This paper was authored by Fabien Mercier, Daichi Mabashi and Filipe Silva from the OECD Directorate for Science, Technology and Innovation (STI). It was approved and declassified by written procedure by the OECD Steel Committee on 26 March 2019 and prepared for publication by the OECD Secretariat.

Note to Delegations:
This document is also available on O.N.E under the reference code:
DSTI/SC(2019)1/FINAL

This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

© OECD 2019

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for commercial use and translation rights should be submitted to rights@oecd.org.
Table of contents

Recent market developments in the global steel industry......................................................... 5
1. Summary ................................................................................................................................. 6
2. The economic outlook ........................................................................................................... 7
   2.1. OECD economic outlook ................................................................................................. 7
   2.2. Focus on specific risks to the outlook .............................................................................. 9
       2.2.1. Deleveraging and adjustment in the Chinese economy ................................................. 9
       2.2.2. Slowdown in global economy and trade .................................................................. 14
   2.3. Steel consumption .......................................................................................................... 17
       2.3.1. Americas ................................................................................................................. 18
       2.3.2. Asia ......................................................................................................................... 18
       2.3.3. CIS ......................................................................................................................... 19
       2.3.4. European Union ................................................................................................. 19
   2.4. Steel production .............................................................................................................. 20
   2.5. World steel trade ............................................................................................................ 21
   2.6. Steel and steelmaking raw material prices ..................................................................... 23
       2.6.1. Steel prices ............................................................................................................. 23
       2.6.2. Steel futures prices ............................................................................................... 26
       2.6.3. Steelmaking raw material prices ........................................................................... 27
   2.7. The global capacity situation ........................................................................................... 30
   2.8. Global steel market outlook ............................................................................................ 31
   2.9. Regional steel market outlook ......................................................................................... 31
       2.9.1. Europe and CIS economies ................................................................................... 31
       2.9.2. Americas ............................................................................................................... 32
       2.9.3. Middle East ......................................................................................................... 33
       2.9.4. Asia and Oceania ............................................................................................... 33

References .................................................................................................................................. 38
Endnotes .................................................................................................................................... 48

Tables
Table 1. OECD Economic Projections, November 2018 ............................................................. 9
Table 2. World crude steel production developments in 2018 .................................................. 21
Table 3. Steel trade developments across major steel-producing economies .............................. 23

Figures
Figure 1. Total credit to non-financial corporations (core debt) .................................................. 10
Figure 2. World industrial production ........................................................................................ 15
Figure 3. World trade and trade prices ....................................................................................... 16
Figure 4. Steel Purchasing Managers’ indices (PMIs) ................................................................ 17
Figure 5. Consumption of hot-rolled steel products, major economies ...................................... 18
Figure 6. Aggregate flat and rebar steel prices (latest January 2019) .......................................... 24
Figure 7. Steel price for flat products, by region................................................................. 25
Figure 8. Steel price for rebar products, by region.............................................................. 26
Figure 9. Steel future prices.................................................................................................. 27
Figure 10. Prices for key steel-making raw materials ............................................................. 28
Figure 11. Chinese scrap prices continues on upward trend ................................................ 29
Figure 12. Margin between steel and raw materials prices ...................................................... 29
Figure 13. Evolution of crude steelmaking capacity in OECD/EU economies and non OECD/EU economies..................................................................................................... 30
Figure 14. Global crude steelmaking capacity and crude steel production ................................ 31
Figure 15. Car passenger vehicle sales in China .................................................................... 34
Figure 16. Real estate price change and investments .............................................................. 35

Boxes

Box 1. Debt for equity swaps .................................................................................................. 11
Recent market developments in the global steel industry

This document is part of a regular monitoring exercise to provide the Steel Committee with timely information on steel market developments. It provides a brief update on recent developments in steel markets, based on information available until December 2018.
1. Summary

Steel market fundamentals have weakened markedly over the second half of 2018. Although steel production growth is still positive in most regions, steel prices have already started to adjust, reversing their previous upward trend and eliminating most of their earlier gains. Important headwinds include the weakening global outlook, the increase in trade frictions, the pickup in new capacity investments, and the persistence of excess capacity.

This document provides an overview of recent steel market developments, the latest developments in global steelmaking capacity, and a brief overview and outlook for regional markets, based on information available until December 2018. It also includes an overview of the deleveraging and adjustment process in the Chinese economy and the slowdown of the global economy and in global trade. To summarise, the following key developments are discussed in this report.

- **The economic situation**: The November 2018 OECD forecasts pointed to a world GDP growth rate of 3.5% in 2019, with downside risks to growth including a potential increase in trade frictions, the phasing out of non-conventional monetary policies, and the financial risks stemming from high asset valuations and high private and public indebtedness.

- **Steel demand**: Market data suggest that steel consumption growth stalled in most economies in 2018, and that the 2017 recovery may be losing momentum. Downside risks to the outlook include increased trade frictions and a weakening global economy, which suggests that without further action large structural imbalances are likely to persist.

- **Steel exports**: Global steel exports continued to decline in the first 10 months of 2018 (y-o-y), including exports from India (-29.3%), the United States (-13.4%), the People’s Republic of China (-9.3%), the European Union (-6.4%) and Japan (-3.1%).

- **Steel and raw material prices**: After increasing during the first months of 2018, steel prices reversed their earlier gains, falling back to their pre-2018 levels. Coking coal and ferrous scrap prices have both fallen back to their pre-2018 levels, while iron ore prices have remained roughly the same over the year.

- **Capacity**: The latest available information (as of 31 December 2018) suggests that global steelmaking capacity, in nominal crude terms, remained nearly unchanged in 2018, following declines in 2016 and 2017. Global capacity remains well above production and demand.

- **Steel demand outlook**: Forecasts by the World Steel Association (worldsteel), released in October 2018, suggest that global steel demand will continue to grow in 2019, albeit at a slower pace (1.4%) than in 2018. A new worldsteel forecast will be released in April 2019.
2. The economic outlook

2.1. OECD economic outlook

According to the November 2018 Economic Outlook, the OECD forecasts that world GDP will grow by 3.7% in 2018 and 3.5% in 2019. Table 1 below indicates the latest available OECD GDP growth forecasts. In many countries, unemployment is at record lows, and labour shortages seems to be emerging, despite sluggish real wage growth. Monetary and fiscal policy has begun to normalise, particularly in the United States (U.S.). Nevertheless, a number of risks may materialise in the very near future. Trade growth and investment, which are important contributors to global GDP growth, may continue to be hampered by tariff hikes, according to the Economic Outlook. Higher US interest rates and an appreciating US dollar have resulted in an outflow of capital from emerging economies, which is weakening their currencies. Also, stock market prices and asset valuations in general are still high by historical standards — if interest rates were to increase rapidly, this could negatively impact stock market valuations and affect the real economy through expectations and adverse wealth-effects.

In the euro area, real GDP growth should be about 1.8% in 2019, supported by private consumption and business investment. GDP growth is projected to decrease slightly in 2020, to a rate of 1.6%, while domestic demand should continue to be supported by accommodative monetary and fiscal policy. Favourable financing conditions should support investment, and inflation should continue to rise as wage growth strengthens. The fiscal stance is expected to continue to be accommodative.

In the U.S., the economy continues to benefit from the fiscal stimulus enacted in 2017 and 2018, and the impact of the accommodative fiscal stance is expected to continue being felt until the end of 2019. The recent tax reforms and the supportive fiscal conditions should continue to underpin private investment in 2019, but a weakened global outlook and trade frictions will weigh on economic activity, according to the Economic Outlook. Furthermore, risks to financial stability stem both from high asset valuations and from high levels of non-financial corporate debt.

In Japan, economic growth is projected to be near 1% in 2018 and 2019, supported by exports, business investment and private consumption. A number of factors might cushion the negative impact on consumption of the increase of the consumption tax (from 8% to 10%), including the use of half of the generated revenues in new government spending programmes, and the cut in taxes on cars and housing. There are two main risks to the economic outlook for Japan: a loss of confidence in Japan's fiscal sustainability and the escalation of trade actions. The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (TPP-11), where Japan assumed a leadership role, should help mitigate the latter.

In the People’s Republic of China (hereafter “China”), economic growth is estimated to have declined to 6.6% in 2018 and is projected to further decline to 6.3% in 2019. The weakening of industrial production, corporate profits and revenues, are all signs of a slowdown. Excess capacity still plagues a number of industrial sectors, and weighs on business investment. Foreign trade flows, currently mitigated by the front-loading of purchases from the U.S. to avoid tariffs, should continue to lose momentum in 2019. The slowdown of activity also reflects reduced infrastructure investment and residential
housing. Monetary and fiscal policies have eased to curtail the slowdown of growth. The decrease of average import tariffs and tax cuts aimed at boosting consumption could also help alleviate the impact of the global slowdown and of the reduction in trade activity on the Chinese economy. A better pricing of risks and the removal of implicit government guarantees for State-Owned Enterprises (SOE) would contribute to increase capital efficiency, and thus bolster sustainable growth.

In India, economic growth will slow somewhat but remain robust, at close to 7.5% in 2019 and 2020. Higher oil prices and the rupee depreciation are putting pressure on demand, inflation, the current account and public finances. However, both business investment and exports are expected to remain strong, due to past structural reforms – including the new Insolvency and Bankruptcy Code and the smoother implementation of the Goods and Services Tax. Nevertheless, India has little room for manoeuvre in terms of fiscal and monetary policies: its level of debt relative to GDP is elevated, and the rupee depreciation underpins inflationary pressures. Those inflationary pressures have only been temporarily contained by a good monsoon (which positively affected the supply of crops and lowered food prices), lower excise taxes on oil products, and the government’s requirement that public-sector oil marketing companies lower their margins.

In the Russian Federation (hereafter “Russia”), growth is projected to remain at around 1.6% in 2018, easing slightly to 1.5% in 2019. Private consumption and investment should benefit from rising wages, household credit and employment, although the increase in the value-added tax will partially offset these effects. Uncertainty remains about possible future sanctions and counter-sanctions, which could continue to take their toll on the Russian economy.

In Brazil, growth should gain momentum during 2019 and 2020 supported by private consumption. Improvements in the labour market and the increase in business investment possibly supported by greater policy certainty could contribute to economic activity. Downside risks are a deteriorating fiscal position, should the newly elected government fail to reach consensus on pension reform.
## Table 1. OECD Economic Projections, November 2018

Real GDP growth (y-o-y).

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>World ^1</td>
<td>3.1</td>
<td>3.6</td>
<td>3.7</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>United States</td>
<td>1.6</td>
<td>2.2</td>
<td>2.9</td>
<td>2.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Euro area</td>
<td>1.9</td>
<td>2.5</td>
<td>1.9</td>
<td>1.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Germany</td>
<td>2.2</td>
<td>2.5</td>
<td>1.6</td>
<td>1.6</td>
<td>1.4</td>
</tr>
<tr>
<td>France</td>
<td>1.1</td>
<td>2.3</td>
<td>1.6</td>
<td>1.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Italy</td>
<td>1.0</td>
<td>1.6</td>
<td>1.0</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Spain</td>
<td>3.2</td>
<td>3.0</td>
<td>2.6</td>
<td>2.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Japan</td>
<td>1.0</td>
<td>1.7</td>
<td>0.9</td>
<td>1.0</td>
<td>0.7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.8</td>
<td>1.7</td>
<td>1.3</td>
<td>1.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.6</td>
<td>2.3</td>
<td>2.2</td>
<td>2.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Korea</td>
<td>2.9</td>
<td>3.1</td>
<td>2.7</td>
<td>2.6</td>
<td>2.9</td>
</tr>
<tr>
<td>Canada</td>
<td>1.4</td>
<td>3.0</td>
<td>2.1</td>
<td>2.2</td>
<td>1.9</td>
</tr>
<tr>
<td>Turkey</td>
<td>3.2</td>
<td>7.4</td>
<td>3.3</td>
<td>-0.4</td>
<td>2.7</td>
</tr>
<tr>
<td>Australia</td>
<td>2.6</td>
<td>2.2</td>
<td>3.1</td>
<td>2.9</td>
<td>2.6</td>
</tr>
<tr>
<td>China</td>
<td>6.7</td>
<td>6.9</td>
<td>6.6</td>
<td>6.3</td>
<td>6.0</td>
</tr>
<tr>
<td>India ^2</td>
<td>7.1</td>
<td>6.7</td>
<td>7.5</td>
<td>7.3</td>
<td>7.4</td>
</tr>
<tr>
<td>Russia</td>
<td>-0.1</td>
<td>1.5</td>
<td>1.6</td>
<td>1.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Brazil</td>
<td>-3.4</td>
<td>1.0</td>
<td>1.2</td>
<td>2.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>5.0</td>
<td>5.1</td>
<td>5.2</td>
<td>5.2</td>
<td>5.1</td>
</tr>
<tr>
<td>South Africa</td>
<td>0.6</td>
<td>1.3</td>
<td>0.7</td>
<td>1.7</td>
<td>1.8</td>
</tr>
<tr>
<td>OECD ^1</td>
<td>1.8</td>
<td>2.5</td>
<td>2.4</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Non-OECD ^1</td>
<td>4.2</td>
<td>4.6</td>
<td>4.7</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>World real trade growth</td>
<td>3.1</td>
<td>3.6</td>
<td>3.7</td>
<td>3.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

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


### 2.2. Focus on specific risks to the outlook

#### 2.2.1. Deleveraging and adjustment in the Chinese economy

The non-financial corporate debt to GDP ratio in China has increased from about 100% in 2008 to about 160% in the first quarter of 2018, and is considerably higher than in other jurisdictions (Figure 1). The debt ratio had started to decrease in 2016, but rebounded in the first quarter of 2018, as can be shown in Figure 1.
Monetary policy has loosened considerably in China since mid-2018. For example, on 1 June 2008 the People’s Bank of China (PBOC) expanded the scope of the collateral accepted for its medium-term lending, to include all corporate bonds rated AA+ and AA (Zhang and Lee, 2018[1]), whereas previously only higher-rated bonds (AAA) were accepted.¹ This certainly creates a greater availability of collateral that allows commercial banks to refinance and provide more credit to the Chinese corporate sector.² The PBOC also uses the Reserve Requirement Ratio (RRR), which determines the regulatory provisions that commercial banks must make when granting a loan, as a policy tool to adjust credit flows. The RRR, which stood at 17% in the beginning of 2018, has been progressively reduced, and reached 14.5% in January 2019. The PBOC will further reduce the RRR by an additional 0.5 percentage point on January 15 and a further 0.5 percentage point on January 25.³

Shadow banking is defined here as the non-bank financial institutions that are outside the scope of banking regulators, as they do not take bank deposits from customers. This includes insurance companies, asset managers, broker-dealers, money market funds, private equity funds and hedge funds. Shadow banking has increased considerably in China, particularly due to the growth of wealth management products (WMPs), which are Single Purpose Vehicles (SPVs) managed by banks (OECD, 2017[2]). WMPs allow banks to essentially shift assets and deposits off balance sheets and thus decrease banks’ capital requirements. WMPs offer little transparency on the quality of their assets for their investors, who instead rely on the implicit guarantee that comes with management by state-owned banks (OECD, 2017[2]). Implicit guarantees from state-owned enterprise (SOE)
banks to their WMPs give rise to moral hazard and an ineffective pricing of risk that could result in capital misallocation (OECD, 2017[2]).

An OECD study found that contagion risk⁴ in emerging markets between the banking sector and the shadow banking sector, has increased and became significant after the 2008 financial crisis (OECD, 2017[2]). Chinese regulators have recognised the issue and made efforts to curb excess shadow banking growth. In July 2018, the China Banking and Insurance Regulatory Commission issued draft rules for the issuance of WMPs, in an attempt to curb financial risks and to increase transparency (Liu, 2018[3]). In particular, banks should limit leverage and strengthen liquidity management of their WMPs. Moreover, WMPs act as a fund and can now invest directly in equity, rather than through broker-dealers. The rules are due to take effect at the end of 2020 (Liu, 2018[3]).

Debt for equity swaps in China

The Chinese government has been making some efforts to deleverage the economy.⁵ Debt for equity swaps (Box 1) are seen by Chinese regulators and policy makers as an expedient way to deleverage heavily indebted companies, particularly in the steel sector. China’s regulators issued a number of guidelines to provide a framework for debt for equity swaps (Wan, 2018[4]). This framework has been evolving over the years: Chinese debt for equity swaps have moved away from government direct intervention to help banks and SOEs (e.g. Sinosteel⁶) towards a more complicated scheme that diffuses risks inside and outside the financial system (Pang and Herrero, 2016[5]).

According to Natixis, only RMB 165 billion out of the RMB 884 billion (15.7%) of announced debt for equity swaps have been implemented as of February 2018 (Herrero and Gary, 2018[6]). Nevertheless, the rhythm is likely to have accelerated and continue going forward. Indeed, the People’s Bank of China announced in end of June 2018 that RMB 500 billion of the RMB 700 billion in liquidity obtained by cutting banks’ reserve requirement ratio (RRR) would be used by the five state-owned banks and 12 national joint-stock commercial lenders to support debt for equity swaps (Wan, 2018[4]).

---

**Box 1. Debt for equity swaps**

A debt for equity swap is a transaction in which the obligations of a company, usually loans it was granted or bonds it issued, are exchanged by the obligors of the company against equity. Debt for equity swaps can be voluntary or mandatory (or somewhere in-between), and they may be explicitly or implicitly promoted by the government.

A **mandatory exchange of debt against equity** does not necessarily imply a government intervention: mandatory exchanges can happen, for example, when bankruptcy laws clearly define the conditions for debt for equity swaps to take place. Bankruptcy laws vary across jurisdictions. For example, in the U.S. Bankruptcy Article 11 entails that the company does not liquidate all its assets to repay bondholders (in contrast with Bankruptcy Article 7). Instead, the company continues operating and focuses on reorganising and restructuring its debt. Previous equity shares are cancelled, and replaced by new ones distributed to bondholders and, potentially, to previous shareholders, ensuring that equity holders take the first loss. The amount of new shares provided for each bond’s nominal amount will in
that case be determined by the appropriate bankruptcy court, taking into account the value of the bond at the time of bankruptcy, and the assets of the company.

**Debt for equity swaps can also be proposed by the company to its obligors.** Companies in need of being relieved from a heavy debt burden may engage in negotiations with their main lenders, trying to incentivise them to agree to exchange their debt for equity. This will result in a dilution of the company previous ownership, thus current equity holders have an incentive to ensure good management and to avoid over-indebtedness. To entice bondholders to agree to the swap, the estimated value of shares will typically be higher than the money due, which means that investors agreeing to the swap will be provided with more shares in value that what the amounts they had lent to the company. Obligors are free to refuse such a scheme.

**Debt for equity swaps can also be triggered by conditions described in the bond indenture** (the legal and binding contract between the bond issuer and the bondholders): this is the case of convertible bonds. It could be that a “financing event” identified in the indenture automatically decides when the bond is converted to equity. Other convertible bonds can be converted on the decision of their holder only. Convertible bonds typically have a lower yield than non-convertible bonds, since they essentially give bondholders a “call option” on the company stock: each bond can be converted for a fixed amount of company shares. Bondholders would convert their bond to equity whenever the value of the equity they can obtain becomes higher than the (current) price of their bond. Convertible bonds thus enable debt investors to become equity investors, which might be particularly appealing in an upturn.

The State Council issued a guideline on 22 September 2016 that forbids Chinese banks to hold equity stakes of corporates facing financial difficulties (Pang and Herrero, 2016[5]). To carry out a debt for equity swap, the bank sets up a Single Purpose Vehicle (SPV) structure, called a “fund”, to which the bank sells its distressed debt. The debt thus leaves the balance sheet of the bank, as the SPV balance sheet does not consolidate at the bank level. Future transactions between the fund and its final investors are also off-balance sheet from the point of view of the bank. This entails significant capital relief for the bank since it does not have to provision its distressed debt. Furthermore, there is evidence that the fund buys the debt at par value, rather than at a discount (Pang and Herrero, 2016[5]), which means that the bank is not taking any loss. Future losses and financial risks are passed to end-investors further down the scheme.

End-investors in the new Chinese debt for equity swaps are those who buy shares of the fund. In practice, they are:

1. **The originating bank itself**, through its participation in its own fund. This participation is accounted for in the trading book of the bank through its Asset Management Company (AMC), rather than in its lending book. Moreover, based on a number of individual deals, Natixis estimated that banks retained a mere 4% of the total amount of debt for equity swaps through their own AMCs (Herrero and Gary, 2018[6]). Hence, the scheme entails important capital reserve savings for banks, which do not need to provision risky loans and can off-load them to the fund and clean their balance sheet.
2. **Other AMCs than the one of the banks** (34%). Those are mainly the three large AMCs created by China in the 1990s to clean up bad loans in its banking sector, namely, *China Huarong, Cinda*, and *Orient and Great Wall*.

3. **Insurance companies** (30%); and

4. **State-owned funds** (27%), in particular:
   a. *The China Structural Reform Fund*; it is the formed by 10 SOEs. The fund’s aim is to allocate 80% of their assets to structural restructuring of SOEs directly with equity or through investment in funds, as well as involvement in SOEs as a creditor.
   b. *The China State-owned Capital Venture Investment Fund*, which has the largest involvement in debt for equity swaps. The key purpose of the fund is to support innovation-driven and industrial upgrading.
   c. *The Guohua Military and Civilian Integration of Industrial Development Fund*, whose aim is to support the strategic military industry and central SOEs, as part of the 13th Five-Year Plan.

5. Other potential investors, including **private investors**, the **National Security fund**, and the **targeted SOE itself** (Pang and Herrero, 2016[5].

Although under Regulation 82 of the China Banking Regulation Commission (CBRC), non-performing loans are not allowed to be sold directly or indirectly to households (Pang and Herrero, 2016[5]), the regulation is circumvented by the scheme as it is the fund (the SPV), and not the bank, which will transfer the risk to its end-investors (Pang and Herrero, 2016[5]). Hence, the risk and potential future losses are diluted through the financial system and beyond it, with depositors and households bearing the ultimate risk. For example, the Postal Saving Bank of China has few non-performing loans (twice less than the sector average in Q3 2017) and a solid deposit base, but is the owner of 35% of the *China Structural Reform Fund and the China State-owned Capital Venture Investment Fund*, and hence an important end-investor in the debt for equity schemes (Herrero and Gary, 2018[6]).

The main beneficiaries of the scheme are i) the borrower (the indebted company, usually an SOE), which avoids the difficulty of having to repay its debt while reducing its indebtedness at a very low cost and ii) the lender (the bank, usually an SOE), which does not have to set aside capital for provisioning its distressed loans nor does it have to take any significant loss on the value of its loans. The scheme does not incentivise the borrower towards a more prudent approach with respect to debt, nor does it incentivise the obligor towards a more prudent management of credit. Hence, it fails to instil market discipline that would enforce long-term structural change and capital efficiency. On the contrary, it is the rest of the financial system, including the cash-rich banks, and ultimately, the households, which will bear the debt market and default risks (Pang and Herrero, 2016[5]). Within the company management, little change or re-organisation can be expected from the new diluted and non-expert shareholders. The reduced debt-level of the company would enable it to obtain new loans from its main lenders, thus falling short of the deleveraging goal and perpetuating an over-reliance on debt.

Debt for equity swaps, by allowing the diffusion of steel firms’ financial risks and debt burden to the rest of the Chinese economy, and ultimately, households, represent a downside risk for the global economic outlook and thus also for the steel sector. Long-term incentives for firms to reduce borrowing, curtail capacity expansion projects and adopt more conservative management practices are absent, as debt for equity swaps allow
borrowers to avoid disruptive and forced restructuring. Similarly, banks that lend to steel firms are not incentivised to provide credit more carefully, as they can avoid taking losses for bad loans to steel firms by simply passing them to a debt for equity scheme.

2.2.2. Slowdown in global economy and trade

The OECD’s Economic Outlook, released in November 2018, explains that import tariffs have led to increases in prices in some countries, and that global trade had started to ease due to the adverse effects of trade restrictions on confidence and investment planning (OECD, 2018[7]). According to the OECD, global trade growth will remain below 4% per annum on average during the period 2018-20.

A recent WTO leading Trade Outlook Indicator (WTOI), released on 19 February, exhibited the weakest value since March 2010, indicating a rate of trade growth below the currently estimated trend. The WTO forecasts trade growth to slow to 3.7% in 2019 from an expected 3.9% in 2018, downgrading its previous forecast due to trade frictions and tighter credit market conditions (Miles, 2019[8]) (WTO, 2019[9]).

In January 2019 the International Monetary Fund (IMF) reported that rising trade frictions, as well as financial vulnerabilities due to the building up of private and public debt, are key downside risks to the world economy (IMF, 2019[10]) and warned that the slowdown in economic growth could be sharper than predicted. The lack of a deal concerning “Brexit”, and a larger-than-anticipated slowdown in China were also pointed as risks that could contribute to a steeper slowdown in the world economy. A Pricewaterhouse Coopers (PwC) survey also found that only 5% of executive managers are expecting the situation to improve, compared to a third a year earlier (Giles, 2019[11]).

World industrial production growth, which had been picking up from its 2015 lows and reached 4.1% in January 2018, has been falling ever since. Growth stood at 1.8% in November 2018, down from 3.7% one year earlier (Figure 2). The weakening growth of industrial production has been more pronounced in advanced economies. Annual growth in advanced economies fell from 4.2% in November 2017 to a meagre 0.6% in November 2018. In emerging economies, industrial production growth decelerated from 3.2% to 2.8% during the same period. Hence, the industrial production gap between emerging economies and advanced countries, which had narrowed during previous years, appears to be widening again.
After a rapid increase in 2016 and 2017, the growth in global trade and export prices nearly came to a halt in November 2018. Annual growth in export volumes fell from 10% at the end of 2017 to 1.7% in November 2018.
From January 2018 to November 2018, steel market sentiment, as measured by the new orders Steel Purchasing Managers’ Index (PMI) compiled monthly by Markit, has been very volatile for the U.S. and decreased steadily for both Asia and the E.U. (Figure 4, upper panel). The sentiment index has worsened for all three regions, and, as of February 2019, purchasing managers of all three regions expect a decrease in new orders (index below 50). New export orders are also expected to decline, despite a notable improvement of the sentiment in Asia compared to the previous months (Figure 4, lower panel).
2.3. Steel consumption

Figure 5 below presents the y-o-y percentage change in the combined consumption of hot-rolled products for 10 of the world’s largest steel-consuming economies in Asia, the CIS region, Europe, North America and South America, which together account for approximately 75% of global steel demand. The y-o-y growth figure for the first three months of 2018 was a robust 7.5%, compared to the same period in 2017.
Figure 5. Consumption of hot-rolled steel products, major economies

Y-o-y % changes.

Note: Total (incl. China) represents the combined consumption of hot-rolled steel products of the following economies: Brazil, China, Germany, India, Italy, Japan, Korea, Mexico, Russia and the U.S. Total (excl. China) represents the combined consumption of all those economies except China. Consumption of hot-rolled products is defined as the sum of production and net imports. According to the latest publication of ISSB, consumption data on China is not available since April 2018 due to the lack of Chinese data on exports and imports of hot-rolled steel products (ISSB, 2019[12]).
Source: OECD calculations based on data from ISSB (International Steel Statistics Bureau).

2.3.1. Americas

In the North American Free Trade Agreement (hereafter “NAFTA”) region, the U.S. monthly steel consumption indicator increased by 3.7% during January to August 2018, year-on-year. Housing and non-residential construction is contributing to the growth of steel demand. Light vehicle production in the U.S. has also stabilized and is expected to increase modestly (Metal Expert, 2018[13]). In Mexico, the monthly steel consumption indicator remained flat (0.0%) during the first eight months of 2018, y-o-y. Mexican manufacturing sectors continue showing steady demand, while construction activity remains weak (Ternium, 2018[14]).

According to the Latin American Steel Association (Alacero), consumption of finished steel products in Latin America remained flat in January-November 2018 (0.0%), when compared to the same period in 2017 in January-November 2018. Steel consumption also increased in Argentina (1%) and Ecuador (4%) during January-November 2018. In contrast, Peru and the Bolivarian Republic of Venezuela (hereafter “Venezuela”) saw their domestic steel consumption decrease by 17% and 66%, respectively, in the first 11 months of 2018 (Alacero, 2019[15]).

2.3.2. Asia

The monthly consumption indicator for China, which accounts for around 46% of global steel demand, registered a y-o-y growth rate of 7.7% in the first three months of 2018. According to China Metallurgical Industry Planning and Research Institute (hereafter “MPI”), the demand growth in 2018 benefited from the expansion of investments in manufacturing and real estate, as well as an increase in exports of electrical machinery. The
one-off statistical effect from the closure of induction furnaces in 2017 is also reflected in the demand growth in 2018 — note that demand for steel supplied by these induction furnaces was not previously captured by the official statistics (MPI, 2018[16]) (People.cn, 2018[17]).

Steel demand in India, the third largest steel consuming economy, remained strong. India became the second largest steel producer in 2018, registering 106.5 million metric tonnes of production (World Steel Association, 2019[18]). The monthly consumption of hot-rolled products in India increased by 30.7% during January-March 2018 compared to the corresponding time period one year earlier. The implementation of government-driven large-scale infrastructure projects, such as housing, power transmission and railways, is contributing to the growth of domestic demand (Business Standard, 2018[19]).

According to the South East Asia Iron and Steel Institute (SEAISI), apparent steel consumption in the Association of Southeast Asian Nations region (ASEAN-6, i.e. Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam), slightly increased by 0.2% y-o-y during January-June 2018 (SEAISI, 2018[20]). Malaysia’s steel consumption increased by 6.6% y-o-y supported by growth in the demand for flat steel products used mainly in the manufacturing sector. Steel demand in Indonesia and the Philippines recorded moderate growth, of 1.2% and 3.8% y-o-y, respectively. Steel demand in Thailand has slightly recovered by 1.5% during the first half of 2018, after a significant decline in 2017 (-14%) due to destocking that followed a strong build-up of inventories in 2016 (SEAISI, 2018[21]). Steel demand in Viet Nam expanded by more than 20% per annum on average from 2014 to 2016, but started to decline in 2017 (by 5.8%) and continued to decline in the first half of 2018 (by 5.3%, y-o-y). This decline has been attributed to the slowdown in the market for long steel products, which are used primarily in construction. Singapore’s steel demand also declined by 4.9% y-o-y during the first half of 2018.

In Japan, the monthly consumption indicator registered a moderate y-o-y growth rate of 1.3% in the first eight months of 2018. Steel demand from the construction, industrial machinery and automobile sectors has been firm, while demand from the shipbuilding sector remains stagnant (JISF, 2018[22]). The steel consumption indicator for Korea decreased by 5.3% in January-August 2018 compared to the corresponding time period one year earlier, explained by a slowdown in the auto and shipbuilding industries (KOSA, 2018[23]).

2.3.3. CIS

In the Commonwealth of Independent States (CIS) region, the steel monthly consumption indicator for Russia recorded y-o-y growth of 0.9% during the first eight months of 2018. According to the Russian Steel Association (Russian Steel), steel demand in Russia is expected to increase in 2018, mainly supported by new infrastructure projects and investments in modernisation of downstream industries, i.e. digitalisation and investments for environmental and energy efficiency purposes (Russian Steel, 2018[24]). In Ukraine, apparent steel consumption during January-June 2018 in Ukraine has increased by 6.4%, y-o-y, supported by stable demand in key steel consuming industries, such as construction, machine-building and hardware production industries, according to Ukrainian steel company Metinvest (Metinvest, 2018[25]).

2.3.4. European Union

A recent report by the European Steel Association (EUROFER) indicates that steel demand in the E.U. benefited from moderate growth in steel-using sectors in Q3 2018 (Eurofer,
This was evidenced by the 2.3% increase in the Steel Weighted Industrial Production Index (SWIP).\(^7\) Apparent steel consumption in the third quarter of 2018 grew by 2.6% y-o-y and is estimated to have increased by 0.3% y-o-y in Q4 2018 (EUROFER, 2019\(^{[26]}\)). The key drivers of steel demand in Europe included the construction industry (+5% year-on-year during the first three quarters of 2018) and, to a lesser degree, mechanical engineering (+4%). Construction activity was stimulated both by residential and non-residential demand. In western European countries, residential demand for affordable housing increased due to the need for the authorities to accommodate the migrant flows of recent years (Eurofer, 2019\(^{[26]}\)). In particular, German construction activities continued to be strong throughout 2018 (Kallanish, 2018\(^{[28]}\)) and the momentum does not seem to have abated in 2019 (Kallanish, 2019\(^{[29]}\)). Private non-residential investment was supported by low costs for finance, while public non-residential investment was supported by improvements in the budgetary situation of some European countries. In central European countries, the key drivers of construction activity were infrastructure projects and healthy domestic conditions. EU investment in machinery and equipment should grow at a more moderate rate going forward, due the slowdown in economic activity and the redirection of business investment increasingly towards the service sector.

Eurofer estimates mechanical engineering growth to decrease to about 1.5% in 2019 and 2020 (Eurofer, 2019\(^{[26]}\)). Weaker demand from the automotive, steel tube production and the domestic electrical appliance industries explains the sluggish growth. Eurofer estimates that automotive industry production increased by only a meagre 1.3% in 2018, due to a sharp fall in the second half of 2018. Production declined in most European automotive markets (Kallanish, 2018\(^{[30]}\)), and the decline was particularly felt in German car production (Kallanish, 2018\(^{[31]}\)).

Factors affecting the outlook include high vehicle ownership in the Western European market and the expectation that lease companies may delay purchases of cars until the uncertainty surrounding governments stance towards diesel cars is resolved. The transition to new emission testing procedures, i.e. the Worldwide Light Vehicle Test Procedure (WLTP)\(^8\) may also worsen the drop in demand for automobiles (Flak, 2019\(^{[32]}\)).

### 2.4. Steel production

World crude steel production increased by 4.7% in 2018 compared to the previous year, but with marked differences across regions. The strongest regional growth by large was observed in the Middle East (12.6%), followed by Africa (6.9%), China (6.9%) and Oceania (5.9%). North America also experienced a relatively strong y-o-y growth (4.1%). Steel production growth was sluggish in the Other Europe (0.5%) and CIS (0.1%) regions, while the European Union registered a decline in steel production in 2018 (-0.2%).

Total crude steel production in the North America region was up by 4.1% overall during 2018, with the U.S. registering the strongest pace of production growth (6.2%), Mexico growing at a slower pace (1.0%) and Canada showing a decline in steel production (-4.0%).

In the E.U., steel production declined slightly (-0.2%) in 2018 as a whole, reversing gains earlier in the year. Steel output increased in the United Kingdom (U.K.) (+3.5%) and in Italy (+1.7%). The largest decreases in steel production were experienced in Poland (-2.3%), Germany (-2.0%), and Spain (-1%).

In the “Other Europe” region, steel output growth was anaemic, increasing by a mere 0.5% in 2018, with Turkish steel output contracting by 0.6%. In the CIS region, steel output
stagnated in 2018 (+0.1%). Russian output was flat during the period (+0.3%) and Ukrainian production decreased (-1%).

Asian crude steel production accelerated during the second half of 2018, resulting in an overall 5.9% growth rate over the year. China's steel production supported the increase with a 6.9% growth rate in 2018, followed by India (4.9%), which became the second largest steel producer in the world, Chinese Taipei (+3.5%) and Korea (2.0%). Japanese steel production stagnated in 2018 (-0.3%).

In South America, steel production decelerated during the second half of 2018, resulting in a mere 1.5% growth in 2018. The largest increase remained in Argentina, with production growth accelerating to 11.6%, while Brazil grew at a more subdued pace of 1.1% in 2018.

In the Middle East, steel production increased by a strong 12.6% in 2018, y-o-y, mainly led by Iran (17.7%), which produced 25.0 million metric tons of steel in 2018 (Worldsteel, 2018[33]). Saudi Arabia’s steel production also saw a robust increase (8.4%). African steel production increased by 6.9% in 2018, still driven by very strong production growth in Egypt (13.6%), while steel production remained flat in South Africa (0.4%).

Table 2. World crude steel production developments in 2018

<table>
<thead>
<tr>
<th>Region</th>
<th>Level, thousand mmt</th>
<th>% change, year-on-year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dec 2018</td>
<td>2017</td>
</tr>
<tr>
<td>EU</td>
<td>14 527</td>
<td>168 549</td>
</tr>
<tr>
<td>Other Europe</td>
<td>3 474</td>
<td>40 633</td>
</tr>
<tr>
<td>CIS</td>
<td>8 034</td>
<td>100 932</td>
</tr>
<tr>
<td>North America</td>
<td>10 108</td>
<td>115 761</td>
</tr>
<tr>
<td>South America</td>
<td>3 679</td>
<td>43 686</td>
</tr>
<tr>
<td>Africa</td>
<td>1 250</td>
<td>13 593</td>
</tr>
<tr>
<td>Middle East</td>
<td>3 096</td>
<td>32 020</td>
</tr>
<tr>
<td>Asia, of which:</td>
<td>105 033</td>
<td>1 186 889</td>
</tr>
<tr>
<td>China</td>
<td>77 621</td>
<td>867 544</td>
</tr>
<tr>
<td>Oceania</td>
<td>474</td>
<td>5 985</td>
</tr>
<tr>
<td>World</td>
<td>149 676</td>
<td>1 708 048</td>
</tr>
</tbody>
</table>

Source: World Steel Association, as of June 2018. Data are based on monthly production data and can differ slightly from annual data published after December of each year.

2.5. World steel trade

Table 3 presents recent data on trade developments in the 10 largest steel-producing economies. Exports from China declined by 9.3%, in the first 10 months of 2018 compared to the same period in the previous year. Exports from the E.U. (external trade) and Japan have also declined, by 6.4% and 3.1% y-o-y, respectively, during January-October 2018. Exports from India, which had recorded a significant increase in 2017 (60.7%), declined by 29.3% y-o-y in January-October 2018. Steel exports from the U.S., Korea and Brazil have also decreased, doing so by 13.4%, 3.1% and 9.7%, respectively, during the first 10 months of 2018. Exports from Russia and Turkey increased by 8.7% and 18.3%, y-o-y, in the first 10 months of 2018, respectively. Iran has showed a significant increase in exports (37.2%) during the same period.
Turning to steel imports, the E.U., the largest steel-importing economy, saw steel imports increase by 9.6% in January-October 2018, compared to the corresponding period one year earlier. The U.S., which had recorded a significant increase in steel imports in 2017 (14.7%), posted an import decline of 10.6%, y-o-y, during the first ten months of 2018. The volume of imported steel products in Korea and Iran decreased significantly in the first 10 months of 2018, falling by 26.4% and 38.3%, respectively. Steel imports in Japan, Russia and Turkey also declined by 4.2%, 2.9% and 17.7%, respectively, during the same time period. China and Brazil recorded increases in steel imports of 1.3% and 2.3%, respectively.
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 (People's Republic of)*</td>
<td>Exports</td>
<td>93 780</td>
<td>112 400</td>
<td>108 490</td>
<td>75 410</td>
<td>58 410</td>
<td>64 490</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>14 430</td>
<td>12 780</td>
<td>13 210</td>
<td>13 300</td>
<td>11 100</td>
<td>10 960</td>
</tr>
<tr>
<td>EU-28 (external trade)</td>
<td>Exports</td>
<td>36 451</td>
<td>32 998</td>
<td>29 193</td>
<td>30 508</td>
<td>23 635</td>
<td>25 254</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>31 931</td>
<td>37 385</td>
<td>41 150</td>
<td>41 702</td>
<td>38 761</td>
<td>35 354</td>
</tr>
<tr>
<td>India</td>
<td>Exports</td>
<td>9 826</td>
<td>7 117</td>
<td>9 333</td>
<td>15 964</td>
<td>9 241</td>
<td>13 072</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>9 310</td>
<td>13 249</td>
<td>9 857</td>
<td>8 818</td>
<td>7 503</td>
<td>7 451</td>
</tr>
<tr>
<td>Japan</td>
<td>Exports</td>
<td>41 247</td>
<td>40 720</td>
<td>40 452</td>
<td>37 408</td>
<td>30 058</td>
<td>31 025</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>6 657</td>
<td>5 850</td>
<td>5 965</td>
<td>6 186</td>
<td>4 956</td>
<td>5 175</td>
</tr>
<tr>
<td>United States</td>
<td>Exports</td>
<td>11 581</td>
<td>9 620</td>
<td>8 920</td>
<td>10 081</td>
<td>7 378</td>
<td>8 519</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>40 285</td>
<td>35 564</td>
<td>29 918</td>
<td>34 327</td>
<td>26 525</td>
<td>29 661</td>
</tr>
<tr>
<td>Korea</td>
<td>Exports</td>
<td>31 803</td>
<td>31 077</td>
<td>30 504</td>
<td>31 254</td>
<td>25 421</td>
<td>26 241</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>22 268</td>
<td>21 546</td>
<td>23 168</td>
<td>19 208</td>
<td>12 255</td>
<td>16 655</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>Exports</td>
<td>26 939</td>
<td>29 605</td>
<td>31 104</td>
<td>31 087</td>
<td>27 600</td>
<td>25 394</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>5 644</td>
<td>4 309</td>
<td>4 389</td>
<td>6 407</td>
<td>5 216</td>
<td>5 370</td>
</tr>
<tr>
<td>Turkey</td>
<td>Exports</td>
<td>15 965</td>
<td>14 687</td>
<td>15 117</td>
<td>16 083</td>
<td>15 503</td>
<td>13 107</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>13 326</td>
<td>18 415</td>
<td>15 344</td>
<td>13 352</td>
<td>9 192</td>
<td>11 167</td>
</tr>
<tr>
<td>Brazil</td>
<td>Exports</td>
<td>9 730</td>
<td>13 624</td>
<td>13 378</td>
<td>15 301</td>
<td>11 306</td>
<td>12 527</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>3 894</td>
<td>3 141</td>
<td>1 827</td>
<td>2 275</td>
<td>2 018</td>
<td>1 973</td>
</tr>
<tr>
<td>Iran</td>
<td>Exports</td>
<td>2 838</td>
<td>3 764</td>
<td>5 623</td>
<td>7 336</td>
<td>7 989</td>
<td>5 624</td>
</tr>
<tr>
<td></td>
<td>Imports</td>
<td>4 140</td>
<td>4 396</td>
<td>4 652</td>
<td>3 065</td>
<td>1 589</td>
<td>2 575</td>
</tr>
</tbody>
</table>

Definition: 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).

Note: The economies listed in this table are the major crude steel producing economies by production volume in 2018 (World Steel Association, 2019[18]). This is the first time Iran is shown in this table because in 2018 Iran became the 10th largest steel producer in the world. Data for China are sourced from the General Administration of Customs of China (GACC, 2018[34]). Therefore, the definition of steel products for data of China are slightly different from the OECD’s definition, which is used for other economies.

Source: OECD calculations based on data from ISSB (International Steel Statistics Bureau) and General Administration of Customs of China (GACC)

2.6. Steel and steelmaking raw material prices

2.6.1. Steel prices

The up tick in steel demand from 2016 onwards supported a rebound in steel prices from their 2015 lows, but this trend was short-lived and the price dynamics have since reversed, with both world hot-rolled coil (HRC) and rebar prices steadily declining from their May 2018 heights (Figure 6). In the beginning of 2019, the flat and the rebar price indexes stood at USD 590.6 per tonne and USD 554.6 per tonne respectively, close to the levels in the beginning of 2014. Differences in prices are reflected in the price dispersion indicator shown in Figure 6. Regional price dispersion, for both rebar and flat prices, has increased sharply since mid-2017, reversing its earlier decline. Increases in regional price dispersion have previously been associated with significant price declines— e.g. during 2015, price
dispersion was very high and the price index at its lowest level during the whole 2008-2018 period.

**Figure 6. Aggregate flat and rebar steel prices (latest January 2019)**

Notes: 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 Market reports prior to the two global price indices being discontinued by Platts from September 2017 onwards. 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, and thus captures price dispersion across regions. Source: Platts Steel Business Briefing.

Flat Steel prices increased more rapidly in the U.S. than in other jurisdictions during the first half of 2018, but reversed course during the second half of the year (Figure 7) and moved closer to the levels in the beginning of the year. U.S. rebar steel prices remained flat during the period because, according to Platt’s, market players were adopting a “wait and see” attitude (Figure 8).

Chinese and South East Asian flat and rebar prices, which had moderately increased during the second half of 2017 and stalled in the first half of 2018, have decreased in the second half of 2018 and are now back at their mid-2017 levels (Figure 7, Figure 8). In absolute terms, flat and rebar prices in those regions are significantly below comparable prices in other regions.
Figure 7. Steel price for flat products, by region

Source: Platts Steel Business Briefing.
2.6.2. Steel futures prices

As shown in the previous report on steel market developments (OECD, 2018[35]), steel future prices tend to move quicker than steel prices, suggesting that they are better able to predict steel price dynamics by incorporating new market information more rapidly.

For the purpose of analysis, this paper uses continuous steel price indices, constructed from a number of steel future contracts by rolling them over. More precisely, each month the price data are extracted from a different steel contract price series of the same maturity than the contract used one month prior. Figure 9 below shows three steel future continuous contracts, as provided by Thomson Reuters Datastream. There has been a steady decrease from 2018 onwards, suggesting that the downward trend observed for spot steel prices is expected by traders to continue in the short term.
2.6.3. 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 period. Nevertheless, this trend reversed in 2016, when raw material prices slowly climbed back towards their 2011 levels. Prices of steelmaking raw materials continued to increase in 2017, albeit at a slower pace. In 2018, iron ore prices stayed relatively flat, while scrap prices and coking coal prices declined (Figure 10).

Iron ore prices stabilised at around USD 72 per tonne as of 31 December 2018, up from USD 64 in June 2018 but well below their high of USD 83 per tonne in March 2017. Coking coal prices have stabilised at USD 196 per tonne as of 31 December 2018, after a volatile 2016-2017 period. Scrap prices decreased steadily during the course of 2018, reversing most of their 2017 gains, falling to USD 264 per tonne (FOB Rotterdam) as of 31 December 2018.
As of 31 December 2018, the difference between scrap and iron ore price stood at USD 192 per tonne. This differential is below the average during the 2008-2018 period (USD 220 per tonne), and has declined considerably since March 2018, when it stood at USD 278 per tonne. It will be interesting to continue following the evolution of iron ore and scrap prices as one of the different factors determining the choice of steelmaking technologies in steel production. There are particularly large differences in scrap prices across regions, both in terms of price levels and price dynamics. For example, regarding the latter, the Chinese steel scrap price has continued to increase (Figure 11), contrary to the price of European scrap exports (Figure 10). In terms of levels, Chinese scrap prices are also higher: on 10 January 2019, the Chinese Home Steel Index for scrap stood at about USD 397 per tonne (using the prevailing USD/RMB exchange rate), compared to a price of USD 284 per tonne for European exports of scrap. According to Platt’s, high Chinese scrap prices could reflect a move towards the Electric Arc Furnace (EAF) technology in the context of environment-related policy objectives (Lu and Zhang, 2018[36]). The announcement, in June 2018, regarding the banning of all steel scrap imports to China by 2020 (Ault, 2018[37]), might have also contributed to higher Chinese scrap prices and lower European prices.

Figure 10. Prices for key steel-making raw materials

Source: Platts Steel Business Briefing (SBB), Datastream.
Figure 11. Chinese scrap prices continue on upward trend

Steel Scrap Price, RMB per tonne.

Source: Home Steel.

The declining steel price trajectory, coupled with relatively stable iron ore and coking coal prices, help explain the decreasing margin between steel and raw material prices, as shown in Figure 12.

Figure 12. 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 per cent difference between the steel flat price and the raw materials basket price.

Source: OECD calculations based on Platts Steel Business Briefing.
2.7. The global capacity situation

The latest available information (as of 31 December 2018) suggests that global steelmaking capacity (in nominal crude terms) remained nearly unchanged in 2018, following declines in 2016 and 2017 (Figure 13.A). The OECD has revised (slightly downwards) its 2017 figures for global steelmaking capacity to 2 240.1 million metric tonnes (mmt) to incorporate new information on closures that was not previously available as well as updated information on the status of certain investment projects. The net capacity change in 2018, taking into account new capacity additions and closures, brings current global steelmaking capacity to 2 233.7 mmt, representing a slight decline of slightly more than 6 mmt, i.e. 0.3%, from the level of 2017. The decline in global steelmaking capacity in 2018 follows a deceleration in capacity growth since 2013, and results from both capacity reductions and slower capacity growth in some parts of the world (Figure 13.B).

Figure 13. Evolution of crude steelmaking capacity in OECD/EU economies and non OECD/EU economies

A. Level (mmt)                                                                 B. Annual % change.

Note: Capacity data reflect information available to December 2018. Please see the document DSTI/SC(2019)3 for further information about updates of new steelmaking capacity investments and closures, as well as capacity projects that are underway and planned over the next few years (OECD, 2019[38]).

Source: OECD.

The gap between global capacity and production is likely to have narrowed in 2018, reflecting the relatively strong growth in global steel production. The gap between capacity and production is expected to have declined to 425.1 mmt in 2018 (Figure 14. A). As a result, global production of steel as a per cent of capacity may have increased from 77.2% in 2017 to 81.0% in 2018 (Figure 14.B).
Figure 14. Global crude steelmaking capacity and crude steel production

A. Capacity-Production gap (mmt)

B. Crude steel production as a % of capacity

Note: Capacity data reflect information up to December 2018. Annual production data for 2017 and 2018 are based on the press release of 25 January 2019 by the World Steel Association (World Steel Association, 2019[38]). Annual production data from 2008 to 2016 are from the “Steel Statistical Yearbook 2018” published by the World Steel Association (World Steel Association, 2018[39]). Please see the document [DSTI/SC(2019)3] for further information about updates of new steelmaking capacity investments and closures, as well as capacity projects that are underway and planned over the next few years (OECD, 2019[38]).

Source: OECD for capacity and World Steel Association for production.

2.8. Global steel market outlook

In its October 2018 Short Range Outlook (SRO), the World Steel Association (worldsteel) predicts that global finished steel demand will increase by 1.4% in 2019 to reach 1 681.2 million metric tonnes (Worldsteel, 2018[40]). The World Steel Association highlighted that although the positive momentum of 2017 was carried over to 2018, global steel demand faces uncertainty from tensions in the global economic environment, in particular trade tensions, rising currency volatility, and monetary policy tightening.

2.9. Regional steel market outlook

2.9.1. Europe and CIS economies

The World Steel Association expects finished steel demand in 2019 to increase by 1.7% in the European Union and 1.5% in the Other Europe region, according to its October 2018 SRO (Worldsteel, 2018[40]). Eurofer forecasts the growth of steel consumption to be a meagre 0.8% in 2019 and 0.9% in 2020, on the back of sluggish demand (Eurofer, 2019[26]). Steel tube production is estimated to have decreased by 1.4% in 2018 (Eurofer, 2019[26]) and is expected to remain weak, while domestic electric appliance production is expected to have decreased by 0.5% (Eurofer, 2019[26]). Eurofer further warns that weakening economic growth worldwide and the possible escalation of trade frictions have tilted the balance of risks to the downside (Eurofer, 2019[26]).

The World Steel Association expects steel demand growth in the CIS region to ease back to 0.9% in 2019, according to its October 2018 SRO (Worldsteel, 2018[40]). Severstal, a major Russian steelmaker, expects that steel demand will be flat in the country’s domestic market in 2019 because of the construction sector, which is the main steel consuming industry in Russia (Shulga, 2019[41]). The World Steel Association expects Turkish steel demand to have contracted in 2018 due to the currency crisis, but the government’s
stabilisation measures and a consequent return to the competitiveness of the manufacturing sector should help recovery in 2019 (Worldsteel, 2018[40]).

2.9.2. Americas

According to the World Steel Association October 2018 SRO, Central and South American steel consumption is expected to grow by 4.3% in 2019 to reach 45.1 million metric tonnes (Worldsteel, 2018[40]). Alacero indicated that robust domestic household consumption has helped to prevent a contraction in Latin American’s steel consumption in 2018 (Alacero, 2019[15]), but warned that Chinese exports, which increased 28% year-over-year during the period June to November 2018, could hamper domestic steel production. Latin America became China’s main steel export market in January 2019 (Kallanish, 2019[42]). The Brazil Steel Institute estimates that growth of steel domestic sales was 8.9% in 2018 compared to the previous year, and has optimistic expectations about the measures being announced by the new Brazilian government (Steel News, 2018[43]). Brazil’s President-elect has been prioritizing the construction and infrastructure sectors, which should have positive effects on steel demand (Baida, 2019[44]). The Brazil Steel Institute forecasts an increase of domestic steel consumption by 6.2% in 2019. However, the World Steel Association notes that Brazil’s construction sector has yet to recover from its crisis (Worldsteel, 2018[40]).

Some Latin-American economies (Bolivia, Paraguay, Peru) are launching new steel mills in 2019 (OECD, 2019[38]), and others have planned large investments in infrastructure for the coming years (Honduras, Chile, Colombia) (Baida, 2019[44]). Argentina still has to recover from the uncertainty and lack of investors’ confidence caused by the strong devaluation of its currency in August 2018, which affected the country’s steel market fundamentals (Baida, 2019[44]). Venezuela’s steel market has shrunk, with only two producers still in operation and at a reduced rate. Most of the country’s steel workers have been on strike since August 2018 and hyperinflation has limited the purchase of inputs such as electrodes, refractories, ferroalloys and scrap necessary for steel production (Baida, 2019[44]).

Regarding the NAFTA region, the World Steel Association expected steel demand growth to moderate to 1% in 2019 (Worldsteel, 2018[40]). US construction material costs have been rising sharply (Kallanish, 2018[45]), and are expected to stay at elevated levels (Zevin, 2018[46]), which could hamper construction growth by reducing the sector’s profit margins. The US National Association of Home Builders (NAHB) predicts the number of new housing starting to be constructed in 2019 to be roughly equal to 2018 (+0.7%), and to slow down in 2020 (+0.3%). Other forecasters, such as Dodge Data & Analytics, have a more negative outlook on the housing market, and predicts that the housing sector slowdown will erase the gains in non-housing construction sectors, resulting in an overall flat (+0.2%) construction activity in the US in 2019 (Zevin, 2018[46]). The 2017 Tax Cuts and Jobs Act reduced the tax advantages of home ownership (by increasing standard deductions and limiting other deductions), thus reducing the attractiveness of buying new homes (Zevin, 2018[46]). Mexican steel demand growth is expected to ease as well, from a projected 3.5% in 2018 to 1.5% in 2019, partly because of a moderation of the U.S. car market. Alacero expects Mexican steel consumption in 2018 to increase by 3% (Metal Expert, 2018[47]). The World Steel Association noted that in 2018 Mexican steel demand was affected by uncertainties related to the NAFTA negotiation and the presidential election. The recent signing of the United States-Mexico-Canada Agreement (USMCA) will enable the economy to slowly recover in 2019 (Worldsteel, 2018[40]). Mexico’s public investment in civil construction and infrastructure projects is expected to increase in 2019, due to higher
level of public spending, and could account for more than 50% of the nation's steel consumption in 2019.

2.9.3. Middle East

According to the World Steel Association’s October 2018 forecasts, steel demand in the Middle East is expected to grow by 1.2% in 2019 to reach 55.1 million metric tonnes (Worldsteel, 2018[40]). In the Gulf countries, reforms and a stronger oil market have led to an upward momentum in steel demand, albeit demand is likely to grow at a slower pace going forward (Worldsteel, 2018[40]). Steel demand in the gulf region is likely to continue to benefit from investments made in preparation for mega events such as the World Expo 2020 in Dubai and the FIFA World Cup 2022 in Qatar.

The outlook for Iran has turned less favourable recently due to the reinstatement of some sanctions: the increased difficulty for steel firms to finance deals may force them to reduce output or downscale projects, as the domestic market would not be able to absorb a higher level of production (Fastmarkets, 2018[48]). The Iranian government had set an ambitious target for steel production of 55 million tonnes per year by 2025 as part of its “2025 Vision Plan” production (Fastmarkets, 2018[48]). The OECD estimates that, should all steel plants projects already underway be completed as scheduled, Iranian nominal crude steelmaking capacity would reach 57.7 million metric tons by 2021, a 71% increase compared to the 33.6 million metric tons of capacity at the end of 2018 (OECD, 2019[38]).

The demand for steel products across the U.A.E and the GCC region is set to continue increasing, driven by a number of construction projects as the U.A.E prepares for the Expo 2020 Dubai event (Khaleej Times, 2019[49]). It is anticipated that steel consumption in the UAE could grow at a compound annual gross rate of 8% between 2016 and 2020 (Khaleej Times, 2019[49]). The National Committee for the Steel Industry of Saudi Arabia reports that the Saudi market requires more than 20 million metric tonnes of steel products today to meet current domestic demand. This number is likely to increase as more projects that are part of the Saudi Vision 2030 come on stream.

Steel demand in the northern region of Iraq could increase due to rebuilding efforts. Iraq’s demand for concrete reinforcing steel is projected to hit 2.4 million tonnes in 2020 as part of post-war reconstruction efforts and local factories are projected to produce one million metric tonnes of steel for that year (Abdullah, 2019[50]).

2.9.4. Asia and Oceania

The October 2018 forecast by the World Steel Association estimates that steel demand in the Asia and Pacific region should grow by 1.3% in 2019 (Worldsteel, 2018[40]). India and ASEAN are likely to drive the projected increase in steel use in the region, while steel demand in China is expected to stagnate in 2019.

According to the latest Short Range Outlook by World Steel Association, Chinese steel demand is expected to stagnate in 2019 (0.0%) due to the Chinese government’s continued effort to shift to a more consumption-driven growth path and toughening environmental regulations. The World Steel Association noted that Chinese steel demand in 2019 could be boosted if stimulus measures to improve deteriorating economic environment are introduced, while the ongoing trade dispute with U.S. and a decelerating global economy could be downside risks for steel demand in China (Worldsteel, 2018[40]). At the same time, MPI forecasts that Chinese steel demand will decrease by 2.4% in 2019 compared to 2018. Steel demand in the construction, energy and automotive sectors would decrease in 2019,
while demand in the machinery, shipbuilding, domestic appliances and railway sectors would continue to register growth (MPI, 2018[16]) (People.cn, 2018[17]).

According to the China Association of Automobile Manufacturers (hereafter “CAAM”), total automobiles sales (including passenger and commercial vehicles) in China fell by 2.8% in 2018, to a level of 28.1 million vehicles (Figure 15). CAAM indicates that the weakness of vehicle sales would continue and forecasts that sales would remain flat around 28 million vehicles for 2019 (CAAM, 2019[51]) (Reuters, 2019[52]). On January 2019, China unveiled a number of measures to boost domestic consumption, particularly of cars and home appliances, which should increase demand for flat production (Jing, 2019[53]).

![Figure 15. Car passenger vehicle sales in China](image)

Source: Datastream.

In China, total current investment by real estate development companies and commercial building construction companies during the year 2018 increased by about 10% year-over-year (Figure 16). Chinese investment in real estate in 2018 was underpinned by housing demand from households, in spite of the already high price level of properties in China. Nevertheless, the momentum appears to be fading. There has been anecdotal evidence of large price rebates being offered by Chinese real estate developers (Dunkley and Liu, 2018[54]) (Zuo, 2018[55]). Furthermore, new home prices in first tier cities are estimated to have risen by only 0.3% year-over-year over the period from January to November 2018 (Hao, 2018[56]). Going forward, China plans to introduce a new property tax law that could go into effect as soon as 2019, and could decrease the attractiveness of real estate as an investment, depending on its concrete formulation (Dunkley and Liu, 2018[54]). Real estate accounted for 63% of Chinese total steel consumption in 2017, according to China's Metallurgical Planning Institute (Bartholomew, 2018[57]), hence any slowdown in the demand for housing would greatly affect overall steel demand in China. S&P estimates that the Chinese property market has already peaked in terms of prices, and forecasts a decline in prices of 5% in 2019 (Bartholomew, 2018[57]).
Chinese steel demand has also been supported by infrastructure investment projects, such as construction of roads, bridges and subways. However, the growth rate of investment in infrastructure (excluding electric power, heat power, gas and water) decelerated in 2018, and registered a 3.8% increase y-o-y during January-December 2018. This is 15.2 percentage points lower than that in 2017, according to the National Bureau of Statistics of China (hereafter “NBS”) (NBS, 2019[58]). On the other hand, the China Iron and Steel Association (hereafter “CISA”) expects that central and local governments would accelerate the investment in infrastructure, and the growth rate would continue to increase in 2019 (CISA, 2019[59]). China’s National Development and Reform Commission has approved urban rail projects in eight cities and regions, with a total investment of RMB 860 billion in December 2018 (Financial Times, 2019[60]). At the same time, there are some concerns that whether a growth rate in infrastructure could be sustainable because of continued efforts by the Chinese governments to deleverage the economy (Platts, 2019[61]).

Steel demand in Japan is expected to remain stable. The continuation of an easing of monetary policy and solid demand associated with the investments related to the Tokyo Olympics and Paralympic Games should support this development. Japanese steel demand is forecast to continue to grow by 0.5% in 2019 (Worldsteel, 2018[40]). According to the Japan Iron and Steel Federation (here after “JISF”), steel demand from the construction sector in the financial year of 2019-2020 (April 2019-March 2020) is expected to be slightly higher than the previous financial year because of strong civil engineering activity. The latter will be supported by an increase in public investments. On the other hand, the
consumption tax increase in Japan (from 8% to 10% in October 2019) would have an impact on steel demand from the manufacturing sector (JISF, 2018[62]).

While the Japanese economy is expected to continue recovering due to the effects of monetary policy easing and public investment, increasing industrial production and capital investment by Japanese companies could support short-term prospects for Japanese steel demand. However, any further trade frictions and a slowdown of the global economy might put downward pressure on Japanese economy (Cabinet Office of Japan, 2019[63]).

In Korea, steel demand in 2019 is expected to rebound by 1.1%, after contracting by 4.1% in 2018 with all its major steel using sectors struggling, according to the latest forecast by World Steel Association (Worldsteel, 2018[40]).

According to the World Steel Association, India could soon become the world’s second largest steel-consuming economy, with demand expected to grow by 7.3% in 2019. Infrastructure, as well as residential property construction, coupled with favourable demographics and improving macroeconomic fundamentals, should sustain increases in steel consumption in India over the longer term (Worldsteel, 2019[64]). Thanks to an increased focus on the infrastructure sector, particularly towards housing, power transmission and the railways in the Union Budget 2018-19, domestic steel consumption growth is likely to continue in the medium term. According to the Investment Information and Credit Rating Agency of India Limited (ICRA), an Indian ratings agency, steel consumption is expected to grow by around 7% during 2019 and 2020 (Moirangthem, 2019[65]).

The port and shipping sector has been developing rapidly as a consequence of the ‘Make in India’ initiative (e.g. the Sagarmala programme[66]). The construction and upgrade of ports and other maritime infrastructure will continue to require large quantities of steel ("Hellenic Shipping News Worldwide", 2019[66]). As urbanisation rates increase in India, the construction sector is likely to continue to support steel demand going forward. Some of the government initiatives in this area that could continue to contribute to steel include for example; the Pradhan Mantri Awas Yojna – Housing for All initiative[13], the Sardar Patel Urban Housing Mission[14], the 100 Smart Cities Mission[15], or the Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT)[16]. The Government of India is also formulating a draft National Scrap Policy to help increase domestic ferrous scrap processing ability and reduce scrap imports (Sathish, 2019[67]). The policy is at the nascent stage and will take some time to be finalised. The Insolvency and Bankruptcy code introduced in 2016 is expected to help steel firms and banks tackle stressed assets. (Bruhadeeswaran, 2019[68])

Steel demand in the ASEAN region is expected to resume a solid growth momentum driven mainly by numerous government-led infrastructure projects in 2019, as steel consumption in the ASEAN-5 region (Indonesia, Malaysia, Philippines, Thailand and Viet Nam) is expected to grow by 6.2% in 2019, according to the latest Short Range Outlook by the World Steel Association (Worldsteel, 2018[69]). The Philippine government has planned new infrastructure projects to implement in 2019 that would boost steel consumption. Viet Nam is also expected to continue posting positive growth in the short term due to solid demand from the construction industry (VN Steel, 2018[69]). On the other hand, postponements of infrastructure projects would have an impact on growth of steel demand in the region. In September 2018, the governments of Malaysia and Singapore agreed to postpone the construction of the Kuala Lumpur-Singapore high-speed rail project for a period up to the end of May 2020 as an effort to reduce Malaysia’s debt (MyHSR, 2018[70]) (Reuters, 2018[71]). According to some press reports, the Indonesian government also might
postpone some infrastructure projects due to the government’s efforts to reduce the current account deficit (The Jakarta Post, 2018[72]).


CISA (2019), 深入推进供给侧结构性改革 努力提高钢铁行业运行的质量和效益 (Deepening the supply-side structural reform, efforts to improve the quality and efficiency of the operation of the steel industry), https://translate.google.com/?hl=ja#view=home&op=translate&sl=zh-CN&tl=en&text=%E5%8A%A1%E5%8A%9B%E6%8F%90%E9%AB%98%E9%92%A2%E9%81%8E%E8%A1%8C%E4%B8%9A%E8%BF%90%E8%A1%8C%E7%9A%84%E8%B4%A8%E9%87%8F%E5%92%8C%E6%95%88%E7%9B%8A (accessed on 12 February 2019).


Eurofer (2018), Economic and Steel Market Outlook 2018-2019, Second Quarter, 2018,


Financial Times (2018), Iran feels sting of US sanctions once more.


Kallanish (2018), “German construction activity continues to gain momentum”,

Kallanish (2018), “Reduced EU demand affects Spanish automotive production”,

Kallanish (2018), “US construction materials costs see double-digit increase”,

Kallanish Energy (2019), “Germany’s exit from coal-fired power concerns steel industry”,


KOSA (2018), *Korean Steel Market in 2018*,


Lu, J. and J. Zhang (2018), *Beijing’s visible hand: China’s demand for iron ore and scrap through 2020*, S&P Global,

Mercier, F. (2016), *The modelling of defaults in the finance industry: A succinct overview of types of default models commonly used in the finance industry and the links between them*.

Metal Bulletin (2018), *TURKEY FLAT STEEL OUTLOOK: Strong demand set to drive production*,

Metal Expert (2018), *AISI: “The US will be attractive investment place for any steel company”*,

Metal Expert (2018), *Alacero: “Stronger world economy and trade are going to drive Latin America’s development”*,


SEAISI (2018), *Asean steel consumption to rebound in 2018: Seaisi*,

SEAISI (2018), *Thailand’s apparent steel demand in the first half of 2018*,

SEAISI (2018), *Update of ASEAN-6 steel industry situation in the first half of 2018*,


Ternium (2018), Ternium Anuncia Resultados para el Tercer Trimestre del 2018,

The Jakarta Post (2018), Government may postpone infrastructure projects for up to six years,

The Jakarta Post (2018), Infrastructure group says govt facing development budget shortfall,


Wan, F. (2018), New Rules Aim to Boost Debt-to-Equity Swaps,


Endnotes


2. Notice that, since the PBOC is not providing full allotment for its main refinancing operations, the increase of new potential credit that commercial bank can obtain is not proportional to the increase of their available collateral.

3. See the history of reserve requirement rates in China at: [https://tradingeconomics.com/china/cash-reserve-ratio](https://tradingeconomics.com/china/cash-reserve-ratio)

4. In this study, contagion risks between the banking and the shadow-banking sector was estimated using Granger-causality tests on institutions’ “Distance-to-Default”. Distance-To-Default is a commonly used concept in financial modelling, used to estimate risks in Basel II (Chatterjee and Blake, 2015[83]), although it has some limitations due to the commonly used assumption of a Gaussian process, which can nevertheless be replaced by processes with jumps or fatter tail distributions (Mercier, 2016[84]).

5. The “Made in China 2025” strategy includes redirecting investments away from sectors experiencing large excess capacity, such as Steel, towards key sectors set as priorities in the plan. These sectors are deemed more sophisticated, with higher margins and include for example the next generation of information technologies, high-end digital control machine tools and robots, communication technologies or aerospace (OECD, 2018[85]).

6. According to Natixis (Herrero, Ng and Soe, 2017[73]), the government has directly intervened to allow Sinosteel to convert RMB 27 billion of bank loans into convertible bonds. Swapping loans for convertible bonds instead of equity allowed obligor banks to avoid having to set aside the regulatory capital required for holding equity. The Chinese government also, through its welfare fund SASAC, took a direct participation of RMB 10 billion in the capital of Sinosteel, which represents a sixth of its total debt.

7. The Steel Weighted Industrial Production Index (SWIP) is the average output of steel using sectors, weighted by their share in total consumption — see the latest economic and steel market outlook by EUROFER for its definitions, page 23 (Eurofer, 2019[26]).

8. Demand for EU passenger cars has been declining due to the introduction of WLTP since 1 September 2018. Sales of passenger cars in July and August had been boosted by car manufacturers cleaning stocks of pre-WLTP vehicles.


11. Note that India became the largest steel producing economy in 2018 as indicated in Section 2.4 above.


13. [https://pmaymis.gov.in/](https://pmaymis.gov.in/)


15. [http://smartcities.gov.in/content/](http://smartcities.gov.in/content/)
In August 2018, the Department of Budget and Management of the Philippines announced several flagship infrastructure projects which the government plans to implement in 2019, including construction of sports facilities, railway project, rivers flood control projects and construction of new container ports and bridges (PHILSTAR Global, 2018[102]).
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.