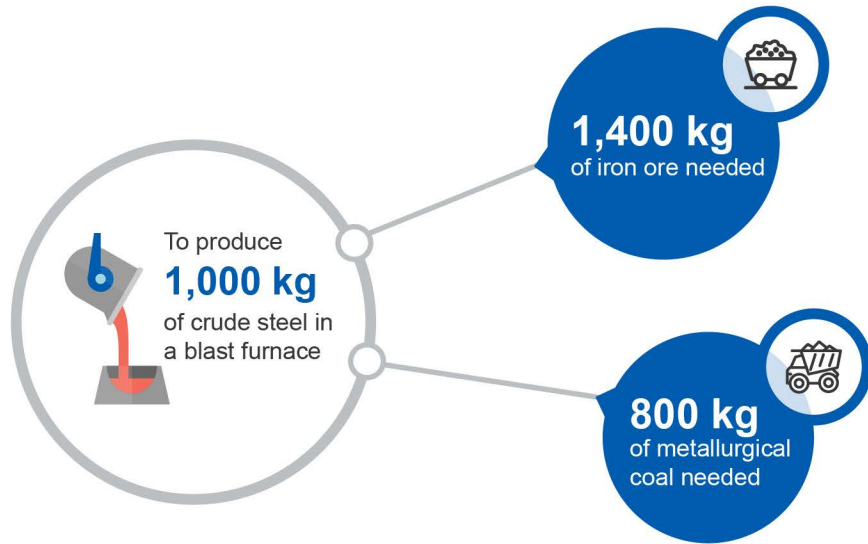
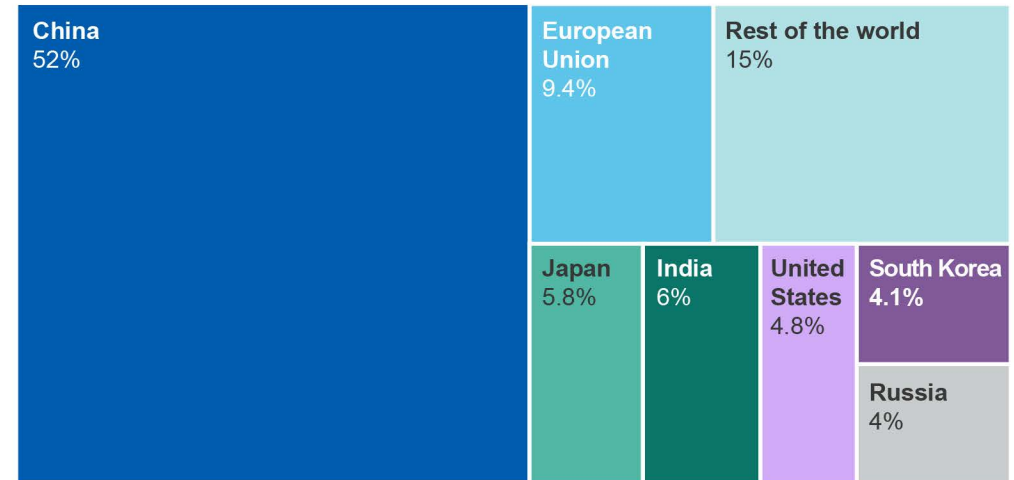


Steel

Resources and Energy Quarterly December 2019



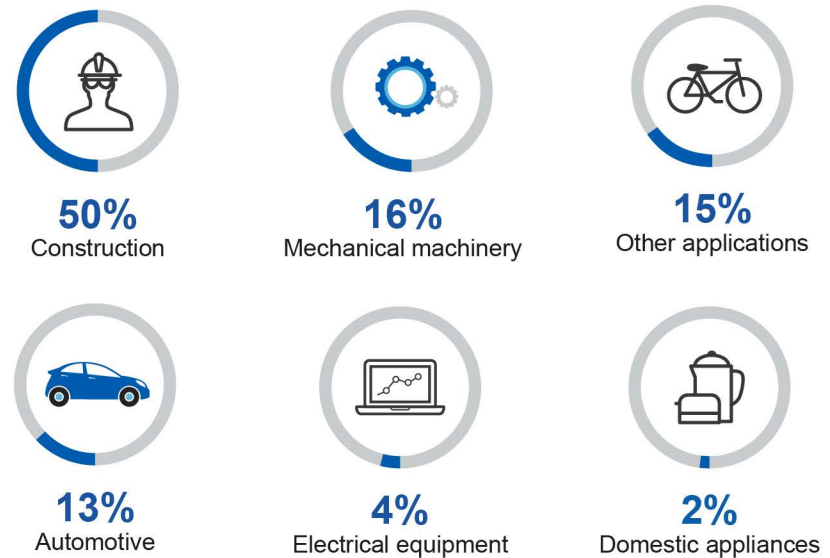
Major steel producers, 2018



Steel consumption per capita (kilograms per person), 2017



Steel use by sector



3.1 Summary

- World steel production eased off in late 2019, as global economic uncertainty continued to affect steel markets.
- Trade tensions and a recent slowdown in automotive production have resulted in a more fraught outlook for steel production.
- World steel production is forecast to grow slowly over the outlook period, increasing by around 1 per cent between 2019 and 2021.

3.2 World consumption and production

Steel markets are responding to trade tensions

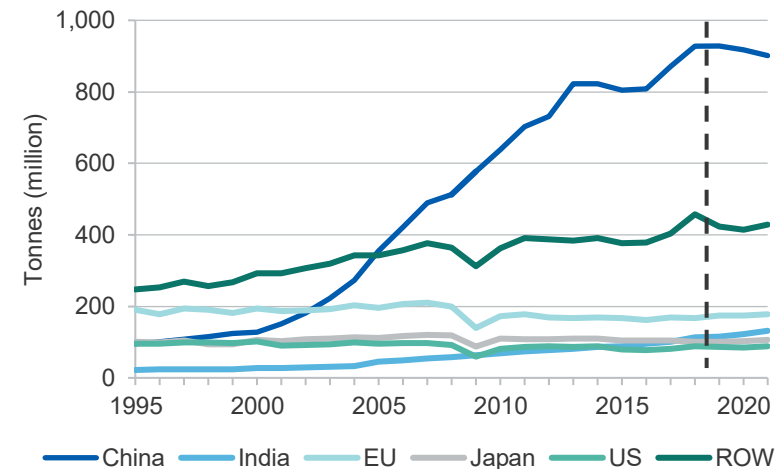
Automotive production trended down across most countries over the second half of 2019, resulting in more stagnant steel demand towards the end of the year. The causes of slowing automotive demand include falling consumer sentiment, lack of certainty over vehicle emissions policies in many countries, and postponements of purchasing decisions amidst the expected rise in electric vehicle sales. Industrial production growth has now slipped below broader economic growth across much of the world.

European Union (EU) steel output fell in October (for the 10th successive month), as well as in Japan and South Korea. Growth is also softening in India, and appears to have halted in the US, though this may be just a temporary downturn (Figure 3.1). Growth in Vietnam is accelerating, with steel output increasing by almost a third over the past 12 months.

Chinese steel markets are defying the broader trend

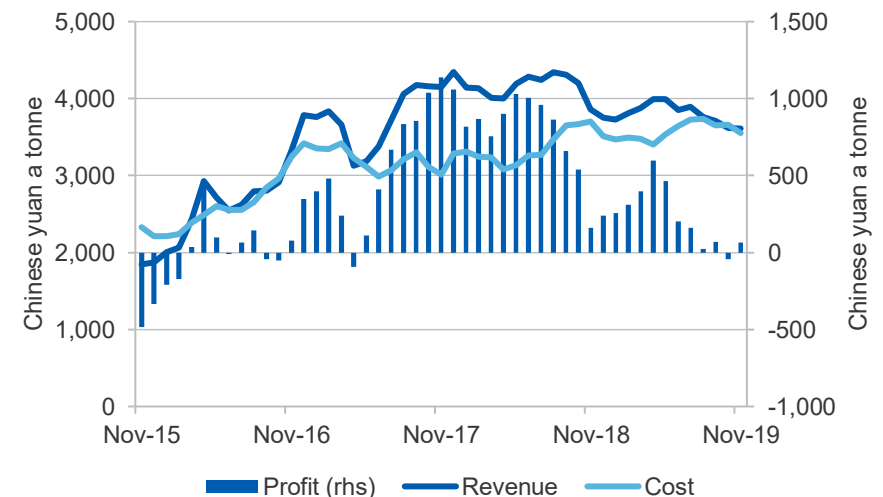
Chinese steel demand is more tilted towards infrastructure and construction than in most other countries, and government backing for these sectors has kept Chinese steel demand relatively strong, though margins have become squeezed (Figure 3.2). There have been signs of increasing weakness in recent months, with annual growth in China's Fixed Asset Investment dropping to 5.2 per cent in October. This is a 20-year low, and falls short of expectations, which had been for growth of 5.4 per cent.

Figure 3.1: Steel production by region



Source: World Steel Association (2019); Bloomberg (2019)

Figure 3.2: Steel industry profits in China



Notes: Monthly average for integrated basic oxygen furnace (BOF) steel mills
Source: Bloomberg (2019) China BOF Steel Profit Index

Industrial production also grew at a relatively soft rate of 4.7 per cent over the year to October, similarly falling short of expectations.

Chinese steel production eased to 2.6 million tonnes a day in October, and scheduled winter production cuts — while less severe than observed in previous years — make it unlikely that steel production will grow in any significant way over the upcoming March quarter 2020.

Global steel production is entering an uncertain period

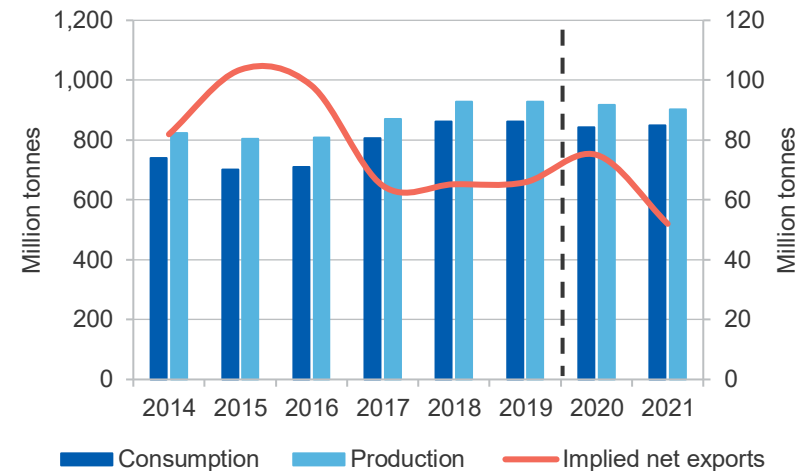
Global steel production is expected to have eased marginally in 2019. Chinese production, which dominates the global steel market, is forecast to have been steady in 2019, following years of strong growth (Figure 3.3).

Steel production in China is heavily state supported, but faces significant downside risks, due to broader global uncertainty (Figure 3.4); tighter environmental regulations are also likely to play a role. The Chinese Government has announced new air quality targets, with concentrations of particles below 2.5 microns to fall by 4 per cent through the year, and heavy pollution days set to fall by 6 per cent. While substantial, these goals were revised down from earlier drafts, and may be managed in most cases without significant impact on production.

Liuzhou Steel and Chanjiang Steel are set to close facilities by 2021, and production is scheduled to fall at the Tianjin Rochcheck Steel Group, where a blast furnace plant is set to close. Several facilities are also reducing output, including in Hebei Province, where production is being reduced by 14 million tonnes, and Shanxi, where steel output is set to fall by 1.75 million tonnes.

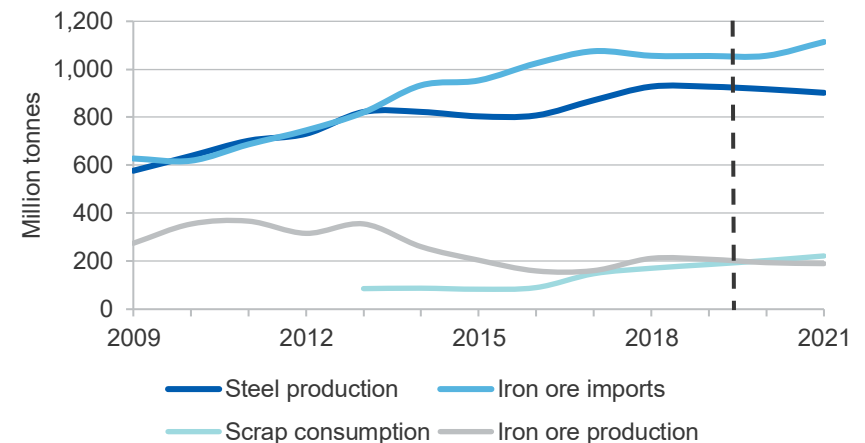
The premium for high-grade iron ore has eased in recent months, perhaps reflecting an attempt by Chinese steel mills to reduce costs. However, production is likely to stay high, with steel output high at most facilities and winter production cuts likely to be modest.

Figure 3.3: China's steel consumption, production and exports



Source: Bloomberg (2019) World Steel Association; Department of Industry, Innovation and Science (2019)

Figure 3.4: Forecast for Chinese steel inputs



Source: Bureau of International Recycling (2018) World Steel Recycling in Figures 2013–2017; Bloomberg (2019) World Steel Association; Department of Industry, Innovation and Science (2019)

Emerging economies in Asia are becoming increasingly important

Growth in emerging Asia is dominated by India and Vietnam, who have unveiled detailed plans to develop much larger steel industries.

Due to its size, India has become a pivotal player in global steel production over the last five years (Figure 3.5). However, Indian production faces an array of challenges which include tight margins, ample international supply, domestic economic slowdown, and global trade tensions. Near-term Indian production may also be disrupted by the expiry of 232 mining leases in March 2020.

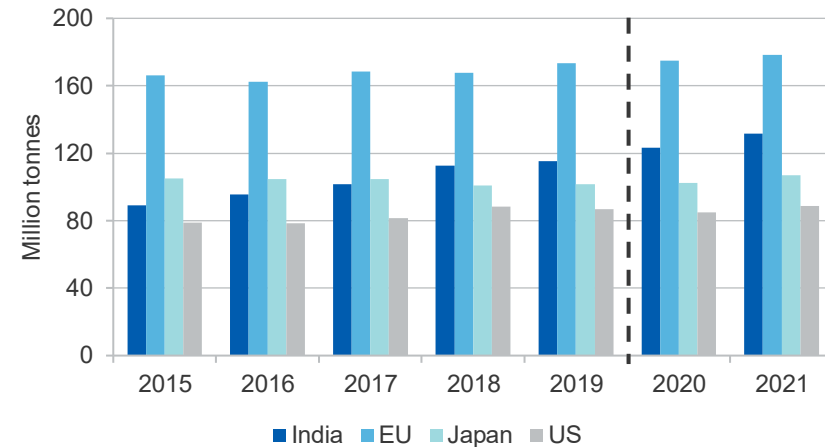
Steel production is easing elsewhere

Steel production in the EU faces some similar challenges, with potential oversupply and trade tensions leading to falling profitability. European steel production in 2019 is likely to decline by about 3 per cent. Tata Steel — a large steelmaker based in Mumbai — announced 3,000 jobs would likely be cut in the United Kingdom (UK) and the Netherlands, as a result of the deteriorating outlook. This follows the collapse of British Steel — the second largest steelmaker in the UK — which went into liquidation in May and subsequent takeover by the Chinese-owned Jingye Group. On the upside, provisional signs are emerging that the recent decline in automotive production may be starting to reverse in parts of Europe: if this trend continues, steel production may track up again in 2020.

In Japan, the steel outlook remains relatively modest, largely due to a decline in manufacturing growth during 2019. However, recent stimulus announcements may provide some upside in 2020. Steel production in the US has also lost momentum in recent months, reflecting the impact of lower global automotive production and trade tensions. However, most US steelmakers remain profitable and more resilient than those in Europe.

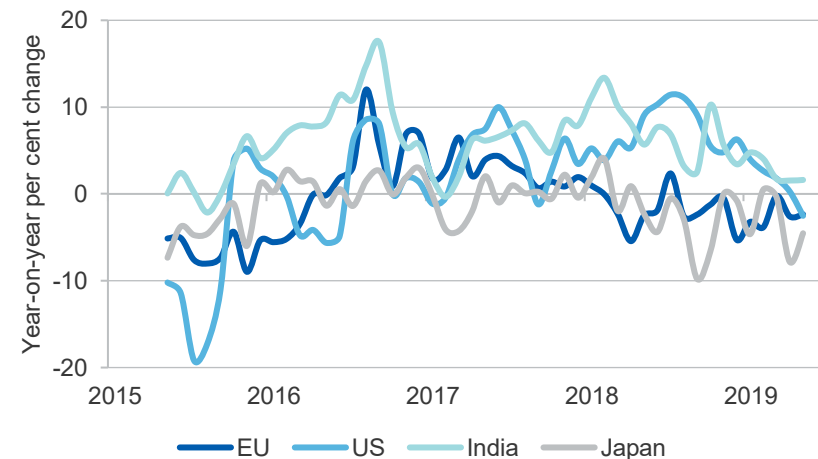
Steel production around the world will likely continue to track closely with global industrial production and automotive construction, making these measures crucial to the fortunes of global steelmakers. Steelmakers in most countries are ending 2019 with lower profits, tighter margins and a more negative production trend than at the start of the year (Figure 3.6).

Figure 3.5: Steel production by region



Source: World Steel Association (2019); Department of Industry, Innovation and Science (2019)

Figure 3.6: Steel production growth by region



Source: Bloomberg (2019) World Steel Association

Table 3.1: World steel consumption and production

Crude steel consumption	Million tonnes				Annual percentage change		
	2018	2019 ^s	2020 ^f	2021 ^f	2019 ^f	2020 ^f	2021 ^f
China	862	862	842	850	-0.1	-2.3	1.0
European Union 28 ^g	181	180	180	180	-0.2	-0.2	-0.2
United States	110	109	108	109	-1.0	-1.0	1.6
India	108	114	121	122	6.0	6.0	0.9
Japan	70	70	70	72	0.2	0.2	2.8
Russia	59	59	59	59	-0.3	-0.4	-0.4
South Korea	42	42	42	42	0.3	0.0	-0.1
Brazil	23	23	23	24	1.7	1.5	1.5
World steel consumption	1812	1815	1800	1848	0.2	-0.8	2.6
Crude steel production	2018	2019 ^s	2020 ^f	2021 ^f	2019 ^f	2020 ^f	2021 ^f
China	928	928	917	902	0.0	-1.2	-1.6
European Union 28	168	174	175	178	3.4	0.9	1.9
India	101	102	103	107	0.8	0.9	4.4
Japan	113	115	123	132	2.3	6.9	6.9
United States	89	87	85	89	-2.0	-2.0	4.1
Brazil	72	72	72	72	0.1	0.0	-0.1
Russia	72	71	70	70	-2.1	-0.4	-0.4
South Korea	33	34	34	35	3.8	0.8	0.7
World steel production	1855	1828	1817	1837	-1.5	-0.6	1.1

Notes: **f** Forecast; **g** European Union 28 encompasses the aggregate output and demand for the 28 states which comprise the European Union; **s** Estimate.

Source: World Steel Association (2019); Department of Industry, Innovation and Science (2019)