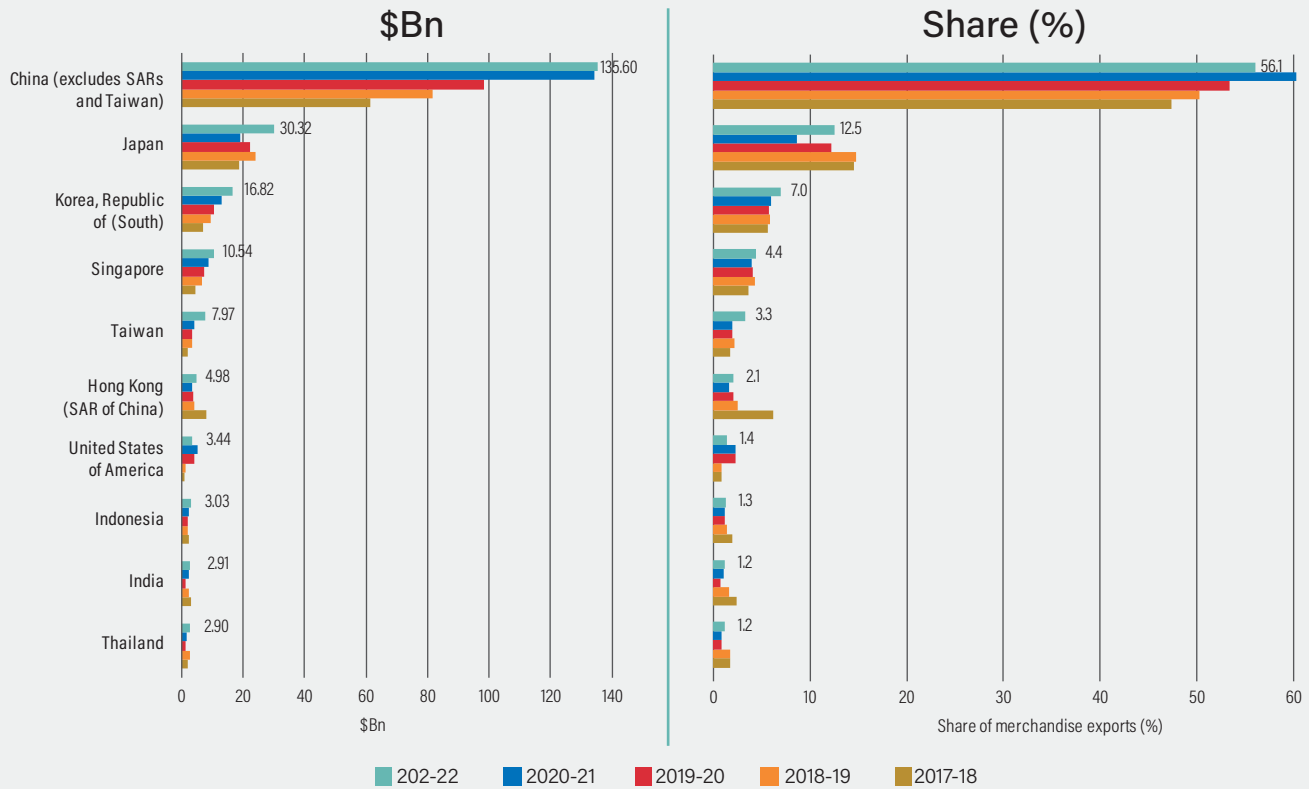
*WA accounted for 11.2 per cent of imports to Australia in the 12 months to August 2022.*

*China accounted for 56 per cent of WA's exports in 2021-22.*



**Figure 5**

Top 10 destination countries for merchandise exports, WA, 2017-18 to 2021-22



Source: Bankwest Curtin Economics Centre | calculations based on ABS 5368.0 International Trade in Goods and Services, Australia, Table 36e

China's share of exports from WA sat at a slightly lower rate of 50 per cent in the three months to August 2022 (Table 2), but in dollar terms, current trends remain on track to align with those reported for the full 2021-22 financial year.

As for imports, China accounted for 19 per cent of WA's total imports in 2021, and have remained at a similar rates in the three months to August 2022 (18%), with a value increase of \$2.26Bn over the previous quarter. WA's second largest source of imports in the quarter to August was the United States of America (\$1.34Bn) followed by Japan (\$1.24Bn).



*China accounted for 19 per cent of WA's total imports in 2021.*

**Table 2** WA exports in the three months to August 2022, WA

Exports				Imports			
three months to August 2022				three months to August 2022			
Country	Share	Value (millions)	Change from previous qtr	Country	Share	Value (millions)	Change from previous qtr
China (excludes SARs and Taiwan)	50%	34,533	+1%	China (excludes SARs and Taiwan)	18%	2,258	+1%
Japan	15%	10,410	+29%	United States of America	11%	1,339	+10%
South Korea	9%	6,043	+39%	Japan	10%	1,244	-2%
Singapore	5%	3,359	+31%	South Korea	7%	849	+2%
Taiwan	4%	2,906	+38%	Singapore	7%	824	+9%
Hong Kong (SAR of China)	4%	2,457	+138%	Brunei Darussalam	5%	680	+127%
Indonesia	2%	1,227	+105%	Malaysia	4%	512	-28%
United States of America	2%	1,091	-5%	Thailand	3%	411	-2%
India	2%	1,043	+64%	Germany	3%	319	-1%
Thailand	1%	851	-13%	India	2%	310	+1%
<b>Total (Country of Destination)</b>	<b>100%</b>	<b>69,248</b>	<b>+10%</b>	<b>Total (Country of Origin)</b>	<b>100%</b>	<b>12,446</b>	<b>+2%</b>

Source: Bankwest Curtin Economics Centre | calculations based on ABS 5368.0 International Trade in Goods and Services, Australia, Table 37e

# SINO IRON - AUSTRALIA'S LEADER IN IRON ORE DOWNSTREAM PROCESSING

Next year marks the tenth anniversary of the first shipment of magnetite iron ore concentrate from Sino Iron, CITIC Pacific Mining's (CPM) fully integrated megaproject about 100km south of Karratha on the Pilbara coast. It's the largest investment in an overseas resources project by a Chinese entity - ever.



Image provided by CITIC Pacific Mining

Today, Sino Iron is the world's largest seaborne supplier of magnetite concentrate to Chinese steel mills. More than 21 million (wet) tonnes of premium 65 per cent Fe concentrate is now exported from Cape Preston each year – making CPM one of Western Australia's top ten exporters by value.

The economic benefits of this 40-year project to Australia are profound:

- 1 More than 3,000 direct jobs – 98 per cent of the workforce are Australian residents.
- 2 \$8.7 billion in local wages over the life of the project.
- 3 \$51 billion in spending on WA good and services.
- 4 More than \$5 billion in royalty payments to the Western Australian Government (equivalent to 140 new schools).

However, the true benefit of Sino Iron is the pioneering role it has played in creating a downstream processing industry for Pilbara iron ore, with others now also seeking to unlock the potential of Australia's vast and largely untouched magnetite reserves.

Magnetite ore in its natural state has comparatively low iron content and little market value. CPM has invested in a 6-line processing facility - a giant open-air factory – which crushes, grinds and separates the ore into a fine, high-grade concentrate for export. The exothermic properties of magnetite (compared to traditional 'dig-it-up and ship-it-out' ore), makes Sino Iron magnetite concentrate an ideal feedstock for lower carbon emission steelmaking (attracting a premium at market).

CITIC's investment in downstream processing has not only introduced new technologies and processes to the Australian iron ore industry, its lower emissions profile across the steel supply chain (from mine pit to final steel product) directly supports a more sustainable future and is helping secure Australia's future as a minerals processing powerhouse.

Source: CITIC Pacific Mining

Image provided by CITIC Pacific Mining

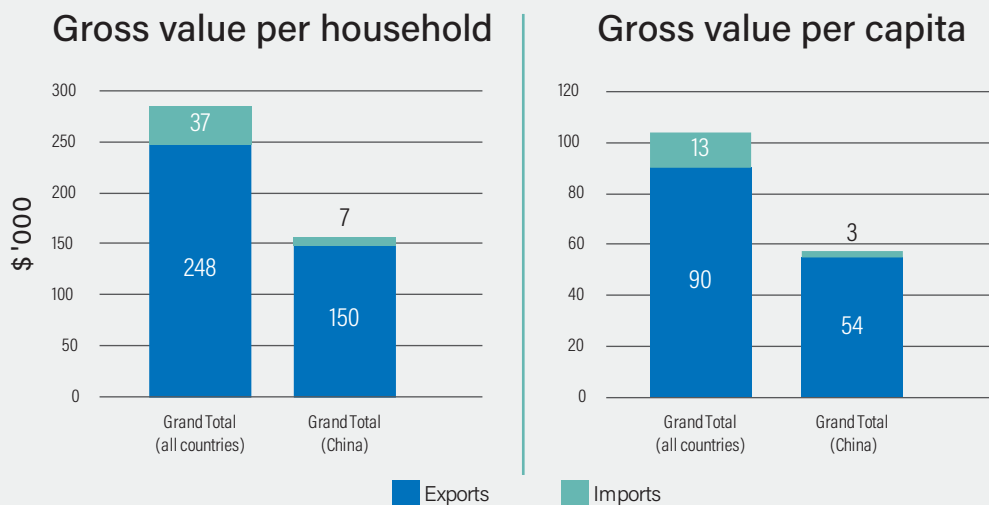


While the full benefits of trade do not flow to individual households, a crude measure of the benefits of trade to an economy is the gross value per household and the gross value per capita.

More than anything, Figure 6 reiterates the importance of trade with China for the WA economy. The average gross value of WA merchandise exports and imports per household comes to \$285,000, with \$157,000 (55%) of that resulting from trade with China. On a per capita basis, the average gross value of WA merchandise exports and imports sits at \$103,000, with \$57,000 related to trade with China.

**Figure 6**

Average gross value of WA merchandise exports and imports per household and per capita, WA, 2021



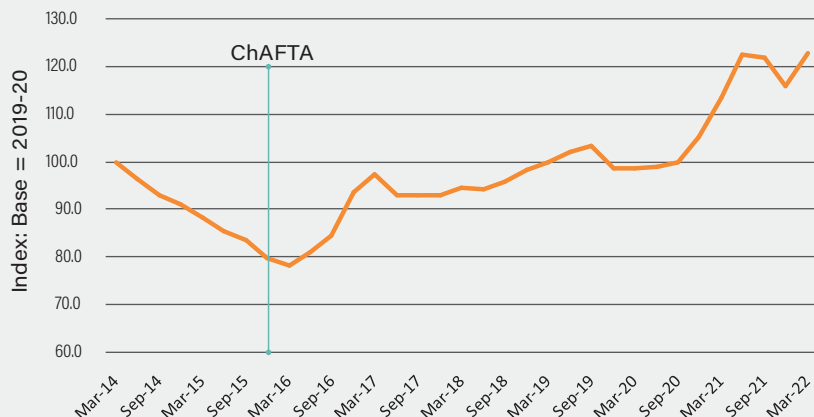
*WA's terms of trade have trended upwards since 2016 implying that for the same amount of exports, the state can purchase more imports.*

Source: Bankwest Curtin Economics Centre | calculations based on ABS Census of Population and DFAT publication 'Australia's trade by State and Territory' <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>.

Another important indicator of trade performance is the terms of trade, defined as the ratio of export prices to import prices. Positive terms of trade for a country or region implies that for the same amount of exports, that country or region is able to purchase more imports. Australia's terms of trade have trended upwards since 2016. ChAFTA will have played some role, but much of the growth comes from increases in iron ore prices, particularly since 2020. China's demand as well as international supply constraints have played a major role in iron ore prices.

**Figure 7**

Terms of trade, Australia 2014 to 2022



Notes: Seasonally adjusted, reference year 2019-20 = 100

Source: Bankwest Curtin Economics Centre | calculations based on ABS Balance of Payments and International Investment Position, Australia March 2022

# A MUTUALLY BENEFICIAL RELATIONSHIP: TRENDS IN CHINA-WA TRADE

This chapter provides a detailed overview of Western Australia's trade relationship with China and other partners, and the key commodities and services traded. The analysis serves to demonstrate the mutually beneficial relationship that exists between China and WA.

*Iron ore is by far the largest commodity exported from WA comprising \$152.23Bn in 2021.*

*China comprised almost 82 per cent (\$124.27Bn) of WA's exports of iron ore in 2021.*

## Merchandise exports

Table 3 presents the value of key merchandise exports from WA to China for 2021. Iron ore is by far the largest commodity exported from WA comprising \$152.23Bn in 2021. China comprised almost 82 per cent (\$124.27Bn) of WA's exports of iron ore that year, with Japan being the second largest importer of WA's iron ore (7.5%).

China is also the largest importer of WA's gold (\$6.98Bn), and sits just below Japan for imports of WA's petroleum (\$7.32Bn). China is WA's third largest trading partner for alumina (\$0.72Bn).

China is also the largest importer of WA's gold (\$6.98Bn), and sits just below Japan for imports of WA's petroleum (\$7.32Bn). China is WA's third largest trading partner for alumina (\$0.72Bn).

**Table 3** WA merchandise exports for main resources sector (\$ billion), 2021

WA exports for main commodity groups (\$ billion)							
Iron Ore	152.23	Gold	19.23	Petroleum	12.92	Alumina	6.54
China	124.27	China	6.98	Japan	7.57	Bahrain	1.14
Japan	11.46	Hong Kong	2.90	China	7.32	United Arab Emirates	0.90
Korea, Republic of (South)	9.80	India	2.18	Singapore	3.49	China	0.72
Taiwan	3.36	Singapore	2.11	Korea, Republic of (South)	1.95	South Africa	0.67
Vietnam	1.77	United Kingdom	1.52	Taiwan	1.17	Qatar	0.48

Notes: Calendar year

Source: Bankwest Curtin Economics Centre | calculations based on DFAT

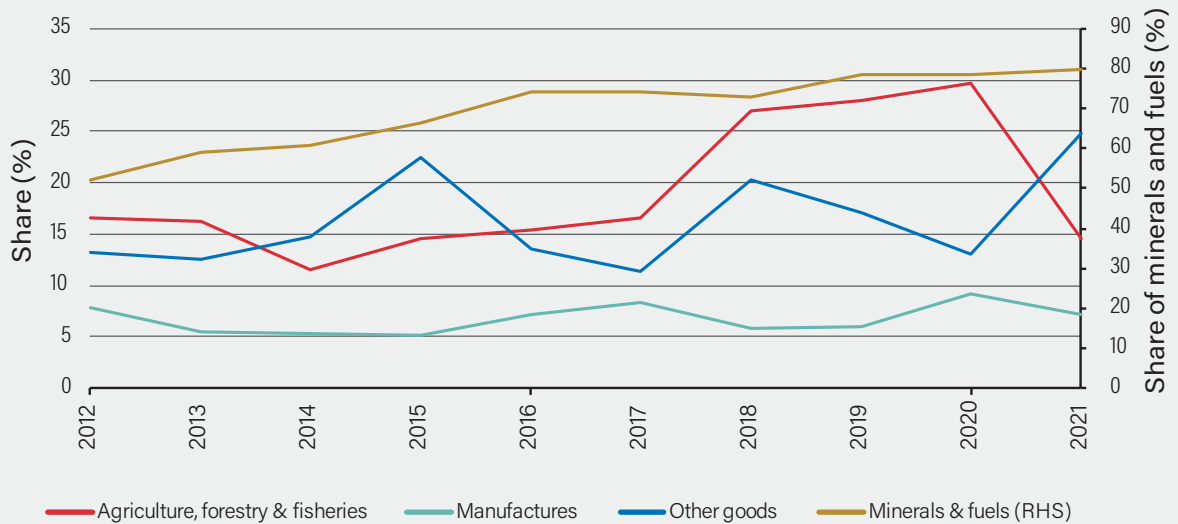
*China accounts for 80 per cent of WA's minerals and fuels exports.*

WA's overall reliance on China for exports of minerals and fuels is further highlighted in Figure 8. China's share of Western Australia's minerals and fuels exports sits at 80 per cent, and has increased over time. China also accounts for large shares of WA's exports in agriculture (15%), manufactures (7%) and other goods (25%).

Western Australia provides a major and reliable source of mineral supply for China. Substantial infrastructure programs in China demand significant quantities of iron ore for steel manufacturing. Global supply issues with iron ore have led to an additional reliance from China on iron ore from WA, with large price increases recorded since the Brazilian mine tragedy in 2019.

**Figure 8**

China's share of total merchandise exports from WA by main sector, WA, 2012 to 2021



Source: Bankwest Curtin Economics Centre | calculations based on DFAT publication 'Australia's trade by State and Territory' <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>

WA's overall agricultural sector shows a greater level of diversification in terms of both destination country and commodity. Key agricultural exports from WA include wheat, canola seeds, barley and wool.

China sits in first position for WA's wool exports (\$586.73m; 92%) and in fifth position for wheat exports (\$212.12m; 6.4%). For 2021, China did not feature in the top 5 destinations for canola seeds or barley exports.

*China sits in first position for WA's wool exports (\$586.73m; 92%) and in fifth position for wheat exports (\$212.12m; 6.4%)*

**Table 4** WA merchandise exports for main agricultural commodity (\$ million), 2021

WA exports for main commodity groups (\$ million)							
Wheat	3324.54	Canola seeds	1505.81	Barley	1183.57	Wool	633.89
Indonesia	645.71	Germany	411.73	Saudi Arabia	442.15	China	586.73
Republic of Korea	391.32	Belgium	203.54	Japan	191.92	India	22.64
Japan	363.65	United Arab Emirates	181.70	Thailand	94.99	Czech Republic	13.80
Philippines	337.48	France	166.26	Kuwait	60.88	Italy	5.42
China	212.12	Japan	159.44	Qatar	55.31	Thailand	1.72

Notes: Calendar year

Source: Bankwest Curtin Economics Centre | calculations based on DFAT

*China accounts for 15% of WA's agriculture, forestry and fisheries exports.*

*Manufactures exports to China account for 7 per cent of the overall \$3.4Bn exported from WA.*

*Manufactures exports to China in 2021 were dominated by pigments, paints and varnishes (\$130m), and other non-ferrous metals (\$59m).*

Further details of WA's major exports to China for the primary sectors of minerals and fuels, agriculture, forestry and fishing and manufactures are provided in **Figure 9** and **Table 5**. Within the minerals and fuels sector, China receives 82 per cent of WA's iron ore and concentrates, and 93 per cent of crude minerals not elsewhere stated. **Table 5** shows the substantial growth in value that has occurred over time in minerals and fuels exports for WA, and the share of such exports to China. In 2012 minerals and fuel exports to China accounted for 52 per cent (\$41.8Bn) of WA's total exports from that sector, and as of 2021 sat at 80 per cent (\$126.0Bn).

Agriculture, forestry and fisheries is WA's second largest export sector sitting at \$9.7Bn in 2021 (**Figure 9**). Of this, 15 per cent is exported to China. China receives 93 per cent (\$591m) of WA's wool and other animal hair exports, with meat being the next highest agricultural export to China (\$264m).

There is substantial variation in the value of exports in agriculture, forestry and fishing products to China over time, such as that seen in wool, meat and wheat. Much of this is linked to global commodity prices, but trade tariffs and export bans are likely to also play a role.

In dollar terms, manufactures provide a smaller contribution to WA's exports, with exports to China accounting for 7 per cent of the overall \$3.4Bn of manufactures exports from WA.

Manufactures exports to China are dominated by pigments, paints and varnishes (\$130m, 16% in 2021), and other non-ferrous metals (\$59m, 34% in 2021). There are emerging opportunities for growth in the manufactures sector, as WA looks to diversify into areas such as green energy and related advanced manufacturing processes. For example, the additional export value that can be generated through downstream advanced manufacturing processes in the future battery industry is one case in point.

*Agriculture, forestry and fisheries is WA's second largest export sector sitting at \$9.7Bn in 2021*

*There are emerging opportunities for growth in the manufactures sector, as WA looks to diversify into areas such as green energy and related advanced manufacturing processes.*



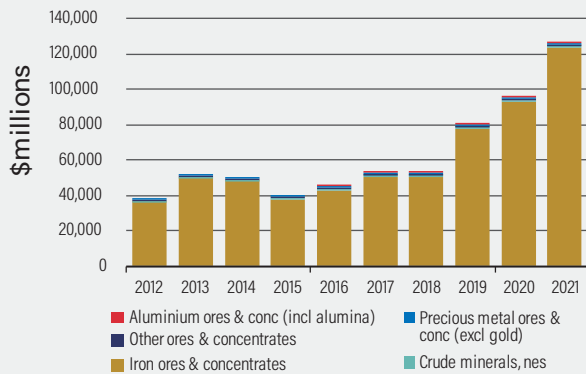
**Figure 9**

Top five merchandise exports to China by main sector, WA, 2012 to 2021

2012 to 2021

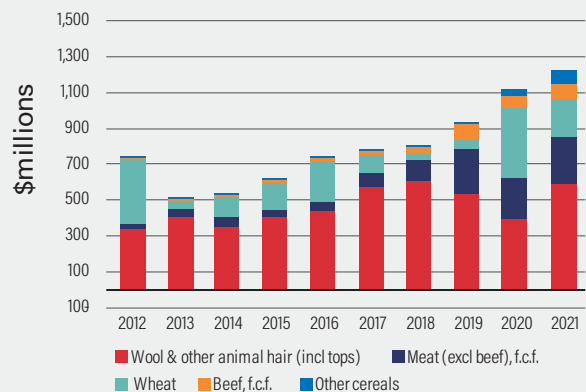
2021

**Minerals and fuels**



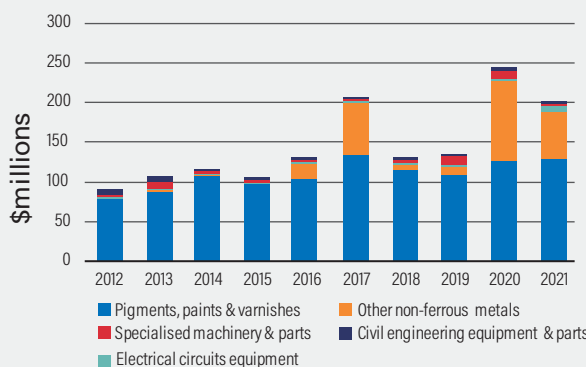
WA top 5 mineral and fuel exports to China	WA export value to destination	WA world export value	Share of WA world export
2021	\$m	\$m	%
Iron ores & concentrates	124,274	152,234	82
Crude minerals, nes	1,544	1,653	93
Other ores & concentrates	79	475	17
Precious metal ores & conc (excl gold)	71	1,663	4
Aluminium ores & conc (incl alumina)	58	687	9
Other	27	1,152	2
<b>Total</b>	<b>126,053</b>	<b>157,863</b>	<b>80</b>

**Agriculture, forestry & fisheries**



WA top 5 agriculture, forestry & fisheries exports to China	WA export value to destination	WA world export value	Share of WA world export
2021	\$m	\$m	%
Wool & other animal hair (incl tops)	591	638	93
Meat (excl beef), f.c.f.	264	669	39
Wheat	212	3,327	6
Beef, f.c.f.	81	233	35
Other cereals	80	144	56
Other	187	4,693	4
<b>Total</b>	<b>1,414</b>	<b>9,704</b>	<b>15</b>

**Manufactures**



WA top 5 manufactures exports to China	WA export value to destination	WA world export value	Share of WA world export
2021	\$m	\$m	%
Pigments, paints & varnishes	130	795	16
Other non-ferrous metals	59	175	34
Electrical circuits equipment	5	43	12
Specialised machinery & parts	4	124	3
Civil engineering equipment & parts	3	71	5
Other	44	3,435	1
<b>Total</b>	<b>246</b>	<b>3,435</b>	<b>7</b>

Notes: Ranked based on 2021 data.

Source: Bankwest Curtin Economics Centre | calculations based on DFAT publication 'Australia's trade by State and Territory'

**Table 5** Value and share of merchandise exports from WA to China and overall exports from WA, by main sector, 2012 to 2021

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change 2021/2020	Change 2021/2012	
	Value (\$m)	%	Value (\$m)	%	Value (\$m)	%	Value (\$m)	%	Value (\$m)	%	Value (\$m)	%	
<b>Agriculture, forestry &amp; fisheries</b>													
WA (\$m)	5,485	5	6,517	5	6,670	6	6,736	5	7,398	4	9,704	4	31
China (\$m)	912	2	753	1	1,007	2	1,120	2	2,192	2	1,414	1	-35
China Share (%)	17		12		15		17		30		15		77
<b>Minerals &amp; fuels</b>													
WA (\$m)	80,695	71	84,759	68	60,645	59	72,413	59	75,050	52	103,857	57	121,380
China (\$m)	41,825	91	51,228	91	40,251	83	45,938	89	54,615	80	81,449	86	95,136
China Share (%)	52		60		66		74		73		78		80
<b>Manufactures</b>													
WA (\$m)	3,617	3	4,072	3	3,689	4	3,209	3	3,882	3	3,934	2	3,340
China (\$m)	283	0	221	0	192	0	231	0	328	0	238	0	308
China Share (%)	8		5		5		7		8		6		9
<b>Other goods</b>													
WA (\$m)	23,788	21	29,100	23	31,458	31	34,560	32	40,062	33	58,449	40	65,097
China (\$m)	3,137	7	4,273	8	7,025	14	4,631	9	4,528	8	11,054	12	7,154
China Share (%)	13		15		22		13		11		17		13
<b>Grand Total</b>													
WA (\$m)	113,585	100	124,448		102,728		106,494		123,093		145,191		187,297
China (\$m)	46,156	100	56,475		48,475		51,826		59,788		68,625		104,790
China Share (%)	41		45		47		49		49		52		56
													239,521
													144,632
													60
													28
													38
													213

Source: Bankwest Curtin Economics Centre | calculations based on DFAT publication 'Australia's trade by State and Territory' <https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>

# TIANQI LITHIUM ENERGY AUSTRALIA - PIONEERS OF A NEW INDUSTRY IN AUSTRALIA

Tianqi Lithium Energy Australia (TLEA) is a joint venture between Tianqi Lithium Corporation based in Chengdu, China and IGO Limited of Australia. The company owns a 51% interest in the Talison Lithium operated Greenbushes mine, and a 100% interest in an integrated lithium ore to chemical refinery located in the Kwinana Industrial Area.

Since 2016, over A\$1billion has been invested in Western Australia to build the lithium chemical refinery which, when complete, will manufacture 48,000 tonnes of lithium hydroxide monohydrate to power and decarbonise the transport and energy storage sectors. Over 900 employees and contractors were employed during the design and construction phase, with nearly 250 people employed to operate the refinery.

Source: Tianqi Lithium Energy Australia

Image provided by Tianqi Lithium Energy Australia

China has significant experience in the processing of lithium chemicals and Australia is a country rich in lithium bearing spodumene ore. In May 2022, TLEA proudly announced the manufacture of Australia's first battery grade lithium hydroxide monohydrate, celebrating a significant critical minerals milestone achieved through a mutually beneficial Australia-China collaboration.

The integration of the mining and chemical manufacture in Western Australia offers significant benefits including: the development of new industries, a reduction in carbon footprint, empowering local talent, increasing supply chain resilience and enabling circular economy benefits.

Following TLEA's investment lead, additional lithium refineries are now being planned and constructed to underpin the development of a new lithium chemical industry in Australia. This will increase further investments in associated mining and processing, support services and supply chain to service this burgeoning industry.



## Services exports

Western Australia's services exports to China also add to the state's economic growth, jobs, and the provision of future workforce and household income.

Western Australia's major service exports include international education and tourism, both of which are interrelated with many students engaging in tourism related activities during their time in WA, coupled with visits from family and friends.

Travel, 97 per cent of which is education-related, accounts for 35 per cent (\$1.37Bn) of total services expenditure in WA. In 2021 there were 5,360 student enrolments in WA from China. This equated to 13.9 per cent of total enrolments in the state. This was down from a peak of 7,970 enrolments (16.6% share) from China in 2018, with an evident impact from the COVID-19 pandemic and related travel restrictions thereafter.

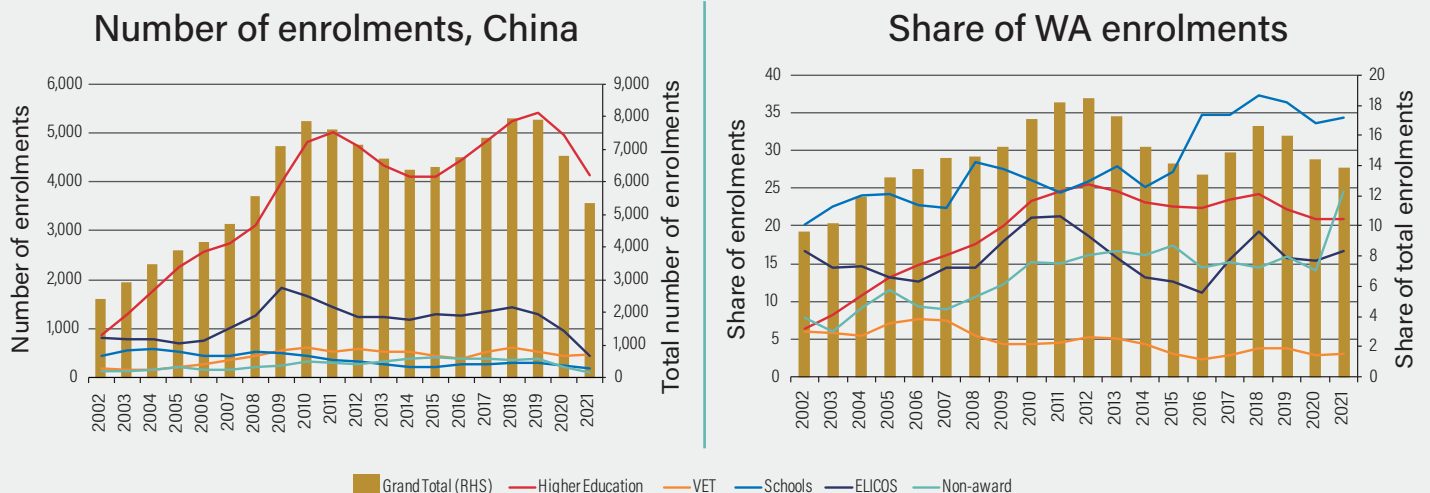
In terms of enrolment numbers, higher education provides the largest number of Chinese student enrolments followed by VET (vocational education and training) and ELICOS (English language). In share terms, 34.3 per cent of international student enrolments in schools were from China, followed by non-Award (24.7%), higher education (20.9%), ELICOS (16.7%) and VET (3.1%).

*In 2018, 16.6% (7,970) of international student enrolments in WA were from China. This fell to 13.9% (5,360) in 2021.*

*Travel, 97 per cent of which is education-related, accounts for 35 per cent (\$1.37Bn) of total services expenditure in WA.*

**Figure 10**

International student enrolments in WA from China, and Chinese enrolments as a share of total enrolments in WA, 2002 to 2021



Source: Bankwest Curtin Economics Centre | calculations based on Department of Education, PRISMS

Since 2011-12, international visitors to Western Australia have been dominated by visitors from the United Kingdom, which is not surprising given the large share of UK immigrants living in WA. In 2018-19, Chinese visitors to Western Australia ranked fifth (67,455) representing 6.6 per cent of visitors to WA. The number of visitors to WA from China have been increasing at a significant rate since 2010-11, when the number of Chinese visitors sat at 20,525 visitors (2.8% share).

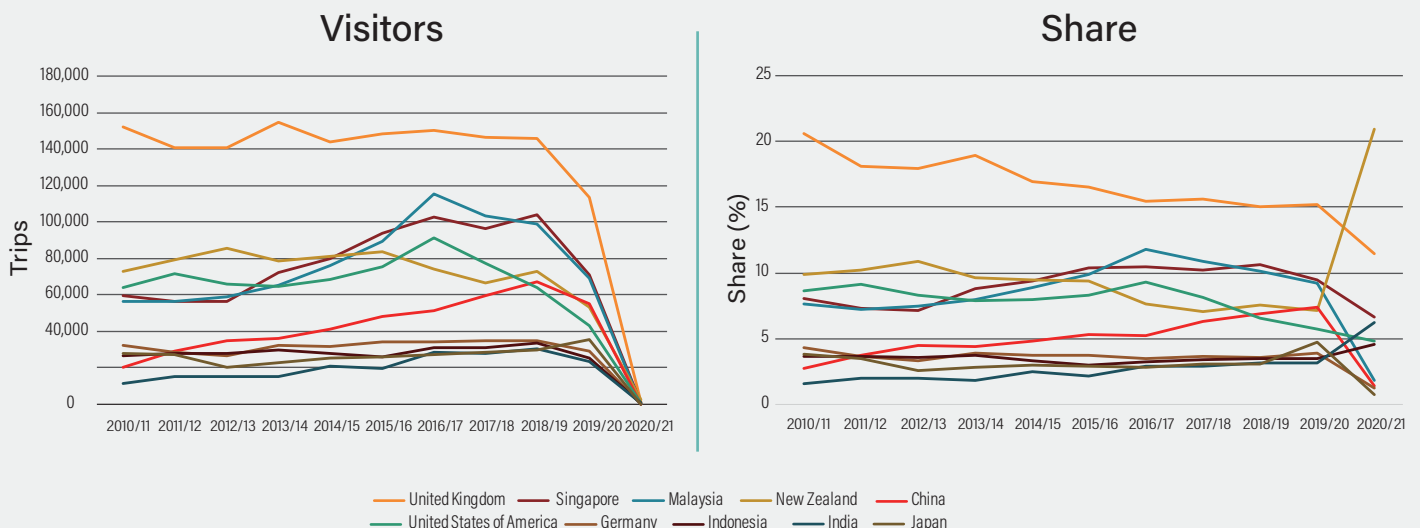
With the continuation of strict COVID-19 related isolation measures in China, it will be some time before numbers return to those levels displayed prior to the pandemic. However, it is essential that WA continues to build its reputation as both a quality destination for international education as well as being a choice destination to visit and indeed live. WA's natural tourist endowments, timezone and low density population are extremely attractive to China's growing middle class.



Hutt Lagoon - image provided by Tourism Western Australia and Sailor Jay

**Figure 11**

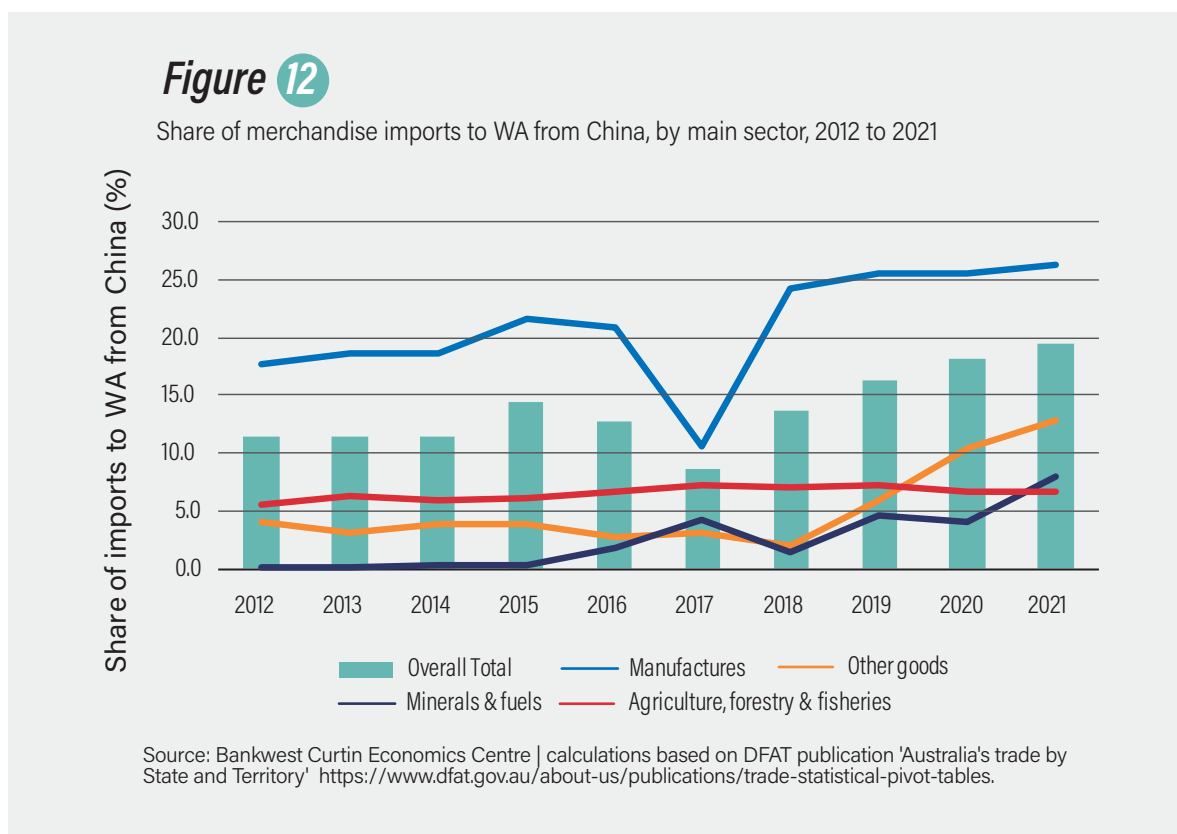
Top 10 international visitors to Western Australia, 2010-11 to 2021-22



Source: Bankwest Curtin Economics Centre | calculations based on Tourism Research Australia, Austrade, Australian Government

## Merchandise Imports

China accounted for 19 per cent of all imports to WA in 2021, with more than a quarter (26.6 per cent) of all imports of manufactured goods originating from China. Trade with China also accounts for 8 per cent of imports of minerals and fuels and 6.6 per cent of imported agricultural goods. Some 13 per cent of all other goods imported originated from China.



China has particular strengths in producing items such as furniture, specialised machinery parts, civil engineering equipment and computers. Of the \$5.4Bn of imported manufactures from China in 2021, \$322m was in furniture, mattresses and cushions, \$280m in specialised machinery parts, followed by \$204m in civil engineering equipment. Many of the latter two imports provide essential inputs into WA's production processes, and mining industry.

Further details of WA's import trajectory with China are provided in Table 6. China's share of overall imports to WA increased from 11 per cent in 2012 to 19 per cent in 2021, highlighting the mutually beneficial nature of the China-WA trade partnership.

*China accounted for 19 per cent of all imports to WA in 2021.*

*Of the \$5.4Bn of imported manufactures from China in 2021, \$322m was in furniture, mattresses and cushions, \$280m in specialised machinery parts, followed by \$204m in civil engineering equipment.*

*China's share of overall imports to WA increased from 11 per cent in 2012 to 19 per cent in 2021.*

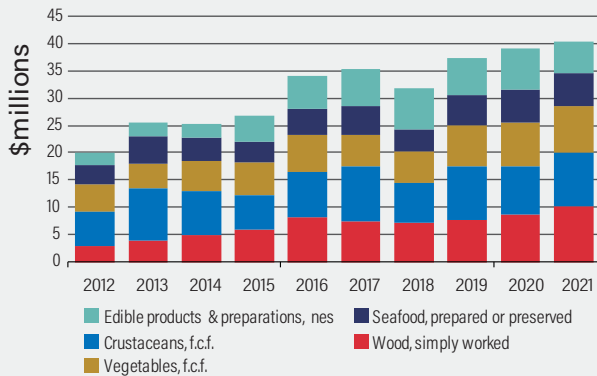
**Figure 13**

Top five merchandise imports from China by main sector, WA, 2012 to 2021

2012 to 2021

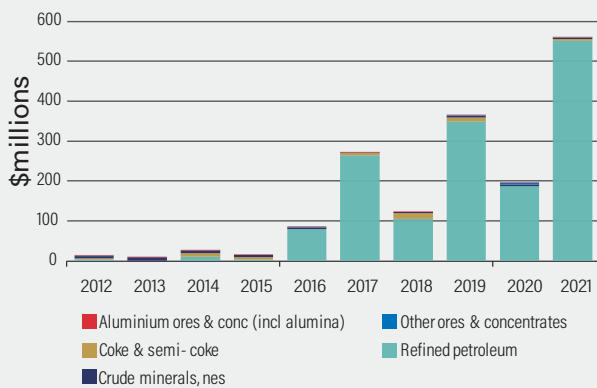
2021

**Manufactures**



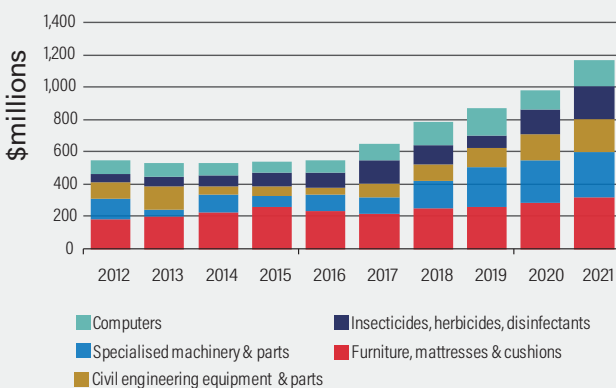
WA top 5 manufactures imports from China	WA import value from destination	WA world import value	Share of WA world export
2021	\$m	\$m	%
Furniture, mattresses & cushions	322	444	73
Specialised machinery & parts	280	737	38
Civil engineering equipment & parts	204	1,618	13
Insecticides, herbicides, disinfectants	202	275	73
Computers	164	306	54
Other	4,217		
<b>Total</b>	<b>5,390</b>	<b>20,440</b>	<b>26</b>

**Minerals and fuels**



WA top 5 manufactures imports from China	WA import value from destination	WA world import value	Share of WA world export
2021	\$m	\$m	%
Refined petroleum	552	6,540	8
Coke & semi-coke	4	4	100
Crude minerals, nes	3	12	24
Other ores & concentrates	2	6	29
Aluminium ores & conc (incl alumina)	1	1	63
Other	1		
<b>Total</b>	<b>562</b>	<b>7,011</b>	<b>8</b>

**Agriculture, forestry & fisheries**



WA top 5 agriculture, forestry & fisheries imports from China	WA import value from destination	WA world import value	Share of WA world export
2021	\$m	\$m	%
Wood, simply worked	10	41	26
Crustaceans, f.c.f.	10	47	21
Vegetables, f.c.f.	8	22	38
Seafood, prepared or preserved	6	42	14
Edible products & preparations, nes	6	117	5
Other	29		
<b>Total</b>	<b>69</b>	<b>10,431</b>	<b>7</b>

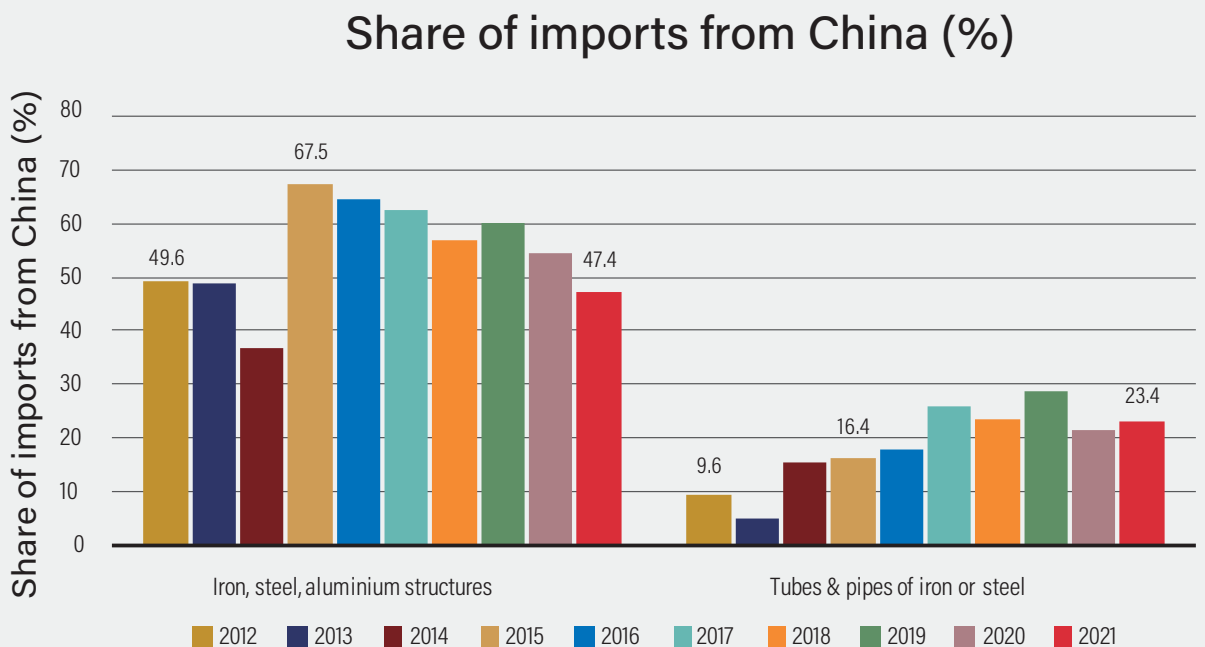
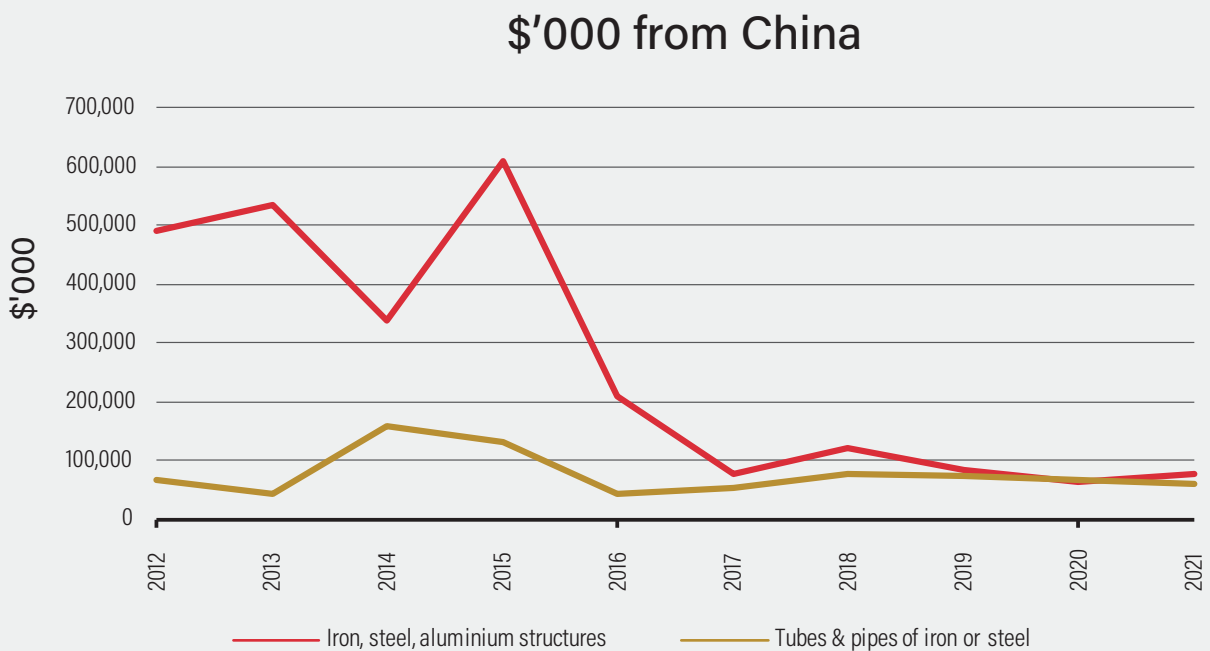
Notes: Ranked based on 2021 data.

Source: Bankwest Curtin Economics Centre | calculations based on DFAT publication 'Australia's trade by State and Territory'.

While iron and steel related products did not feature in WA's top 5 imports, they are nonetheless important for infrastructure and development in Western Australia. Approximately 47 per cent of WA's imported iron, steel and aluminium structures came from China in 2021 with a value of \$78m (Figure 14). This compares to a peak value of \$610m in 2015. Tubes and pipes of iron or steel saw a similar decline in value terms from China, although the share of these imports from China increased from 9.6 per cent in 2012 to 23.4 per cent in 2021.

**Figure 14**

Steel related (top 2) imports to WA from China, 2012 to 2021



Source: Bankwest Curtin Economics Centre | calculations based on DFAT publication 'Australia's trade by State and Territory'



**Table 6** Value and share of merchandise imports to WA from China, by main sector, 2012 to 2021

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change 2021/2020	Change 2021/2012
	Value (\$m)%	Value (\$m) %	Value (\$m) %	Value (\$m) %	Value (\$m) %	Value (\$m) %	Value (\$m) %	Value (\$m) %	Value (\$m) %	Value (\$m) %	%	%
<b>Agriculture, forestry &amp; fisheries</b>												
WA (\$m)	724 2	755 2	839 2	915 3	917 3	895 2	915 3	995 3	1,076 3	1,043 3	-3	44
China (\$m)	41 1	47 1	50 1	57 1	62 2	64 2	63 1	72 1	71 1	69 1	-2	71
China Share (%)	6	6	6	6	7	7	7	7	7	7		
<b>Minerals &amp; fuels</b>												
WA (\$m)	8,488 24	8,757 26	9,482 26	6,423 18	5,118 16	6,375 13	8,237 24	7,955 24	4,843 14	7,011 20	45	-17
China (\$m)	13 0	9 0	28 1	16 0	93 2	276 7	124 3	366 7	201 3	562 8	180	4,090
China Share (%)	0	0	0	0	2	4	2	5	4	8		
<b>Manufactures</b>												
WA (\$m)	21,567 60	19,749 58	21,182 58	22,903 63	17,550 55	33,288 70	17,867 53	17,916 54	19,559 58	20,440 57	5	-5
China (\$m)	3,825 94	3,674 95	3,944 93	4,970 94	3,668 90	3,540 86	4,342 93	4,596 85	5,000 82	5,390 78	8	41
China Share (%)	18	19	19	22	21	11	24	26	26	26		
<b>Other goods</b>												
WA (\$m)	5,011 14	4,851 14	5,175 14	6,151 17	8,282 26	7,334 15	6,923 20	6,578 20	8,013 24	7,075 20	-12	41
China (\$m)	203 5	156 4	203 5	238 5	237 6	237 6	145 3	398 7	832 14	909 13	9	348
China Share (%)	4	3	4	4	3	3	2	6	10	13		
<b>Grand Total</b>												
WA (\$m)	35,790 100	34,112 100	36,678 100	36,392 100	31,868 100	47,892 100	33,942 100	33,444 100	33,491 100	35,570 100	6	-1
China (\$m)	4,081 100	3,887 100	4,224 100	5,281 100	4,060 100	4,117 100	4,675 100	5,431 100	6,104 100	6,930 100	14	70
China Share (%)	11	11	12	15	13	9	14	16	18	19		

Source: Bankwest Curtin Economics Centre | calculations based on DFAT publication 'Australia's trade by State and Territory'  
<https://www.dfat.gov.au/about-us/publications/trade-statistical-pivot-tables>

# FORTESCUE'S LONGSTANDING RELATIONSHIP WITH CHINA BENEFITS WA'S URBAN DEVELOPMENT

Established in 2003, Fortescue is a proud Western Australian company. As one of the world's lowest cost iron ore producers, Fortescue is now shipping at an annual rate of over 180 million tonnes with more than 1.7 billion tonnes of iron ore delivered to their customers since 2008. Today, China remains the key export market, accounting for almost 90 per cent of Fortescue's FY22 revenue.

Fortescue's longstanding relationship with China has grown from the first commercial shipment of iron ore in 2008. Since then, Fortescue has become a core supplier of seaborne iron ore to China and developed two-way trading relations with China. Beyond the supply of iron ore to Chinese customers, Fortescue has purchased materials and equipment valued at over AU\$1.4 billion in Chinese contracts since 2010.

When the mining industry is strong, all Australians benefit, with the Western Australian resources sector contributing a direct \$100 billion to the national economy in 2020-21. Fortescue directly employs more than 11,000 people, with the majority based in Western Australia.

In FY22, Fortescue's total global economic contribution was A\$276 billion, demonstrating the company's important contribution to the economy and the communities in which it operates. Globally, Fortescue is empowering thriving communities and delivering positive social and economic benefits through training, employment and business development opportunities, including for its First Nations' employees and partners.

Fortescue's Billion Opportunities program forms a critical element of its approach to ensuring economic opportunity and growth for the Traditional Custodians of the regions in which it operates, and since its commencement in 2011, more than A\$4 billion in contracts and subcontracts has been awarded to over 140 Aboriginal businesses. The program is complemented by a range of practical initiatives that provide Aboriginal businesses with the tools to build value and sustainability, which in turn, creates employment and development opportunities.

Source: Fortescue Metals Group Ltd



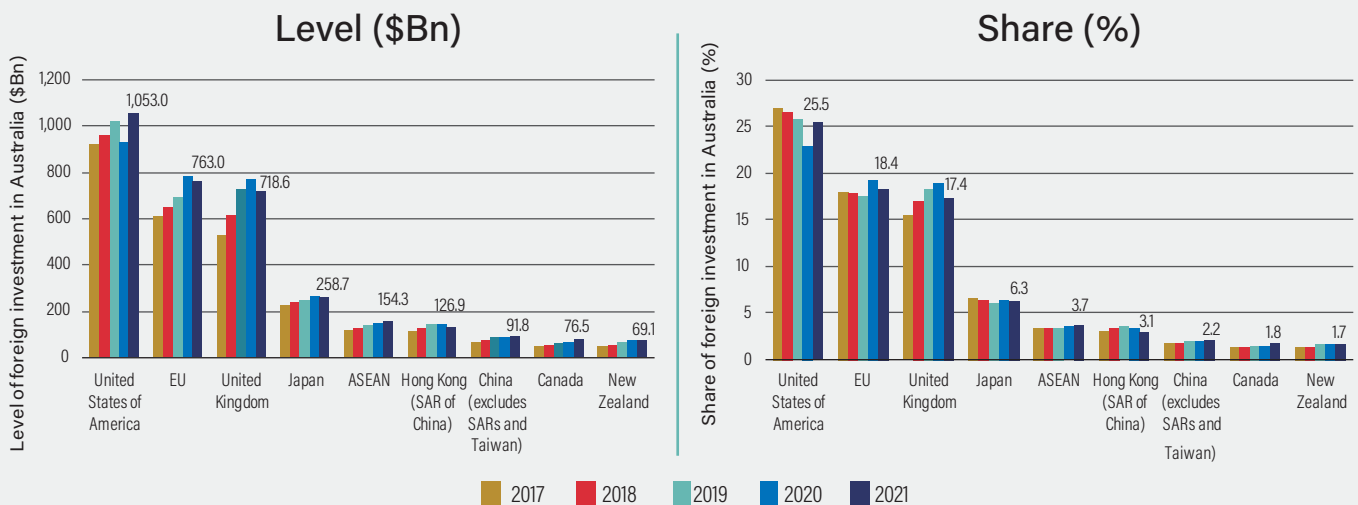
Image provided by Fortescue Metals Group

# FOREIGN INVESTMENT

Due to data availability, foreign investment figures are provided at the national level here. Chinese foreign investment into Australia accounted for 2.2 per cent (\$91.8Bn) of overall foreign investment in 2021. This compares to \$1,053Bn (25.5% share) from the USA and \$763Bn (18.4% share) from the EU. This suggests that there is significant potential to increase foreign investment in WA from China, with some case studies in the report demonstrating the benefits of investment from China in creating additional downstream value, introducing new technologies and innovative processes, and generating jobs and income.

**Figure 15**

Level and share of foreign investment in Australia, by country/country group, 2017 to 2021



Source: Bankwest Curtin Economics Centre | ABS, International Investment Position, Australia: Supplementary Statistics 2021

*Chinese foreign investment into Australia accounted for 2.2 per cent (\$91.8Bn) of overall foreign investment in 2021. This compares to \$1,053Bn (25.5% share) from the USA and \$763Bn (18.4% share) from the EU.*

*China obtained the largest number of foreign investment approvals in 2020-21, sitting at 2,730, some 27.6 per cent of total approvals.*

*However, in value terms, China's approvals sit at 6.5 per cent (\$13.6Bn) of the total value of approvals.*

The number and value of investment approvals in 2020-21 are presented in Table 7. Overall there were almost 9,900 approvals in Australia in 2020-21, with a total value of \$208.7Bn. China obtained the largest number of foreign investment approvals during this period, sitting at 2,730, some 27.6 per cent of total approvals. In value terms however, investment approvals for China sat at only 6.5 per cent (\$13.6Bn) of the total value, implying an average of \$5m per approval. This compares to an average value of \$61.2m per approval for the United States, \$49.8m for Canada and \$40.7m for Singapore.

The overall value of approvals for the United States sits at almost \$57Bn, some 27 per cent of the total value of approvals. Singapore, Canada, China and Germany close out the top five.

*The overall value of investment approvals for the United States sits at almost \$57Bn, some 27 per cent of the total value of approvals for Australia.*



**Table 7** Approvals (\$m and share) by country investor (top 10), by industry sector in 2020-21

Country	Number of Approvals		Agriculture, forestry & fishing		Finance & insurance		Manufacturing, electricity & gas		Mineral exploration & development		Real estate		Services		Total		Average \$ per approval
	No.	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	%
United States	931	9.4	875	16.8	2,350	23.3	3,959	12.4	1,623	14.6	20,832	24.2	27,321	42.5	56,959	27.3	61.2
Singapore	524	5.3	186	3.6	435	4.3	1,526	4.8	22	0.2	13,849	16.1	5,327	8.3	21,345	10.2	40.7
Canada	378	3.8	819	15.7	73	0.7	3,534	11.0	82	0.7	7,371	8.6	6,946	10.8	18,824	9.0	49.8
China	2,733	27.6	646	12.4	1,902	18.9	1,538	4.8	1,586	14.3	6,306	7.3	1,598	2.5	13,575	6.5	5.0
Germany	156	1.6	66	1.3	204	2.0	1,281	4.0	1,082	9.7	7,572	8.8	1,866	2.9	12,070	5.8	77.4
South Africa	108	1.1	26	0.5	5	0.0	2	0.0	21	0.2	6,292	7.3	283	0.4	6,629	3.2	61.4
Spain	23	0.2	0.0	0.0	0	0.0	5,084	15.9	1,066	9.6	44	0.1	0	0.0	6,193	3.0	269.3
United Kingdom	533	5.4	519	10.0	688	6.8	291	0.9	597	5.4	2,403	2.8	1,191	1.9	5,688	2.7	10.7
Japan	206	2.1	81	1.6	128	1.3	408	1.3	78	0.7	2,646	3.1	1,757	2.7	5,099	2.4	24.8
Korea, Republic of (South Korea)	159	1.6	178	3.4	572	5.7	1,083	3.4	609	5.5	907	1.1	1,351	2.1	4,700	2.3	29.6
Other Countries	4,146	41.9	1,805	34.7	3,713	36.9	13,290	41.5	4,355	39.2	17,746	20.6	16,692	25.9	57,601	27.6	13.9
Sub-total	9,897	100	5,199	100.0	10,069	100.0	31,995	100.0	11,121	100.0	85,968	100.0	64,332	100.0	208,682	100.0	21.1

Source: Bankwest Curtin Economics Centre | based on Foreign Investment Review Board (FIRB) Annual Report 2020-21

The majority of investment approvals for China in 2020-21 sit in real estate development (46.5%; \$6.3Bn), followed by finance and insurance services (14%; \$1.9Bn), services (11.8%; \$1.6Bn), and mineral exploration (11.7%; \$1.59Bn). Agriculture comes in at 4.8 per cent (\$0.65Bn).

Real estate investment is an important channel for the provision of housing for both international students and Chinese workers living in WA, and contributes to making WA and Australia an attractive place to study, visit and live.

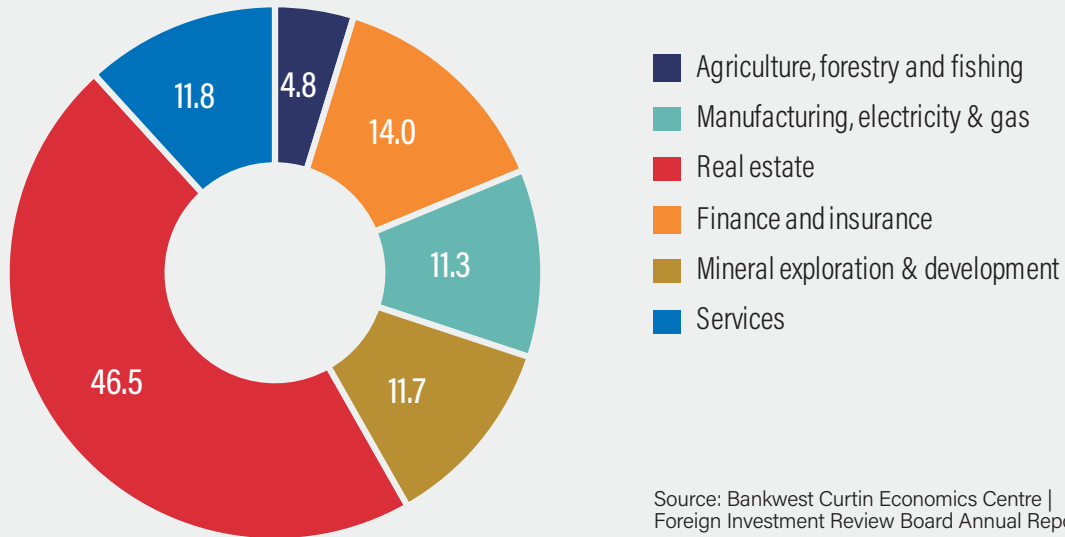


*The majority of investment approvals for China in 2020-21 sit in real estate development (46.5%; \$6.3Bn).*

*Real estate investment is an important channel for the provision of housing for both international students and Chinese workers living in WA.*

**Figure 16**

Approvals of Chinese investments, by industry sector in 2020-21

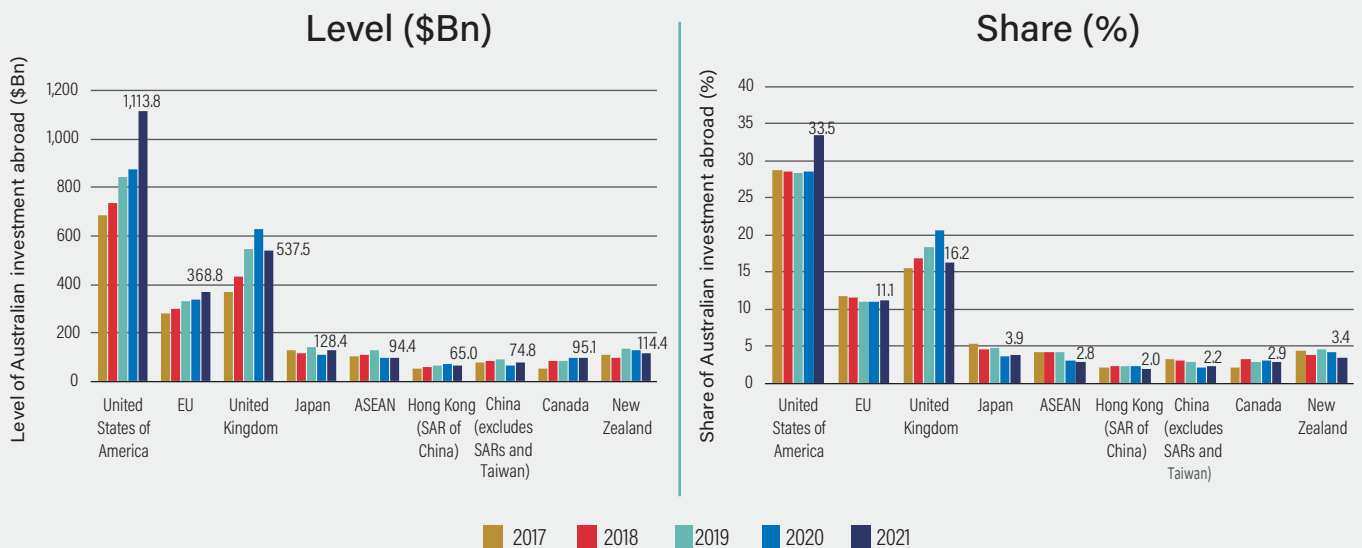


Source: Bankwest Curtin Economics Centre | Foreign Investment Review Board Annual Report 2020-21

As for Australian investments abroad, the USA, UK and EU dominate, and together make up over 60 per cent of Australian investments overseas. China represents 2.2 per cent (\$74.8Bn) of all of Australian foreign investments abroad, with a slightly higher share going to Canada (2.9%) and Japan (3.9%).

**Figure 17**

Level and share of Australian investment abroad, by country/country group, 2017 to 2021



Source: Bankwest Curtin Economics Centre | ABS, International Investment Position, Australia: Supplementary Statistics 2021

# WESTERN AUSTRALIAN HOUSING MARKET SHOWS STABILITY AND CONTINUED GROWTH, MAKING IT A PRIME MARKET FOR FOREIGN INVESTORS.

Finbar is Western Australia's largest and most trusted apartment developer, completing 6,655 units across 75 residential and mixed-use developments, and a pipeline for future developments valued at over \$1.4 billion. The Western Australian housing market shows stability and continued growth, making it a prime market for foreign investors.

Foreign sales are critical for developers like us to achieve pre-sales, and Chinese buyers make up only a small percentage across our overseas buyers. Many of our Chinese buyers are often international students, skilled migrants with plans to relocate permanently, or rental investors who are familiar with apartment investment compared to local buyers. WA's population growth continues to increase at a faster rate than the larger eastern states of NSW and Victoria and by encouraging the continued supply of housing will enable our state to grow.

In 2019, the 7 per cent foreign buyer surcharge was introduced in Western Australia. It was meant to prevent Western Australian first homebuyers from being priced out of the market like their east coast counterparts. As a result of the pandemic, supply chain disruption, material costs and labour constraints has crippled \$2.2 billion of pre-approval apartment projects and more than 10,000 new apartments. Foreign sales had a dramatic decline since 2019, however recent data has shown foreign sales improving post pandemic. In-order for large developments to achieve the necessary pre-sales in a short timeframe a higher proportion of investor sales is required, hence foreign buyers (Chinese investors) play an important role for our property sector.

Source: Finbar Group Limited



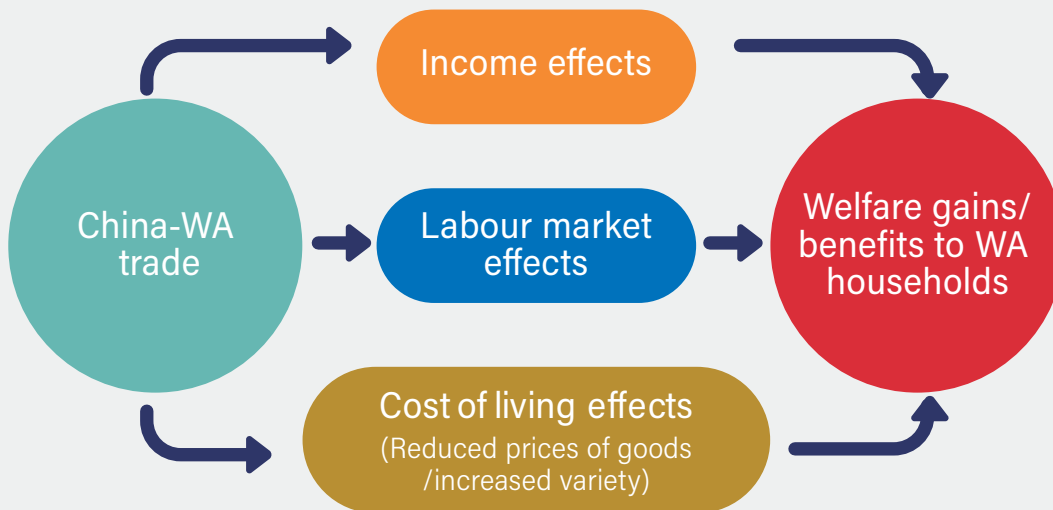
Image provided by Finbar Group Limited

# THE BENEFITS OF CHINA-WA TRADE TO WA HOUSEHOLDS

Having set out a detailed review of the commodities and services traded between China and WA, this chapter identifies and objectively estimates the key channels through which the impact of China-WA trade transmits to household welfare. Figure 18 illustrates the three main channels through which trade with China translates to WA households, namely, household income; employment (and unemployment rates); and price effects on household consumption. Key results for each of these channels are discussed further below.

**Figure 18**

Channels through which Western Australia's trade relationship with China translates to benefits to its households



Source: Bankwest Curtin Economics Centre





## Income effects

One of the main channels that links China-WA trade to the welfare of WA households is through the effect on income. Evidence in the international trade literature suggests that trade is associated with an increase in national income. That is, countries that trade more as a proportion of their economy (as measured by GDP) have higher incomes (Frankel and Romer, 1999; Irwin and Terviö, 2002). This is because free trade allows countries to specialise in the sectors in which they have a comparative advantage. Moreover, trade promotes transfers and diffusion of technologies that enhance productivity and lead to an increase in income.

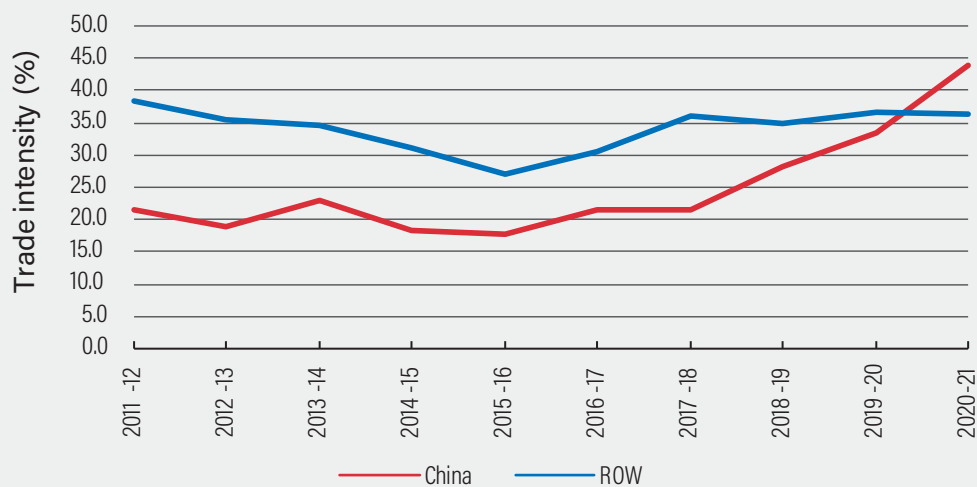
There has been a sharp increase in WA's trade intensity<sup>1</sup> with China in recent years while the trade intensity with the rest of the world (ROW) is levelling off (Figure 19). Here, the impact of increased trade with China on the income of Western Australian households is estimated.

*WA's trade intensity with China increased by 26 percentage points between 2015-16 and 2020-21.*



**Figure 19**

WA's trade intensity with China and the rest of the world, 2011-12 to 2020-21



Note: ROW (Rest of the World).

Source: Bankwest Curtin Economics Centre | calculations based on DFAT and ABS data.

1. Trade intensity is defined as exports plus imports divided by gross state product.

To estimate the benefits of China-WA trade on WA household income, the BCEC utilised econometric methods based on recognised international trade theories and models<sup>2</sup>. A brief description of the model is provided in the Appendix.

Results from the modelling show that, on average, every 1 percentage point change in trade intensity with China leads to a \$180 change in household disposable income. In 2020-21, it is estimated that Western Australian's real household disposable income increased by \$1,900 per household or about \$760 per person due to increased trade with China that year (Figure 20). On aggregate, the gains in household disposable income due to increased trade with China in 2020-21 is estimated at \$2.02Bn for WA households.

Furthermore, the modelling estimates that the total amount of real disposable income per household attributed to overall China-WA trade in 2020-21 is \$7,900. This is equivalent to 5.5per cent (\$3,140) of the total gross household disposable income per capita in 2020-21, and \$8.42Bn for households on aggregate.

**Figure 20**

Gains in Western Australian's real household disposable income due to increased China-WA trade intensity in 2020-21

+ \$1,900 per household



+ \$760 per person



Source: BCEC model estimates based on DFAT and various ABS historical data

*On average, every 1 percentage point change in trade intensity with China leads to a \$180 change in household disposable income.*

*The total amount of real disposable income per household attributed to overall China-WA trade in 2020-21 is \$7,900.*

2. See e.g., Romer, D. H., & Frankel, J. A. (1999). Does Trade Cause Growth?. *American Economic Review*, 89(3), 379-399.  
Irwin, D. A., & Terviö, M. (2002). Does trade raise income?: Evidence from the twentieth century. *Journal of International Economics*, 58(1), 1-18.

## Labour market effects

The second channel through which international trade affects the welfare of households and businesses is through changes in employment and unemployment in the import-competing industries and export-oriented sectors. One of the main arguments against free trade and the justification for protectionism or increased tariff rates by countries is to protect jobs that could be lost in import-competing sectors. This is an important issue that deserves better investigation as China is well known historically for competition with lower export prices in the international market due to its cheap labour costs.

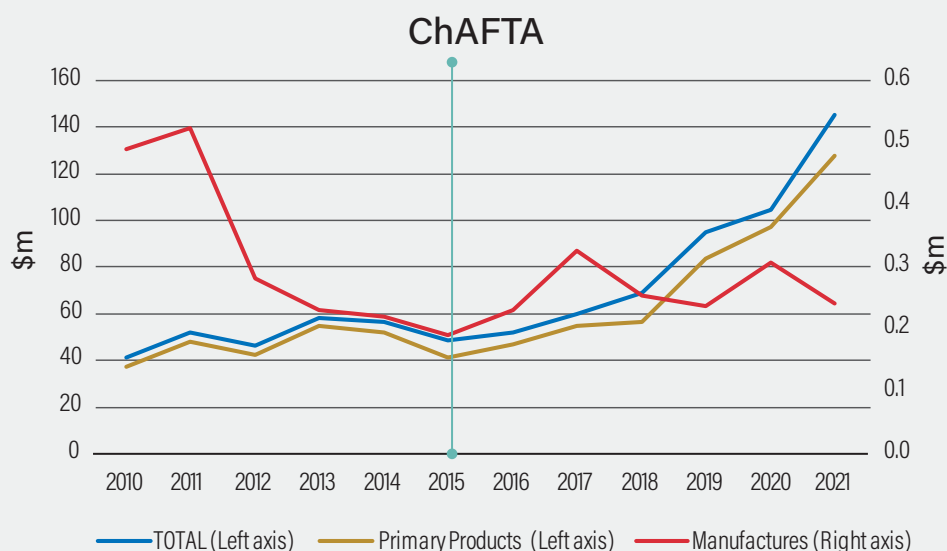
A common practice to evaluate the welfare effects of international trade is to assess the potential changes in the benefits from trade following exogenous changes in trade policies. In line with this, the historic free trade agreement between China and Australia, signed in December 2015, can serve as a useful identification scheme to assess the labour market effects of the China-WA trade.

Trade can increase employment by boosting aggregate demand through increases in net exports. **Figure 21** illustrates that Western Australia's total export earnings of primary products to China increased significantly after the signing of ChAFTA while exports of manufactures have declined overtime after an initial increase following the free trade agreement. This suggests that China-WA free trade boosted the primary export sectors significantly. Mining exports in particular have thrived post-ChAFTA and contributed to the WA economy in terms of value added and employment opportunities. However, the recent decline in manufacturing exports suggests that the free trade agreement may entail potential losses of employment in Western Australia's manufacturing sector. The overall effect depends on the magnitude of jobs created in the export-oriented sectors and jobs lost in the import-competing industry (manufacturing sector).

*WA's total primary exports to China increased sharply after ChAFTA.*

**Figure 21**

Western Australia's exports to China, 2010 to 2021



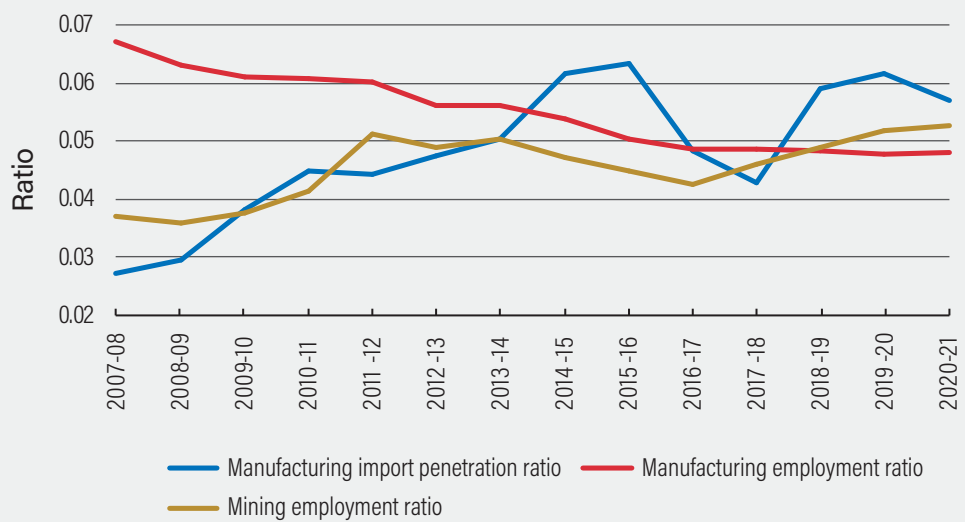
Source: Bankwest Curtin Economics Centre | calculations based on DFAT publication

*China's import penetration ratio increased in WA's manufacturing sector while the employment ratio declined recently. In contrast the employment ratio in mining increased significantly.*

To develop a better understanding of the sectors which have greater exposure to imports from China, the Chinese import penetration ratio to WA's industries is calculated and compared with the trends in employment-ratios. **Figure 22** shows that WA's manufacturing sector has the highest import penetration ratio and the trend has been increasing overtime except for the modest decline in recent years<sup>3</sup>. A striking feature in **Figure 22** is that the employment ratio in the manufacturing sector has seen a persistent decline overtime. In contrast, the employment ratio in the mining sector is increasing sharply following the signing of ChAFTA.

**Figure 22**

Employment ratio and import penetration ratio, WA, 2007-08 to 2020-21



Source: Bankwest Curtin Economics Centre | calculations based on ABS data

*The employment and gross value-added contributions of the mining industry increased sharply after ChAFTA.*

**Figure 23** shows the economic contribution of WA's mining sector in terms of gross value-added and employment. Clearly, there is a significant increase in the number of jobs and GVA in WA's economy after ChAFTA that raises the living standards of WA households.

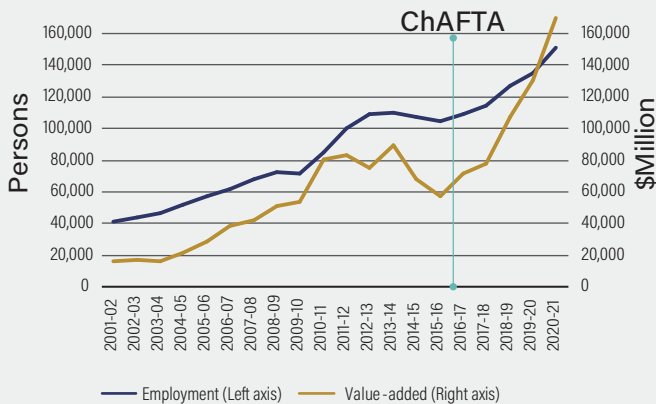


3. Chinese manufacturing import penetration to WA is calculated as manufacturing imports to Australia from China divided by the sum of gross manufacturing output of WA plus imports minus exports. The import penetration ratios for the other sectors are negligible thus not reported in the Figure. Employment ratio is defined as number of employed people divided by working-age population.

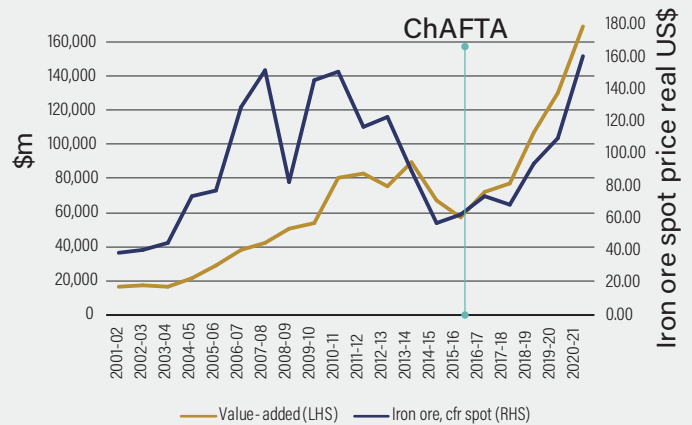
**Figure 23**

Employment, GVA and iron ore price, WA, 2001-02 to 2020-21

**Employment and GVA of the mining**



**GVA and iron ore price**



Source: DFAT and World Bank

More importantly, as the mining sector, including the petroleum industry, accounted for about 94 per cent of WA's total merchandise export earnings (DMIRS, 2021), it follows that the jobs gained in the booming export sector of mining should be higher than the potential job losses in the manufacturing sector.

**Modelling the labour market effect of free trade with China**

Simple trends and correlations are useful to indicate the association between increased trade with China and the various indicators of the benefits to WA households. However, they cannot identify the causal effects to precisely attribute the changes due to China-WA trade, which is of primary interest to policy makers. For this report, a novel quasi-experimental design to estimate the labour market effects of trade with China using ChAFTA as an identification strategy to pin down the causal effects was adopted.<sup>4</sup>

Key results from the modelling are reported in **Table 8**. The findings demonstrate that

within a four-year window from the signing of ChAFTA,<sup>5</sup> the WA employment ratio increased by about 6 percentage points. Based on this, in 2020-21, the benefit from China-WA trade on employment in WA is estimated to be an additional 244,000 employed persons.

Furthermore, results from the model indicate that WA's unemployment rate is about 1 percentage point lower due to trade with China. By gender, the results show that the estimates are similar for males and females, albeit a slight additional gain for males compared to females.

*Free trade with China increased WA's employment ratio by approximately 6 percentage points and reduced WA's unemployment rate by about 1 percentage point.*

4. Regression discontinuity design is used to estimate the labour market effects of WA-China trade.

5. The four-year window is selected because most of China's tariffs on WA's exports are reduced significantly after four years from when ChAFTA was signed.



*In 2020-21, the benefit from China-WA trade on employment in WA is estimated to be an additional 244,000 employed persons.*

*WA's unemployment rate is about 1 percentage point lower due to trade with China.*

**Table 8** Quasi-experiment modelling results of the labour market impacts of the free trade agreement with China within a four-year window before and after ChAFTA

	Total	Male	Female
Panel A:			
Employment ratio	5.962*** (1.214)	6.022*** (1.164)	5.972*** (1.307)
Observations	3072	3072	3072
Panel B:			
Unemployment rate	-1.036*** (0.355)	-1.100*** (0.399)	-0.936*** (0.318)
Observations	3072	3072	3072

Notes: Standard errors in parentheses. \*\*\* denotes the estimates are statistically significant at 1 per cent significance level. ABS defines employment ratio as the number of people aged 15 years and over that are employed as a percentage of the civilian population aged 15 years and over. The unemployment rate as the number of unemployed persons expressed as a percentage of the labour force (employed plus unemployed).

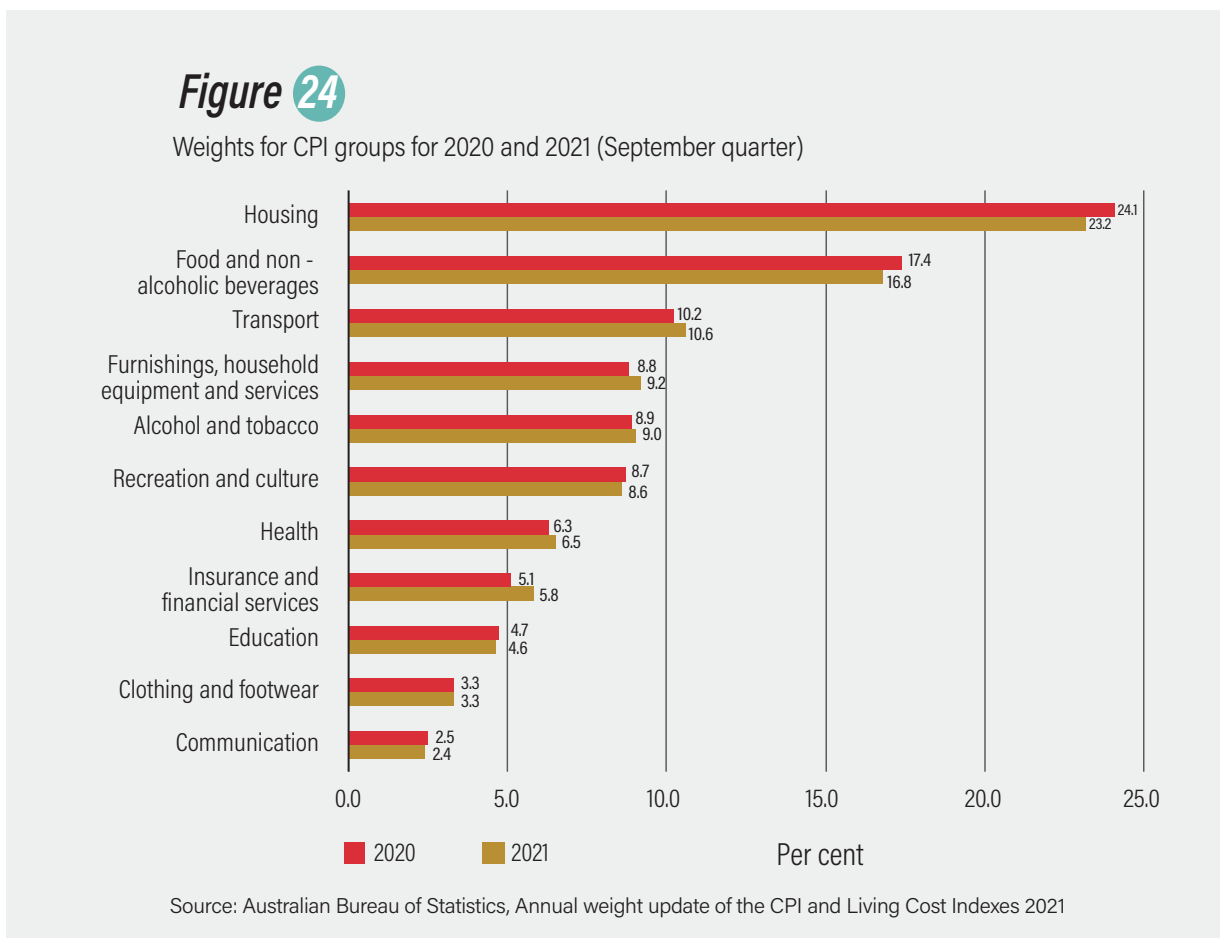
Source: Bankwest Curtin Economics Centre | calculations based ABS and DFAT data

## Cost of living effects

One of the most common measures of welfare gains from international trade is consumer surplus, defined as the difference between the consumers' willingness to pay and the reduced price of imported goods under free trade. China's trade with WA has offered benefits to WA households through reduced prices of a variety of imported goods such as furniture, machinery and transport equipment, chemicals and petroleum. It is worth noting that there are winners and losers from free trade within an economy. Specifically, consumers tend to be winners from reduced prices of goods in import-competing sectors while they tend to be losers from the increased price of goods in export-oriented sectors and vice versa for producers.

The most important thing to determine the net effect of China-WA trade on the welfare of WA households through the price channel depends on which goods constitute the greater weight of the basket of expenditures of WA households as a measure of the cost of living.

Figure 24 presents the weights for consumer price index (CPI) groups that reflect the average expenditure of households for year 2020 and 2021. Housing constitutes the largest weight in 2020 (24%) and 2021 (23%) followed by the CPI group of food and non-alcoholic beverage (17%). The CPI groups for transport, furnishings, household equipment and services account for about 20 per cent of the weighting.



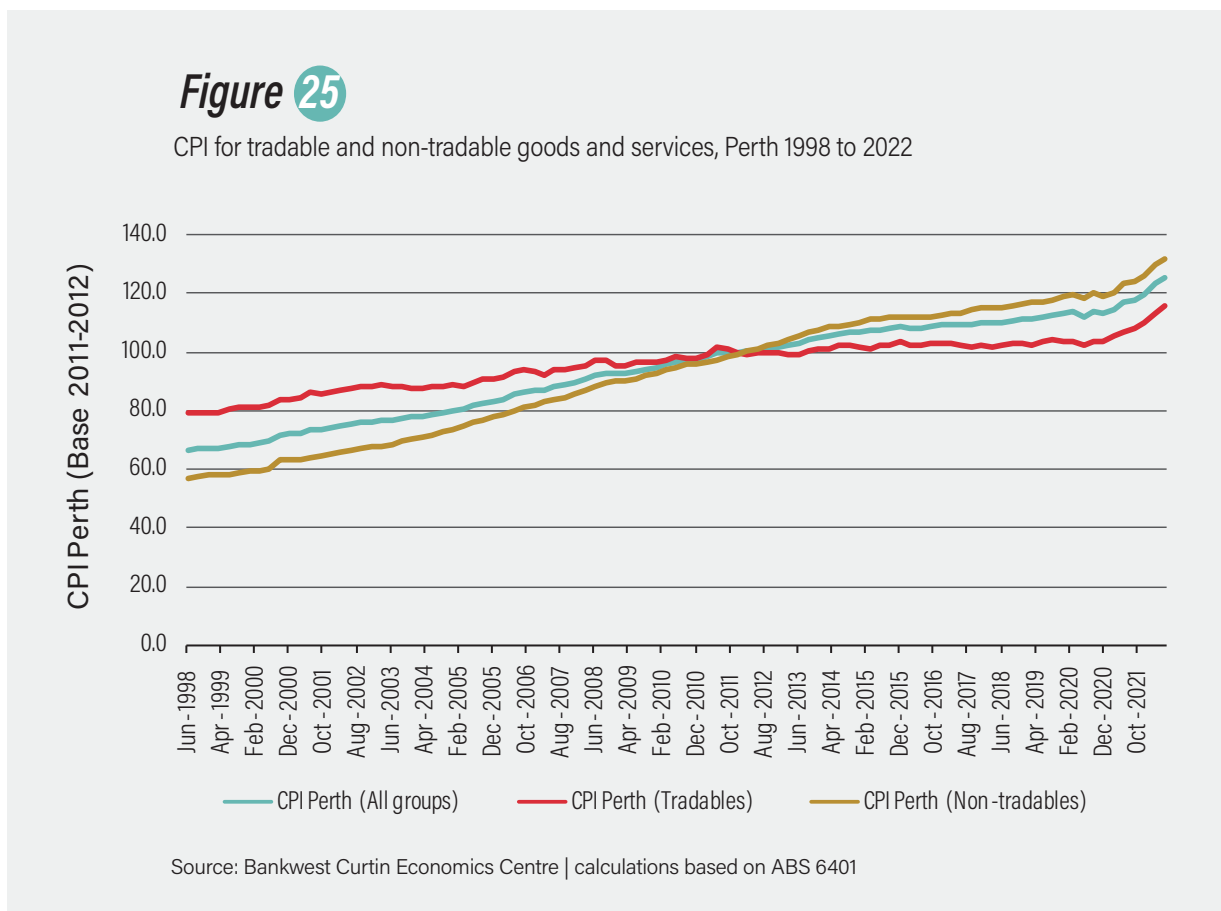
WA households will benefit directly from trade between China and WA through a lower cost of living if consumption goods imported from China are less expensive than would be the case if the same or similar goods were sourced elsewhere.

Should this be the case, then the size of the direct benefits to WA households from trade with China derives from the shares of consumption products that originate from China compared to domestic products or those imported from elsewhere.

*Over the last decade, the inflation rate of tradable goods is lower than the inflation rate of non-tradable goods in WA.*

Manufactured goods and equipment constitute WA's key imports from China. These items account for major components of the CPI basket of goods, including transport, furniture, household equipment and services. To the extent that import prices of these CPI items sourced from China are lower than from other destinations will contribute to a lower cost of living for WA households.

Figure 25 shows the comparison between inflation in tradable and non-tradable goods. The inflation rate for tradable goods is lower than that of the non-tradable goods over the last decade suggesting the benefit to WA households of a reduced cost of living due to the increase in trade with China in recent years.



To compare unit costs of Chinese imports to WA with those from the rest of the world, this report uses ABS data for international merchandise trade sourced through the National Freight Data Hub (NFDH). The NFDH portal provides both the value and quantity of imports to WA by country of origin and product group, which allows for a comparison of unit prices for similar Standard international trade classifications (SITC) product classes.

To separate WA's household consumption into domestic and imported components, we take advantage of input-output tables provided as part of the ABS National Accounts data release. Information on the value of imports that go towards final demand provides us with a serviceable estimate of the import share of household consumption for each commodity group.



The value of WA's imports from China came to **\$6.9 billion** in 2021. This aggregate value derives from the combination of import volumes from China across product groups, and the unit costs for those quantities paid to Chinese trade partners.

If those same imports were to be sourced from countries other than China, our analysis finds that the cost to WA for an equivalent volume of imports could rise to **\$10.8 billion**. This additional \$3.9 billion would increase WA's total import costs by 10.4 per cent above the current \$37.5 billion.

These findings suggest that WA households do benefit directly from lower costs of living as a result of merchandise imports.

Two thirds of SITC product groups, and 61 per cent of WA's current imports by value, cost less when imported from China compared to the average unit costs for the rest of the world. And around 27 per cent of WA's total household consumption derives from imports rather than domestic production.

Taken together, this suggests that **WA households would pay 3.4 per cent more** for the same consumption items without China as a major import partner.

*WA households would pay 3.4 per cent more for the same consumption items without China as a major import partner.*



# SUMMARY AND CONCLUSION

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Two-way trade between China and Australia has increased significantly over the last decade especially since the ChAFTA struck between China and Australia. The resulting increase in China-WA trade offers measurable benefits to WA households through various transmission channels.

The first channel through which such benefits are translated to WA households is through the income effect. The gain in disposable income due to increased trade with China in 2020-21 is estimated at about \$1,900 per household, which is about 1.3 per cent of the total gross household disposable income per capita for the same year. In aggregate terms, the gains in disposable income due to increased trade with China is approximately \$2.02 billion in 2020-21. Based on 2020-21 levels, if trade with China was to cease altogether, all else equal, household disposable income in Western Australia would decline by \$7,900.

The results from the BCEC's quasi-experimental design shows that due to free trade with China following ChAFTA, Western Australia's employment ratio increased by about 6 percentage points while WA's unemployment rate decreased by about 1 percentage point. The employment benefits from overall trade with China equate to 244,000 persons employed in 2020-21.

Another benefit of increased trade with China to WA households is the reduced cost of living from the lower costs of products imported from China compared to the prices of similar products from the rest of the world. And the inflation rate of tradable goods over the last decade is lower than the inflation rate of non-tradable goods in WA. This coincides with an increase in trade with China.

This report finds that the total cost of WA's imports could increase by up to \$3.9 billion (10.4 per cent) above the current \$37.5 billion if Chinese imports were to be sourced from countries other than China. Taking into account the share of imports that go towards final consumption, WA households would pay 3.4 per cent more for the same consumption items without China as a major import partner.

China is also a substantial investor in Western Australia. This report shows that investment from China in Australia is much lower than that of other economies. Given that China is the second largest economy in the world, there is further potential for growth in Chinese investment across the nation.

Currently, Australia has zero tariff rates on most Chinese imports, something which existed even prior to the signing of ChAFTA. China still has high tariff rates on many products that it imports from Australia, although for many products, a tariff reduction is spread across future years. Therefore, in the post-ChAFTA period, Australia will continue to benefit from the gradual decline in tariffs imposed by China on WA's exports. Most of the remaining tariffs will be eliminated under the new Regional Comprehensive Economic Partnership Agreement (RCEP), which was signed in 2022 by 11 countries, including China.<sup>6</sup>

RCEP is in turn expected to bring additional benefits to WA households. Western Australia is well positioned to take full advantage of such opportunities and to build on what is an already a strong, and mutually beneficial China-WA economic partnership, as evidenced in this report.

# GLOSSARY AND TECHNICAL NOTES

## *Trade intensity*

WA's trade (imports and exports) with country X as a share of the State's GSP. The higher the share the greater the trade intensity.

## *Import-penetration ratio*

Chinese manufacturing import penetration to WA is calculated as manufacturing imports to Australia from China divided by the sum of gross manufacturing output of WA plus imports minus exports.

## *Net exports*

Net exports denote the value of exports minus import.

## *Unemployment rate*

The unemployment rate is the number of unemployed persons expressed as a percentage of the labour force (employed plus unemployed).

## *Employment-to-population ratio*

Employment-to-population ratio is defined as the number of people aged 15 years and over that are employed as a percentage of the civilian population aged 15 years and over.

## APPENDIX

Following the influential paper of Frankel and Romer (1999), the effect of trade on income is estimated using an econometric model specified as:

$$\ln \ln Y_{it} = a + \beta \ln T_{it} + cX_{it} + \delta_i + \gamma_m + \gamma_t + \epsilon_{it}$$

where  $Y_{it}$  is income per person (GSP per capita) in jurisdiction  $i$  at time  $t$ ,  $T_{it}$  is the measure of the intensity of trade with China (two-way trade as per cent of GSP) and  $X_{it}$  is a set of controls including labour force participation rate. The parameter  $\delta_i$  denotes state fixed effects that account for time-invariant factors of jurisdictions whereas  $\gamma_m$  and  $\gamma_t$  denote time (month and year) fixed effects, respectively, that account for the effects of seasonality and  $\epsilon_{it}$  is the error term that captures other omitted factors.

In the above equation,  $\beta$  measures the response of GSP per capita for every percentage-point increase in trade intensity. Using this relationship, the gains from trade with China to WA households in terms of gross disposable income per capita can be estimated for every year over the last decade.

From the modelling exercise, it is estimated that every percentage-point increase in trade intensity is associated with a 0.144 per cent increase in real GSP per capita. Then, the increase in WA's GSP per capita in dollar values due to an increase in trade with China can be computed using this relationship and the changes in percentage points in WA's trade intensity with China. To compute the gain in gross disposable income per person, the increase in GSP per capita is multiplied by the ratio of gross disposable household income per capita to GSP per capita. Then, gross disposable income per household is computed by multiplying this value by the average number of persons in WA households based on census figures.

*The total amount of real disposable income per household attributed to overall China-WA trade in 2020-21 is \$7,900.*

*This is equivalent to 5.5 per cent of total gross disposable income per capita and \$8.42Bn for households on aggregate.*



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