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Executive Summary

Steel market conditions have continued to recover in most regions following the market weakness of 2015, but it is uncertain whether the momentum will continue. Important headwinds remain and include financial vulnerabilities of steel firms and the presence of distortive government support and subsidisation. This document provides an overview of recent steel market developments, the latest developments in global steelmaking capacity and a brief overview and outlook of regional markets, based on information available until December 2017. To summarise, the following key developments are discussed in this report.

- The economic situation: The economic recovery seems to have broadened, and risks to the downside, although always present, now seem to be subdued. The OECD projects world GDP growth to reach 3.6% in 2017, 3.7% in 2018, before decelerating slightly to 3.6% in 2019.
- Steel demand developments: Market data released in 2017 suggest that the recovery in steel demand that commenced during the second half of 2016 continued in 2017, with global steel production registering strong growth and monthly indicators of steel demand increasing in many economies. However, important structural imbalances remain unaddressed.
- Steel exports: After declining slightly in 2016, global steel exports fell by almost 7% in the first eight months of 2017.
- Steel prices: Steel prices continued to increase in 2017, despite a correction during the first half of the year. Iron ore and coking coal prices rebounded in the second half of the year following a weak start in early 2017, while ferrous scrap prices have remained buoyant.
- Steel demand forecasts: Forecasts by the World Steel Association, released in October 2017, suggest that global steel demand will continue to grow in 2018, albeit at a slower pace (1.6%) compared to 2017. Over the longer term, factors such as the circular economy and digitalisation trends could weigh on steel demand growth.
1. The economic outlook

According to the November 2017 OECD Economic Outlook, world GDP growth has become more synchronised across economies, and is projected to have reached 3.6% in 2017. Growth is forecast to pick up slightly to 3.7% in 2018, followed by a slight deceleration to 3.6% in 2019 (see Table 1 below for the latest available OECD GDP growth forecasts).

In the euro area, the recovery is broad-based, driven by both domestic and external demand. The ongoing global recovery in output and trade and accommodative monetary policy, and reduced political uncertainty are important factors contributing to growth. Euro area GDP growth was forecast at 2.4% in 2017, and is expected to ease to 2.2% in 2018 and 1.9% in 2019. A high level of indebtedness in both the household and the corporate sector, as well as a large stock of non-performing loans in some economies could negatively affect future growth.

In the United States (U.S.), GDP growth projections stand at 2.2% in 2017, 2.5% in 2018, and 2.1% in 2019. The OECD forecast assumes that the U.S. fiscal stance would become more accommodative in 2018, with the introduction of lower corporate and personal taxes, which would support both domestic consumption and investment. The main downside risks are elevated asset prices, including in the housing sector, high leverage in the corporate sector and potential trade frictions that could jeopardise the growth-inducing effects of global value chains of large U.S. corporations.

In Japan, economic growth is projected to have picked up to 1.5% in 2017, supported by stronger international trade and fiscal stimulus. Although some degree of fiscal consolidation should resume in 2018, growth is projected to remain close to 1% in 2018 and 2019, as export growth remains robust. The high level of government debt represents the main downside risk, as it could end up reducing investor confidence.

In emerging economies, economic growth rates vary depending on the degree of exposure to commodity markets and prices, progress in the implementation of structural reforms, the extent of financial vulnerabilities, and the different demand-side policies being implemented. In the People’s Republic of China (hereafter “China”), real GDP growth is projected at 6.8% in 2017, 6.6% in 2018 and 6.4% in 2019. Economic growth is being supported by a rebalancing towards services as well as by some strategic industries. The Beijing-Hebei-Tianjin Corridor and the “One Belt, One Road” initiative are also expected to support domestic growth and to boost trade and investment ties with participating economies. Chinese domestic house price increases have decelerated, although price levels remain elevated. Potential headwinds to economic growth going forward include a real estate market downturn, rising non-performing loans due to a high level of corporate indebtedness (in particular for state-owned enterprises) and the effect of trade frictions. Corporate deleveraging is necessary to restore balance sheets amid rising debt service costs, yet monetary tightening alone is unlikely to restore financial stability.

In India, economic growth should regain strength, gradually recovering from the transitory adverse impact of rolling out the Goods and Services Tax (GST) and measures to reduce the black market economy, such as demonetisation. The OECD forecast points to GDP growth rates of 6.7% in 2017, 7.0% in 2018, and 7.4% in 2019, despite relatively weak manufacturing and investment activity. In the longer run, the GST will boost corporate investment, productivity and growth by creating a single market and reducing the cost of
capital equipment. Investment will be further supported by the plan to recapitalise public banks and by the new road plan.

In the Russian Federation (hereafter “Russia”), the economy is projected to continue growing only at a modest pace, with real wages continuing to decline and fiscal and monetary policy remaining tight. Russian GDP is expected to have grown by 1.9% in 2017, with growth projected to stay at 1.9% in 2018 and fall to 1.5% in 2019. Stable oil prices, better business sentiment and improved credit conditions are expected to support investment and consumption, but low productivity, a shrinking workforce, a relatively strong rouble and international sanctions will continue to weigh on economic activity.

In Brazil, the economy is emerging from eight quarters of GDP contraction, but the recovery is projected to remain weak and slow. Growth is expected to strengthen further. The OECD’s forecast for GDP growth in Brazil stands at 0.7% for 2017, 1.9% for 2018 and 2.3% for 2019. The economy is benefitting from policies that are supporting the recovery, and from a decline in inflation which will leave more room for expansionary monetary policy. This, in turn, would boost investment. Nevertheless, high corporate indebtedness, and possible deterioration in the quality of loans, poses some risks to the outlook.

Table 1. OECD Economic Projections, December 2017

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
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<th>2018</th>
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<td>2.6</td>
<td>4.8</td>
<td>4.1</td>
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</tbody>
</table>

Note: 1. Moving nominal GDP weights using purchasing power parities.
2. Fiscal years starting in April.

World industrial production growth, which picked up from its 2015 lows and reached 3.7% in June 2016, has remained relatively stable since then (Figure 1). World industrial production growth has not only become more stable, but is now also more even across
economies—the (negative) gap between the growth rate of advanced economies and the growth rate of emerging and developing economies, observed for many years, has declined in recent months.

Global trade and commodity prices have continued to pick up, with their growth rates converging recently after years of decoupling.

**Figure 1. World industrial production, trade, and trade prices**

% change from one year earlier

![Graph showing industrial production, trade, and trade prices](image)

*Source: Netherlands Bureau for Economic Policy Analysis (CPB).*

Steel market sentiment has continued to improve since January 2017, possibly reflecting the increase of steel prices and improvements in steel demand. However, the improvement could turn out to be temporary given the extent of the unaddressed underlying structural imbalances coupled with sluggish demand growth in the years to come.

The global Steel Purchasing Managers’ Index (PMI), compiled monthly by Markit Economics, has been gradually rising since August 2015. In December 2017, it stood at 54.9 points, thus above the threshold reading of 50 that separates contraction from expansion (Figure 2, panel A). Since mid-2016, Markit Economics’ steel PMIs have been stronger for Europe than the U.S. and Asia, but the differences have narrowed slightly over the last month, with a decline observed in Europe and in the U.S. (Figure 2, panel B).
Figure 2. Steel Purchasing Managers’ indices (PMIs)

A. Global Steel PMI

B. Steel PMI, selected economies

Source: Markit Economics.
2. Developments in steel markets

2.1. Steel consumption

Global steel consumption

After declining during 2015, demand for steel products around the world recovered in 2016 to 1 516 million metric tonnes (mmt). Global steel demand in 2016 was still below the recent peak attained in 2014 (1 547 mmt), but the data suggest that the recovery observed from the second quarter of 2016 continued in 2017 (Figure 3).

Figure 3. Apparent steel use (finished steel products)


Figure 4 presents the year-on-year (y-o-y) percent change in the combined consumption of hot-rolled products for eight of the world’s largest steel-consuming economies in Asia, the Commonwealth of Independent States (CIS) region, Europe, North America, and South America, which together account for around 70% of global steel demand. The y-o-y growth figure for the first four months in 2017 was a robust 6.8%, compared to the same period in 2016 according to International Steel Statistics Bureau (ISSB).\(^2\)
Steel market developments – Q2 2018

Figure 4. Consumption of hot-rolled steel products, major economies

Y-o-y % changes

Note: Combined consumption of hot-rolled steel products of the following economies: Brazil, China, Germany, India, Japan, South Korea, Russia and the US. Consumption of hot-rolled products is defined as the sum of production and net imports.

Source: International Steel Statistics Bureau (ISSB).

Americas

Steel demand is recovering in Latin America after a very difficult year in 2016, when demand contracted by 13.6%, driven by sharp declines in Brazil (14.6%) and Argentina (20.8%). According to the steel association Alacero (2017[1]), finished steel consumption in Latin America grew by 4% in January-October 2017 compared to the same time period in 2016. In Brazil, the largest steel-consuming economy in South America, steel demand recovered by 5% in January-October 2017. Steel demand also increased in Argentina (6%) and Colombia (2%) during the same period. Conversely, the Plurinational State of Bolivia (hereafter “Bolivia”), the Bolivarian Republic of Venezuela (hereafter “Venezuela”) and Ecuador recorded declines of 18%, 15% and 6% respectively during January-October 2017, in year-on-year terms.

In North America, the U.S. monthly steel consumption indicator increased by 2% during the first four months of 2017, year-on-year. The recovery in steel demand is expected to continue. Although auto sales have recently decelerated, the construction sector in the U.S. is performing well and contributing to the growth of steel demand.

Asia

Steel demand in China, which accounts for around 45% of global steel demand, showed some growth in 2016, after two consecutive years of decline. In 2016, Chinese apparent use of finished steel products stood at 681 mmt, 1.3% above 2015 levels, but about 7.4% below the level reached in 2013. The recent growth in Chinese steel demand seems to have benefited from stimulus measures affecting downstream sectors such as construction. The consumption of hot-rolled products in China registered a strong y-o-y growth rate of 8.7% in the first four months of 2017. Strong growth in Chinese steel demand in 2017 partly
reflected the one-off effect on steel demand resulting from the closure of induction furnaces, because demand for steel supplied by these induction furnaces was not previously captured by the official statistics.\(^3\)

The monthly steel consumption indicator in India levelled off during the first four months of 2017, remaining flat compared with the same period in 2016. A slowdown in new domestic infrastructure projects might be leading to weakness in consumption of long products. In addition, recent policies by the Indian government, in particular, the demonetisation of banknotes in late 2016, which consisted in the replacement of the old denomination banknotes (INR 500 and INR 1 000) by brand new ones (INR 500 and INR 2 000) and the implementation of a Goods and Services Tax (GST) in July 2017, which works as a tax on value-added, might have affected steel demand in the short term.\(^4\)

In the ASEAN (Association of Southeast Asian Nations) region, steel demand during the first half of 2017 recorded a moderate decline mainly as a result of falling demand in Thailand and Viet Nam, which account for 54\% of steel demand in the ASEAN region (SEAISI, 2017\(^{[2]}\)). According to the South East Asia Iron and Steel Institute (SEAISI), apparent steel consumption in ASEAN decreased by 6\% during the first half of 2017 compared to the same period in 2016. Steel demand in Viet Nam fell sharply, by 11\% y-o-y, the first decline following rapid growth during the previous five years. This could be attributable to the slowdown in construction of factories and warehouses due to the increase in construction material prices. Steel demand in Thailand also recorded a significant decline of 16\% y-o-y in the first half of 2017, due to destocking following a strong build-up of inventories in 2016 on speculation that steel prices would rise (SEAISI, 2017\(^{[2]}\)). Malaysia’s apparent steel consumption declined by 7.7\% y-o-y mainly due to weaker demand for long steel products used mainly in the construction sector. Steel demand in Indonesia and the Philippines increased by 4\% and 9.8\% y-o-y, respectively, in the first half of 2017, supported by robust growth in demand for flat products used in manufacturing. Singapore’s steel consumption recovered by 14\% in the first half of 2017, after a significant decline of 29\% in 2016.

In Japan, data on steel demand for ordinary finished steel products by domestic steel-consuming sector suggest that Japanese steel demand increased slightly during January to October 2017, growing by 1.9\% from the same period of the previous year (JISF, 2017\(^{[3]}\)). Orders from the construction sector generally remained strong, mainly driven by civil engineering activity. In addition, orders for steel from manufacturing sectors, especially the automotive and machinery equipment sectors, also contributed to Japanese steel demand growth in 2017.

In Korea, steel consumption increased by 1.2\% in the first half of 2017 compared to the same period a year earlier. This was due to firm investment in the residential construction sector, according to the Korea Iron and Steel Association (KOSA, 2017\(^{[4]}\)).

**CIS**

In the Commonwealth of Independent States (CIS) region, Russian steel demand is likely to continue to pursue a moderate recovery in 2017. According to data from the Russian steel manufacturer EVRAZ (2017\(^{[5]}\)), steel consumption in Russia increased by 5\% to 18 mmt in the first half of 2017 compared to the same period in 2016, mainly driven by growth in demand for long products. According to Ukrmetalurgprom (2017\(^{[6]}\)), domestic steel consumption in Ukraine was 1.7 mmt during January to July 2017, a significant decrease of 15.6\% compared with the same period in 2016.
European Union

In the European Union (E.U.), the construction (particularly the residential housing segment) and the steel tube sectors posted strong output growth (the latter mainly driven by a number of offshore and onshore pipeline projects), while the automotive industry saw output growth stabilise in the second quarter of 2017 after growing rapidly during the first quarter of the year (Eurofer, 2017[7]). A recent market report by EUROFER indicates that real steel consumption during the second quarter of 2017 grew by 1.5% y-o-y, and noted that 2017 would continue with rather strong market fundamentals.5

2.2. Steel production

Growth in world crude steel production maintained its momentum in 2017, with a solid 5.2% expansion. Nevertheless, there are significant differences in growth rates among regions (Table 2).

Total production in the North America region was 4.8% in 2017, with Canada and Mexico registering the strongest pace of production growth (8.3% and 6.3%, respectively) and the U.S. experiencing strong, but somewhat lower growth in 2017 (4.0%).

In the E.U., steel production maintained its upward momentum, increasing by 4.1% in 2017. Steel output in the United Kingdom (U.K.) contracted by 2.6%. The largest increases in steel production were seen in Poland (14.8%), France (7.6%) and Spain (6.2%), while Italian and German production grew at a firm yet more subdued pace, reaching 2.9% and 3.5%, respectively, in 2017.

In the “Other Europe” region, steel output increased by 13.1% in 2017, while economies in the CIS region experienced a stagnation of steel production growth (0.0%). Growth patterns differed significantly between countries in these regional groupings; for example, Turkish steel output expanded by 13.1% while Ukrainian production fell by 6.4% in 2017. The decrease in Ukraine's overall crude steel production partly reflects developments in the Donetsk and Lugansk regions (SBB, 2018[8]). Ukrainian production continues to suffer from instability and infrastructure damage in the eastern part of the country, as well as challenging economic conditions in general. Russian output increased by a modest 1.3% for 2017 as a whole, reflecting the late timing of the pick-up in steel production that year.

Crude steel production increased by 5.2% in Asia in 2017, with China's steel production growing by 5.0%, Korea's by 3.7%, and Chinese Taipei's by 6.9%. India continued to exhibit solid steel production growth (6.2%), despite a slowdown during the first months of the year. China's steel production started to decline around mid-November 2017 as mills in the northern and eastern provinces curtailed output for the winter heating season, in line with market expectations. Japanese steel production, on the contrary, stagnated in 2017 (−0.1%).

In South America, the industry is rebounding from its previously sharp decline, with steel production growing at a rate of 8.7% in 2017. The two largest steel-producing economies, Brazil and Argentina, both experienced a marked recovery in steel production by 9.9% and 12.1%, respectively, largely due to the low base of comparison the previous year, whereas Venezuelan production continued to fall (-15%).

In the Middle East, production increased by 11.8% in 2017, led by the Islamic Republic of Iran (hereafter “Iran”) (21.4%). Saudi Arabia steel production, on the contrary, contracted by 12.7%. African steel production has increased by 15.9% y-o-y, driven by a very strong
rebound in Egypt (35.0%). In South Africa, steel production rebounded after a decline during the first half of 2017, resulting in an overall 2.6% growth rate for 2017.

Table 2. World crude steel production developments in 2016 and 2017

<table>
<thead>
<tr>
<th>Region</th>
<th>Dec 2016 (thousand mmt)</th>
<th>2017 (thousand mmt)</th>
<th>% change, year-on-year</th>
</tr>
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<tr>
<td>EU</td>
<td>13 958</td>
<td>168 740</td>
<td>8.3%</td>
</tr>
<tr>
<td>Other Europe</td>
<td>3 493</td>
<td>40 621</td>
<td>12.3%</td>
</tr>
<tr>
<td>CIS</td>
<td>8 425</td>
<td>101 957</td>
<td>-4.2%</td>
</tr>
<tr>
<td>North America</td>
<td>9 504</td>
<td>115 955</td>
<td>5.1%</td>
</tr>
<tr>
<td>South America</td>
<td>3 865</td>
<td>43 728</td>
<td>24.5%</td>
</tr>
<tr>
<td>Africa</td>
<td>1 187</td>
<td>13 519</td>
<td>-18.4%</td>
</tr>
<tr>
<td>Middle East</td>
<td>2 698</td>
<td>32 449</td>
<td>-7.6%</td>
</tr>
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<td>Asia, of which:</td>
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<tr>
<td>China</td>
<td>92 875</td>
<td>1 165 112</td>
<td>1.0%</td>
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<td>66 151</td>
<td>845 030</td>
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<tr>
<td>World</td>
<td>136 543</td>
<td>1 688 065</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Source: World Steel Association, as of December 2017. Data are based on monthly production data and can differ slightly from annual data published after December of each year.

2.3. World steel trade

Monthly data from the International Steel Statistics Bureau (ISSB), taking into account internal E.U. and other inter-regional trade, point to global steel exports of 449 million tonnes during the first seven months of 2017 (annualised), down from 460 million tonnes in 2016. The world export ratio, i.e. exports as a share of crude steel production in 2017 (Figure 5.A), has been declining slightly when compared to levels in 2016. The world export ratio stood at 25.3% in July 2017, falling to the same level as in the beginning of 2014. Excluding intra-E.U. trade, monthly global steel exports have remained relatively stable at around 27 – 28 million tonnes during 2017. On the other hand, the export ratio (excluding intra-E.U. trade) has been declining, falling to 21.2% in July 2017, down from 23.9% in July 2016 (Figure 5.B).

Figure 5. World exports of steel: monthly volume (mmt) and export ratio (% of crude steel production), 3-month moving averages

A. Including intra – E.U. trade

B. Excluding intra – E.U. trade

Source: OECD calculations based on data from ISSB
Table 3 presents recent data on trade developments in the seven largest steel-producing economies and the rest of the world. Exports from China have declined by 29.1% y-o-y in the first eight months of 2017. Japanese exports have also declined, doing so by 8.7% in the same period. On the other hand, exports from the E.U. (external) and Russia edged up by 1.2% in the first eight months of 2017. Korean exports were up by 5.6% in the same time period. India recorded a significant increase in steel exports in 2017 (74.4%), supported by strengthening construction activity in ASEAN and neighbouring countries (SBB, 2017[9]). Steel exports from the U.S. also started to grow again in 2017, climbing by 13.1% after four years of decline.

Turning to steel imports, the E.U. is the largest steel importing economy. E.U. imports increased significantly during the first eight months in 2017, rising by 6.9% compared to the same period in 2016. The U.S. recorded a rapid increase in steel imports in the same period (20.2%). Steel imports into the ASEAN region have registered sharp growth in recent years. However, in the first eight months of 2017, Viet Nam and Thailand experienced a significant decline, by 15.4% and 18.4%, respectively. The volume of imported steel products in India and Korea also decreased by 16.1% and 11.6%, respectively, in the first eight months of 2017. On the other hand, Japan and Russia recorded significant increases in steel imports (9.6% and 53.6%, respectively) in the period January-August 2017. Chinese imports increased modestly, climbing 1.3% in the first eight months of last year.

Table 3. Steel trade developments across major steel producing economies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>53 587</td>
<td>75 609</td>
<td>29.1%</td>
</tr>
<tr>
<td>Exports</td>
<td>61 083</td>
<td>92 348</td>
<td>110 928</td>
<td>107 531</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>14 642</td>
<td>14 734</td>
<td>13 048</td>
<td>13 467</td>
<td>9 018</td>
<td>8 904</td>
<td>1.3%</td>
</tr>
<tr>
<td>EU-28 (external trade)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20 618</td>
<td>20 379</td>
<td>1.2%</td>
</tr>
<tr>
<td>Exports</td>
<td>36 087</td>
<td>36 451</td>
<td>32 998</td>
<td>29 251</td>
<td>19 604</td>
<td>19 379</td>
<td>1.2%</td>
</tr>
<tr>
<td>Imports</td>
<td>27 872</td>
<td>31 931</td>
<td>37 385</td>
<td>41 008</td>
<td>28 663</td>
<td>27 000</td>
<td>6.9%</td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24 954</td>
<td>27 318</td>
<td>-8.7%</td>
</tr>
<tr>
<td>Exports</td>
<td>42 406</td>
<td>41 247</td>
<td>40 720</td>
<td>40 452</td>
<td>24 954</td>
<td>27 318</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>5 345</td>
<td>6 657</td>
<td>5 850</td>
<td>5 965</td>
<td>4 266</td>
<td>3 883</td>
<td>9.6%</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 796</td>
<td>6 010</td>
<td>13.1%</td>
</tr>
<tr>
<td>Exports</td>
<td>12 182</td>
<td>11 581</td>
<td>9 620</td>
<td>8 920</td>
<td>8 796</td>
<td>6 010</td>
<td>13.1%</td>
</tr>
<tr>
<td>Imports</td>
<td>29 727</td>
<td>40 285</td>
<td>35 564</td>
<td>29 916</td>
<td>23 986</td>
<td>19 956</td>
<td>20.2%</td>
</tr>
<tr>
<td>Russian Federation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24 952</td>
<td>29 207</td>
<td>1.2%</td>
</tr>
<tr>
<td>Exports</td>
<td>23 598</td>
<td>26 939</td>
<td>29 605</td>
<td>31 096</td>
<td>29 452</td>
<td>25 207</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>6 453</td>
<td>5 644</td>
<td>4 309</td>
<td>4 389</td>
<td>4 047</td>
<td>2 634</td>
<td>53.6%</td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 394</td>
<td>5 959</td>
<td>74.4%</td>
</tr>
<tr>
<td>Exports</td>
<td>9 646</td>
<td>9 628</td>
<td>7 717</td>
<td>9 933</td>
<td>10 394</td>
<td>5 959</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>7 347</td>
<td>9 310</td>
<td>13 249</td>
<td>9 857</td>
<td>8 894</td>
<td>7 027</td>
<td>10.1%</td>
</tr>
<tr>
<td>Korea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21 179</td>
<td>20 065</td>
<td>5.6%</td>
</tr>
<tr>
<td>Exports</td>
<td>28 826</td>
<td>31 803</td>
<td>31 077</td>
<td>30 504</td>
<td>21 179</td>
<td>20 065</td>
<td></td>
</tr>
<tr>
<td>Imports</td>
<td>18 878</td>
<td>22 268</td>
<td>21 546</td>
<td>23 168</td>
<td>14 041</td>
<td>15 882</td>
<td>-11.6%</td>
</tr>
<tr>
<td>Rest of the World</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30 504</td>
<td>23 168</td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>59 887</td>
<td>63 369</td>
<td>54 615</td>
<td>56 624</td>
<td>40 381</td>
<td>37 404</td>
<td>8.0%</td>
</tr>
<tr>
<td>Imports</td>
<td>86 055</td>
<td>100 690</td>
<td>105 975</td>
<td>110 768</td>
<td>69 665</td>
<td>74 393</td>
<td>-10.4%</td>
</tr>
<tr>
<td>World total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>117 099</td>
<td>129 914</td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>273 715</td>
<td>313 566</td>
<td>316 680</td>
<td>314 312</td>
<td>197 348</td>
<td>211 951</td>
<td>-6.0%</td>
</tr>
<tr>
<td>Imports</td>
<td>196 269</td>
<td>231 519</td>
<td>236 926</td>
<td>238 540</td>
<td>156 769</td>
<td>159 680</td>
<td>-1.8%</td>
</tr>
</tbody>
</table>

Note: The definition of steel used in this table is HS 7206 to 7302, 7304-7306, and 7307.21-7307.99 excluding some forgings (7326.19), points and switches/crossings (7302.30 and 7302.90), some forged cold finished sections (7216.69 and 7216.99), some cold formed sections (7216.61 and 7216.91), welded shapes and sections (7301.20) and steel castings (7325.99).

Source: OECD calculations based on data from ISSB.
2.4. Steel and steelmaking raw material prices

2.4.1. Steel prices

The uptake in steel demand during 2016 and 2017 has supported a rebound in steel prices from their 2015 lows. Following some volatility in the early part of 2017, world hot-rolled coil (HRC) and rebar prices bounced back in the latter part of the year to attain their highest levels since April 2013. Nevertheless, steel prices remain below their 2011 levels. The dispersion across regions for both rebar and flat products prices, after increasing considerably from 2013 to 2015, has been reverting to pre-2013 levels, albeit in a somewhat volatile manner (Figure 6).

Figure 6. World steel prices (latest month January 2018)

Note 1: The flat price and rebar price indices are defined as the arithmetic average of the individual regional Platts price series for the U.S., North Europe, China, Japan, India and Russia, when available. This simple arithmetic average had the closest fit to the two global Platts price indices used in previous Market reports, which were discontinued by Platts from September 2017 onwards.

Note 2: The coefficients of variation (CV) are defined as the ratio of the standard deviation of the regional Platts price series making up the indices to their (arithmetic) mean.

Steel prices have been increasing more rapidly in China than in the global average over the last few years. While the world index (as discussed above) increased by 11% for rebar prices and approximately 13% for flat prices from January 2017 to January 2018, the Chinese steel price composite index increased by around 17% over the same time horizon.

The increase in Chinese prices has reduced the gap relative to the prices of other markets, but without eliminating it. As can be seen in Figure 7, the price for flat products in China still remains significantly below comparable prices in other regions (−14% compared to Japanese and E.U. prices, and −23% compared to U.S. prices). This heterogeneity in steel price developments can also be observed when analysing price trends over a longer time horizon. Percentage-wise, the U.S. and China’s steel prices have tended to increase the most since September 2009 (Figure 8). Prices in all considered regions followed the same
dynamics and bottomed out in 2015/early 2016. Japanese prices now stand at around their level of September 2009, while Chinese prices reverted to a markedly higher level as compared to their September 2009 values. Chinese steel demand accounts for approximately 45% of global demand, and exports accounted for 27% of world steel exports in the first 8 months of 2017, which place China as the largest steel exporter in the world. As such, the recent developments in Chinese steel prices are likely to have had an important effect on the development of global steel prices as a whole.

Figure 7. Steel price index for flat products, by region

![Steel price index for flat products, by region](image)

Source: Platts Steel Business Briefing.

Figure 8. HRC price indices by region (September 2009=100)

![HRC price indices by region](image)

Source: Platts Steel Business Briefing.
2.4.2. Steelmaking raw material prices

Prices of key steelmaking raw materials declined between early 2011 and the beginning of 2016, contributing significantly to lower steel production costs during that time period. Figure 9. below shows the prices for the three main inputs used in steel-making, i.e. iron ore, coking coal and scrap. All these prices reached lows in late 2015/early 2016, and have since started to recover, albeit at different rates.

Iron ore prices stabilised at around USD 65 per tonne in December 2017, down from USD 80 one year earlier and below its level of USD 86 per tonne in March 2017. Coking coal prices have been more volatile, increasing rapidly in the second half of 2016 before falling sharply in early 2017. As of December 2017, coking coal prices stood at USD 227 per tonne (FOB Australia). This represents an increase of 22% compared to the previous month, but is still markedly lower than levels resulting from the price spike at the end of 2016. Scrap prices have also increased, reaching USD 323 per tonne (FOB Rotterdam) in December 2017. After a slight dip in October and November, scrap prices returned to their recent highs attained in September 2017.

Figure 9. Prices for key steel-making raw materials

Source: Platts Steel Business Briefing (SBB).

Between 2013 and mid-2016, the margin between steel prices and prices of a basket of key steelmaking raw material (OECD, 2016[10]) increased significantly (see Figure 10 below). This was followed by a sharp drop in the margin in the second half of 2016, as steelmaking raw material prices increased, driven notably by the spike in coking coal prices mentioned above. In the course of the year 2017, the steel-raw material price margin stabilised again at values around those observed in 2015.
Figure 10. Margin between steel and raw materials prices

Note: The raw materials basket for steel production includes 70% of the usual quantities of iron ore (1.6 tonne) and coking coal (0.77 tonne) needed to produce steel in the integrated process and 30% of the quantity of ferrous scrap (1.07 tonne) needed to produce steel in the electric arc furnace process (see OECD, 2016). Prices used are as follows: Iron ore Fines, 62% Fe, SPOT, CFR China; Hard coking coal spot, FOB Australia; Scrap, #1 HMS, FOB Rotterdam. The basket is compared against HRC world prices. The margin is defined as the percentage difference between the steel flat price and the raw materials basket price.

Source: OECD calculations based on Platts Steel Business Briefing.
Global excess capacity remains a major challenge for the global steel industry, affecting the financial and economic sustainability of the steel sector. Steel-making capacity developments are changing quickly in response to both investments and closures taking place in the industry, and the OECD works to monitor the situation on an ongoing basis. The latest available information (as of December 2017) suggests that nominal global crude steelmaking capacity decreased for the second consecutive year in 2017. The OECD has revised down its 2016 and 2017 figures for world steelmaking capacity to 2,280.7 mmt and 2,251.2 mmt, respectively, to incorporate closures and investments that were not taken into account previously (OECD, 2018[11]).

The downward revisions to global crude steelmaking capacity have contributed to a narrowing of the gap between global capacity and demand, which is estimated to have stood at approximately 654 mmt in 2016. The 1.3% reduction in global crude steelmaking capacity in 2017, combined with strong growth in steel production, has contributed to rising capacity utilisation rates recently. The global steelmaking capacity utilisation rate (i.e. production divided by capacity) increased from 71.3% in 2016 to 75.1% in 2017, with the gap between global capacity and production declining to around 561 mmt (Figure 12).
Figure 12. Global crude steelmaking capacity, production and capacity utilisation rate

A. Capacity-Production gap (mmt)

B. Capacity utilisation rate

Note: Capacity data reflects all information on changes up to December 2017.
Source: OECD for capacity and World Steel Association for production.
4. The steel market outlook

4.1. Global steel market outlook

The last Short Range Outlook released by the World Steel Association was in October 2017, at which time global steel demand was expected to reach 1 622.1 million metric tonnes (mmt) in 2017, and 1 648.1 mmt in 2018 (see Table 4). This corresponds to a 2.8% global growth rate for 2017, and a 1.6% global growth rate for 2018, taking into account the adjustments for Chinese data (see the footnote in Table 4).

The previous forecasts, released in April 2016, had indicated an increase in steel demand of 1.3% in 2017 and 0.9% in 2018. The upward revisions reflected the broadening of the cyclical upturn throughout 2017, leading to better-than-expected demand outcomes for both developed and most developing economies.

Table 4. The October 2017 forecasts for regional apparent steel use by the World Steel Association

<table>
<thead>
<tr>
<th>Region</th>
<th>2016</th>
<th>2017 (f)</th>
<th>2018 (f)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Volume</td>
<td>% change</td>
<td>Volume</td>
</tr>
<tr>
<td>E.U. (28)</td>
<td>158.2</td>
<td>2.8</td>
<td>162.1</td>
</tr>
<tr>
<td>Other Europe</td>
<td>40.5</td>
<td>1.2</td>
<td>40.1</td>
</tr>
<tr>
<td>CIS</td>
<td>49.4</td>
<td>-2.7</td>
<td>51.1</td>
</tr>
<tr>
<td>NAFTA</td>
<td>132.2</td>
<td>-1.5</td>
<td>138.7</td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>39.4</td>
<td>-13.5</td>
<td>40.4</td>
</tr>
<tr>
<td>Africa</td>
<td>37.6</td>
<td>-2.7</td>
<td>37.0</td>
</tr>
<tr>
<td>Middle East</td>
<td>53.1</td>
<td>-1.4</td>
<td>53.9</td>
</tr>
<tr>
<td>Asia &amp; Oceania</td>
<td>1 005.4</td>
<td>2.2</td>
<td>1 098.8</td>
</tr>
<tr>
<td>of which: China</td>
<td>681.0</td>
<td>1.3</td>
<td>765.7</td>
</tr>
<tr>
<td>World</td>
<td>1 515.9</td>
<td>1.0</td>
<td>1 622.1</td>
</tr>
</tbody>
</table>

Note: * a special note on China: China closed many of its outdated induction furnaces in 2017, a category which was generally not captured in official statistics. With closure of the induction furnaces, the demand from this sector of the market is now satisfied by mainstream steel makers and therefore captured in the official statistics in 2017. Consequently, the nominal growth rate for steel demand in China increased to 12.4% or 765.7 mmt. Disregarding this statistical base effect, the World Steel Association expects that the underlying growth rate of China’s steel demand for 2017 will be 3%, which will make the corresponding global growth rate 2.8%.

Source: World Steel Association’s Short Range Outlook, released in October 2017.

A number of risks cited by the World Steel Association that cloud the outlook remain important, but have abated to some extent during the course of 2017. They are: rising protectionism, U.S. policy shifts, E.U. election uncertainties and the Chinese economic growth deceleration. Moreover, escalating geopolitical tension in the Korean peninsula, China’s debt challenge, as well as a fear of financial markets overvaluation will remain significant risk factors. In spite of these risks, both business and consumer confidence as well as investment continue to improve. Overall, the World Steel Association noted in its
October 2017 Short Range Outlook that the steel sector is at its “best balance of risks since 2008”.

Nevertheless, the steel sector continues to face longer-term challenges such as the longer-term decline in steel intensities in some economies, excess capacity, expressed in still very low capacity utilisation rates, as well as in the still fragile financial situation of many steel firms.

4.2. Regional steel market outlook

**Europe and CIS economies**

Eurofer expects apparent steel consumption in the E.U. to increase by 2.3% in 2017 and 1.7% in 2018, while real steel consumption is foreseen to grow 3.2% in 2017 followed by an expected increase of 1.5% in 2018 (Eurofer, 2017[7]). In 2017, the E.U. steel industry benefited from demand growth in steel using sectors, particularly tubes and construction.

After an expected rapid increase of 7.2% in 2017, production in the EU steel tube sector is projected to shrink slightly by 0.6% in 2018. The construction sector is expected to continue growing at a rate of 2.4% in 2018, after an expected growth rate of 4.2% in 2017. In Western Europe, the residential property investment is expected to sustain growth, boosted by attractive financial conditions, rising wages in the labour market, as well as tax incentives in a number of economies. Civil engineering activity is projected to increase particularly in central European economies, supported by public funding for new construction and renovation of infrastructure. Production in the second most important steel-using industry in the E.U., the automotive industry, is expected to have grown by 3.2% in 2017 and to expand further by 1.8% in 2018. Domestic demand for cars in the E.U. is expected to continue increasing, albeit at slower rates going forward, owing to saturation effects. Passenger vehicle demand should continue to be sustained by rising wages and low interest rates on consumer credit. Demand from major export markets, such as the U.S., however, is likely to remain stable due to, among others, a strong euro, according to Eurofer (2017[7]). Machinery output was expected to have grown 4.6% in the year 2017, with a moderation in growth to 2.3% projected for 2018. Positive prospects for investments in the E.U. should drive domestic demand for machinery. Due to rising business investment in efficiency improvements, production of high-tech equipment related to automation and robotics should benefit (Eurofer, 2017[7]).

Steel markets in the E.U. could see some corporate consolidation in the near future. The envisaged merger of ThyssenKrupp with Tata could, according to media reports, be signed in early 2018 and completed at the end of the year (Financial Times, 2017[12]). In late December 2017, the German trade union IG Metall approved a job security deal proposed by ThyssenKrupp (Reuters, 2017[13]). Concerning the planned acquisition of Ilva by ArcelorMittal, which was agreed in June 2017, the European Commission announced on 8 November 2017 that it would conduct an in-depth investigation of the deal (European Commission, 2017[14]) – a final decision is expected by 23 March 2018. Should the transaction be successful, it would be the largest merger within the European steel industry since over a decade.

According to the October 2017 forecasts of the World Steel Association, steel demand for finished steel products in the "Other Europe" regional category is expected to grow by 5.2% in 2018 after declining by 1% in 2017. A significant contributor to the high growth rate of this region is Turkey, where steel demand is estimated to grow by 6% in 2018 after an expected contraction of 1.7% in 2017 (World Steel Association, 2017[15]). The main drivers
behind Turkey’s increasing steel demand are major ongoing infrastructure projects such as the new Istanbul airport and two large suspension bridges – the Çanakkale 1915 Bridge (which would become the world’s longest suspension bridge), and the Osman Gazi Bridge along the Gebze–İzmir Motorway (ERAI, 2017[16]).

After an expected increase of 3.6% in 2017, steel demand in the CIS region is set to increase further by 3.8% in 2018. Russia, the largest steel economy in the CIS region, is expected to continue its recovery after a drop of 3.6% in 2016, and achieve steel demand growth rates of 2.6% and 3.2% in 2017 and 2018, respectively (World Steel Association, 2017[15]). Steel demand in Ukraine is expected to recover in 2018 to 4 mmt as compared to a foreseen 3.2 mmt in 2017 (+25%), according to Ukrmetallurgprom (2017[6]).

**Americas**

Central and South American economies are expected to register steel demand growth of 2.5% and 4.7% in 2017 and 2018, respectively, according to the World Steel Association’s October 2017 Short Range Outlook. These numbers have to be seen against the backdrop of a considerable decline in steel demand in 2016 (-13.5%). Thus, despite the predicted increase, estimated steel consumption in 2018 would not yet recover to the 2015 level (World Steel Association, 2016[17]; World Steel Association, 2017[15]). After the significant drop in steel demand in Brazil in 2016 and a recovery by an estimated 5% in 2017 (Aço Brasil, 2017[18]), apparent domestic steel consumption is projected to grow another 7% in 2018 (Alacero, 2017[19]). Moody’s argues that an increase in steel consumption depends on a limited number of industries, as broader demand from major steel-using industries such as capital goods, durable goods and construction remains subdued (Moody’s, 2017[20]). In Argentina, steel demand is expected to increase by 5% in 2018 (Alacero, 2017[19]), benefitting from reforms, as well as from private construction and government infrastructure projects (S&P Global Platts, 2017[21]; World Steel Association, 2017[22]). Upcoming elections in many Latin American economies in 2018 will be important to follow.

Regarding the NAFTA region, the World Steel Association (2017[15]) revised its estimated demand increase for 2017 upwards to 4.9%, while growth in 2018 is now expected to be 1.2%. After a decline in 2016, steel use in the U.S. is expected to have increased by 4.8% in 2017, with further growth of 1.1% projected for 2018, bringing demand to a level of 97.3 mmt (World Steel Association, 2017[15]). Planned government investment or incentives for private investments in infrastructure could further drive steel consumption. The U.S. tax reform, approved in December 2017, might provide a stimulus to domestic growth and consequently also benefit steelmakers. In 2017, Mexico experienced strong growth in its automotive sector, which contributed to steel demand growth of 5.7% that year. In line with a dampened outlook for the car industry, owing to a moderation in automobile demand in the U.S. (Mexico’s biggest export market), steel demand in Mexico is expected to increase by a somewhat lower growth rate of 3% in 2018 (World Steel Association, 2017[15]).

**Middle East**

In the Middle East, steel demand is forecast to have grown by 1.5% in 2017, accelerating to a projected 4.8% growth rate in 2018 (World Steel Association, 2017[15]). The steel demand outlook for the region is highly influenced by oil prices, geopolitical tensions and exchange rate fluctuations. Nevertheless, Gulf Coast Conference (GCC) economies are financing important infrastructure projects and public works that could support steel demand going forward. For example, in the United Arab Emirates (UAE) and Qatar,
Infrastructure is expected to be built for the 2020 Expo in Dubai and the 2022 Football World Cup in Qatar. Also, in Saudi Arabia, the government is supporting the construction and modernisation of infrastructure, which would be an important driver of steel demand growth going forward (Djoudi, 2017[23]). Steel demand in Iran is expected to continue growing in response to continued economic growth, with factors that may affect the Iranian steel demand outlook including developments regarding economic sanctions, domestic political developments and the implementation of economic reforms.

Asia and Oceania

The October 2017 forecasts by the World Steel Association indicate that the Asia and Pacific region would grow by 9.3% in 2017 and 1.1% in 2018. However, the numbers for 2017 include the one-off statistical effect resulting from the closure of induction furnaces in China that were operating in the informal sector. While the nominal growth rate for steel demand in China is forecast at 12.4% for 2017, disregarding the one-off statistical base effect would suggest that the underlying growth rate would be about 3% that year, which would make the corresponding global growth rate around 2.8% (World Steel Association, 2017[15]).

Looking forward, the World Steel Association’s October 2017 forecasts indicate that Chinese steel demand growth would remain subdued in 2018 (no growth relative to 2017), as the government resumes and strengthens its efforts on economic rebalancing and environmental protection. On the other hand, the China Metallurgical Industry Planning and Research Institute forecasts that Chinese steel consumption would grow by 0.7% in 2018 compared to 2017 (China Daily, 2017[24]). The China Iron and Steel Association (CISA) indicates that Chinese steel demand is likely to be stable in 2018, supported by demand from infrastructure investment projects, manufacturing sectors and other steel consuming industries (Jin, 2018[25]).

Steel demand growth in China will likely continue to be supported by infrastructure investment projects, such as construction of roads, bridges and subways, even though there are some concerns that infrastructure investment might be slowing down in 2018 compared to 2017 because of increased efforts by the Chinese government to deleverage the economy (Bloomberg, 2017[26]). Steel demand from the automotive industry is expected to be a slight slowdown, reflecting only modest growth in the Chinese automotive market in 2018 (Reuters, 2017[27]).

Steel demand in Japan is showing a stronger-than-expected growth performance, owing in part to the government stimulus package. Japanese steel demand is forecast to grow by 2.9% in 2017 and 0.8% in 2018 (World Steel Association, 2017[15]). According to the Japan Iron and Steel Federation (JISF), steel demand in Japan should continue to grow moderately, supported by preparations for the 2020 Olympic Games (JISF, 2017[28]). The non-housing sector in Japan is expected to support steel demand growth, and expectations about civil engineering activity suggest it will hover around a relatively high level. In Korea, steel demand is expected to have contracted by 1.5% in 2017, affected by high consumer debt, weakening construction and a depressed shipbuilding sector.

According to the latest Short Range Outlook by the World Steel Association, steel demand in India is expected to grow by 5.7% in 2018, revised down from the 7.1% growth projection of the previous outlook. There are some expectations that urbanisation and infrastructure developments could boost medium- to long-term steel demand, as noted in India’s National Steel Policy 2017 (Steel Ministry of India, 2017[29]; S&P Global Platts, 2017[30]). However, delays to the execution of infrastructure projects might have an impact
on growth of steel demand in the short-term (Business Standard, 2017[31]). In order to satisfy the expected long-term increase in steel demand, the National Steel Policy 2017 furthermore outlines that 300 mmt crude steelmaking capacity would be needed by 2030–31, up from 125 mmt in 2017 (OECD, 2018[11]). This would require adding approximately 7% of capacity annually, and the policy outline acknowledges that achieving this targeted capacity growth requires considerable resources. According to OECD information about capacity additions currently underway, Indian steelmaking capacity is set to increase by 4.8% from 2017 to 2018 (OECD, 2018[11]). In the event that the planned capacity additions are completed and the projected demand increase falls short of expectations, any additional capacity that is not absorbed by domestic demand could create pressure for oversupply on world steel markets.

Steel demand in the ASEAN region is forecast to continue to grow strongly. SEAISI (2017[32]) indicates that the ASEAN-6 region (Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam) should maintain a steady growth rate in steel consumption of around 5-6% per year in the short-term. Apparent steel consumption in the region could surpass 90 mmt in 2019 (about the same level as that of the U.S. in 2016). The continuous growth of steel consumption in the region is being driven mainly by numerous government-led infrastructure projects, especially in Viet Nam, the Philippines, and Indonesia. The Vietnamese government has been attracting more foreign investment to prioritised areas such as infrastructure development. The Philippine government is committed to approving and launching more infrastructure projects under the “Build Build Build” program, aiming to accelerate infrastructure developments with public spending on projects, targeted to reach PHP 8-9 trillion from 2017 until 2022 (Philippine Government, 2018[33]). The Indonesian government is also prioritising infrastructure projects which would boost steel consumption in the short term. The Indonesian government is planning to allocate USD 35 billion of its 2018 annual budget for infrastructure projects (The Indonesia Iron and Steel Industry Association, 2017[34]).
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Endnotes

1 The monetary policy stances could change, possibly depending on financial markets developments, realised and expected inflation rates, and economic growth goals.

2 Strong growth in global steel demand in 2017 partly reflected the one-off effect on Chinese steel demand resulting from the closure of induction furnaces, because demand for steel supplied by these induction furnaces was not previously captured by the official statistics. Please see the April 2018 Short range Outlook of the World Steel Association for more details, available at: https://www.worldsteel.org/en/dam/jcr:4f919e17-6d22-4c02-8baa-65d603958bef/worldsteel+Short+Range+Outlook+April+2018_Table.pdf

3 Please see the April 2018 Short range Outlook of the World Steel Association for more details, available at: https://www.worldsteel.org/en/dam/jcr:4f919e17-6d22-4c02-8baa-65d603958bef/worldsteel+Short+Range+Outlook+April+2018_Table.pdf

4 Some Indian steel manufacturers have mentioned the effect of these policies through their financial quarterly reports. See the press releases of Tata Steel (2017[37]) and Jindal Steel and Power Ltd. (2017[38])

5 Apparent steel consumption fell by 0.8% y-o-y during the second quarter of 2017 due to destocking which dampened the growth figure for apparent consumption that quarter.

6 Ukrainian mills situated outside the two self-proclaimed republics made 20.86 million metric tons of crude steel, the same amount produced in 2016, although their saleable steel output decreased by 1.5% year on year to 18 million metric tons.

7 The composite domestic steel price index for China is available at http://www.custeel.com/en/price.jsp

8 The data on nominal crude steelmaking capacity does not include production capacity by induction furnaces in China (“违法 Wéifǎ”), nor does it reflect any changes in steelmaking capacity associated with “these induction furnaces.

9 The automotive industry represents 18% of total steel consumption, while construction accounts for 35%.

10 Although the agreement is still subject to approval by the trade union’s members, it is seen as an important step towards closure of the merger (Reuters, 2017[13]).

11 Fixed-asset investment in infrastructure (excluding electric power, heat power, gas and water) increased 19.0% in 2017, according to the National Bureau of Statistics of China (2018[36]).
Steel Market Developments provide up-to-date information on global and regional steel markets. Reviewed and approved by the OECD Steel Committee, they are disseminated approximately twice a year to allow policymakers, industry, media and academia to keep abreast of the main trends and recent developments taking place in steel markets.

The reports provide an overview of recent supply and demand developments and, when available, forecasts from publicly available sources. Topics of special interest are occasionally covered, such as developments in steel-related raw material markets, steelmaking capacity trends or updates on specific regions that are important for the global steel market.