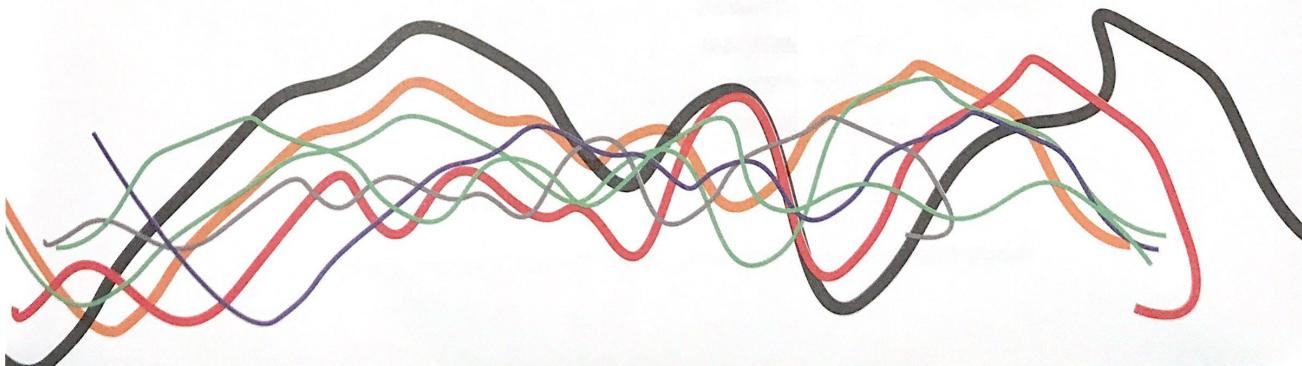


# 3

## Australia's Pattern of Trade

### Chapter concepts

- *Australia's trade intensity*
- *patterns and trends in the composition of Australian trade*
- *patterns and trends in the direction of Australian trade*



International trade has become more important to the Australian economy over time. In 1990, total trade (exports plus imports) accounted for 30 per cent of Australia's GDP. By 2022, total trade had increased to over 50 per cent of GDP. On the world stage, Australia is a relatively small exporter – accounting for just 1.5 per cent of global exports, compared with around 15 per cent for China, the world's leading exporter (refer to figure 3.1). Australia is ranked 19th as a world exporter of goods and services and yet is the 12th largest economy. Does this mean that Australia is lagging in the trade stakes? No, not necessarily. Notice that of the countries shown, Australia is the only economy located in the southern hemisphere and Australia is also the only country that is an island. Remember that most of the world's major economies are located in the northern hemisphere. So in a way, Australia is probably 'punching above its weight'.

A country's level of exports will be determined by a number of factors: the size and structure of the economy, its relative competitiveness and its location. Australia is an island continent, relatively isolated from the rest of the world. Remember that most of the world's population lives in the northern hemisphere – Asia, Europe, North America. This means that global output and economic activity is concentrated in the northern half of the globe. If Australia was located in Europe, or shared a border with the United States (like Canada), then its ranking in world exports would be much higher. In fact, on a per capita basis, Australia's export performance could be considered quite remarkable. A useful way to measure the importance of international trade is to calculate the share of trade in its Gross Domestic Product (GDP). This trade-to-GDP ratio is often called the 'trade openness ratio' or the 'trade intensity ratio'. It is a measure of the sum of exports and imports (of both goods and services) as a percentage of GDP. The ratio can be expressed as:

$$\text{Trade intensity} = \frac{(\text{X} + \text{M})}{\text{GDP}} \times 100$$

**Figure 3.1 Australia's rank in global exports**

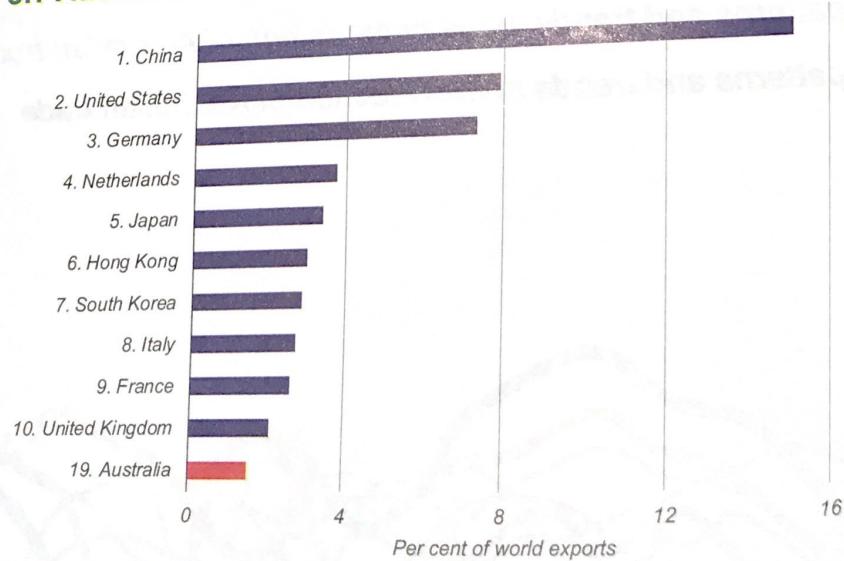


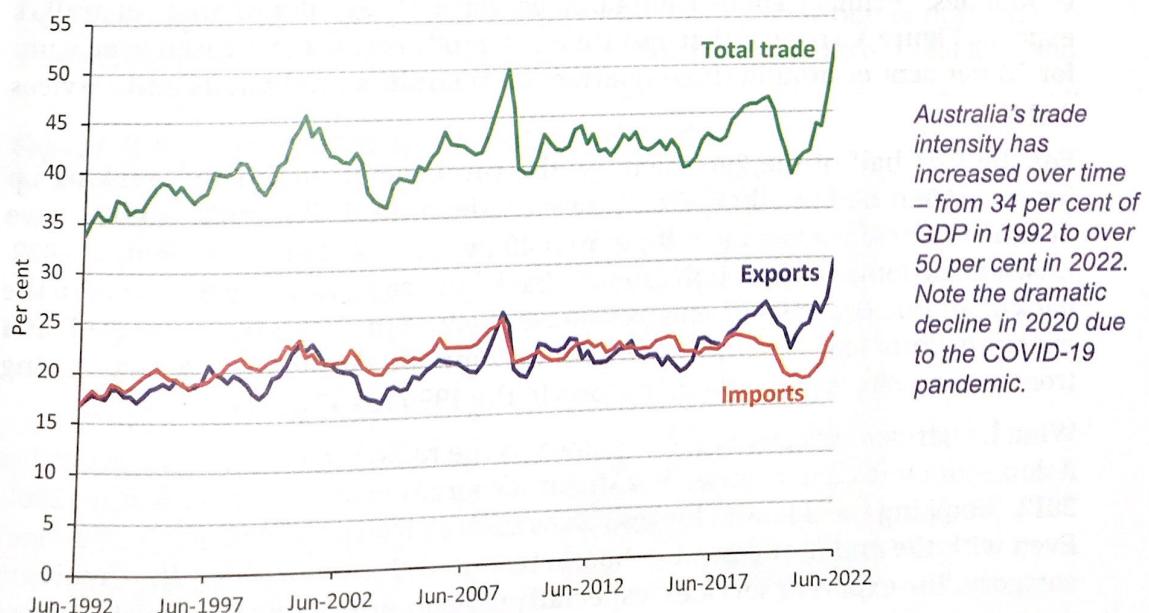
Figure 3.2 shows Australia's trade intensity increasing significantly over the past few decades, rising from 34 per cent in 1992 to 52 per cent in 2022. Both exports and imports as a per cent of GDP have risen over time, which reflects Australia's increasingly open economy. Notice the significant effect that the COVID pandemic had on Australia's trade intensity during 2020 causing it to fall to below 40 per cent. When compared with other developed economies, Australia's trade intensity is relatively low. European economies, for example, tend to have a relatively high trade intensity because of the ease of trading within the Euro zone. For the countries shown in the sidebar, only the USA, China and Japan have lower trade to GDP ratios than Australia. This is explained by the size of their domestic economies, which enables them to reap the advantages of economies of scale. Large economies such as the United States, China and Japan do not need to rely on trade as much as a smaller economy such as Australia because domestic competition is so strong.

What factors determine a country's trade intensity? Factors such as the relative size of the economy, its location relative to foreign markets and the extent of barriers to trade – both natural and artificial. While Australia has been lowering its artificial barriers such as tariffs, it is hindered by more natural barriers such as high transport costs as a result of its geographic isolation. A famous Australian historian, Geoffrey Blainey, referred to the problem of Australia's isolation as its 'tyranny of distance'. Australia has also not had the opportunity of being part of a major regional trading bloc such as the European Union (EU) or NAFTA.

Trade to GDP ratio	2021
Australia	50
Canada	61
China	37
Germany	89
Italy	63
Japan	31
Netherlands	156
Sweden	88
United Kingdom	55
United States	23
World	52

Source: World Bank

**Figure 3.2 Australia's trade intensity**



The purpose of economic growth is to enable a high level of consumption and a high standard of living. Exports add to national income, which can then be used to consume imports. Given that Australia has a small economic base in terms of labour and capital, producing for the world market is a rational strategy to promote economic growth and higher living standards.

### The pattern of Australia's trade

There have been major changes in the pattern of Australia's trade over recent decades, both with respect to the composition and direction of trade. Primary industries (agricultural and mineral resources) have always dominated Australia's exports while manufactured goods have been our most important import category. These changes have been associated with the rapid increase in mineral and energy exports and the decline in rural exports. At the same time, the focus of Australia's trade has shifted away from Europe to the Western Pacific and East Asian regions.

The composition of Australia's trade will reflect Australia's comparative advantage. Traditionally Australia has been a major exporter of primary commodities. This is not surprising given Australia's large natural resource/population ratio and substantial mineral wealth. Australia has for a long time enjoyed a comparative advantage in the production of primary goods - specifically agricultural and resources (minerals and fuels). Australia has been a leading world producer in wool, wheat and beef and a significant producer of iron ore, coal, natural gas, bauxite, gold, and mineral sands.

Over the past few decades there has been a significant increase in the relative importance of mineral and energy exports and a decline in the importance of rural and manufactured exports. However, agricultural exports still comprise a relatively large proportion of Australia's exports compared to other industrial economies. Primary goods (commodities) have always dominated Australia's exports. Figure 3.3 reveals that over time commodities have increased to account for 78 per cent or around three quarters of Australia's total goods and services exports.

For the first half of the 20th century, the rural sector dominated, making up for more than half of all exports. However, since the 1970s, rural exports have declined quite dramatically falling from 40 per cent to just 11 per cent by 2022. Australia no longer 'rides on the sheep's back!' Instead, Australia now rides in the back of an iron ore truck! Today, resources, such as minerals (iron ore, gold) and energy exports (coal, natural gas) have become the dominant category - rising from around 30 per cent of total exports in the 1990s to 67 per cent in 2022.

What has driven this change? The answer is the rapid growth of China and other Asian economies that resulted in a major resources boom in Australia from 2001-2012, boosting the demand for resources such as iron ore, coal, and natural gas. Even with the end of the mining boom, resources have remained the dominant category. The export of services, especially education and tourism, has increased

	1970s	1980s	1990s	2000s	2022
<i>Commodities</i>	%	%	%	%	%
Rural	40	31	22	16	11
Resources (incl gold)	26	31	31	41	67
<b>Total</b>	<b>66</b>	<b>62</b>	<b>53</b>	<b>57</b>	<b>78</b>
<i>Non-commodities</i>					
Manufactures	19	19	24	21	12
Services	15	18	23	22	10
<b>Total</b>	<b>34</b>	<b>37</b>	<b>47</b>	<b>43</b>	<b>22</b>

**Figure 3.3 Australia's changing exports**

in importance over time accounting for 21 per cent of all exports in 2019. The COVID pandemic caused service exports to collapse during 2020-22 with its share falling to just 10 per cent.

The major changes in the composition of Australia's exports have been:

- a dramatic decline in rural exports;
- a significant increase in resource (minerals & fuels) exports;
- a significant decline in manufacturing exports; and
- the increasing importance of services exports (esp. tourism and education).

The broad composition of Australia's trade (by category) is illustrated in figure 3.4. The dominance of the resources sector in exports is evident (78 per cent), comprising mainly minerals and energy. For imports the largest category is intermediate goods, consisting of fuels and processed industrial goods. Notice that most imported goods are manufactured goods – either in the form of consumer goods or as inputs for Australian industry. In contrast to exports, there are very few imported primary goods, other than fuels. The composition of our trade is a reflection of the structure of the economy. Australia has a very efficient and

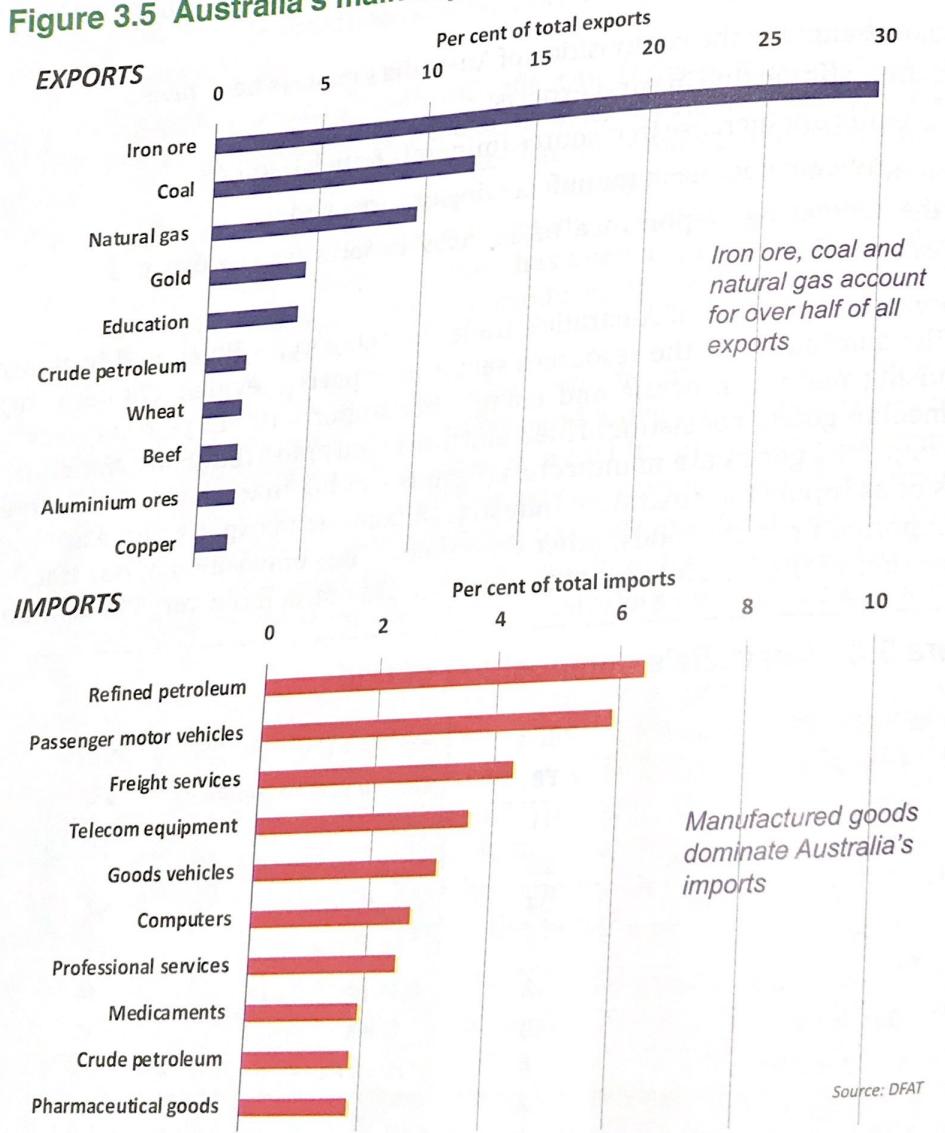
**Figure 3.4 Australia's composition of trade**

EXPORTS - % share	2022	IMPORTS - % share	2022
<b>Total Primary</b>	<b>78</b>	<b>Consumption Goods</b>	<b>28</b>
Rural	11	Motor vehicles	6
Minerals/metal ores	29	Clothing & footwear	5
Energy (coal & gas)	34	<b>Capital Goods</b>	<b>22</b>
Gold	4	Machinery	6
<b>Total Manufactures</b>	<b>12</b>	<b>Intermediate goods</b>	<b>34</b>
<b>Services</b>	<b>10</b>	Fuels (petrol)	11
Education	5	<b>Services</b>	<b>16</b>
Tourism	5	Tourism	3

internationally competitive primary sector – both mining and agriculture, while our manufacturing sector is smaller and relatively less efficient. This means that Australia has a strong comparative advantage in the resources sector but equally a comparative disadvantage in the manufacturing sector. The services category in both exports and imports is growing in importance.

Australia's most important service export is education, which is almost equal to all of Australia's rural exports. Australia's largest imports are refined petroleum and passenger motor vehicles. Figure 3.5 provides a ranking of Australia's top ten exports and imports (by value) in 2022. It is not surprising to see that iron ore, coal and natural gas have become Australia's largest exports. But many people would be surprised to see gold and education services at positions four and five in the top ten list, higher than other more traditional exports such as wheat and beef.

**Figure 3.5 Australia's main exports and imports (2022)**



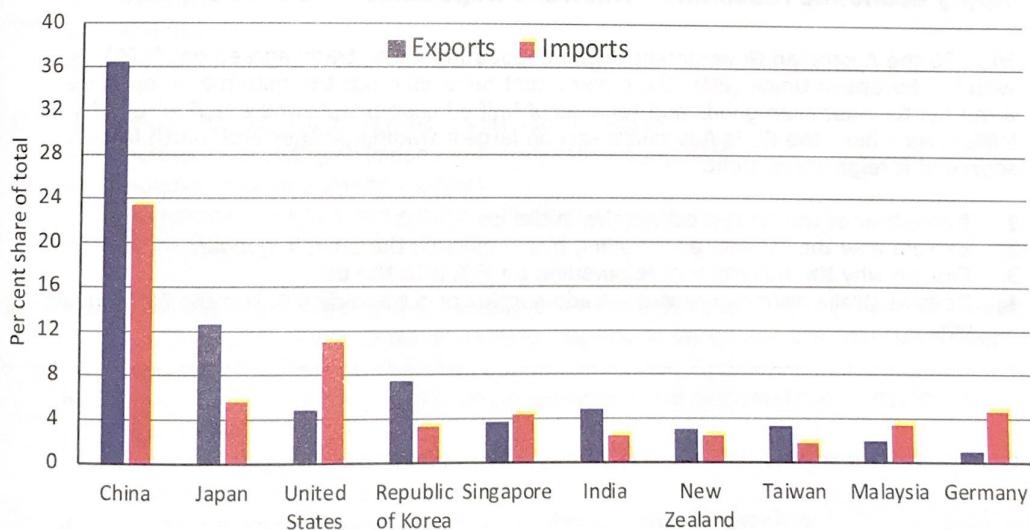
Notice that nine of the top ten exports are primary goods. Currently Australia's most important imports are petroleum and motor vehicles. But prior to the Covid pandemic, Australia's largest import was personal travel - Australian tourists travelling overseas. In coming years this is likely to regain its position at the top of the import list. The most important import category is manufactured goods including machinery, telecom equipment and computers.

Australia is fortunate to be located on the doorstep of the fastest developing region of the world with a massive appetite for our natural resource wealth. The bulk of Australia's exports will continue to be in the primary sector given the strong demand for our resources from the fast growing economies of China, Korea and India. But the future of trade is likely to be services. As incomes and living standards rise, the demand for services such as travel (tourism), health and education will increase significantly. This is because these services are very income elastic. Again Australia is well placed to take advantage of rising incomes in the east Asian region.

### The direction of trade

There has been a significant shift in the direction of Australia's trade over the past few decades. The shift in direction has been primarily from Europe to the Pacific-Asian region, comprising East Asia, North America and Oceania. This region has become the dominant trading group for Australia, accounting for over 80 per cent of Australia's exports and 70 per cent of imports. Figure 3.6 shows Australia's ten leading trading partners. China has become Australia's most important trading partner - for both exports (36% share) and imports (23% share). It is important not to underestimate the significance of China to Australia's economy - an apt saying sums up the relationship: *"If China sneezes, Australia will catch pneumonia!"* The top four countries – China, Japan, United States and Korea account for over 50 per cent of Australia's total trade.

**Figure 3.6 The direction of Australia's trade**



Notice that nine of the ten countries shown in the graph are in the Asia Pacific region. Japan is Australia's second most important export destination (12% share) while the United States is Australia's second most important import source (11% share). Over the past 30 years, the share of trade to Europe has fallen dramatically, from 40 per cent of the total to less than 13 per cent today. While the pattern for imports has followed a similar trend, a key difference has been the replacement of Europe by China and the United States as Australia's most important source of imports. The Asia-Pacific region has become the dominant region for both Australia's exports and imports accounting for 80 per cent of total trade.

There are a number of reasons for the change in direction of Australia's trade. Geographically, Australia is part of the Asia-Pacific region but historically Australia has had strong ties with the United Kingdom and Europe. When the United Kingdom joined the European Union Australia was forced to establish new markets. The Asia-

Pacific region had the advantage of much lower transport costs for Australia compared to Europe and the region has the advantage of a large and growing population that is very near to Australia's shores. Since East Asia has a limited supply of raw materials relative to its population, Australia provides an obvious complement in terms of its very small population and its rich endowment of natural resources. Australia is indeed a lucky country in terms of its vast wealth of mineral and energy resources. The fast growing economies of East Asia require long term supplies of cheap

energy such as coal and natural gas as well as minerals including iron ore, aluminium and copper. The Asia region is also home to two thirds of the global population and Australia also has a comparative advantage in the supply of food crops and livestock.

Australia's trade by region 2021 (per cent share)		
	Exports	Imports
Africa	1	1
Asia	81	56
America	6	15
Europe	6	22
Oceania	4	3

Source: DFAT

### Learning activity

#### Apply economic reasoning - Australia negotiates FTA with the EU

In 2020 the Australian Government began negotiating a free trade agreement (FTA) with the European Union (EU). The government believes it has the potential to open up a market for Australian goods and services of half a billion people and a GDP of US\$23 trillion. As a bloc, the EU is Australia's second largest trading partner and fourth largest source of foreign investment.

1. Name four of the largest economies in the EU.
2. Explain how the EU acts as a trading bloc (research the term in google).
3. Explain why the government is pursuing an FTA with the EU.
4. Does Australia normally record a trade surplus or a trade deficit with the EU? Explain why

**Worksheet**

1. What is Australia's rank in world exports? Why is it a relatively small exporter?
2. How is trade intensity measured?
3. How does Australia's trade intensity compare with other countries?
4. It is said that the composition of Australia's trade reflects Australia's comparative advantage. Explain this statement.
5. Describe the major changes in the composition of Australia's trade.
6. Why have resource exports increased in importance?
7. Refer to figure 3.5 to list Australia's top 5 exports and top 5 imports.
8. Why does Australia import mainly manufactured goods?
9. Describe the pattern in Australia's direction of trade.
10. Why is Asia more important to Australia than Europe in terms of trade?
11. Who are Australia's three main export partners and import partners?
12. Which countries are most important in Australia's services trade?
13. What trade advantages does the Asia-Pacific region offer Australia?
14. What effect has the resources boom had on the composition and direction of Australia's trade?

**Multiple choice**

1. The most important market in terms of value for Australian exports is
  - a. China.
  - b. Korea.
  - c. Japan.
  - d. the United States of America.
2. The most important market in terms of value for Australian imports is
  - a. the United Kingdom.
  - b. the United States of America.
  - c. Japan.
  - d. China.
3. Which export category has increased most rapidly since 2000?
  - a. Rural commodities.
  - b. Resources.
  - c. Manufactures.
  - d. Services.
4. When the Australian economy grows at a fast rate it tends to
  - a. increase its spending on imports, especially capital equipment.
  - b. increase its exports of rural products.
  - c. export more manufactured goods and less primary goods.
  - d. all the above.
5. Which one of the following describes the long term trend in the composition of Australia's exports?
  - a. Services exports have become relatively less significant while manufactured exports have increased in importance.
  - b. Exports of resources have become more significant while rural exports have declined in importance.
  - c. Commodity exports have become relatively less significant while services and manufactured exports have increased in importance.
  - d. The relative shares of all export groups have been increasing over time.

6. Which of the following statements regarding Australia's trade is correct?
- Australia is a major importer of manufactured products.
  - Australia is a major importer of primary products.
  - Australia is a major exporter of manufactured products.
  - Australia is a major exporter of services.
7. The main change in Australia's direction of trade has been from
- the Asian region to the American region.
  - the Indian Ocean region to the Pacific Ocean region.
  - Europe to the Asia-Pacific region.
  - the American region to the Asian region.
8. Which of the following is not a reason for the shift in the direction of Australia's trade?
- East Asia has a relatively limited supply of raw materials.
  - Australia is geographically a part of the Asia-Pacific region.
  - Australia is geographically a part of the European region.
  - The Asia-Pacific region has lower transport costs compared with Europe.
9. Primary commodities account for approximately what proportion of Australia's exports?
- 20%
  - 40%
  - 60%
  - 90%
10. Services account for approximately what proportion of Australia's exports?
- 20%
  - 40%
  - 60%
  - 80%
11. The most important trading region for Australia is
- North East Asia.
  - South East Asia.
  - Europe.
  - North America.
12. In 2015 Australia's largest import by value was \_\_\_\_\_ and largest export was \_\_\_\_\_.
- refined petroleum; iron ore.
  - crude petroleum; coal.
  - oil; gold.
  - motor vehicles; education.
13. Which of the following developments does not explain the change in direction of Australia's pattern of trade in recent years?
- The Asia-Pacific region has achieved higher rates of economic growth than Europe.
  - The discovery and development of major natural gas reserves in Australia is expanding.
  - Lower transport costs have given Australia an advantage when exporting to the Asia-Pacific region compared with Europe.
  - China has become a more significant participant in world trade.
14. The main reason for Australia's relatively low trade intensity [(exports + imports)/GDP] is
- its relatively high level of economic development (high GDP/capita).
  - its relatively small population compared with the major developed economies.
  - its protectionist trade policy stance resulting in a closed economy.
  - its geographic isolation from the large economies of Western Europe.

### Data analysis

Refer to the table showing Australia's trade with China.

Australia's trade with China 2021					
Exports	\$ billion	% share	Imports	\$ billion	% share
Iron ore	126.8	67.1	Telecom equipment	8.8	9.4
Natural gas	18.5	....	Computers	8.1	....
Gold	7.0	....	Furniture, mattresses	4.1	....
Education	4.4	....	Toys, games, sporting goods	3.4	....
Personal, recreational & cultural services	3.4	....	Plastic articles	2.6	....
Total exports	188.9	100.0	Total imports	93.3	100.0

China is Australia's largest trading partner in goods and services (valued at around \$282 billion in 2021), our largest export destination (\$189 billion), and our largest source of imports (\$93 billion). China buys around one third of all Australian exports, and is the top overseas market for many Australian goods and services. The Australia-China economic relationship is extensive. The two economies are highly complementary and provide a broad range of opportunities for two-way trade and investment. Resources and energy make up the largest share of Australia's exports to China, with iron ore and natural gas leading the way. China is also Australia's largest services export market and is the largest market for agriculture. China is the largest source of tourism income and the largest source of overseas student enrolments.

#### Questions

- For both exports and imports, calculate the per cent share columns.
- Describe the nature of Australia's exports to China.
- Describe the nature of Australia's imports to China.
- Calculate the size of Australia's trade balance with China.
- In which categories of goods does Australia have a comparative advantage with China?
- In which categories of goods does Australia have a comparative disadvantage with China?

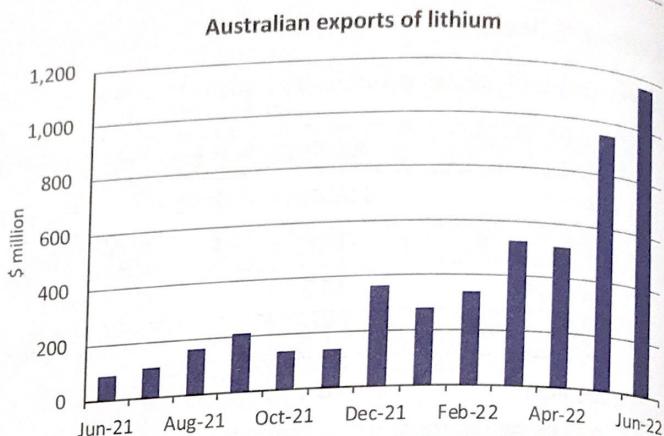
### Article for analysis

#### Australia becomes the world's largest exporter of lithium

Global demand for lithium has grown significantly in recent years. Lithium is a key component in the production of rechargeable batteries used in electric vehicles, renewable energy storage, and consumer devices such as mobile phones, laptops, and cameras. Australia is the world's biggest exporter of lithium and exports of lithium are expected to contribute around \$10 billion to the Australian economy by 2023-24. Export values started to increase rapidly from late 2021, where it more than doubled from November to December 2021. From April 2022 to May 2022, exports of lithium almost doubled again. Western Australia accounts for over 99% of Australian lithium exports. Most Australian lithium is exported to China. In June 2022, China accounted for 97% of the total lithium exports for that month.

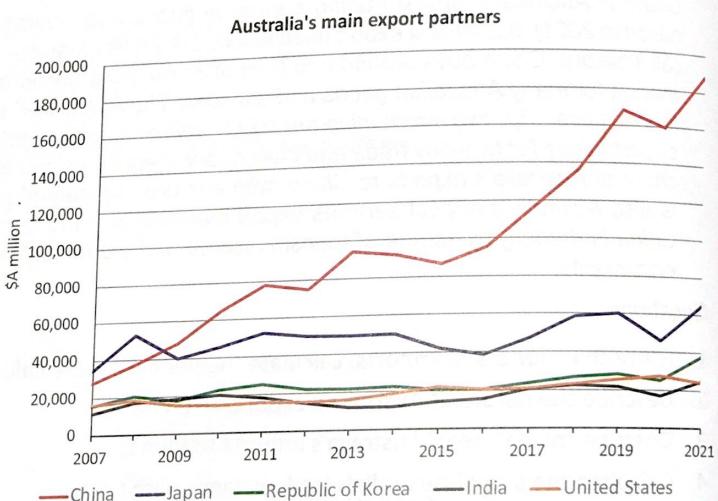
**Questions**

1. Why has global demand for lithium suddenly increased?
2. In which month did lithium exports first exceed \$1 billion?
3. Calculate the total value of lithium exports for the 2021-22 financial year.

**Data interpretation**

Refer to the graph showing Australia's main export partners.

1. Describe the change in Australia's five largest export partners between 2007 and 2021.
2. Explain why there are no European economies represented in the graph.
3. In what year did China overtake Japan to become Australia's largest export market?
4. Given that total exports equalled \$520 billion in 2021, calculate the approximate export share of each country in the graph.

**Extended responses**

Each of the following questions should be answered in 2-3 pages of writing. Include diagrams and examples where appropriate. Pay attention to the allocation of marks when writing your answer.

1. a. Discuss the factors that affect Australia's trade intensity. (10 marks)  
b. Explain the reasons for the emergence of China as Australia's main trading partner. (10 marks)
2. Describe the composition of Australia's trade (both exports and imports) and explain the importance of trade to the Australian economy. (20 marks)