Western Australia is the largest iron ore producer and exporter in the world, accounting for 37 per cent of global production and 53 per cent of global exports in 2016. The Pilbara region accounted for 94 per cent of Australia’s iron ore exports in 2016. The iron ore industry is a large part of Western Australia’s economy, accounting for 65 per cent of the value added by its mining industry and 15 per cent of its gross state product in 2015-16.

Western Australia exports all of its iron ore production because iron ore is used almost exclusively for steel making and there is no major steel production in Australia. Western Australia’s iron ore producers invested tens of billions of dollars in new mines and associated rail and port infrastructure in response to growth in Chinese steel production over the past decade. As a result, Western Australia’s iron ore production and exports have increased, mainly from the major iron ore miners of Rio Tinto, BHP Billiton and Fortescue Metals Group. and the iron ore industry’s share of Western Australia’s gross state product more than doubled, increasing from 7 per cent in 2005-06 to 15 per cent in 2015-16.

China’s increasing demand for iron ore resulted in the iron ore price rising from around US$30 a tonne in 2002-03 to around US$150 a tonne in 2011-12. Western Australia’s increase in iron ore production displaced higher cost production in China and, combined with lower demand from Chinese steel makers, led to the iron ore price falling by 42 per cent in 2014-15 and a further 28 per cent in 2015-16. The daily iron ore price fell to as low as US$38 a tonne in December 2015, but increased during 2016 and early 2017, with the daily iron ore price reaching US$95 a tonne in February 2017. Prices have since fallen; the monthly average price for May 2017 was US$62 a tonne.

Western Australia’s iron ore industry remains globally competitive with high quality reserves, low cost production and established, long-term markets in China, Japan, Korea and Taiwan.

Western Australia’s iron ore sales rose from 243 million tonnes to 757 million tonnes between 2005-06 and 2015-16, at an annual average rate of 12 per cent.

Western Australia’s sales of iron ore are expected to rise as mine construction and expansions are completed, but the rate of increase will be slower than the past ten years.

The WA Treasury Pre-election Financial Projections Statement forecasts Western Australia’s iron ore sales to increase to 830 million tonnes by 2019-20.

Western Australia exports nearly all the iron ore it produces to China, Japan, Korea and Taiwan.

China accounted for 82 per cent of Western Australia’s iron ore exports in 2016, followed by Japan (9 per cent), Korea (6 per cent) and Taiwan (2 per cent).

Western Australia’s iron ore exports to China rose 6 per cent to 652 million tonnes in 2016, below annual average growth of 18 per cent over the past ten years.

Western Australia’s iron ore exports to Japan rose 3 per cent to 73 million tonnes in 2016.

Western Australia’s iron ore exports to Korea fell 1 per cent to 51 million tonnes in 2016.

Western Australia’s iron ore exports to Taiwan rose 12 per cent to 17 million tonnes in 2016.
Western Australia accounted for 37 per cent (741 million tonnes) of global iron ore production and 52 per cent of world exports in 2015. Western Australia exported all of its iron ore production in 2015.

Brazil accounted for 21 per cent (423 million tonnes) of global iron ore production and 25 per cent (366 million tonnes) of world iron ore exports in 2015. Brazil exported 87 per cent of its iron ore production in 2015.

India accounted for 7 per cent (143 million tonnes) of global iron ore production in 2015, taking over from China as the third largest producer of iron ore. India exported 3 per cent of its iron ore production in 2015.

China accounted for 6 per cent (124 million tonnes) of global iron ore production in 2015. China used or stockpiled all of its iron ore production in 2015.

Rio Tinto, BHP Billiton and Fortescue Metals Group are the largest iron ore producers in Western Australia.

Brazilian company, Vale, is the world’s largest iron ore producer, followed by Rio Tinto, BHP Billiton and Fortescue Metals Group.

Rio Tinto’s iron ore sales from Western Australia rose 3 per cent to 328 million tonnes in 2016.

BHP Billiton’s iron ore sales from Western Australia were unchanged at 261 million tonnes in 2016.

Fortescue Metals Group’s iron ore sales from Western Australia rose 3 per cent to 171 million tonnes in 2016.

Port Hedland, Cape Lambert and Dampier are the largest iron ore export ports in Western Australia. In 2016, iron ore exports from:

- Port Hedland rose 7 per cent to 456 million tonnes (57 per cent of Western Australia’s iron ore exports).
- Cape Lambert rose 5 per cent to 172 million tonnes (22 per cent of Western Australia’s iron ore exports).
- Dampier were unchanged at 130 million tonnes (16 per cent of Western Australia’s iron ore exports).

In 2015, Rio Tinto completed expansions at Cape Lambert and Dampier, raising capacity to 210 and 150 million tonnes respectively. By 2018 capacity at Port Hedland – the world’s largest bulk export port – could reach 495 million tonnes.
Iron ore and steel product prices

- The monthly average spot price for iron ore imports to China (including shipping costs) fell 11 per cent to US$62.4 a tonne in May 2017. The annual average price rose 5 per cent to US$58.4 a tonne in 2016 (down 28 per cent to US$51.6 a tonne in 2015-16).
- The monthly average price of steel products rose 1 per cent in May 2017. The annual average price rose 11 per cent in 2016 (down 21 per cent in 2015-16).
- The WA Treasury Overview of the Economic and Fiscal Outlook forecasts the average spot price for iron ore imports to China will be US$73.7 a tonne in 2016-17. The annual average iron ore price is expected to fall to US$68.9 a tonne in 2017-18, falling further to US$64.7 a tonne in 2019-20.

Value of iron ore sales and royalty receipts

- Iron ore accounted for 50 per cent of the value of Western Australia’s merchandise exports and 59 per cent of the value of total minerals and petroleum sales in 2016.
- The value of Western Australia’s iron ore sales rose 9 per cent to $53.9 billion in 2016, compared with annual average growth of 14 per cent over the past ten years.
- Iron ore royalty income accounted for 14 per cent of total WA Government revenue in 2015-16.
- In 2016 iron ore accounted for 77 per cent of total royalty income (including North West Shelf grants).
- Western Australia’s iron ore royalties fell 6 per cent to $3.6 billion in 2016, due to the fall in the iron ore price, partially offset by higher production and a lower $A/$US exchange rate.

Direct employment in the iron ore industry

- Iron ore accounted for 50 per cent of direct employment in Western Australia’s minerals mining industry in 2016.
- Iron ore’s share of Western Australia’s direct minerals mining employment rose from 26 per cent to 50 per cent between 2006 and 2016.
- Direct employment in Western Australia’s iron ore industry fell 5 per cent to 52,315 in 2016, the second successive annual decline.

Source: WA Department of Mines and Petroleum, Resource Data Files.
Iron ore accounted for 50 per cent of direct employment in Western Australia’s minerals mining industry in 2016.

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Direct employment in Western Australia’s iron ore industry fell 5 per cent to 52,315 in 2016, the second successive annual decline.

Western Australia is among the world’s lowest cost iron ore seaborne exporters.

After normalising the production costs of different iron ore products to a common benchmark, the average total cash cost of Western Australia’s iron ore exports in 2016 was US$22 a tonne (free on board). On this measure, Western Australia was the third lowest cost iron ore seaborne exporter in 2016, behind Brazil and South Africa.

As the iron content of Western Australia’s iron ore exports are (on average) close to the benchmark, the normalised cost of production in 2016 was similar to the actual cost of production (US$21 a tonne). The adjustment to normalise price is greater for other countries because of the different quality and type of iron ore products these countries export.

Normalised costs will vary over time with changes to actual costs, exchange rates and the relative prices for different iron ore products.

Western Australia’s major iron ore ports are close to the largest iron ore importers in Asia, reducing shipping costs relative to its competitors.

Spot freight rates from Western Australia to China and Japan for 2015 averaged US$4.91 a tonne, 56 per cent lower than the freight rate from Brazil (US$11.18 a tonne).

The annual average spot freight rate from Western Australia to China and Japan fell 41 per cent in 2015. The fall in freight rates was due to lower iron ore demand, an oversupply of capesized vessels and lower fuel costs.

The difference between iron ore shipping costs to Asia from Western Australia and Brazil may narrow in coming years if Brazil increases its Valemax fleet. Valemaxes are twice as big as the capesize vessels used to ship iron ore from Western Australia, reducing per tonne shipping costs.