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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 during the year 2020. It provides an update on recent developments in steel markets, based on the latest information available at the time of writing (as of July 2020), and as such does not reflect the World Steel Association’s October 2020 Short Range Outlook (SRO) for steel demand. The section on the economic outlook has been revised to include information available until September 2020.
1. Executive summary

Steel market fundamentals continued to worsen in 2019. Steel production growth turned negative in all regions, with the exception of Asia and the Middle East. Weakening global economic activity, uncertain prospects for steel demand growth, and the upturn in new capacity investments in some regions risking to exacerbate supply-demand imbalances are long-term factors that have been weighing on steel markets. The first half of 2020 was dramatically impacted by the COVID-19 outbreak, which started in the People’s Republic of China (hereafter “China”) but quickly spread to the whole world, causing large demand and production shocks that impacted all economic sectors including steel. Steel production declined in all regions (in aggregate terms) during the first half of 2020. The reduction in steel production was however uneven across jurisdictions as production even grew in a number of some jurisdictions, such as China and Viet Nam. Although the demand and production shocks caused by the COVID-19 outbreak began to abate in the second half of 2020, the crisis risks resulting in long-lasting and significant impacts on the steel sector. Digitalisation, new technologies and innovations helped the steel industry minimise the negative consequences of the pandemic, including through numerous initiatives such as those described in Box 1. Assessment of the impact of the COVID-19 pandemic are included in sections 3.5, 5.3 and 8.1.

This document provides an overview of recent steel market developments—including demand, supply, and prices—and the outlook by region based on information available until July 2020. The report also incorporates the impact of the COVID-19 pandemic on the steel industry during the first half of 2020. To summarise, the following key developments are discussed in this report.

- **The economic situation**: In its June 2020 Economic Outlook, the OECD forecasts that world GDP will drop by 6%-7.6% in 2020 and rebound by 2.8%-5.2% in 2021, depending on whether the global economy faces a second wave of the COVID-19 epidemic by the end of 2020. In addition, downside risks to GDP include a further escalation of trade and cross-border investment restrictions, and financial vulnerabilities stemming from slowing economic growth and high corporate indebtedness with deteriorating credit quality.

- **Steel consumption**: According to the World Steel Association (worldsteel)’s Short Range Outlook released in June 2020, global steel consumption picked up by 3.4% in 2019. The largest increases were recorded in Viet Nam (9.0%), China (8.5%) and Russia (5.0%). The largest decreases were observed in Turkey (-15.4%) and Germany (-12.0%). Steel consumption growth turned negative in the first three months of 2020 due to the initial impact of COVID-19 on the global economy. Total steel consumption decreased by 2.4% in this period compared to the same period one year earlier, with the largest drop year-over-year being in March 2020 (-7.7%). Assessments of the impacts of COVID-19 on steel consumption suggest that the steel market could face a prolonged period of weak demand.

- **Steel production**: All regions saw declining steel production during the first half of 2020. Compared to the first half of 2019, crude steel production was more resilient in the Middle East region (-0.5%), in Asia (-2.3%), in Oceania (-3.3%), in the CIS (-4.1%) and in Other Europe (-6.3%). In contrast, steel production dropped sharply in the European Union (-17.9%), in North America (-17.6%), in South America (-19.9%), in Africa (-20.9%).
• **World steel trade:** Steel exports continued to decline for most economies in 2019. Steel export decreases were observed in the United States (-15.7%), Russia (-11.7%), and Japan (-7.6%) during this period. On the other hand, steel export growth in India remained strong in 2019 (+21.6%).

• **Steel and steelmaking raw material prices:** Steel prices continued to decline during the first half of 2020, and in July 2020 world average prices for both flat and long (rebar) products were 16% below their levels one year earlier. As of July 2020, iron ore, coking coal and scrap prices were 9%, 4% and 3%, respectively, lower than one year earlier. Coking coal prices might currently face more upside than downside risks, because producers successfully downsized their production. Iron ore prices are driven to a large extent by Chinese demand. Scrap prices are expected to remain volatile.

• **Capacity:** Global steelmaking capacity could increase to 2,455.8 mmt at the end of 2020, i.e. by 1.7% (41.8 mmt) from the level at the end of 2019, according to the available information as of June 2020. World steel production as a share of capacity is expected to fall from 76.6% in 2019 to 71.2% in 2020.

• **Steel demand outlook:** The June 2020 forecasts of worldsteel points to a decrease in global steel consumption of 6.4% in 2020, erasing the 3.4% increase registered in 2019 and most of the gains of 2018. Steel demand is expected to decline significantly across most economies in 2020, as a result of the COVID-19 crisis. Chinese steel demand could increase by 1.0% due the faster-than-expected recovery, according to worldsteel. Other major steel consuming economies like India, Japan, the European Union and the United States however are projected to experience demand declines of 18.0%, 19.1%, 15.8% and 22.9%, respectively.
2. OECD Economic outlook: the monetary and fiscal responses to the COVID-19 crisis

Global growth prospects have collapsed following the implementation of stringent containment measures by governments as they tried to limit or slow down the spread of the COVID-19 epidemic, which started in Wuhan, China but quickly spread to the rest of the world. Lockdowns and restrictions placed on economic activity affected almost all sectors, with travel and leisure being the hardest hit.

In its September 2020 Interim Economic Outlook, the OECD forecasts world GDP to drop by 4.5% in 2020 and rebound by 5.0% in 2021. Those growth rates are significantly lower than those of the 2008-2009 global financial crisis. Fiscal balances are set to deteriorate drastically, as governments around the world launched important support measures in an attempt to mitigate the damage to the corporate sector and workers caused by the lockdowns. Fiscal deficits could be 9% of GDP in the median OECD economy, which is around three times higher than during the 2008-2009 financial crisis. Fiscal balance positions could turn out even worse than expected due to large uncertainties about the economic impact of the restrictions, the use of support measures, and the realisation of contingent government liabilities (e.g. corporate sector loan guarantees). Other risks to the outlook include the possibility of an escalation of trade tensions, and the financial stability risks stemming from collapsing corporate earnings and a highly indebted corporate sector.

Table 1 below presents GDP growth forecasts according to the September 2020 Interim Economic Outlook. Newer updates of the OECD forecasts that take into account the evolving impact of the COVID-19 pandemic on growth worldwide are regularly updated on the OECD website. In many countries, monetary and fiscal policy stances had remained largely accommodative prior to the crisis. Central banks who had previously favoured a normalisation of their balance sheets had already reversed course prior to the pandemic, albeit with moderate apparent impact on real growth. Following the COVID-19 crisis, fiscal and monetary stances became even more lenient: central banks around the world cut rates further, introduced new quantitative easing programmes, and governments devised new fiscal measures directed towards providing relief to households, SMEs, and corporations. Disruptions in supply chains due to the COVID-19 pandemic also impacted economic activity world-wide. Downward pressure on current demand exerted by the lockdowns, as well as the suspension of medium-term investments, further slowed economic activity, weighing on an already low investment level, which could become entrenched.
Manufacturing activity worldwide has continued to decelerate significantly. Data on global industrial production show a sharp slowdown in the growth rate in recent months, and the IHS-Markit index for new export orders of steel intensive sectors, which is a forward-looking component of the overall Purchasing Managers’ Index (PMI), indicated that a contraction in global manufacturing activity was expected by large steel buyers (Figure 1). As of June 2020, all the new orders indices, with the exception of the E.U. index, stand at 50, indicating that there are as many purchasing managers that expect the contraction in steel demand to continue as there are managers that expect steel demand to increase. In contrast, all the IHS-Markit PMI indices related to new export orders are still below 50, indicating that the majority of purchasing managers of steel-intensive industries are still expecting the contraction in export orders to continue to worsen in the following months (Figure 1).
Prior to the COVID-19 crisis, the euro area economy was already suffering from weak growth in external demand, global trade tensions and policy uncertainty that limited exports and business investment, according to the Economic Outlook. Real GDP is now expected to decrease by 7.9% in 2020 and to increase by 5.4% in 2021. The European Central Bank (ECB) had already been pursuing an accommodating monetary policy in the euro area prior to the COVID-19, for example introducing, a two-tier system for reserve remuneration and more attractive conditions for longer-term refinancing operations. Since March 2020, the ECB launched new non-targeted longer-term refinancing operations, lowered twice the
interest rate applied in targeted longer-term refinancing operations, and eased collateral standards in an attempt to cushion the impact of the crisis and avoid liquidity shortages. In addition, the ECB and regulators provided temporary capital relief to banks, relaxing the rules concerning the provisioning of non-performing loans, *inter alia*. Furthermore, the ECB has expanded its asset purchase programme by an overall EUR 1 470 billion (12.3% of the euro area 2019 GDP). This mainly consists of the EUR 1 350 billion “Pandemic Emergency Purchase Programme”, which essentially extends previous asset purchases to other asset types. National governments of the euro area were allowed a temporary exception from the Stability and Growth Pact budget deficits constraints. Measures with a direct impact on the budget balance represent a discretionary stimulus in 2020 of about 3.5% of euro area GDP in the single-hit scenario. The European Investment Bank also expanded its guarantee schemes to mobilise funding for SMEs. More recently, the European Commission proposed the “Next Generation EU” plan to address the consequences of the COVID-19 crisis. The plan foresees the EU borrowing EUR 750 billion (5.4% of the EU 2019 GDP) on financial markets using the EU credit rating in order to finance grants (about half of the total), but also loans and guarantees, with a focus on. This plan, which is not specific to steel but is directed towards the hardest hit countries and sectors, was adopted on 21 July 2020 and will come into force in January 2021. Government debt in the euro area (Maastricht definition) could increase to 110% of GDP in 2020, from 86% in 2019.

In the United States, the economic expansion, which had become the longest on record, was abruptly ended by the COVID-19 crisis and the associated containment restrictions. The OECD expects US GDP to fall by 3.8% in 2020 and to recover by 4.0% in 2021. The Federal Reserve dropped interest rates to 0-0.25% and announced the resumption of (unlimited) large-scale asset purchases, while introducing a number of credit lines to avoid credit drying up. The fiscal response entailed one-off payments to all families and higher unemployment insurance payments (an additional USD 600 per week) in order to shield households from the impacts of the shutdown. The Payroll Support Program, established under Title IV of the Coronavirus Aid, Relief and Economic Security Act (CARES) Act, made funds available to the aviation industry (passenger air carriers, cargo air carriers, and certain contractors) for the continuation of payment of employee wages, salaries, and benefits. t. For SMEs, government loans can become grants if mainly used to support payrolls, in an attempt to minimise the negative impact on employment. Besides the possibility of a second wave, risks to the outlook stem from possible large scale company bankruptcies, given the high built-in of debts and solvency concerns. Financial stability risks already present pre-COVID have worsened, stemming from a combination of historically high asset valuations, a large amount of non-financial corporate debt of decreasing credit quality, and the relative ease to obtain credit at historically low interest rates. The government fiscal balance could reach 132% of GDP in 2020 and 140% of GDP in 2021, from 109% in 2019.

In Japan, economic activity has plummeted in the first half of 2020, reflecting the impact of incrementally stepped-up confinement measures, as well as lower external demand. GDP is expected to fall by 5.8% in 2020 and to rebound by 1.5% in 2021. The Bank of Japan has stepped up purchases of various assets, including exchange-traded funds, commercial paper and corporate bonds, and introduced a new operation to provide loans using private debt as collateral at a 0% interest rate. It also decided to purchase government bonds in order to suppress the 10-year maturity government bond yields and target the government 10-year maturity yield around 0%. Regulatory authorities also allowed banks to draw on their regulatory capital and liquidity buffers to support lenders affected by the pandemic. In early April 2020, the government launched a wide range of measures to support households and protect businesses and employment, including cash handouts of JPY 100 thousand (around USD 1 000) to every resident, cash transfers to heavily affected business owners, a rent subsidy to help heavily affected firms, and further financing support for special paid leaves.
Additional government spending amounted to 4.7% of (annual) GDP during the first half of 2020, and to an additional 5.8% in the second half. The government debt could reach 247% of GDP in 2020 and 257% of GDP in 2021, from 225% in 2019.

In the People’s Republic of China (hereafter “China”), GDP growth is expected to grow by 1.8% in 2020 and by 8% in 2021. While it started very locally in the Hubei province, the COVID-19 outbreak disrupted economic activity across the country. Even though lockdown measures have now been lifted, some businesses have remained shut, and tourism-related industries and firms heavily dependent on foreign demand have not yet recovered. The pandemic triggered an increase in precautionary saving and eroded consumer confidence, thus weakening short-term consumption prospects. Subdued domestic and external demand is likely weigh on the recovery while also the collapse in world trade is affecting the economy.

On 11 February 2020, China Iron and Steel Association (CISA) submitted a letter to the National Development and Reform Commission, to the Ministry of Industry and Information Technology and to a number of other ministries, highlighting the difficulties faced by the Chinese steel sector during the pandemic. The letter pushed towards new measures to be drawn in order to “organize upstream and downstream enterprises to resume work”, “increase the supply of raw and auxiliary materials such as coking coal”, “increase export tax rebate rate”, “ease the pressure on the domestic market by providing fiscal and tax policy support”, and “make loose credit policies to help steel enterprises” (Csteelnews, 2020[1]). The proposals put forward by the China Iron and Steel Association received positive responses from relevant ministries and commissions, which proceeded to release a series of national policy documents for resuming work and production, starting downstream demand, adjusting taxes and fiscal measures, and lowering corporate loan interest rates (Csteelnews, 2020[1]). During the pandemic, many policies focused on supporting downstream demand. In order to support the construction sector many local governments introduced real estate rationalisation control policies and delayed land transfer fees, related taxes and fees, reduced housing purchase restrictions and lowered payment ratios, which helped the real estate industry boost sales and increase new construction (China Galaxy Security, 2020[2]). In the first quarter of 2020, the State Council released a series of construction projects in rural and urban areas to support the construction industry and promote downstream demand (Lianhe Credit Rates, 2020[3]).

Infrastructure investment thus held up growth amid collapsing private investment and foreign demand. The monetary and banking regulation authorities took a host of measures to mitigate the crisis’ impact on liquidity: it lowered the reserve ratio requirement, reduced the interest paid on excess reserves, cut the loan prime rate⁹ and rates on the medium-term lending facility and on open market operations. Strong credit growth indicated that those measures were effective in promoting banks to lend. The central bank measures are credited with helping demand recover and the consequential destocking of the large Chinese steel inventories (China Galaxy Security, 2020[2]). In March the Ministry of Finance established a fund to provide financial discount support for loans to key enterprises to ensure prevention and control of the epidemic. As of June 2020, the fund provided a total of RMB 3 billion in loan discount to national key enterprises (Ministry of Finance of the PRC, 2020[4]). Furthermore, it is reported that based on the financial data of large and medium-sized key steel companies, the steel industry is expected to enjoy supportive dividend policy of about RMB 17 billion throughout the year 2020 (State Council, 2020[5]).

In India, GDP is projected to drop by 10.2% in 2020 and by 10.7% in 2021. A large support package representing about 10% of GDP has been introduced, and includes fiscal and monetary support, as well as guarantee schemes. The Reserve Bank of India cut policy rates, injected liquidity and softened prudential norms. The government introduced a number of
measures to mitigate the impact on the most vulnerable people, including transfers in-kind and cash transfers to about 200 million rural women with basic bank account. It also introduced several measures to reduce financial stress and ease access to funding for various entities, including non-bank financial corporations, micro, small and medium enterprises, farmers, street vendors, firms of the energy sector and real estate companies. The government further announced several structural reforms to encourage investment, including partial deregulation of the agricultural sector and a revision of enterprise size thresholds to reduce incentives for companies to remain small.

In Brazil, growth is projected to drop by 6.5% in 2020 and to recover by 3.6% in 2021. Unemployment will likely reach historically high levels before receding gradually. External financing conditions had been deteriorating for Brazil already before the spread of COVID 19 within the country, as international investors’ flight for safe heaven assets increased domestic portfolio outflows and put downward pressure on the real exchange rate and on Brazilian equity prices. Although prices of exported commodities have seen a minor decline since the beginning of the year, driven by sharp declines in oil prices that decreased export revenues, this was compensated by rising agriculture and mineral prices.

Monetary policy support in Brazil has taken the form of two interest rate reductions amounting to a joint 1.25% rate cut, combined with prudential and regulatory measures that would allow additional credit extension of up to 17% of GDP. Fiscal policy responses to the pandemic have been sizeable, with a total fiscal impact exceeding 6% of GDP and a strong focus on the low income earners, including workers in the informal economy. Income-support for low income earners amounting to about 2% of GDP includes a temporary benefit of USD 120 per month for informal or unemployed workers earning less than half the Brazilian minimum wage (which is set at about USD 220). The benefit is doubled for single parents. Policy support for SMEs amounting to about 1.4% of GDP includes a low-interest credit line to cover wages for employees earning up to two-times the minimum wages. Additional new corporate credit lines will be created by the national development bank. Tax liabilities and other charges on firms are being postponed, particularly for SMEs. The government also increased, by 2% of GDP, its direct spending in health and transfers to states and municipalities, which are responsible for financing the public healthcare services on which two third of the population depend. The temporary increases in government spending, as well as the missed revenues from taxation due to job losses, lower hours worked, and lower corporate and SMEs revenues, are expected to push the country debt to GDP to exceed 90% at the end of 2020, from 75% in 2019. Negative confidence effects upon international and domestic investors as well as higher interest rates are also risks to the Brazilian economy outlook in the medium term.
Security measures and management plans, including the extensive use of teleworking, were swiftly implemented by the steel industry to protect their employees and minimise the disruption of the COVID-19 crisis on their business. However, steel is not a sector that can work wholly virtually. Many steel workers need to be physically present in the plants to operate large equipment in order to make steel. Nevertheless, teleworking was used to the extent possible. For example, JFE steel does not allow more than 50% of its workers to come physically to their head office, and promotes teleworking for the others.

The industry also responded to the COVID-19 crisis by providing some innovative solutions to protect employees and limit the spread of the virus. For example, the company Evraz used a smart phone application, based on the “Stopp Corona” application developed by Accenture and the Austrian Red Cross, to detect the symptoms of a potential COVID-19 infection at an early stage and to automatically alert all employees having been in contact with a person presenting those symptoms to self-isolate preventively, in an attempt to stop the spread of the virus.

Furthermore, the industry has also made funds available for medical research on COVID-19. For example, a team of scientists of the Pohang University of Science and Technology (POSTECH), a private university established and funded by POSCO, managed to develop an innovative way to quickly test for viral infections, reducing the time needed from about six hours to a mere 15 minutes (POSTECH, 2020).

Other industry initiatives include gathering funding for setting up video call facilities for medicalised patients not being able to physically meet with their friends and family, and providing information to the most disfavoured communities in terms of prevention and practical measures to adopt.
3. Steel consumption

Steel consumption growth has turned negative in the first three months of 2020 due to the initial impact of COVID-19 on the global economy.

Figure 2. Consumption of hot-rolled steel products, major economies (aggregate)

Figure 2 below presents the year-on-year (y-o-y) percentage change in the combined consumption of hot-rolled steel products for 10 of the world’s largest steel-consuming economies in Asia, the CIS region, Europe, North America and South America, based on data published by the International Steel Statistics Bureau (ISSB). Together, these economies account for approximately 75% of global steel demand. The y-o-y growth figure charted into negative territory and it is likely to further deteriorate in the first half of 2020 in light of the diffusion of COVID-19 and the associated containment measures. While ISSB has not yet published the monthly steel consumption figures for the most recent months, the Secretariat has calculated various indicators of steel consumption to shed light on the possible impact of COVID-19 on global steel demand (see Section 3.5).

Note: Total represents the combined consumption of hot-rolled steel products of the following economies: Brazil, China, Germany, India, Italy, Japan, Korea, Mexico, Russia and the United States.

The consumption of hot-rolled products is defined as the sum of production and net imports (Platts, 2020[7]).

Sources: OECD calculations based on data from ISSB (International Steel Statistics Bureau).
3.1. Americas

Worldsteel noted that steel demand in the North America region decreased 4.0% to 135.0 mmt in 2019 (worldsteel, 2020[8]). Steel demand in the United States dropped by 2.1% to 97.7 mmt in 2019 (worldsteel, 2020[8]), whereas steel demand in Mexico shrank by 5.5% to 24.2 mmt in 2019, continuing the downward trend of 2018 (worldsteel, 2020[8]). In the first three months of 2020 the United States monthly steel consumption indicator decreased by 2.1% y-o-y.

According to the Latin American Steel Association (Alacero), consumption of finished steel products in Latin America fell by about 5% from 67.6 mmt to 64.2 mmt in 2019. Alacero attributed part of the decrease to the global economic slowdown, lower commodity prices, the decrease of world trade and political uncertainties and their effects on investment in Latin America (Platts, 2020[9]). In Brazil, the largest steel-consuming economy in the region, apparent use of finished steel decreased by 2.7% to 20.6 mmt in 2019 while crude steel production recorded the lowest figure since 2016 according to Aço Brasil (Platts, 2020[10]).

3.2. Africa and the Middle East

In Africa, apparent use of finished steel (ASU) slightly recovered by 0.4% y-o-y to 36.4 mmt in 2019 (worldsteel, 2020[8]). By country, apparent use of finished steel in Egypt, the largest steel consumer in the region, dropped by 6.3% to 10.4 mmt in 2019 (World Steel Association, 2020[11]). Also, apparent steel consumption in South Africa, another major consumer, decreased for the second year in a row, from 4.7 mmt to 4.5 mmt in 2019 according to ArcelorMittal South Africa (ArcelorMittal South Africa, 2020[12]). However, steel demand increased in other African countries (worldsteel, 2020[8]).

ASU in the Middle East contracted by 2.3% to 48.7 mmt in 2019 (worldsteel, 2020[8]). Iran, by far the largest steel consumer in the region, saw apparent finished steel use decrease by 5.6%, from 19.6 mmt to 18.5 mmt in 2019 (World Steel Association, 2020[11]). The performance of the automotive sector, where production declined by 24.8% from April to December 2019 (y-o-y), due to economic sanctions, explains part of the steel demand decline (Platts, 2020[13]).

3.3. Asia and Oceania

According to worldsteel, steel consumption in China increased by 8.5% y-o-y to 907.5 mmt in 2019. However, the growth rate probably still incorporates the effect of the closure of some of the remaining unauthorised induction furnaces that were previously catering to an unaccounted share of steel demand in China. Without this statistical effect, worldsteel estimates steel demand growth in China in 2019 to be much lower at 4.0% (worldsteel, 2020[8]). According to CISA, steel demand rose by 6% to 875.3 mmt in 2019 (Platts, 2020[14]). Steel demand growth was mainly driven by the construction sector, where demand increased by 8% to 486 mmt in 2019. In addition, steel consumption in the machinery, shipbuilding and household appliance sectors rose respectively by 3%, 3% and 5%. However, steel demand from the automotive industry suffered a 5% reduction to 52 mmt in 2019 (Metal Expert, 2020[15]). During the first three months of 2020, the monthly steel consumption indicator for China, which accounts for around half of global steel demand, registered a y-o-y growth rate of 2.3%.

In India, steel demand continued to grow in 2019 (4.9%), reaching 100 mmt for first time (worldsteel, 2020[8]). Therefore, India became the second largest steel-consuming economy,
surpassing the United States. However, in the first three months of 2020, monthly consumption in India decreased by 4.8%.

In Japan, apparent use of finished steel decreased by 3.4% y-o-y to 63.2 mmt in 2019, according to worldsteel (worldsteel, 2020[8]). Data for 2020 suggest that the contraction of steel demand has intensified: the monthly steel consumption indicator decreased by 13.9% y-o-y in the first three months of 2020.

Steel consumption in Korea decreased by 0.9% y-o-y to 53.2 mmt in 2019. Although the construction sector contributed to demand growth — benefiting from the government’s temporary stimulus package on residential and public sectors, shipbuilding orders weakened and automotive production slightly decreased (KOSA, 2020[16]).

According to the South East Asia Iron and Steel Institute (SEAISI), apparent steel consumption in the Association of Southeast Asian Nations region (ASEAN-6)14 increased by 1.2% to 81 mmt in 2019 (SEAISI, 2020[17]).

3.4. Europe and CIS economies

According to worldsteel, steel consumption in Europe contracted by 5.6% to 158.1 mmt in 2019 (worldsteel, 2020[8]). This was mainly due to the sustained manufacturing recession (worldsteel, 2020[8]). The contraction accelerated during the second quarter of 2019, notably because of the automotive industry, and continued in the fourth quarter. However, the construction sector has continued to record growth in output and has outperformed other steel-using sectors (Eurofer, 2020[18]).

In the “Other Europe” region, steel demand decreased by 10.0% to 33.8 mmt in 2019. Apparent use of finished steel in Turkey dropped by 15.4% to 26.0 mmt in 2019 due to a slowdown in construction and manufacturing (worldsteel, 2020[8]) (Metal Expert, 2020[19]).

In the Commonwealth of Independent States (CIS) region, apparent steel use (ASU) of steel increased by 5.6% to 58.8 mmt in 2019 (worldsteel, 2020[8]). Russian ASU of steel products grew by 5.0% to 43.5 mmt in 2019, compared with the previous year (worldsteel, 2020[8]). According to the steel company Evraz, this was driven by higher construction activity, amid changes in the regulations regarding the financing of real estate (EVRAZ, 2020[20]). In Ukraine, apparent steel consumption increased by 2.1% to 4.8 mmt in 2019. According to the Ukrainian steel company Metinvest, demand growth was supported by the construction industry (METINVEST, 2020[21]).

3.5. Assessing the impact of COVID-19 on steel demand

The coronavirus (COVID-19) pandemic that emerged in early 2020 is leading to the steepest decline in steel demand since the global financial crisis of 2008-09. The speed, scale and geographic breadth of the downturn is without precedent. The lockdowns implemented in China in January, and in subsequent months in countries across the world, as well as the restrictive measures on the movement of people and goods that were necessary to limit the spread of COVID-19, led to a collapse in sales of goods made out of steel, such as cars, household appliances and many other durable goods. They also led to a virtual halt in manufacturing and construction activity around the world, reducing temporarily the demand for steel, given the steel-intensive nature of these sectors’ production activities.

Figure 3 presents world apparent steel consumption since 1980. As a result of COVID-19, steel consumption in 2020 is forecast by worldsteel to fall by 6.4%, with partial recovery in 2021 of 3.8% growth (see Section 9 for the market outlook).15 Large reductions in steel demand were also observed during the financial crisis just over a decade ago, with steel
consumption falling by 7.7% in 2009. Prior to that, the early 1990s was also a period of significant steel demand contraction, owing to economic recessions across the OECD area and the severe impacts that the dissolution of the Soviet Union had on steel demand in that region. Comparable percentage declines in steel demand were also experienced in the early 1980s in the wake of the second global oil shock and the consequent economic recessions.

Sectoral differences between the current downturn and previous recessions may determine the extent to which steel demand declines during the current global recession. Earlier business cycle downturns have typically been driven by fluctuations in the capacity utilisation of the steel-intensive industrial sector. The COVID-19 downturn was initially driven by a collapse in services, notably transport, hospitality, recreational facilities and segments of retail trade, which are somewhat less steel intensive. However, steel intensive industrial sectors were also severely affected by lockdowns during the spring months, and, although some recovery has taken place in recent months as indicated by developments in the IHS-Markit PMIs, there are risks of renewed weakness as the macroeconomic effects of slower consumer spending and business investment are transmitted to industrial activity over time. Furthermore, the resilience of the steel sector towards the COVID-19 pandemic shock is also likely to be affected by the difficult conditions the steel industry was already experiencing prior to the pandemic, as opposed to the comparatively better position the steel industry enjoyed when it was hit by the 2008-2009 financial crisis. Section 0 provides various indicators on the financial health of the steel industry, and shows, for example, that the steel sector enjoyed considerably higher operating profits prior to the 2008-2009 financial crisis than prior to the pandemic (Figure 18).

To assess the initial impacts of COVID-19 on steel demand it is perhaps useful to look at recent monthly steel consumption indicators. Using the most recently available data on steel production and trade, Figure 4 presents indicators of apparent steel consumption up until June 2020 for some major steel economies for which such data are available. The indicator is based on crude steel equivalents, using crude steel production and adding net imports of steel, the latter being converted from finished products to crude steel equivalent.

In the world’s largest steel-consuming economy, China, the indicator fell in January and February 2020, but then began to recover in March, with further growth in April to June.
However, it is important to note that apparent consumption is relatively high because production has been running at very high rates in China. In June, China’s daily crude steel output reached an all-time high of 3.053 million tonnes per day, annualised at 1.114 billion tonnes, according to National Bureau of Statistics data (Zhang, 2020[22]). Moreover, apparent steel consumption reflects so-called “real steel use” (a concept that is usually measured by production activity in steel-using sectors) plus the net increase in consumer and merchant inventories of steel. Such inventories have been growing significantly in China recently. Indeed, monetary policy and credit easing may have boosted expectations of future growth in demand for property and infrastructure, spurring growth in inventories and thus boosting the figures of apparent steel consumption growth since last spring (Zhang, 2020[22]).

Turning to other economies, the monthly indicators suggest a more modest picture of steel demand and no signs of recovery yet, with the exception of a small uptick in Turkey in June. For example, in the United States the apparent consumption indicator was down by 41% in June compared to January’s level. In Japan the corresponding decline was 38%. In Brazil it was down 33%, in Russia 31%, Mexico 22%, Canada 19%, Korea 17%, Chinese Taipei 13% and in Turkey it was down 10% during the same period. Data for the EU and India are only available until March, when the indicators were down by 11% and 13%, respectively, relative to January levels 2020.

These figures do not give fully accurate representations of the impacts of COVID-19 on steel demand, because other factors would have to be distinguished from those related to the coronavirus and its impacts. Many countries have adopted significant stimulus packages to offset the negative impacts of the pandemic on their economies and labour markets, and seasonal and other structural factors may be at play as well. Several economies in Figure 4 experienced declining steel consumption in the corresponding period of 2019, and the seasonal or other factors contributing to those declines may also have been at play after the pandemic emerged in 2020. Thus, COVID-19 might explain somewhat less of the decline suggested by the monthly steel consumption indicators during the first half of 2020. Conversely, several other economies experienced positive growth in the first half of 2019, possibly reflecting structural demand factors, meaning that the COVID-19 impact might be larger than the percentage decline in demand observed after the pandemic, if those structural factors are still at play. Such issues would have to be examined carefully in the future to get more accurate insights on the impacts of COVID-19 on steel demand.
An alternative way to shed light on the impacts of the pandemic on steel demand over a slightly longer time horizon is to estimate an indicator of steel demand based on the notion of “real steel use” noted above, which measures production activity in downstream steel-using sectors weighted by their shares of steel consumption. Real steel use can be estimated using the Steel Weighted Industrial Production (SWIP) approach, which can be calculated by using global steel consumption weights and the most recent professional assessments of production activity in the main steel-using downstream industries. To gauge the potential impacts of COVID-19, steel demand based on the current outlook (taking into account COVID-19) is compared with a counter-factual based on assessments of production activity made just before the emergence of the pandemic and subsequent global recession.

Assessments of steel demand based on the SWIP approach should ideally be based on the most recently available figures for production activity in steel-using sectors. IHS-Markit, a global economic analysis group, provides the most recent data and projections. In this analysis, July 2020 sectoral projections by IHS-Markit are used to calculate SWIP, which is compared to a counter-factual SWIP constructed by using the pre-COVID-19 projections released in January 2020.

It is important to note that such calculations involve a high degree of uncertainty, and depend on the assumptions made regarding the economic outlook. Just before the COVID-19 pandemic emerged, IHS-Markit expected world real GDP growth to stabilise at around 2.5% in 2020, and then recover gradually towards 3% by 2024, reflecting the lagged effects of central banks’ reflationary policies. The forecast at the time suggested average annual GDP growth of 2.7%, globally, between 2020 and 2024.

The latest sectoral projections by IHS-Markit released in July 2020 benefit from several months of observation of the impacts of COVID-19 and policy responses in different
jurisdictions. World real GDP is now expected to contract by 5.5% in 2020, followed by a partial recovery of 4.4% in 2021. The pattern of recovery underlying the forecast is that of “bounce and fade,” with consumers and businesses remaining cautious. The recent rise in COVID-19 virus infection rates in several large countries highlights the fragility of the recovery. World real GDP growth averages only 1.7% during 2020-24. Real fixed investment, which is a key macroeconomic component that drives steel demand, contracts by nearly 6% in 2020, with gradual recovery to a growth rate of 3-4% per annum over the next few years.

Figure 5 compares steel demand under COVID-19 and a hypothetical counterfactual based on pre-COVID-19 assumptions, in terms of annual per cent changes and index levels in the SWIP real steel use indicator. The comparisons suggest that the COVID-19 impacts on demand are significant. For example, the difference in demand growth between the COVID-19 and the pre-pandemic situation is minus 9.7 percentage points in 2020. In volume terms, global steel demand in the COVID-19 pandemic is 183 million tonnes lower in 2020 than it would have been absent the pandemic, using the growth rates suggested by the SWIP indicator calculated here. Although the annual difference in demand gradually declines after 2020, it remains high and well above 100 million tonnes annually in the period until 2025. Even in 2025, steel demand is still 114 million tonnes lower compared to what it might have been absent the COVID-19 pandemic, suggesting significant long-term impacts.

While obviously surrounded by much uncertainty, these estimates highlight the risks for potentially very weak steel demand in times of COVID-19. Investments in new capacity should therefore be considered carefully, not least because the demand situation may not be strong enough in the coming years to absorb even current levels of capacity, which could pose risks for returns on new capacity investments that are taking place in various economies around the world. Importantly, governments should not encourage capacity expansion that would exacerbate the already difficult supply-demand imbalance now facing the global steel sector.

Figure 5. Steel demand under COVID-19 compared to a no pandemic counterfactual

<table>
<thead>
<tr>
<th>Annual per cent change</th>
<th>Index level</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWIP (pre-Covid-19)</td>
<td>SWIP</td>
</tr>
</tbody>
</table>

Notes: The SWIP index provides an indicator of real steel use. The dark line takes into account COVID-19 while the lighter line is based on the pre-COVID-19 assumptions for production in steel-using sectors. The SWIP indicator shown in this figure was calculated based on the real sectoral value added of seven major steel-using sectors, namely, construction (with a weight of 52%), domestic appliances (2%) and electrical engineering (3%), mechanical engineering (16%), metal goods (10%), automotive (12%) and other transport equipment (5%).

Source: OECD based on IHS-Markit forecasts for real sectoral value added.
4. Steel production

The COVID-19 pandemic has led to a reduction in world steel production. Overall, world crude steel production decreased by 5.4% during the first half of 2020 compared to the same period one year earlier. However, the effects were different across regions, probably due to the different measures taken by governments and the different degrees and timing to which the COVID-19 pandemic affected each economy. Table 2 below highlights significant differences across regions. According to the data provided by worldsteel, compared to the first half of 2019, crude steel production during the first half of 2020 seemed more resilient in the Middle East region (-0.5%), in Asia (-2.3%), in Oceania (-3.3%), in the CIS (-4.1%) and in Other Europe (-6.3%). In contrast, steel production dropped sharply in the European Union (-17.9%), in North America (-17.6%), in South America (-19.9%), and in Africa (-20.9%).

Table 2. World crude steel production developments in 2019

<table>
<thead>
<tr>
<th>Region</th>
<th>Level, thousand tonnes</th>
<th>% change, year-on-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>10,301</td>
<td>157,232</td>
</tr>
<tr>
<td>Other Europe</td>
<td>3,014</td>
<td>37,333</td>
</tr>
<tr>
<td>CIS</td>
<td>7,949</td>
<td>100,387</td>
</tr>
<tr>
<td>North America</td>
<td>6,651</td>
<td>119,683</td>
</tr>
<tr>
<td>South America</td>
<td>2,561</td>
<td>41,656</td>
</tr>
<tr>
<td>Africa</td>
<td>875</td>
<td>13,530</td>
</tr>
<tr>
<td>Middle East</td>
<td>3,264</td>
<td>39,685</td>
</tr>
<tr>
<td>Asia, of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>113,297</td>
<td>1,324,832</td>
</tr>
<tr>
<td>Oceania</td>
<td>528</td>
<td>6,160</td>
</tr>
<tr>
<td>World</td>
<td>148,440</td>
<td>1,840,498</td>
</tr>
</tbody>
</table>

Source: worldsteel data, as released on July 26, 2020. Data are based on monthly production data and can differ from annual data published after December of each year. Furthermore, monthly data production can be revised at any time.

4.1. Americas

In North America, total crude steel production collapsed by 17.6% during the first half of 2020 y-o-y, mainly driven by the decline in the United States, where steel production contracted by 18.3%. However, the Mexican and Canadian steel industries also experienced sharp declines in steel production (15.8% and 15.5%, respectively).

In South America, steel production contracted by 19.9% in the first half of 2020, in y-o-y terms. Production declined sharply in Argentina (-36.6%), Colombia (-29.4%) and Brazil (-17.8%), while positive growth of 15.8% was recorded for Chile (albeit from an initially low level).
4.2. Africa and the Middle East

African steel production decreased by 20.8% y-o-y during the first half of 2020. The decrease was driven by the halving of South Africa’s steel production (-49.4%) as the country economy, already in recession, was profoundly hit by the lock-downs (Warwick, 2020[23]). Egypt managed to keep its steel production on par during the period, with even a slight growth of 0.5%.

In the Middle East, steel production was roughly stable over the first half of 2020 (-0.3% change y-o-y), but the region’s aggregate steel production growth hides large disparities among countries. Iran’s steel production increased sharply (10.2%)\textsuperscript{17}, while Saudi Arabia’s production declined (-12.4%). Other countries in the region also saw sharp declines.

4.3. Asia and Oceania

Crude steel production in Asia decreased by 2.2% y-o-y over the first half of 2020, with a large divergence between China and the rest of Asia. Changes in steel production were positive in China (+2.2%), driven by infrastructure and manufacturing, with most steel-using sectors having already returned to pre-COVID production levels by the end of April 2020. This might have helped balance the impact of falling export demand and its implications for the Chinese manufacturing sector (worldsteel, 2020[8]). On the contrary, during the first half of 2020 steel production collapsed in India (-24.2%) and Japan (-17.4%), and contracted in Korea (-9.5%), with a more moderate decline observed in Chinese Taipei (-4.1%).

In Oceania, crude steel production decreased by 3.3%, with Australian crude steel production decreasing by only 0.6% (albeit after a significant decrease of 2.9% in 2019). New Zealand, a much smaller steel producer, experienced a sharp drop of 25% in its steel production.

4.4. Europe and CIS economies

European Union steel production experienced a sharp decline of 17.9% y-o-y over the first half of 2020. Amongst the larger steel producers, the contraction was more profound in France (-26.6%), Spain (-26.4%) and Italy (-19.7%), followed by Poland (-16.1%), Germany (-15.7%) and the United Kingdom (-8.7%).

In the “Other Europe” region, steel output declined by 6.3% y-o-y over the first half of 2020, which was less than its 8.5% decline in 2019. Turkish steel output decreased by 4.1%. In the CIS region, steel output declined by 4.1%; the decline in Ukraine was 7.6% and in Russia 2.9%. Kazakhstan’s steel production, which amounted to about 4.1 mmt in 2019, decreased by 15.5% y-o-y over the first half of 2020.
5. World steel trade

5.1. Summary of steel trade developments during the year 2019

Global steel trade (defined as global exports, excluding intra-E.U. 27 trade) declined for the fourth consecutive year in 2019 and amounted to 308 mmt, which represents a 63% decline compared to 2018.

Trade data suggest that steel exports have continued to decline for most regions in 2019. Table 4 and Table 5 present data on steel trade developments in the 10 largest steel-producing economies. Exports from China decreased by 7.4% in 2019 compared to the previous year, reaching a level of 63.0 mmt. Exports from the European Union (external trade), Japan, United States, Korea, Russian Federation, Turkey and Brazil have also declined, by 3.8%, 7.6%, 15.7%, 0.4%, 11.7%, 1.0% and 4.3%, respectively. Conversely, exports from India increased by 21.6%. Iran, which has recently experienced strong steel export growth (exporting 9.2 mmt of steel in 2018, i.e. an increase by 64.2% compared to 2016), recorded a 15.3% decline in export shipments in the first four months of 2019.

Turning to steel imports, Table 6 and Table 7 display changes in steel imports in the major producing economies. The European Union and the United States - the world’s two largest steel-importing economies - saw steel imports decrease by 11.9% and 14.7%, respectively in 2019 compared to the previous year. The volume of imported steel products in China, Japan, Korea, Russia and Turkey increased in 2019 by 8.1%, 7.0%, 9.6%, 6.5% and 0.2%, respectively. In India and Brazil, steel imports declined by 1.1% and 1.6% respectively, in 2019 compared to 2018. Iran recorded a significant decrease in steel imports of 67.1%, during January-April 2019, reflecting a demand contraction.
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>China (People’s Republic of)</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Exports</td>
<td>107,531</td>
<td>74,238</td>
<td>68,107</td>
<td>63,040</td>
<td>-7.4%</td>
</tr>
<tr>
<td>Imports</td>
<td>13,467</td>
<td>13,792</td>
<td>14,221</td>
<td>15,378</td>
<td>8.1%</td>
</tr>
<tr>
<td><strong>EU</strong></td>
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</tr>
<tr>
<td>Exports</td>
<td>32,876</td>
<td>34,057</td>
<td>32,145</td>
<td>31,194</td>
<td>-3.8%</td>
</tr>
<tr>
<td>Imports</td>
<td>41,836</td>
<td>42,241</td>
<td>46,463</td>
<td>40,916</td>
<td>-11.9%</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>9,933</td>
<td>15,964</td>
<td>10,687</td>
<td>12,994</td>
<td>21.6%</td>
</tr>
<tr>
<td>Imports</td>
<td>9,857</td>
<td>8,818</td>
<td>8,964</td>
<td>8,869</td>
<td>-1.1%</td>
</tr>
<tr>
<td><strong>Japan</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>40,452</td>
<td>37,408</td>
<td>35,782</td>
<td>33,075</td>
<td>-7.6%</td>
</tr>
<tr>
<td>Imports</td>
<td>5,965</td>
<td>6,186</td>
<td>5,992</td>
<td>6,410</td>
<td>7.0%</td>
</tr>
<tr>
<td><strong>United States</strong></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>8,920</td>
<td>10,081</td>
<td>8,476</td>
<td>7,144</td>
<td>-15.7%</td>
</tr>
<tr>
<td>Imports</td>
<td>29,918</td>
<td>34,327</td>
<td>30,612</td>
<td>26,099</td>
<td>-14.7%</td>
</tr>
<tr>
<td><strong>Korea</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>30,504</td>
<td>31,254</td>
<td>29,959</td>
<td>29,853</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Imports</td>
<td>23,168</td>
<td>19,208</td>
<td>14,818</td>
<td>16,242</td>
<td>9.6%</td>
</tr>
<tr>
<td><strong>Russian Federation</strong></td>
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<td></td>
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</tr>
<tr>
<td>Exports</td>
<td>31,104</td>
<td>31,087</td>
<td>33,265</td>
<td>29,382</td>
<td>-11.7%</td>
</tr>
<tr>
<td>Imports</td>
<td>4,389</td>
<td>6,407</td>
<td>6,282</td>
<td>6,693</td>
<td>6.5%</td>
</tr>
<tr>
<td><strong>Turkey</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>15,117</td>
<td>16,083</td>
<td>19,552</td>
<td>19,358</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Imports</td>
<td>15,344</td>
<td>13,352</td>
<td>10,258</td>
<td>10,279</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td></td>
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</tr>
<tr>
<td>Exports</td>
<td>13,378</td>
<td>15,301</td>
<td>13,903</td>
<td>13,302</td>
<td>-4.3%</td>
</tr>
<tr>
<td>Imports</td>
<td>1,827</td>
<td>2,275</td>
<td>2,339</td>
<td>2,301</td>
<td>-1.7%</td>
</tr>
<tr>
<td><strong>Iran</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td>5,623</td>
<td>7,336</td>
<td>9,235</td>
<td>2,808¹</td>
<td>n.a.</td>
</tr>
<tr>
<td>Imports</td>
<td>4,852</td>
<td>3,065</td>
<td>1,757</td>
<td>263²</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Notes: The economies listed in this table are the major crude steel producing economies by production volume in 2019 (World Steel Association, 2020[11]). Iran trade data after May 2019 were not available on ISSB: Definition used for trade figures: 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).

¹Refers to January-April 2019.

Source: OECD calculations based on data from ISSB (International Steel Statistics Bureau).
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>92,348</td>
<td>110,928</td>
<td>107,531</td>
<td>74,238</td>
<td>68,107</td>
<td>63,040</td>
<td>-7.4%</td>
<td>33,341</td>
<td>27,766</td>
<td>-16.7%</td>
</tr>
<tr>
<td>Japan</td>
<td>41,247</td>
<td>40,720</td>
<td>40,452</td>
<td>37,408</td>
<td>35,782</td>
<td>33,075</td>
<td>-7.6%</td>
<td>15,919</td>
<td>16,502</td>
<td>3.7%</td>
</tr>
<tr>
<td>E.U. (27)</td>
<td>37,026</td>
<td>34,359</td>
<td>32,873</td>
<td>34,055</td>
<td>32,140</td>
<td>31,192</td>
<td>-3.0%</td>
<td>7,485</td>
<td>5,909</td>
<td>-21.1%</td>
</tr>
<tr>
<td>Korea</td>
<td>31,803</td>
<td>31,077</td>
<td>30,504</td>
<td>31,254</td>
<td>29,959</td>
<td>29,853</td>
<td>-0.4%</td>
<td>14,858</td>
<td>13,769</td>
<td>-7.3%</td>
</tr>
<tr>
<td>Russia</td>
<td>26,939</td>
<td>29,605</td>
<td>31,104</td>
<td>31,087</td>
<td>33,265</td>
<td>29,382</td>
<td>-11.7%</td>
<td>14,909</td>
<td>15,558</td>
<td>4.4%</td>
</tr>
<tr>
<td>Global agg.*</td>
<td>353,319</td>
<td>361,348</td>
<td>360,123</td>
<td>337,935</td>
<td>329,166</td>
<td>308,289</td>
<td>-6.3%</td>
<td>368,289</td>
<td>308,289</td>
<td>-6.9%</td>
</tr>
<tr>
<td>Global agg (w. EU intra-trade)</td>
<td>445,128</td>
<td>455,746</td>
<td>459,520</td>
<td>442,373</td>
<td>434,655</td>
<td>408,854</td>
<td>-5.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 4. Steel exports from the five largest exporting economies**

Thousands of metric tonnes

**Note:** This table contains the top five steel exporting economies, shown in descending order according to their export volume in 2019. For each economy, the first row corresponds to export flows in thousands of metric tonnes, while the second row indicates that economy’s share of the global aggregate.

* The “global aggregate” figures are the sum of trade volumes of around 70 individual economies covered by ISSB. Those economies that are not fully covered by ISSB across the years considered in the table have been removed from the global aggregate figures. Although this aggregate is different from the world total, it provides a good approximation as well as an indication of the changes in volumes.

**Source:** OECD calculations based on data from ISSB. Data shown in the last three columns come from the OECD and include a different definition of steel products, which includes semi-finished products. This means that the data represented in the last three columns are not perfectly comparable with data reported in the rest of the table. Data for E.U. are available only until March 2020.
Table 5. Steel exports of other major steel producing economies

Thousands of metric tonnes

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>9,828</td>
<td>7,117</td>
<td>9,933</td>
<td>15,964</td>
<td>10,687</td>
<td>12,994</td>
<td>21.6%</td>
<td>3,060</td>
<td>2,801</td>
<td>-8.5%</td>
</tr>
<tr>
<td></td>
<td>2.8%</td>
<td>2.0%</td>
<td>2.8%</td>
<td>4.7%</td>
<td>3.2%</td>
<td>4.2%</td>
<td></td>
<td>3,060</td>
<td>2,801</td>
<td>-8.5%</td>
</tr>
<tr>
<td>United States</td>
<td>11,581</td>
<td>9,620</td>
<td>8,920</td>
<td>10,081</td>
<td>8,476</td>
<td>7,144</td>
<td>-15.7%</td>
<td>3,335</td>
<td>2,856</td>
<td>-14.4%</td>
</tr>
<tr>
<td></td>
<td>3.3%</td>
<td>2.7%</td>
<td>2.5%</td>
<td>3.0%</td>
<td>2.6%</td>
<td>2.3%</td>
<td></td>
<td>3.3%</td>
<td>2.7%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Turkey</td>
<td>15,965</td>
<td>14,687</td>
<td>15,117</td>
<td>16,083</td>
<td>19,552</td>
<td>19,358</td>
<td>-1.0%</td>
<td>10,027</td>
<td>8,774</td>
<td>-12.5%</td>
</tr>
<tr>
<td></td>
<td>4.5%</td>
<td>4.1%</td>
<td>4.2%</td>
<td>4.8%</td>
<td>5.9%</td>
<td>6.3%</td>
<td></td>
<td>4.5%</td>
<td>4.1%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Brazil</td>
<td>9,730</td>
<td>13,624</td>
<td>13,378</td>
<td>15,301</td>
<td>13,903</td>
<td>13,302</td>
<td>-4.3%</td>
<td>7,743</td>
<td>6,126</td>
<td>-20.9%</td>
</tr>
<tr>
<td></td>
<td>2.8%</td>
<td>3.8%</td>
<td>3.7%</td>
<td>4.5%</td>
<td>4.2%</td>
<td>4.3%</td>
<td></td>
<td>2.8%</td>
<td>3.8%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Iran</td>
<td>2,838</td>
<td>3,764</td>
<td>5,623</td>
<td>7,336</td>
<td>9,235</td>
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<tr>
<td></td>
<td>0.8%</td>
<td>1.0%</td>
<td>1.6%</td>
<td>2.2%</td>
<td>2.8%</td>
<td></td>
<td></td>
<td>0.8%</td>
<td>1.0%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Global agg.*</td>
<td>353,319</td>
<td>361,348</td>
<td>360,123</td>
<td>337,935</td>
<td>329,166</td>
<td>308,289</td>
<td></td>
<td>-6.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global agg (w. EU intra-trade)</td>
<td>445,128</td>
<td>455,746</td>
<td>459,520</td>
<td>442,373</td>
<td>434,655</td>
<td>408,854</td>
<td></td>
<td>-5.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: This table contains the remaining top 10 crude steel producing economies that do not appear in Table 4. These economies are sorted by their volume of crude steel production in 2019. For each economy, the first row corresponds to export flows in thousands of metric tonnes, the second row relates to the share of exports of the global aggregate. Source: OECD calculations based on data from ISSB. Data shown in the last three columns come from the OECD and include a different definition of steel products, which includes semi-finished products. This means that the data represented in the last three columns are not perfectly comparable with data reported in the rest of the table. Data for India are available only until March 2020.
### Table 6. Steel imports in the five largest importing economies

Thousands of metric tonnes

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>E.U. (27)</td>
<td>33,282</td>
<td>38,815</td>
<td>41,836</td>
<td>42,241</td>
<td>46,463</td>
<td>40,916</td>
<td>-11.9%</td>
<td>11,263</td>
<td>8,873</td>
<td>-21.2%</td>
</tr>
<tr>
<td></td>
<td>12.3%</td>
<td>14.2%</td>
<td>15.6%</td>
<td>15.9%</td>
<td>18.3%</td>
<td>17.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
<td>40,285</td>
<td>35,564</td>
<td>29,918</td>
<td>34,327</td>
<td>30,612</td>
<td>26,099</td>
<td>-14.7%</td>
<td>14,271</td>
<td>11,342</td>
<td>-20.5%</td>
</tr>
<tr>
<td></td>
<td>14.9%</td>
<td>13.0%</td>
<td>11.2%</td>
<td>12.9%</td>
<td>12.1%</td>
<td>12.2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>22,268</td>
<td>21,546</td>
<td>23,168</td>
<td>19,208</td>
<td>14,818</td>
<td>16,242</td>
<td>9.6%</td>
<td>8,766</td>
<td>6,848</td>
<td>-21.9%</td>
</tr>
<tr>
<td></td>
<td>8.2%</td>
<td>7.9%</td>
<td>8.7%</td>
<td>7.2%</td>
<td>5.8%</td>
<td>6.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>14,734</td>
<td>13,048</td>
<td>13,467</td>
<td>13,792</td>
<td>14,221</td>
<td>15,378</td>
<td>8.1%</td>
<td>6,314</td>
<td>12,872</td>
<td>103.9%</td>
</tr>
<tr>
<td></td>
<td>5.4%</td>
<td>4.8%</td>
<td>5.0%</td>
<td>5.2%</td>
<td>5.6%</td>
<td>6.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>15,059</td>
<td>14,603</td>
<td>17,569</td>
<td>14,463</td>
<td>15,429</td>
<td>12,524</td>
<td>-18.8%</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>5.6%</td>
<td>5.3%</td>
<td>6.6%</td>
<td>5.5%</td>
<td>6.1%</td>
<td>5.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global agg.</td>
<td>270,783</td>
<td>273,975</td>
<td>267,828</td>
<td>265,079</td>
<td>253,976</td>
<td>233,813</td>
<td>-7.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global agg. (w. EU intra-trade)</td>
<td>347,239</td>
<td>348,537</td>
<td>353,315</td>
<td>356,475</td>
<td>353,365</td>
<td>330,783</td>
<td>-6.4%</td>
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</tbody>
</table>
Table 7. Steel imports of other major steelmaking economies

Thousands of metric tonnes

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>9,310</td>
<td>13,249</td>
<td>9,857</td>
<td>8,818</td>
<td>8,964</td>
<td>8,869</td>
<td>-1.1%</td>
<td>2,367</td>
<td>1,437</td>
<td>-39.3%</td>
</tr>
<tr>
<td></td>
<td>3.4%</td>
<td>4.8%</td>
<td>3.7%</td>
<td>3.3%</td>
<td>3.5%</td>
<td>3.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>6,657</td>
<td>5,850</td>
<td>5,965</td>
<td>6,186</td>
<td>5,992</td>
<td>6,410</td>
<td>7.0%</td>
<td>3,253</td>
<td>2,659</td>
<td>-18.2%</td>
</tr>
<tr>
<td></td>
<td>2.5%</td>
<td>2.1%</td>
<td>2.2%</td>
<td>2.3%</td>
<td>2.4%</td>
<td>2.7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td>5,644</td>
<td>4,309</td>
<td>4,389</td>
<td>6,407</td>
<td>6,282</td>
<td>6,693</td>
<td>6.5%</td>
<td>3,277</td>
<td>2,318</td>
<td>-29.3%</td>
</tr>
<tr>
<td></td>
<td>2.1%</td>
<td>1.6%</td>
<td>1.6%</td>
<td>2.4%</td>
<td>2.5%</td>
<td>2.9%</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>13,326</td>
<td>18,415</td>
<td>15,344</td>
<td>13,352</td>
<td>10,258</td>
<td>10,279</td>
<td>0.2%</td>
<td>4,862</td>
<td>6,355</td>
<td>30.7%</td>
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<td></td>
<td>4.9%</td>
<td>6.7%</td>
<td>5.7%</td>
<td>5.0%</td>
<td>4.0%</td>
<td>4.4%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Brazil</td>
<td>3,894</td>
<td>3,141</td>
<td>1,827</td>
<td>2,275</td>
<td>2,339</td>
<td>2,301</td>
<td>-1.6%</td>
<td>1,215</td>
<td>1,029</td>
<td>-15.3%</td>
</tr>
<tr>
<td></td>
<td>1.4%</td>
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<td>0.7%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>1.0%</td>
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</tr>
<tr>
<td>Iran</td>
<td>4,140</td>
<td>4,396</td>
<td>4,652</td>
<td>3,065</td>
<td>1,757</td>
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<td>1.5%</td>
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<td>1.2%</td>
<td>0.7%</td>
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<tr>
<td>Global agg.</td>
<td>270,783</td>
<td>273,975</td>
<td>267,828</td>
<td>265,079</td>
<td>253,976</td>
<td>233,813</td>
<td>-7.9%</td>
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</tr>
<tr>
<td>Global agg.(w. EU intra-trade)</td>
<td>347,239</td>
<td>348,537</td>
<td>353,315</td>
<td>356,475</td>
<td>353,365</td>
<td>330,783</td>
<td>-6.4%</td>
<td></td>
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</tr>
</tbody>
</table>

Note: This table contains the other major steelmaking economies, which are sorted by their volume of crude steel production in 2019. For each economy, the first row corresponds to import flows in thousands of metric tonnes, the second row relates to the share of imports of the global aggregate.
* See Table 4.
Source: OECD calculations based on data from ISSB. Data shown in the last three columns are based on a different definition of steel products, which includes semi-finished products. This means that the data represented in the last three columns are not perfectly comparable with the data reported in the rest of the table. Data for India are available only until March 2020.

5.2. Steel trade developments during the first half of 2020

When examining recent developments in steel trade, it is useful to look at overall merchandise trade developments in order to provide context. While the customs data on trade become available with a lag, making it difficult to assess the impact of the COVID-19 pandemic on world steel trade, the preliminary figures reported by the OECD on global merchandise trade indicate a sharp drop in export activity during the first semester of this year. In particular, the value of monthly exports for G20 economies decreased by about 26% from February to April 2020, while partially rebounding with an increase of about 14% in the period May-June 2020 (see Figure 6). In June, G20 exports were still 15% below the February 2020 level.
While the speed and scale of the current crisis are unprecedented, and overall merchandise trade has declined significantly during the COVID-19 pandemic, the effects of the pandemic on steel trade appear to vary considerably across economies. In any event, the effects of COVID-19 on steel trade are coming on top of several years of declining global steel exports (see Figure 7).
Although any assessment of the impact of the pandemic on steel trade can only be preliminary in nature, the most recent customs data reveal a diverse COVID-19 impact on steel exports and imports across major economies. Figure 8 shows the dynamics of monthly steel trade for major steel traders from January 2019 to June 2020.

Interestingly, exports from the People’s Republic of China (hereafter China), which declined slightly during 2019, have increased substantially in March 2020, and returned to the pre-COVID-19 levels in June 2020. Overall, steel exports increased by 16.7% in the first semester of 2020 relative to the same period of 2019.

Japanese exports have also increased in March 2020 but then declined in the period April-June 2020. In y-o-y terms, Japanese exports in the first semester of 2020 increased by about 3.7% when compared to the corresponding period of 2019. Among major steel exporters, E.U. external trade declined in the first quarter of 2020 by about 21%.

In the first semester of 2020, Korean exports dropped by about 7.3% in y-o-y terms. Interestingly, Russia is among the few economies that have not been affected by the effects of the pandemic in the first semester of 2020. From January to June 2020, Russian exports of steel have slightly increased by 4.4%.
Other major steel producers have registered a significant drop in exports in the first months of 2020. Steel shipments from India have decreased by about 8.5% in the first quarter of 2020 in y-o-y terms. Exports from the United States (hereafter U.S.) have also decreased by about 14.4% in the first semester of 2020.

In the first semester of 2020, Turkish exports of steel declined by about 12.5% in y-o-y terms. Brazil also recorded a drop in steel exports in the first semester of 2020, posting a decline of about 20.9% relative to the same period in 2019.
Turning to imports, shipments of steel into China have more than doubled in the first semester of 2020 when compared to same period of 2019, i.e. in y-o-y terms. Interestingly, in June 2020 China has become a net steel importer for the first time in eleven years. Speculative demand from Chinese steel traders anticipating an infrastructure and housing sector consumption boost due to the stimulus has created the incentives for stockpiling a significant number of steel products (Zhang, 2020[22]). Although the trend is expected to continue for a few months, the market expectation is that China will resume its leading role of net steel exporter in the medium term (Zhang, 2020[22]).

Among other major steel producers, Indian imports decreased dramatically in the first quarter of 2020, registering a drop of about 39% in y-o-y terms. Japan, and Russia also registered a significant decline in their imports of steel in the first half of 2020 (respectively, -18.2% and -29.3%). Turkish imports have shown substantial growth in 2020, increasing by 30.7% in the first half of the year compared to the same time period in 2019.

5.3. COVID-19 and steel value chains

The dramatic effects of the COVID-19 crisis across industries result from demand as well as supply shocks. On the demand side, the lower ability or willingness to purchase goods and services – for consumer industries – combined with economic uncertainty in consumer and industrial industries has lowered demand dramatically. On the supply side, as lockdowns across countries were implemented, companies were not able to produce at full capacity or even had to close. Because of these suspensions of activities, the regular flow of intermediate of inputs within supply/value chains came under pressure, further aggravated by the disruptions of international transport (maritime, air, land, etc.). Such supply chain disruptions even at local level may quickly transform into global shocks as supply and value chains have become increasingly international and extensive (OECD, 2013[24]).

While the steel industry has been no exception to this development with supply chains becoming longer and more complex (OECD, 2017[25]), the OECD database on Trade in Value Added (TiVA) shows that international sourcing in steel is less extensive than in other manufacturing industries (Figure 9). This would mean that the steel industry is ceteris paribus less vulnerable to such localised supply shocks. This seems to be in line with current experiences during the COVID-19 crisis as reports on the breakdown of steel supply chains have been limited. Instead, the demand effects of the COVID crisis seems to be more important in the global steel industry.

At the global level, imported intermediates counted for about 11% of steel production across countries. This was slightly below the 13% of global manufacturing, but significantly lower than the 25% of the global computer and electronics industry. Compared to other industries, the steel industry is sourcing relatively more domestically with 66% of steel production being intermediates that are sourced from industries in the domestic economy.18
Figure 9. The composition of global production

Note: This figure shows the decomposition of the contribution of domestic sourcing, international sourcing and value-added to the output of selected industries.
Source: OECD (2020[26]).

The dependence on international intermediates is however higher for the steel industry as the intermediates sourced domestically, themselves, include intermediate inputs from abroad. Calculating through these different effects, the TiVA data estimate the foreign content (or value added) of steel production at about 21%. This provides an idea of the international character of the steel value chain and how dependent global steel production is on internationally sourced inputs.

The international part of the steel value chain is truly global as the ratio of inter-regional versus intra-regional intermediates trade is 3 to 1. The most important countries of origin for the steel industry are Australia, China, the United States, Brazil and Japan (Figure 10, panel A). The imported intermediates in the global steel industry concern especially raw materials (metal ores, mining of coal), but also petroleum/gas/electricity reflecting the intensive use of natural resources in the steel industry (Figure 10, panel B). In addition there are many intra-steel intermediates produced by other steel companies across the world.
Figure 10. Origin of international sourcing in steel

A. Geographical origin

- AUS, 15%
- CHN, 8%
- USA, 6%
- BRA, 4%
- JPN, 4%
- DEU, 4%
- CHL, 4%
- RUS, 4%
- IDN, 4%
- ZAF, 4%
- KOR, 3%
- CAN, 3%
- OTHER, 38%

B. Industry origin

- Metal ores, 15%
- Crude petroleum and gas, 14%
- Steel, 5%
- Mining of coal and lignite, 4%
- Financial services, 3%
- Chemicals, 4%
- Energy, 3%
- Retail trade, 3%
- Legal and consulting, 3%
- Machinery and eq., coke and petroleum, 2%
- Wholesale trade, 8%
- Other, 33%
- Land transport and transport via pipelines, 3%

Note: These figures show the share that each geography (panel A) or Industry (panel B) on the international sourcing of steel.
Source: OECD (2020[26]).
6. Steel and raw material prices

6.1. Steel prices

The upturn in steel demand from late 2016 onwards supported a rise in steel prices from their 2015 lows, but the trend was short-lived. Both world hot-rolled coil (HRC) and rebar prices peaked around May 2018 and have been on a declining trend ever since, albeit with some volatility.

On July 2020, both flat steel and rebar prices stood 16% lower than one year earlier (Figure 11). The monthly average of steel prices over the first half of 2020 stood 13% lower y-o-y for flat products and 14% lower for long products, y-o-y. In spite of a small rebound observed in July 2020 for flat prices, steel prices seem to continue on the slowly declining trend they have followed since 2018.

Differences in prices across regions (as indicated by the dotted lines representing the price coefficient of variation in Figure 11) do not seem to be trending upward, and prices across different regions seem to follow a global dynamic (Figure 12 and Figure 13). The difference between the prices of the two main types of steel products, rebar and flat products, has narrowed during the years 2019 and 2020, and is one of the smallest on record (in absolute terms). Stronger domestic demand from Chinese steel traders and the infrastructure and housing sector in China could explain the recent upward trend of Chinese domestic prices that started in May 2020 and can be seen in Figure 12 and Figure 13. It would also impact Chinese export prices for a while, according to some market observers (Dai, 2020[27]).

Figure 11. Aggregate flat and rebar steel price averages (latest July 2020)

Note: The flat price and rebar price indices are defined as the arithmetic average of the individual regional Platts price series for the United States, North Europe, China, Japan, India and Russia, when available. This indicator had the closest fit to the two global Platts price indices used in Market reports prior to being discontinued (September 2017). The coefficients of variation (CV) are the ratio of the standard deviation of the regional Platts price series making up the indices to their mean, thus capturing price dispersion across regions. 
Source: Platts Steel Business Briefing.
Flat steel prices increased more rapidly in the United States than in other economies during the first half of 2018, but changed course during the second half of the year (Figure 12), completely reversing those gains. Platts reported a stable US rebar steel price during most of the period (Figure 13). Since then, US rebar prices have been following the same dynamics as rebar prices in other regions, exhibiting moderate declines during 2019 (Figure 12 and Figure 13) with US flat prices even falling below Japanese steel prices in 2020. Although South East Asia and Chinese flat and rebar prices seem to have started to rebound slightly in 2020, US and European prices seems to be on a declining trend (Figure 12 and Figure 13).

Figure 12. Steel price for flat products, by region

Note: Latest price: July 2020, with the exception of Russia (June 2020)
Source: Platts Steel Business Briefing.
Steel futures prices tend to move slightly in advance of spot prices, suggesting that they are able to predict steel spot price dynamics at the daily frequency by quickly incorporating new market information. Figure 14 below shows three steel futures continuous contracts, as provided by Thomson Reuters Datastream (Refinitiv)\(^1\). Steel futures prices seem to have recently stabilised and are slightly increasing for all markets in August, led by Chinese contracts which started to increase from May 2020.

\(^1\)Platts Steel Business Briefing.
6.2. Steel raw material prices

Prices of the main steelmaking raw materials have been on a decreasing trend during the first half of 2020, and as of July 2020 iron ore prices, coking coal prices and scrap prices were 9%, 4% and 3% lower than one year earlier, respectively (Figure 15). A notable exception are Chinese scrap prices, which, after a 8% drop in May 2020 year-on-year, have already recovered almost all their losses and, as of the beginning of August 2020, were only 1% lower than one year earlier. The Chinese scrap price has been roughly stable throughout 2019 and during the beginning of 2020 (Figure 16). Going forward, scrap prices are expected to continue to be very volatile and hard to predict, because when the steel price drops well below the marginal costs of EAF producers to produce steel, scrap prices are subject to sudden and sharp variations (Marcus, Englin and Green, 2020[29]).

The 32% increase in iron prices in 2019 was caused by several factors, such as the rupture of the Vale mining dam in Brazil, which cut more than 90 million metric tonnes (mmt) of production from the world’s biggest supplier operations in Brazil (OECD, 2019[30]), and the higher-than-expected Chinese steel production, which supported robust demand for iron ore (Financial Times, 2019[31]). Considering that the average price of iron ore was USD 101 per
tonne over the period from January 2008 to June 2020, the current price of USD 104 per tonne seems only slightly above long-term average price levels. Going forward, iron ore prices will depend largely on China’s ability to sustain its rapid growth in steel demand, as China is the main iron ore importer globally. Furthermore, the current shift towards a greater demand for higher grade iron ore is expected to continue, due to the revamping of the Chinese blast furnaces to reduce carbon emissions — the revamped furnaces will not be able to use the same proportion of lower grade iron ore and metallurgical coke (Marcus, Englin and Green, 2020[29]). Swings in the price of iron ore have a large impact on the cost of steel makers – given that roughly 1.5 tonnes of iron ore is needed to produce one tonne of pig iron (Marcus et al., 2020[32]).

Coking coal prices declined sharply in 2019, and decreased slightly further during the first half of 2020. As of June 2020, coking coal prices stood 4% lower than one year earlier, but the overall decrease for the first half of 2020 was only 1.5%. Coking coal prices remain well below their historical level: over the period from January 2008 to June 2020, the average price for coking coal was USD 181 per tonne, whereas the current price stands at about USD 96 per tonne – almost half as low. The overall evolution seems to indicate that the major shocks to the coking coal price occurred during the year 2019, and that in 2020 the fundamentals of the coking coal market will probably not deteriorate further.

Reasons for the decline in coking coal prices can be ascribed to minimal demand growth and deteriorating global economic conditions. In general, 2019 increases in coking coal supplies from Australia, Canada and Mongolia were confronted with sluggish demand from the steel sector in India and in other economies, thus creating downward pressure on prices (Office of the Chief Economist, 2019[33]). Due to its current low levels, there seems to be less room for further declines for coking coal prices (Marcus et al., 2020[32]). On the contrary, according to some market sources coking coal is starting to be in fairly short supply, with demand picking up and inventories declining (Marcus, Englin and Green, 2020[29]). Since the 2019 shocks, coking coal producers have been efficient in rationalising their production capacity. For example, leading non-Chinese producers reduced coking coal capacity by 25 million tonnes per annum, and Chinese regulators shut down some coal mines for safety reasons. These capacity reductions, together with increasing demand, makes a pick-up in the coking coal price the most probable outcome going forward. If mines would be closed in China due to environmental reasons, this would lead to a higher jump of the coking coal prices from their current lows (Marcus, Englin and Green, 2020[29]).
Figure 15. Prices for key steel-making raw materials (as of June 2020)

Note: The iron ore price series is Platt’s “Forwards / SGX 62% Fe Iron Ore cash-settled swaps (dry metric tonne) / China import CFR Tianjin port $/t”; the coking coal price series is Datastream’s “Premium Coking Coal Australia”; the scrap price series is Platts “Scrap / Platts TSI HMS 1&2 (75:25) / Europe export FOB Rotterdam $/t”

Source: Platts Steel Business Briefing (SBB), Datastream.

Figure 16. The upward trend in Chinese scrap prices has recently stabilised (last data point is 27 August 2020)

Source: Datastream price series “Steel Scrap Price Index SHCNFSI - PRICE INDEX”, originally sourced from Home Steel.
The steel-raw material price margin, measured by the difference between the price of steel and a basket of steel inputs, had been increasing since mid-2019, but this proved to be temporary, as suggested in the previous edition of the Market Development paper series (OECD, 2019[30]). Indeed, margins resumed a downward trend after February 2020 (Figure 16). As of July 2020, margins were 9% lower than their long-term average (for the period from January 2008 to July 2020), but 20% higher than one year earlier.

**Figure 17. Margin between steel and raw material 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.

*Sources:* OECD based on data from Thomson Reuters, Platts Steel Business Briefing (SBB), and Datastream.
7. Financial performance of steel companies

7.1. Profitability

The average operating profitability of the global steelmaking industry, as captured by the ratio of EBITDA (earnings before interest, taxes and depreciation) to sales revenues (weighted by total sales) continued to decline in 2019, reaching 9% that year (Figure 18). During the whole observation period (1998-2019) of this analysis, only in the years 2012 and 2013 had average operating profits been lower than in 2019. In 2018, average operating profitability had already declined significantly to around 10%, thus ending the 2013-2017 rebound during which profitability had increased from a record low of 8% in 2013 to 12% in 2017. Since the continuation of the decline in 2019 pre-dates the COVID-19 pandemic, the root cause of the decline should be sought in the structural imbalances that weigh on the industry’s profitability. Although data for the year 2020 are not yet available, it is expected that the COVID-19 crisis will further weigh on profitability due to the combination of higher costs of doing business and subdued steel demand.

Figure 18 provides additional information concerning the distribution of operating profitability. In 2019, as in previous years, median operating profitability was much lower than the industry-wide average, as shown in Figure 18, indicating that larger firms have a higher operating profitability than smaller ones (as average operating profitability is weighted by total sales, contrary to the median profitability).

Furthermore, profitability is probably still below sustainable levels for a large number of firms. For example, the median line in Figure 18 indicates that in 2019 half of the companies have operating profitability levels below 6.3%, while the lower dashed line shows that almost 25% of the steelmaking companies are operating with profitability ratios lower than 2.6%, and are thus likely faced with a particularly challenging financial situation.
The steel industry’s net profit, which is derived from operating profit by deducting all expenses incurred by firms, including taxes, interest paid on debt, depreciation and amortisation, paints a similar picture of an industry faced with challenging market conditions. Figure 19 shows that the (weighted) average net profit margin (net profits over sales) of steel companies seems to have resumed the downward trend started in 2004, notwithstanding some volatility and in line with operating profits. The net profit margin fell from about 5% in 2017 to about 3% in 2018 and 2019, remaining well below its 2004 record level of about 10%.

The median net profit margin (Figure 19) fell further from 2018 to 2019, reaching a meagre 1.4% in 2019. The gap between the first and fourth quartile of the net profit distribution, which had widened considerably in 2015 but then narrowed during 2016, continued to narrow from 2017 to 2019. This was due to the increases in net profits of the least profitable firms in 2017 and the sharp decrease of the net profits of the most profitable firms in 2019. Furthermore, about 28% of the firms in the sample experienced net losses in 2019, compared to 25% in 2017 and 24% in 2017.
Figure 19. Evolution of net profit margin between 1998 and 2019

Note: The dotted lines provide information on the distribution (first and third quartiles) of net profits across the firms in the sample: 25% of the companies have net profits below (above) the first (third) quartile line. The long dash line provides information on median net profits across firms in the sample: this line divides the distribution in two halves with 50% of the companies having net profits below the line. The heavy line depicts the industry average net profits, weighted by sales.

Source: OECD calculations based on data from Refinitiv.

Figure 20 shows how the distribution of (a logarithmic transformation of) net profit margins across steelmaking companies has changed between four selected years (2004, 2008, 2014 and 2019). It is clear that there was a strong shift in the distribution towards the left (i.e. lower profitability) between 2004 and 2014: the reduction in average profitability was felt across the board. Moreover, a fatter left tail in the 2014 distribution indicates that a greater number of firms are still facing considerable challenges.

In 2019, the distribution has shifted back to the right slightly compared to 2014 (i.e. higher average profitability), but still shows a larger proportion of loss-making firms than in 2004, as can be seen by comparing the two shapes in Figure 20. Moreover, the relatively fat left tail of the distribution in 2019 (the solid black line appears above all others) suggests that a non-negligible number of steel firms are facing considerable financial difficulties. Also, net profits seem to have been more heterogeneous across firms in 2019 (more dispersion), with a smaller number of firms standing at the middle of the distribution.
Pricing issues are relevant to the discussion of the steel industry’s financial performance above. Digitalisation and information technologies may have impacted steel mills’ pricing behaviour - and hence, margins, according to some studies. Steel buyers are more than ever aware of local and global steel prices given the many trade journals and specialised media that are able to provide them with considerable information on prices in a timely manner (Marcus et al., 2020[32]). As a result, most multi-office steel trading companies no longer exist – not being able to maintain the expenses of a sizeable staff in different locations.²² A positive development for steel mills would be the ability to hedge their risks using steel futures market, should those futures market acquire a sufficient liquidity (Marcus et al., 2020[32]). Mergers and acquisitions may be used by steel mills to acquire market shares, to improve the product mix, and realise synergies, factors which may have a bearing on steel prices (Marcus et al., 2020[32]).

7.2. Indebtedness

After maintaining relatively stable levels of debt from 2000 to 2007, steel companies seem to have resorted to higher levels of debt possibly as a consequence of the relatively weaker
market environment, which has reduced profits, coupled with a global easing of firms financing conditions. In 2014, the trend reverted and steel firms started to deleverage. Overall, financial data for 2019 suggests that this trend has ended, as the median level of debt over assets has stabilised compared to 2018 (Figure 21).

However, caution is still warranted in interpreting steel companies’ indebtedness. First, there are sample limitations in the data presented in this section. Only debt of publicly listed companies is included in the Refinitiv data used for this report. Hence, debt levels represented in Figure 21 exclude data for unlisted firms (including state-owned companies), some of which are possibly large and indebted. Second, in some large steel-producing economies, debt has been reduced by using debt-for-equity swaps that are not necessarily market-driven and lack clarity concerning losses in cases of bankruptcy (Ren, 2017[34]). Finally, the maturity of the debt and the average interest rate paid are two other relevant aspects to consider for assessing corporate indebtedness. A decrease in average debt maturity and an increase in average interest rate has been documented for steel companies in some jurisdictions, which means that steel companies pay more to borrow for shorter periods of time (Financial Times, 2018[35]). This means that the total indebtedness represented in Figure 21 is not enough to capture completely steel firms’ financial conditions, which may be more precarious than they seem.

Figure 21. Evolution of indebtedness between 1998 and 2019

![Graph showing evolution of indebtedness between 1998 and 2019](image)

*Note:* The dotted lines provide information on the distribution (first and third quartiles) of indebtedness across the firms in the sample: 25% of the companies have debt to asset ratios below the quartile line at the bottom of the chart, and 25% have ratios above the quartile line at the top. The remaining 50% of companies have debt to asset ratios between the first and third quartile lines. The long dash line provides information on median indebtedness across firms in the sample: this line divides the distribution in two halves with 50% of the companies having debt to assets ratios below the line and 50% above the line. The heavy line depicts the industry average indebtedness, weighted by sales.

*Source:* OECD calculations based on data from Refinitiv.

Figure 22 presents data on companies’ indebtedness in more detail, as it compares the level of long-term versus short-term debt. It shows that the median amount of short term debt relative to the amount of long term debt of steel companies in the sample (“Quartile 2” in Figure 22) has been on an upward trend since 2010. This means that an increasing number of steel firms are increasingly borrowing at shorter maturities, potentially exposing
themselves to interest rate risks and liquidity shortages. The motives for steel firms to borrow more on a short-term basis are unclear. On the one hand, more short-term borrowing could result from steel firms trying to minimise interest expenses. On the other hand, the increase in short-term debt could reflect a reluctance from banks and investors to lend at longer maturities due to the perceived risks associated with the firms and the steel sector in general, as indicated by some anecdotal evidence (Marcus et al., 2020[32]). Although, firms in the upper quartile, i.e. which had the highest amount of short-term debt relative to long-term debt (highest dotted line in Figure 22) have reduced considerably their ratio of short-term over long-term debt since it peaked in 2017, this ratio is still twice as high as the pre-2010 level, when a sharp rise in short term debt relative to longer-term debt was observed for all quartiles.

Figure 22. Ratio of short term debt over long term debt of steel firms

The shift towards shorter-term financing, together with easing financing conditions across the board in the recent past, may explain the relatively low average interest rate paid by steel firms on their outstanding debt. In 2019, steel firms paid an average (weighted by sales) interest of 3.4% on their outstanding debt (across all maturities), compared to 6.4% in 2000 (Figure 23). More importantly, there has been anecdotal evidence that banks have been reluctant to lend to steel firms since 2015, which may explain both part of the decline of indebtedness in that year and the increase of the relative proportion of shorter term debt compared to longer-term debt (Marcus et al., 2020[32]).
Figure 23. Evolution of interest paid on total debt from 1998 to 2019

Note: The dotted lines provide information on the distribution (first and third quartiles) of interest paid over total debt across the firms in the sample: 25% of the companies have a ratio of interest paid over total debt below the quartile line at the bottom of the chart, and 25% have ratios above the quartile line at the top. The remaining 50% of companies have ratios of interest paid over total debt between the first and third quartile lines. The long dash line provides information on the ratio of interest paid over total debt across firms in the sample. The heavy line depicts the industry average indebtedness, weighted by sales.

Source: OECD calculations based on data from Refinitiv.

Although debt usually constitutes the bulk of the liabilities that a steel firm carries, there are other forms of liabilities. For example, outstanding bills to suppliers, also known as account payables, are another type of liability, and so are wages due and pensions. Technically, a steel firm could reduce its debt by delaying the payment it makes to its suppliers. To avoid misinterpreting the situation due to these possible substitution effects, it is useful to consider the ratio of total liabilities over assets (Figure 24), and to compare it to the debt-to-asset ratio shown before. This ratio seems to confirm the slightly positive picture of debt reduction relative to assets’ book value. Nevertheless, debt reduction may not always be a choice or strategy of the steel firms, but due to lenders assessments of the risks of their business. Over the longer-term, steel mills may have less ease of access to funding, even in a context of overall extremely low government borrowing rates, due to the negative expectations of lenders and investors about the long-term prospects of the sector, coupled with the depressed asset valuations of the steel firms (Marcus et al., 2020[32]). Some anecdotal evidence points towards the disappearing in 2020 of attractively-priced borrowed funds that benefitted many steel mills in the past (Marcus et al., 2020[32]).
Figure 24. Ratio of steel firms' liabilities over assets

Note: Liabilities are defined here as total liabilities, including short-term and long-term debt, account payables and deferred income tax. Assets are defined as total assets, which includes properties, plants, long-term investments, but also intangibles (e.g. patents). The dotted lines provide information on the distribution (first and third quartiles) of the ratio of liabilities over assets across the firms in the sample: 25% of the companies have liabilities to assets ratios below the quartile line at the bottom of the chart, and 25% have ratios above the quartile line at the top. The remaining 50% of companies have liabilities to assets ratios between the first and third quartile lines. The long dash line provides information on median ratio of liabilities over assets across firms in the sample. The heavy line depicts the industry average ratio, weighted by sales.

Source: OECD calculations based on data from Refinitiv.
8. The global steelmaking capacity situation

Global steelmaking capacity (in nominal crude terms) decreased from 2015 to 2018, but the latest available information (as of June 2020) suggests that capacity could increase in 2020 for the second year in a row (Figure 25). The net capacity change in 2020, taking into account new capacity additions and closures, could bring current global steelmaking capacity up to 2 455.8 mmt, representing a 1.7% increase from the level at the end of 2019, in the absence of further closures.

Most of the capacity additions in 2020 are planned to take place in Asia, with an additional 16.4 mmt of capacity coming on stream. Steelmaking capacity additions are also expected to take place in Africa (1.7 mmt), North America (3.2 mmt), Europe (3.5 mmt) and the Middle East (16.0 mmt). In other regions, capacity could increase slightly or remain unchanged from previous levels, in the absence of additional closures.

Figure 25. Evolution of crude steelmaking capacity in OECD/EU economies and non OECD/EU economies

The gap between global steelmaking capacity and production narrowed between 2016 and 2019 as a result of the modest decrease in global crude steelmaking capacity (-0.1%) and the strong increase in steel production (13.4% in the same period). However, the gap between capacity and production could increase in 2020 due to increases in capacity and the contraction of production associated with COVID-19. In 2020, global capacity could reach 2 455.8 mmt, as noted above, and production is currently around 1 752.0 mmt on an annualised basis. Therefore, assuming the current annualised production figure as a basis for the calculation, and currently available information on capacity, the gap between capacity and production would widen to 703.8 mmt in 2020, from 565.9 mmt in 2019 (Figure 26 .A). However, this figure is likely to vary considerably during the course of the year with incoming market information. Under the same assumptions noted above, world steel production as share of capacity would decrease, from 76.6% last year to approximately 71.2% in 2020 (Figure 26 .B). World Steel Dynamics foresees substantial oversupply in the steel sector in the coming year, due to the continued rise of capacity investments, in particular investments in new and more productive technologies (Marcus et al., 2020).
8.1. Announcements of production cuts, idling and layoffs at steel production plants

8.1.1. Plant idling and production-related announcements

Steel mills around the world have been impacted as a result of the COVID-19 crisis, with production activity affected by lockdowns and other containment measures. Steel mills have also been indirectly affected as they begin to suspend production in response to lower (or expectations of lower) steel demand. The spread of the pandemic has resulted in a number of temporary production shutdowns world-wide and idling of steelmaking furnaces in many countries during the spring. Subsequently, in certain regions, companies have decided to partially or fully resume operations at their mills. However, the levels of crude steel production as of July 2020 were still lower than before the start of the COVID 19 pandemic in almost all economies (see Box 3).

In Europe, Italy experienced suspensions of steel production at a very large number of facilities in March. In the earlier part of the month, this included several electric-arc furnaces (EAF) facilities located in the northern part of the country, with a number of steel producers such as Alfa Acciai, Ferriera Valsabbia, Duferdofin-Nucor, and Tenaris Dalmina, all stopping production. Since then, the Italian government issued a new decree allowing steel manufacturing and major steel consuming sectors to resume operations on 4 May 2020 and some plants have restarted their operations accordingly (Platts, 2020[37]). For example, ArcelorMittal Italia restarted some operations in its Taranto works on 11 May (Metal Expert, 2020[38]). Elsewhere in Europe companies have also announced the resumption of production. For instance, Greece's Sideron resumed its EAF-based steel plants at Thessaloniki and Almyros in early May (Metal Expert, 2020[39]). In Ukraine, Dnipro Metallurgical Plant (a part of DCH Steel) restarted its idled plants in May (Metal Expert, 2020[40]).

In the United States, US Steel resumed production at BF No.1 at the Edgar Thomson Plant in Pennsylvania in late May, which was stopped in late April (Metal Expert, 2020[41]). Cleveland-Cliffs (formerly AK steel) restarted their BF operations in Dearborn in July (Metal Expert, 2020[42]). Arcelor Mittal USA will resume operations at BF No.4 at Indiana Harbor in August after almost a three month outage (Platts, 2020[43]). On the other hand,
Liberty Steel USA decided to postpone idle of its Georgetown steelworks, in South Carolina as of July (Metal Expert, 2020[44]). US Steel expects BF No.4 at Gary Works in Indiana and BF at Granite City in Illinois to remain temporary idle for the rest of the year (Metal Expert, 2020[45]).

In South Africa, ArcelorMittal South Africa indicated that its Vanderbijlpark BF C and its Vereeniging Electric Arc Furnace will be idled from the second quarter and the third quarter of 2020 respectively. These production suspensions are expected to be in place until steel demand recovers, because demand collapsed in South Africa due to the lock-downs and that the company’s sales have decreased by 40%.

In Brazil, production has resumed relatively slowly. For example, Gerdau restarted its BF No. 2 at Ouro Branco, Minas Gerais in August (Metal Expert, 2020[46]). Usiminas restarted its BF No.1 at the Iptinga steelworks in the first half of August, as well as its BF No. 2 at Ipatinga steelworks, on August 26th 2020. Companhia Siderúrgica Nacional (CSN) announced that it shut down its No. 2 BF at Usina Presidente Vargas in Volta Redonda, Rio de Janeiro on 29 May, and in August the company explained that they may resume its operations in November 2020 (Metal Expert, 2020[47]).

India experienced a stringent national lockdown from the second half of March. After the lockdown, JSW Steel gradually started to resume operations in early May after receiving approvals from central and local governments. As another example, Monnet Ispat’s plant in Raigarh restarted steel production on 2 May (Platts, 2020[48]).

In Japan, Nippon Steel Corporation announced in early April that it would temporarily shut two blast furnaces (in Kashima and Wakayama) later in April. In late April, the company announced that it would temporarily shut down one blast furnace in the Kimitsu area after the middle of May (Platts, 2020[49]). In May, they announced that the No. 2 BF at the Kyushu Works (Yahata) in Kitakyushu would be stopped in early July, i.e. earlier than the originally planned September. The company also planned to idle its No. 2 BF at the Muroran Works in Hokkaido Island after early July (Nippon Steel Corporation, 2020[50]). JFE Steel also announced the temporary suspension of its blast furnace operations at its Kurashiki and Fukuyama sites in April (JFE Steel Corporation, 2020[51]).

In Korea, POSCO held a ceremony for restarting its No. 3 BF at the Gwangyang steelworks on 10 July (POSCO, 2020[52]). Hyundai Steel suspended an EAF melt shop at its Dangjin Works as of June (Platts, 2020[53]).
The COVID-19 pandemic has led to the idling and temporary shutdowns of steelmaking plants around the world, particularly outside of China, as noted above. This challenging environment is visible in the steel production figures available since the onset of the pandemic, which show sharp declines in many economies (see the figure below). Production figures available until July 2020 show that steel production was down by 19% in both the European Union and North America during the first seven months of 2020 relative to the corresponding period of 2019. OECD Asia (i.e. Japan and Korea) saw production decline by 15% overall, but in other parts of Asia such as India the decline was even steeper at 24%. In South America, steel production contracted by 17%, whereas the Middle East and Oceania saw modest declines during the first seven months of this year. For the world as a whole, production fell by 5%, offset by positive production developments in China, where output increased by 3%.

An important question concerns the extent to which capacity has been idled or under-utilised as a result of COVID-19, in view of the significant production contractions observed around the world since the pandemic emerged in early 2020. To assess the possible impacts, the Secretariat has calculated the capacity utilisation rates by selected regions for 2020 (based on annualised capacity and production data current available), and has compared these to the more normal rates of utilisation observed in past years, and to see the volume of capacity that is being affected around the world outside of China.

The table below presents the differences in capacity utilisation rates for selected regions between the COVID-19 period (January to July 2020) and “more normal” periods of time, defined as average capacity utilisation during the past five years and past 10 years. The average capacity utilisation rates over the past five years (2015-19) as well as during the last 10 years (2010-19) are used so as to avoid – to the extent possible – having idiosyncratic or one-off factors that affect capacity utilisation rates in any given year(s) distort the results.

With the exception of Oceania, most regions are currently experiencing significantly lower capacity utilisation rates compared to normal, and in many cases the differences are more
than 10 percentage points. For example, compared to the average capacity utilisation rate observed over the past five years, the rate observed during the COVID-19 pandemic is down by 12.5 percentage points in the EU, 12.2 percentage points in OECD Asia, 11 percentage points in North America, slightly less than 10 percentage points in Africa and 6.4 percentage points in the Middle East. The total amount of capacity that is now being under-utilised, through either idling or other forms of shutdown, ranges between 90 and 96 million tonnes, for the selected regions in the table. While this is expected to be mostly the result of COVID-19, it is nevertheless important to note that the figures for 2020 may be affected by seasonal factors, given that they are based on monthly data available thus far in 2020. However, these factors are expected to be insignificant at least in comparison with the effects of the COVID-19 pandemic.

On the other hand, it can also be argued that the past 10 years have not represented completely “normal” times for the industry, because the period following the financial crisis was characterised by significant global excess capacity and difficult market conditions for many steel producers around the world. Thus, capacity utilisation over the past 10 years may have actually been below what would be considered normal levels, suggesting potentially greater effects than those shown in the table below.

### Potential effects of COVID-19 pandemic on capacity under-utilisation

<table>
<thead>
<tr>
<th>Region</th>
<th>Difference in capacity utilisation rate during Covid-19 (% pts.)</th>
<th>Range of under-utilised capacity due to Covid-19 (mmt)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compared to past 5 yrs</td>
<td>Compared to past 10 yrs</td>
</tr>
<tr>
<td>Africa</td>
<td>-9.7</td>
<td>-14.1</td>
</tr>
<tr>
<td>European Union</td>
<td>-12.5</td>
<td>-11.5</td>
</tr>
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<td>-7.0</td>
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<td>Oceania</td>
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<td>OECD Asia</td>
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<td>-12.6</td>
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<td>-14.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 8.1.2. Layoffs and employment-related announcements

The challenges facing the steel sector as a result of the crisis are also having a negative impact on employment. Announcements have been made by some companies regarding permanent or temporary layoffs, in anticipation of the effects of an expected longer term contraction of steel demand.

In the North America region, 2 700 workers at US Steel have already been laid off (bloomberg, 2020[^54]). Moreover, Arcelor Mittal USA announced additional workforce reductions and that it was placing 254 employees on unpaid furloughs at the Cleveland works from August 1 (Metal Expert, 2020[^55]). Canada’s Algoma steel began temporary layoff
procedures affecting approximately 70 full-time employees from the end of April (Algoma Steel, 2020[56]). In Europe, in July Arcelor Mittal Italia considered continuing temporary layoffs until October due to the unfavourable market conditions (Metal Expert, 2020[57]). Also in Europe, Arcelor Mittal Spain proposed layoffs between 50 to 100 employees at a meeting with the unions that it held during the month of April (Metal Expert, 2020[58]). In Finland, SSAB intends to extend temporary layoffs for at least an additional three weeks during the period between July and September, as economic conditions and demand in the steel market continued to weaken (Metal Expert, 2020[59]). In Latin America, Brazil’s Usiminas announced 960 planned layoffs at the Cubatao unit, Sao Paulo, however the Brazilian court rejected a decision to lay off workers and determined that negotiations between the company and the union must resume as of May (Metal Expert, 2020[60]).

Please note that the above should not be considered to represent an exhaustive list of production disruptions, operation resumptions or complete information about the employment effects during the COVID-19 crisis. The Secretariat is currently in the process of collecting more systematic information on steel production disruptions to be reflected in future reports for the Steel Committee.
9. The steel market outlook

9.1. The latest professional forecasts and the global steel market outlook

According to the June 2020 Short Range Outlook (SRO) of worldsteel, world finished steel demand is projected to decrease by 6.4% in 2020 to 1,654 mmt, essentially as a result of the COVID-19 crisis. Steel demand is forecasted to rebound by about 3.8% in 2021, to 1,717 mmt (worldsteel, 2020[8]). The worldsteel forecast assumes a “single-hit” scenario, whereby no major steelmaking economy suffers from a substantial secondary wave of the pandemic neither in 2020 nor in 2021. The economic recovery in China is expected to be faster than in the rest of the world. Although the COVID-19 crisis resulted in freezing or postponing steel consumption, shutdowns and disruption of supply chains, it was the service sector, which is less steel-intensive, which was the hardest hit. Furthermore, in many developed economies steel demand was already at a low level prior to the crisis, having not yet fully recovered from the 2008 financial crisis (worldsteel, 2020[8]). These two facts explain why the decline in steel demand is expected to be less pronounced for the COVID-19 crisis than for the 2008 financial crisis. The mechanical and automotive sector are the most exposed steel-intensive sectors to a prolonged contraction in demand. New social distancing rules implemented in those sectors will probably extend their production cycle and impact their productivity (worldsteel, 2020[8]).

According to World Steel Dynamics, the outlook for steel in 2021 is poor. World Steel Dynamics foresees lower activity for a number of steel-intensive industries in 2021 compared to 2019, including automotive, private capital spending, oil and gas drilling and even possibly construction (Marcus et al., 2020[32]). In the long-term, World Steel Dynamics expects world steel production to be at around the same level in 2030 than in 2019, when it was at its peak (about 1.87 billion tonnes). The biggest gains in steel production are foreseen to be in India, in Indonesia, Vietnam and Malaysia (Marcus et al., 2020[32]).

9.2. Regional steel market outlook

9.2.1. Americas

Steel demand in Latin America is forecasted to contract sharply in 2020. In its June 2020 SRO, worldsteel set the expected decline at 17.3% (worldsteel, 2020[8]). The Latin American Steel Association (Alacero) announced in May 2020 that it expected at least a 13.8% contraction (Metalexpert, 2020[61]; Carvalho and Antunes, 2020[62]). Due to political instability and dependence on commodity prices, worldsteel forecasts the region to be one of the hardest-hit by the COVID-19 pandemic (worldsteel, 2020[63]). Moreover, Alacero expects that the effect of the pandemic on the region will be longer-lasting than in other regions (Alacero, 2020[64]). As steel demand and production contracted in Latin America, pre-existing concerns over rising Latin American imports of Chinese steel products intensified, also as a result of an increase in March 2020 of export rebates for a number of Chinese steel products (Alacero, 2020[65]). Another region-wide trend reported by steelmakers is the deterioration of the sales mix of steel products, due to the relatively weaker performance of the automotive sector compared to construction (ArcelorMittal, 2020[66]). Drilling activity – and consequent consumption of oil-country tubular goods – was reported to have collapsed in the second quarter in Colombia and Argentina (Tenaris, 2020[67]).

In Argentina, after a complete shut-down in April, automotive production restarted in May, then grew every month (month-on-month) until July, the latest month for which statistics
were available. Although a recovery had begun to take shape, automotive production, exports and domestic sales at car dealers remained below 2019 levels (ADEFA, 2020[68]). The construction and manufacturing industries also restarted activities gradually in the second quarter, prompting a restart of steel production at the end of the month of May for certain long-steel products producers (Gerdau, 2020[69]). In its quarterly earnings call, Ternium stated its expectation that finished-steel demand in Argentina would recover from the Q2 trough in the remainder of the year, mainly driven by a restart of activity in the construction sector, as well as the agribusiness sector, canning and white goods production. More generally, prospects for the recovery of steel demand depend on the restructuring of the Argentinian public debt, which could promote a pick-up in investment, as well as on the recovery in neighbouring economies that buy Argentinian exports (OECD, 2020[70]).

In Brazil, long-steel products producers reported construction activity (notably civil construction) to be resilient in Q2 2020, with an estimated 95% of construction works remaining active during the second quarter (Gerdau, 2020[69]). Gerda also reported that self-building was resilient, supported by the government income support measures (2020[69]). This resilience maintained confidence that demand for long-steel products would resume in the second half of the year, also supported by recovery in certain manufacturing sectors in particular windmills and agricultural machinery (Gerdau, 2020[69]). However, the manufacturing sector as a whole benefits from less optimistic expectations. After grinding to an almost complete halt in April, automotive production resumed in May, but remained at a much lower level than in 2019 (ArcelorMittal, 2020[66]). The Brazilian automakers association expects a 45% y-o-y drop in vehicles production for 2020 as a whole (MercoPress., 2020[71]). As semi-finished-steel demand declined sharply in Brazil and the Brazilian real depreciated, major steelmakers sought to export some of their production (ArcelorMittal, 2020[66]; Gerdau, 2020[69]; Ternium, 2020[72]).

In Chile, preliminary data showed that in April 2020 permits for housing and non-housing construction fell by 66.7% y-o-y. Cumulatively, this amounted to a 32.7% decline in the first four months of 2019. Manufacturing of fabricated metal products declined by 16.2% y-o-y in June 2020, as a consequence of fewer requests from mining companies (INE, 2020[73]). Economic and steel-demand recovery in Chile is likely to be dependent on the pace of recovery in the U.S. and China, which together account for almost half of Chilean exports and foreign investment (OECD, 2020[74]).

In Colombia, following widespread COVID-19-related shut-downs, activity in the construction sector suffered a sharp contraction. Provisional statistics showed a y-o-y fall in April 2020 of 79.5% for cement production and 75.6% for cement deliveries (DANE, 2020[75]). Sharp contractions were also experienced in the manufacturing sector. In May, production of automotive bodywork declined by 37.6% y-o-y and production of machinery and equipment by 38.9%. This brought the cumulative decline in the first five months of the year to 19.4% and 24.4% respectively.

Worldsteel expects a deep decline in steel demand in the North American region, with a 2020 contraction of 20.0% and a moderate recovery of 6.2% in 2021. In July 2020, after Canada’s ratification, the trade deal between the U.S., Canada and Mexico entered into force, replacing NAFTA. According to consulting firm Plante Moran, the new agreement will reduce uncertainty for regional automotive producers and spur investment, but preparedness for the new rules was low, potentially adding costs and disruption in the near term (Longo, 2020[76]). Drilling activity – and consequent consumption of oil-country tubular goods – was reported to be continuously slowing in Mexico, while in the U.S. inventories of oil-country tubular goods rose to a level equivalent to 15 months of consumption (Tenaris, 2020[67]).

In Canada, preliminary data showed that construction intentions dropped in Q2 2020 to their lowest level since the financial crisis of 2008 (Statistics Canada, 2020[77]). Investment in
construction grew month-on-month in May as a result of the easing of COVID-19-related restrictions, but remained 16.5% below the pre-COVID levels in February, with the weakest recovery in the residential sector and the strongest in the commercial segment (Statistics Canada, 2020[78]). The oil-price decline which followed the COVID-19 lockdowns, accelerated cuts in shale-oil production, led to a decline in drilling (OECD, 2020[79]; IEA, 2020[80]) and may further weigh on steel demand recovery in both economies.

In Mexico, according to preliminary monthly data, the contraction of the value of construction was sharpest in April and moderated in May 2020, as lock-down restrictions eased. Indicators for the best-performing construction subsectors (transportation and other construction) turned positive in May, while indicators for the construction subsectors building construction, water infrastructure, electricity and communication, and petroleum and petrochemicals continued to decline (INEGI, 2020[81]). The bottoming out was less clear in the manufacturing sector. The index of hours worked in the transportation equipment industry declined sharply, down by 70.7% y-o-y and in April and continued to contract by 58.4% in May. Meanwhile, the index of hours worked in the manufacture of machinery and equipment fell by 21.0% in April and by a deeper 28.6% in May (INEGI, 2020[82]).

In the U.S., finished-steel demand is expected to decline by 22.9% in 2020. The decline is triggered by the effect of COVID-19 on the manufacturing sector, and a deterioration of the already weak investment outlook for the energy industry (worldsteel, 2020[8]). Annualised auto sales in the U.S. bottomed out in April and started to recover in May and June, when the estimated y-o-y decline stood at 39.1% (Bureau of Transportation Statistics, 2020[83]). According to forecasts collected by the U.S. automotive producers association Alliance for Automotive Innovation, the recovery will continue in the remainder of 2020, resulting in a whole-year decline of between 15% and 26% (Alliance for Automotive Innovation, 2020[84]). After sharp contractions in the previous months, the annualised value of construction activity resumed growth in June 2020, when preliminary statistics put it at 1.355 trillion dollars, a 0.1% increase over June 2019. Growth was supported by public spending in non-residential construction, particularly in the subsectors of transportation and highway-and-street construction, while private spending in construction continued to contract (U.S. Census Bureau Construction Expenditures, n.d.[85]).

9.2.2. Africa and Middle East

According to worldsteel’s June 2020 SRO, African steel consumption is expected to decrease by 9.4% in 2020 and grow by 5.9% in 2021 (worldsteel, 2020[8]). In South Africa, two months of lockdown further dented the country’s economy which had already been in technical recession since the beginning of 2020. The current economic environment, increasing operational costs and a volatile exchange rate all played a role in explaining the steel production decline (Engineering News, 2020[86]). According to the Trade and Industrial Policy Strategy (TIPS), a South African research organisation, the steel sector’s capacity utilisation rate is now around 65% — and could fall to around 50% for long steel products— weighing on the cost of production (TIPS, 2020[87]). According to TIPS domestic capacity utilisation will not revert to its pre-COVID-19 levels until after 2021 (TIPS, 2020[87]).

Looking at trends in key steel-consuming sectors, recent data suggest that the construction sector in the Sub-Saharan region is expected to be heavily impacted by the COVID-19 crisis. The analytics and consulting company GlobalData has revised its construction output growth forecast for Sub-Saharan Africa (SSA) in 2020 to 3.6%, down from the previous projection of 6% (Infrastructure News, 2020[88]). In Nigeria, the Federal Government developed the Economic Sustainability Plan (ESP) which includes a stimulus package of USD 5.9 billion to support the economy across various sectors, including construction (The State House, 2020[89]). In Ethiopia infrastructure projects are expected to stall due to a shortfall in revenue
collections by the government and reduced FDI inflows into the country. Ethiopian construction growth is estimated to contract between 17% and 26% in light of the COVID-19 pandemic. Capital projects such as railway and road construction are expected to gain momentum again from 2022 (Deloitte, 2020).

The construction sector in Algeria is expected to grow over the next three years. The newly elected president’s efforts to enhance regional connectivity through the development of the country’s rail and port infrastructure, coupled with efforts to boost the residential construction market, will support the industry’s growth over the forecast period (GlobalData, 2020). In Egypt, long-term growth is also likely to be fuelled by the growing trend of urbanisation, which is being supported by the government’s plans to develop new smart, environmentally friendly cities in an effort to double Egypt’s urban area from 7% to 14% by 2052 (Oxford Business Group, 2020).

Turning to the region’s automotive sector more specifically, South Africa is expected to experience low production volumes in the coming months. The forced closure of automotive factories in South Africa will in effect be longer due to reduced inventories. With low demand prospects ahead, production is unlikely to recover (Deloitte, 2020). Algeria’s automotive sector is also expected to see a 5% fall in sales in 2020 according to Market Research, reflecting an increased tax burden on local vehicle production and ownership (Market Research, 2020). In Morocco the automotive sector is currently at a standstill following the decisions of PSA, the leading automotive company in Morocco, to suspend their activities as of 19 March. In the long term, this suspension of activity could have repercussions on the estimated 180 000 individuals employed by the automotive industry. The current crisis is believed to threaten the objectives announced by the Minister of Industry to reach an annual production capacity of 1 million vehicles by 2022 and a turnover of US 10.8 billion (Vigeo Eiris, 2020).

In its June 2020 SRO, worldsteel forecast steel consumption to decrease by 17.4 % in the Middle East in 2020. Steel demand is expected to increase by 12.9% in 2021 (worldsteel, 2020). The decrease in oil prices, the COVID-19 crisis, tighter sanctions against Iran, armed conflicts in Syria and Yemen, and unrest in Iraq and Lebanon are factors that are weighing on prospects for steel demand growth in the region.

The construction sector is expected to slow down in Saudi Arabia, as lower oil revenues, disruptions in the supply chain and limitations to people’s mobility will impact construction activities (Construction Week, 2020). GlobalData has further cut its forecast for construction output growth in Saudi Arabia to -1.8% from its previous forecast of 2.9% in 2020 and expects a recovery of 3.3% in 2021 (GlobalData, 2020). GlobalData has also cut further its growth projections for Qatar, Kuwait and Oman in 2020 to -3.4%, -7.8% and -8.1%, respectively. Qatar’s economy this year will likely be affected by a decline in tourist arrivals, low consumer spending and low oil prices. Nevertheless, strong fiscal stimulus and spending on infrastructure projects should provide some support (GlobalData, 2020).

In Iran, housing services and construction activities decreased by 18% between June and July (TehranTimes, 2020). Steel exports have also experienced a decline of 44% compared to 2019 due to the COVID-19 restrictions (Platts, 2020). Despite the COVID-19 crisis, local steel mills performed strongly between March and July. During the same period, DRI output went up by 11% to 10.58 million tonnes, while crude steel production increased 8%, coming close to 7.48 million tonnes (Metal Expert, 2020). According to Metal Expert, stronger buying interest in China played an important role. In the long product segment, producers were also supported by easier access to trade with neighbouring countries as borders opened in April, after being closed in March because of the pandemic (Metal Expert, 2020).
In the first half of 2020 the Iranian automotive sector witnessed a weak performance. This has been attributed to the disruption of supply chains in China resulting from the spread of the COVID-19 pandemic (Daily News Egypt, 2020[102]). Iranian key automakers Iran Khodro (IKCO) and SAIPA reduced the production of passenger vehicles by 32.5% to 22,998 units between March and April.[24]

Among smaller steel-consuming economies in the region, Lebanon has experienced a sharp decline in imports since January (Trading Economics, 2020[103]). The explosion that destroyed a part of the Lebanese capital in August had a devastating effect on the already critical economic situation in the country, also affecting the steel business directly and indirectly (Metal Expert, 2020[104]).

9.2.3. Asia and Oceania

The June 2020 forecast by worldsteel estimates that steel demand in the Asia and Pacific region would decrease by 2.8% in 2020. Although steel demand in China and Viet Nam could keep growing in 2020, steel demand in India could shrink significantly in 2020 after several years of sustained growth (worldsteel, 2020[8]).

The forecasts for steel demand growth in China in 2020 are somewhat uncertain. According to the latest SRO by the worldsteel, Chinese steel demand is expected to increase slightly from 907.5 mmt to 916.5 mmt in 2020 (worldsteel, 2020[8]). In China, all major steel-using sectors were back to their pre-pandemic production levels by the end of April 2020, except export demand for some manufacturing sectors. In the construction sector, production reached its pre-pandemic levels after April. The recovery of steel demand could continue in the second half of 2020, driven by government-led infrastructure investment.

The China Metallurgical Industry Planning and Research Institute, forecasts that Chinese steel demand will decrease by 0.6% to 881 mmt in 2020, with steel demand from the construction sector expected to decline by 0.6% to 475 mmt in 2020 (Metal Bulletin, 2020[105]).

CISA has a more conservative outlook for steel demand in 2020: China's steel demand could drop by 3.8% to 842 mmt in 2020 as per its assessment of April 2020. CISA notes that domestic demand could benefit from fiscal stimulus support, particularly in infrastructure. As a result, steel demand from infrastructure and property could account for about 58% of China's total steel demand in 2020, up from 55% in 2019 (Platts, 2020[106]).

Worldsteel expects that the benefit from infrastructure projects initiated in 2020 will carry over and support steel demand in 2021 (worldsteel, 2020[8]). Nevertheless, demand from the construction sector may fall short of expectations, in particular if the government tries to further tighten its financing policies for highly indebted property developers in the third quarter of 2020 (Zhang, 2020[107]). Lower than expected demand coupled with large steel long product inventories would impact negatively steel prices (Zhang, 2020[107]). Concerning the automotive sector, the China Association of Automobile Manufacturers (hereafter “CAAM”) indicated that China’s automotive sales are expected to fall between 10% and 20% in 2020, as per their June forecast (Reuters, 2020[108]). The downturn in the automotive sector has prompted the Chinese Ministry of Finance to extend subsidies for buying New Energy Vehicles to 2022. However, these subsidies will be progressively cut by 10%, 20% and 30% until 2022 (Reuters, 2020[109]). Concerning the shipbuilding sector, the China Association of National Shipbuilding Industry indicated that new vessel orders equated to 13.99 million deadweight tonnes, down 4.8% on the year during the first seven months of 2020 (Hao, 2020[110]). A recovery is not foreseen until the uncertainty surrounding the COVID-19 pandemic disappears, as exports account for about 90% of China’s ship deliveries and new orders (Hao, 2020[110]).
According to worldsteel, Indian steel demand could decrease by 18.0% in 2020. To counter the COVID-19 pandemic, India implemented a stringent nationwide lockdown, bringing industrial operations to a standstill. Construction activity was halted entirely at the end of March, and recovery is expected to remain slow. In addition, supply chain disruptions coupled with slower demand recovery are expected to hit the automotive sector. The machinery sector is expected to see a continued decline, with weak private investment and supply chain disruption (worldsteel, 2020[8]). The Investment Information and Credit Rating Agency of India Limited (ICRA), an Indian ratings agency, expects steel consumption to contract by over 20% in 2020 as of June 2020 (The economic times, 2020[111]). The automotive sector has been particularly affected by lockdown measures. In April, due to the nationwide lockdown, it recorded zero domestic car sales. Sales of passenger vehicles are expected to decline between 24% and 26% in the fiscal year 202025, according to Crisil Research (The economic times, 2020[112]). The Society of Indian Automobile Manufacturers (SIAM) expects that sales of cars, trucks and motorbikes could decline by 45% in 2020 in the most pessimistic scenario (Reuters, 2020[113]).

Prospects for steel demand in Japan are also subdued. The World Steel Association projected Japanese steel demand to shrink by 19.1%, from 63.2 mmt in 2019 to 51.1 mmt in 2020. The automotive and machinery sectors are expected to suffer from reduced exports and stalling investment. However, the construction sector is expected to experience a relatively smaller contraction thanks to the continuation of public works despite stoppages in some construction projects (worldsteel, 2020[8]).

In Korea, steel demand in 2020 is expected to decline by 12.7% to 46.5 mmt, according to the latest forecast by worldsteel. Major steel using sectors are expected to see double-digit declines because of falling export markets and a weak domestic economy. The shipbuilding sector is expected to suffer the most, while the construction sector will record a milder decline due to public infrastructure projects (worldsteel, 2020[8]). One of the largest steelmakers, POSCO, expects its sales to decrease by 7.4% from 35 mmt to 32.4 million in 2020 as of April (Platts, 2020[114]).
Steel demand in the ASEAN-5 region\textsuperscript{27} is expected to decrease by 2.4% from 77.8 mmt to 75.9 mmt in 2020, according to worldsteel (worldsteel, 2020\textsuperscript{8}). Similarly, SEASI expects steel demand in the broader ASEAN region\textsuperscript{28} to fall by 2.1% from 81 mmt to 79.3 mmt in 2020 (Platts, 2020\textsuperscript{115}). Despite the lockdown, some infrastructure projects have continued, softening the fall in steel demand, notably when compared with other regions. In Viet Nam, steel demand is expected to grow by 2.8% thanks to the early containment of COVID-19. In addition, infrastructure investment is expected to boost steel demand in 2021 (worldsteel, 2020\textsuperscript{8}). According to the Vietnam Steel Association, however, apparent steel consumption in Viet Nam is forecast to drop by 11% to 21.7 mmt (Metal Expert, 2020\textsuperscript{116}). In the case of Indonesia, the Indonesian Iron and Steel Industry Association unveiled some scenarios about steel demand in 2020. Under the positive scenario, steel consumption in Indonesia could increase from 15.9 mmt to 16.4 mmt, whereas it may fall to slightly above 11 mmt in the worst case scenario.

The postponement of infrastructure projects is likely to have impact on steel demand in some economies in the region. In Indonesia, the government reallocated part of the infrastructure budget for the 2020 fiscal year (approximately 40%), to fighting COVID-19 (Argusmedia, 2020\textsuperscript{117}). In the Philippines, the government announced cuts to the budget of the Department of Public Works and Highways in April 2020 (Argusmedia, 2020\textsuperscript{117}). Finally, the governments of Malaysia and Singapore agreed to suspend the Kuala Lumpur-Singapore high-speed rail project until the end of 2020 in May 2020 (Reuters, 2020\textsuperscript{118}).

9.2.4. Europe and CIS economies

After an expected decline in 2020, EU steel demand is expected recover quickly in 2021. In its June 2020 Short Range Outlook, the World Steel Association forecasts a growth rate of 10.4% in 2021 after a 15.8% decline in 2020 (worldsteel, 2020\textsuperscript{8}). Similarly, EUROFER expects market conditions to improve before the fourth quarter of 2020 or early 2021 (Eurofer, 2020\textsuperscript{18}).

In the short-term, the COVID-19 crisis is expected to impact jobs in the steel sector, with thousands of steelworkers on reduced working hours and temporary layoffs. Many companies have already severely cut production or plan to do so in the near term. Many EU Member States have de facto stopped steel production (with a few exceptions) and steel-using sectors’ activity has led to large-scale idling of steel facilities (Eurofer, 2020\textsuperscript{18}). In the first quarter of 2020, because of the pandemic-related lockdown, total steel-using output dropped by 7.2%, thus exacerbating the existing negative trend (Steel Guru, 2020\textsuperscript{119}).

EUROFER also foresees downturns in each of the main steel consuming sectors this year: construction (-5.3%), automotive (-26%) and mechanical engineering (-13.4%) — positive growth in these sectors’ output is expected again in 2021 by 4%, 25% and 6.8%, respectively. Overall, EUROFER predicts total steel-consuming sectors output to fall by -13% in 2020, and to rebound by 9% in 2021 (Eurofer, 2020\textsuperscript{18}).

Major disruptions in the supply chain due to lockdowns and blockages in transport across EU Member States have made it very difficult to ensure the supply of materials and components to the automotive industry. In terms of volumes, the European Automobile Manufacturers Association (ACEA) forecast for 2020 the lowest number of new cars sold since 2013, when the industry had come through six consecutive years of decline in the aftermath of the 2008-2009 financial crisis. In terms of percentage change, the bleak outlook represents the sharpest drop ever witnessed by Europe’s automobile sector (ACEA, 2020\textsuperscript{120}).

According to EUROFER the construction sector has continued to outperform other major steel-using sectors. Nevertheless, the halt in construction during 2020 is expected to impact
the residential construction market and the private non-residential subsectors (Eurofer, 2020[18]). Despite the fact that interest rates on mortgages and business loans are expected to remain at record lows, the fall in incomes due to the increase in unemployment associated with the economic recession is likely to reduce housing demand. Non-residential construction, which was already the weakest subsector in 2019 due to subdued investment and economic uncertainty, is expected to face particularly difficult conditions. Even after the removal of lockdown measures, the downturn in the manufacturing industry in the EU will likely result in delayed investment decisions, with very little benefit for new non-residential investments (Eurofer, 2020[18]).

Production activity in the EU mechanical engineering industry fell -1.7% y-o-y in the fourth quarter of 2019 resulting in an annual drop of -0.5% for the whole year 2019 (Eurofer, 2020[18]). According to EUROFER, the sector is expected to experience an unprecedented output loss at least until the end of the second quarter of 2020. The mechanical engineering sector in the EU relies heavily on export markets. The combined effect of a post pandemic scenario characterised by trade frictions, low business confidence, weakened demand in key EU domestic markets, policy uncertainty and the likely weakness of the manufacturing sector in general will continue to hinder investment decisions, according to EUROFER. Companies in most downstream sectors will likely refrain from investment in new machinery and equipment and will instead favour maintenance, debottlenecking and the upgrading of existing machinery (Eurofer, 2020[18]).

In its June 2020 SRO, worldsteel adjusted previous predictions for “Other Europe” with a 1.6% decrease in finished steel demand for 2020 instead of a 5% increase predicted in the October 2019 SRO. The World Steel Association forecasts a growth rate of 9.7% in 2021. Steel demand in Turkey, the largest steel consumer in this region, is expected to grow 3% in 2020 (worldsteel, 2020[8]). According to Daily Sabah, Turkey has been the only country in Europe that has been able to increase its car sales from January through June 2020, while it also jumped in the ranking among markets with the highest number of sales (Daily Sabah, 2020[121]). The country managed to boost its automotive sales by 66% year on year in June alone on the back of low cost loan campaigns and the lifting of most lockdown measures. Some 72,778 units were sold in the month, compared with 43,899 a year earlier (Daily Sabah, 2020[121]).

In the CIS region, steel demand is expected to decrease by 10.3% in 2020 and to increase by 7.1% in 2021 (worldsteel, 2020[8]). In Russia, about a dozen national projects part of the country’s long-term goals and associated investment programs were set aside or their deadlines postponed from 2024 to 2030 (SPGlobal, 2020[122]). The new approved list does not mention the Major Infrastructure Upgrade Masterplan, a cornerstone of the 2018 National Projects programme that was expected to use large amounts of steel. At this stage, it is not clear whether the new goal to increase investment in fixed capital by 70% from 2020 to 2030 will be impacted by the discarded infrastructure expansion (SPGlobal, 2020[122]).
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Endnotes

1 Please note that worldsteel’s Short Range Outlook was revised on 15 October 2020. Because this report provides an update on developments in steel markets based on the latest information available at the time of writing (July 2020), it does not reflect the October revisions to the steel demand outlook.

2 This section has been complemented with information from other sources beyond that of the OECD Economic Outlook.

3 https://www.oecd.org/economic-outlook/

4 Net productive investment was already weak in the median OECD economy prior to the Covid-19 crisis: it averaged 4.5% of GDP over the period 2015-2019, 2.25% lower than its level in the decade prior to the financial crisis.

5 Reserve remuneration refers to the interest paid to commercial banks by the central bank on the accounts they are holding with the central bank. The European Central Bank introduced a negative interest rate for all reserves held by commercial banks in excess of mandatory reserves. More information can be found under the following link: https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190912_2~a0b47cd62a.en.html.

6 As indicated in https://www.ecb.europa.eu/mopo/implement/pepp/html/index.en.html, all asset categories eligible under the existing ECB asset purchase programme are also eligible under the new programme. Furthermore, a waiver of the eligibility requirements was granted for securities issued by the Greek Government. In addition, non-financial commercial paper is now eligible for purchases. Commercial paper is a commonly used type of unsecured, short-term debt instrument issued by corporations, typically used for the financing of payroll, accounts payable and inventories, and meeting other short-term liabilities. Maturities on commercial paper typically last several days, and rarely range longer than 270 days.

7 https://ec.europa.eu/commission/presscorner/detail/fr/ip_20_940

8 Notice those funds may require the U.S. Government to be compensated in the form of financial instruments such as warrants for shares of common stock. Additional information on the CARES Act can be found at: https://home.treasury.gov/policy-issues/cares/preserving-jobs-for-american-industry/payroll-support-program-payments.

9 The loan prime rate is a benchmark rate, computed as the average rate at which banks lend to their prime borrowers (borrowers of the highest credit ratings) in the market.

10 The benefit is doubled for single parents.


14 Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam.


16 Steel-weighted industrial production (SWIP) is calculated using steel weights of seven steel using sectors: construction, metal goods, mechanical machinery, domestic appliances, electrical engineering, automotive, and other transport.

17 Given that exports and consumption decreased during the period, the Iranian steel production is in all likelihood being stockpiled.

18 Please note that data refer to 2016, when raw material prices were considerably low.

19 For the purpose of analysis, this paper uses continuous steel price indices, constructed from a number of steel futures 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 as the contract used one month prior.

20 As indicated by Platt’s European scrap export prices (Rotterdam, FOB).
These sudden variations in the price of scrap are a major concern for EAF producers for whom scrap is a main input. A positive expected development in that respect would be more liquid steel scrap market futures, which would enable EAF producers to offer their clients fixed-price steel contracts while hedging the risks of a steel scrap prices increase away (Marcus, Englin and Green, 2020[29]).

Duferco (partially owned by Hebei Steel of China) is one of the few remaining full-service steel trading company, and many smaller Chinese steel mills use Duferco as their foreign sale agent (Marcus et al., 2020[32]).

OECD capacity data is being revised following the revision of the methodology to compute aggregate figures on the basis of the new plant-level capacity database built by the Secretariat. For further information on the magnitude of the revisions please see DSTI/SC(2020)10.

IKCO manufactured 15,694 cars, almost unchanged year-on-year. The production of SAIPA was 7,304 vehicles, down by 60.5% on annualized base (Metal Expert, 2020[124]).

In India, the government’s fiscal year runs from 1 April to 31 March.

CRISIL is an Indian company providing credit rating information, and is a subsidiary of S&P Global.

Indonesia, Malaysia, Philippines, Thailand and Viet Nam.

Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.
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