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Latest developments in steelmaking capacity

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Contact:
Anthony De Carvalho, Anthony.DECARVALHO@oecd.org;
Masanobu Nakamizu,, Masanobu.NAKAMIZU@oecd.org.

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Executive Summary

- **The ongoing excess capacity crisis is at risk of a significant escalation.** Despite declining steel demand, and a weak outlook, capacity expansions continue at a robust pace, often in pursuit of export markets. The gap between global capacity and crude steel production surged to 627.7 mmt in 2022 from 512.6 mmt in 2021. The recent rise in excess capacity poses risks for the long-term health and viability of the steel industry, and its ability to enable economic growth and prosperity. Tackling excess capacity therefore remains a prerequisite for enabling stable steel market conditions, where steel companies operate on a fair and level playing field.
- **Capacity continues to increase unrelentingly.** In 2022 alone, global steelmaking capacity increased by 32.1 million metric tonnes (mmt) to 2459.1 mmt, the highest global capacity figure in history. To give a sense of the actual magnitudes involved, the increases seen in global capacity are larger than the existing capacity levels of some large steel-producing economies (for example Viet Nam, with a capacity of 26 mmt currently).
- **As a result, capacity utilisation rates deteriorated in 2022.** World steel production as a share of capacity decreased from 78.9% in 2021 to 74.5% in 2022. Such levels of capacity utilisation are not in line with a healthy and financially viable industry.
- **Under a business as usual scenario, steelmaking capacity could continue to expand unsustainably in the coming years.** Capacity growth in recent years has been most pronounced in Southeast Asia and the Middle East, and more recently has picked up in northern Africa. Looking ahead, a total of 59.9 mmt of capacity is currently underway for completion over the next three years while an additional 106.2 mmt of capacity expansions are in the planning stages. Should all these projects be realised (and no offsetting closures), global steelmaking capacity would increase by 6.8% from current levels. By region, the Middle East, Southeast Asia and the regional aggregation denoted as “other Europe” are expected to lead the global steelmaking capacity expansion, while the People’s Republic of China (hereafter “China”) and India, the two largest steel-producing jurisdictions, will continue to account for around half of the world’s steelmaking capacity.
- **This report highlights the technologies** associated with the new investment projects. New capacity continues to advance at a robust pace in several regions, particularly in Asia where most of the new investments involve traditional blast furnace/basic oxygen furnace (hereafter, BF/BOF) plants. Other regions are seeing more moderate increases in capacity, with a focus on electric-arc furnaces (EAF).
- **Outward capacity investments by Chinese steel companies are proceeding rapidly, mainly in Asia but also Africa.** While steelmaking capacity in China has remained relatively stable in the last few years, Chinese steel companies are investing heavily in capacity projects overseas. Chinese companies are involved in 13 cross-border investments and participate in nine joint venture investments abroad. ASEAN, which is the top region among the cross-border investments, is expected to increase capacity to levels that far exceed the region’s steel demand.
- **Greater focus on domestic demand conditions needed.** The past five years have shown that many countries that have expanded capacity significantly have not had sufficient demand growth to absorb the newly produced steel. In some cases, capacity surged at double-digit rates while domestic steel demand contracted

steeply. Such developments depress steel prices and profitability, and result in trade disturbances that lead to trade actions.

1. Introduction

This report provides an in-depth analysis of recent steelmaking capacity developments taking place around the world, and expectations for the next few years. The insights drawn from this report can help policymakers and stakeholders better assess potential risks that can impact global steel market conditions in the medium to longer term.

Indeed, in the context of significant excess capacity in the global steel industry, it is important to monitor investments and steel plant closures in order to understand the current situation and emerging risks that may impact the industry in the future. The data presented in this report indicate that investments in new capacity continue to advance at a robust pace in several regions, particularly in Asia where most of the new investments involve traditional BF/BOF plants. Other regions are seeing more moderate increases in capacity, with a focus on EAF.

This report also provides important data and explanations for the reader in the annexes. Annex A and B present detailed tables with data on each capacity expansion and closure by project. Annex C provides a table that shows the level of steelmaking capacity (in mmt) by country, while Annex D contains a table with data on the gap between global steelmaking capacity and production since 2010. Annex E describes the working definitions used throughout this report.

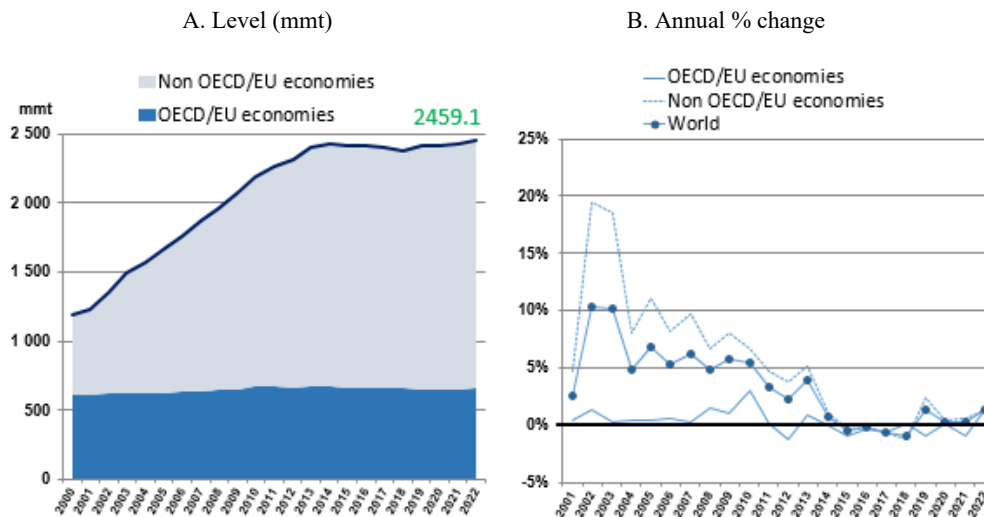
2. Global summary of steelmaking capacity

2.1. Global summary

Following several years of decline until 2018, global steelmaking capacity has posted four consecutive years of growth in the period 2019-2022. Current levels of capacity are now higher than the previous peak observed in 2014, and have reached all-time record levels.

The latest available information (as of December 2022) suggests that global steelmaking capacity grew to 2 459.1 mmt by the end of 2022, an increase of 1.3% (i.e. by 32.1 mmt) from the level observed at the end of 2021. This figure represents a *net* increase (instead of a *gross* increase), in other words it takes into account the latest information on new capacity additions and closures.

Figure 1. Evolution of crude steelmaking capacity in OECD and non-OECD economies



Note: Capacity data reflect information available to December 2022

Source: OECD

2.2. Regional capacity developments

Regional developments since 2016 highlight several important trends. First, steelmaking capacity in the OECD area has slightly declined by 5.7 mmt to 658.4 mmt from 2016 to 2022. Overall Asian capacity has also remained nearly constant, though there are significant differences within this region; in ASEAN, capacity growth is very rapid and exceeding regional demand (see Box 1), compared to other areas in Asia where growth is more moderate. The Middle East and Africa also posted significant capacity growth, though the latter from relatively low levels of departure.

It is important to reflect also on capacity volumes. The two largest steel-producing countries (China and India) currently account for 52% of the world's capacity. However, given China's much larger size, even small rates of growth can lead to significant volume changes that can pose challenges for international steel markets. Chinese capacity decreased for four consecutive years until 2018, but has since recovered slightly to 1149.9 mmt.

Figure 2. Steelmaking capacity development by region (mmt)

	2016	2017	2018	2019	2020	2021	2022	YoY
Africa	39.9	40.7	43.3	44.6	44.7	43.5	48.4	11.3
Asia	1,628.5	1,612.3	1,584.6	1,616.5	1,622.5	1,622.6	1,630.6	0.5
ASEAN	54.4	64.9	69.8	74.6	78.7	80.4	80.4	0.0
Other Asia	1,574.0	1,547.3	1,514.8	1,541.9	1,543.8	1,542.2	1,550.1	0.5
CIS	142.3	142.3	141.9	143.4	142.6	143.9	145.1	0.8
Europe	297.1	295.3	295.3	292.5	289.9	289.9	291.5	0.6
EU	221.8	218.7	218.7	216.0	213.4	213.4	213.6	0.1
Other Europe	75.3	76.6	76.6	76.5	76.5	76.5	77.9	1.9
Latin America	72.7	73.3	73.9	73.9	73.4	73.9	73.9	0.0
Middle East	68.0	71.2	74.8	80.7	84.1	89.0	98.3	10.4
North America	156.9	157.3	157.9	154.2	157.5	157.7	164.9	4.6
Oceania	6.4	6.4	6.4	6.4	6.4	6.4	6.4	0.0
OECD/EU economies Total	664.2	660.7	661.3	654.8	655.5	649.6	658.4	1.4
non-OECD/EU economies Total	1,747.6	1,738.0	1,716.7	1,757.3	1,765.5	1,777.3	1,800.6	1.3
World Total	2,411.7	2,398.7	2,377.9	2,412.1	2,421.0	2,427.0	2,459.1	1.3

Unit: mmt

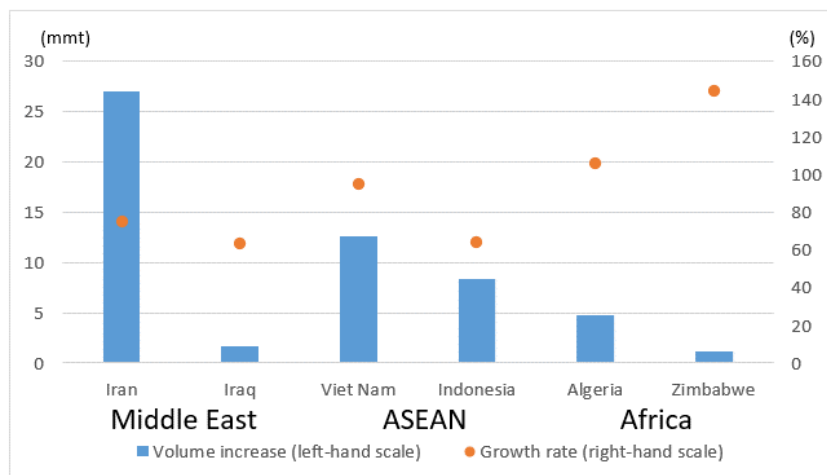
Note: The capacity data reflect information up to December 2022. The table "Europe" includes both OECD/EU economies and non OECD/EU economies in Europe, as well as Türkiye. Please see Annex C for detailed capacity data by individual economies. Figures for the European Union (EU) include all EU Member States.

Source: OECD

Rapid growth in capacity often begins to take place as economies develop and industrialise, and particularly in countries that traditionally have been net importers of steel for a number of years. To ensure healthy steel market conditions, it is becoming increasingly important to distinguish capacity growth to meet the needs of economic development and growth from other types of capacity expansion. Capacity growth that exceeds demand conditions, both locally and in export markets, negatively impacts the steel industry through price declines and weak profitability. Indeed, investors in new steel plants should carefully consider the long-term viability of the plants.

Figure 3 shows countries with the high rates of increase in the Middle East, ASEAN and Africa. Iran has recently grown to become the world's 7th largest economy in terms of steelmaking capacity, just after Korea. Capacity in Iran has increased 25 mmt in the past six years to its current level of 62.8 mmt. Viet Nam is leading the regional capacity expansion, with half of its production of semifinished and finished steel products intended for export. Zimbabwe is still a very small steel-producing country, but has increased its capacity by 140% over the past six years.

Figure 3. Steelmaking capacity growth between 2016 and 2022



Source: OECD

2.3. Future capacity developments

Table 1 present expected future trends in capacity by region in the period until 2025. When looking at the capacity that will be potentially added in the future, the OECD classifies investment projects as “underway” (and thus more likely to be completed during the projection period) or “planned” (which are less certain but nevertheless could come on stream). Projects that are underway are those that are already under construction or for which equipment contracts have been awarded and a major financial or state commitment has been made. On the other hand, planned projects are more uncertain projects because they are either at the feasibility or early planning stage, have not yet received financial or state backing, or are not scheduled for completion at a specified time.

Information on announced investment projects suggests that, globally, 59.9 mmt of gross capacity additions are currently underway and thus likely to come on stream during the next three-year period of 2023-25. An additional 106.2 mmt of capacity additions are currently in the planning stages for possible start-up during the same period. The steel produced by these facilities will targets demand in a wide range of sectors.

In particular, Asia will continue to experience substantial increases in steelmaking capacity, in volume terms, over the next three years if all the ongoing projects are ultimately realised (and not offsetting closures). The region currently has a total of 35.4 (+2.2%) mmt of capacity additions underway for start-up during 2023-25, with an additional 65.3 mmt (+6.2%) in the planning stages. China and India account for 70% of the steelmaking capacity increase in Asia.

In terms of rates of growth, ASEAN, the Middle East and the regional aggregate “other Europe” will lead the global steelmaking capacity expansion with potential double-digit growth over the next three years. In volume terms, a total of 20.5 mmt (+25.5%), 7.7 mmt (+7.8%) and 5.9 mmt (+7.6%) of gross additions are currently underway in each region, respectively, with much more in the planning stages. Steelmaking capacity additions are expected to grow 0.8 mmt (+1.7 %) in Africa, 2.8 mmt (+1.9%) in the Commonwealth of Independent States (CIS), 2.5 mmt (+1.2%) in the European Union, 2.7 mmt (+3.7%) in Latin America and by 2.1 mmt (+1.3%) in North America. In Oceania, there are no plans to start capacity investment projects during 2023-25.

It is important to take into account regional steel demand considerations when assessing capacity developments around the world, due to the impacts on trade between regions, as noted above. Rapid growth in capacity and steel production can create trade disturbances if local demand conditions are less robust than anticipated (see Box1).

Table 1. Current nominal capacity and potential gross capacity additions by region

	Nominal capacity (mmt)	Nominal capacity (mmt)	% change	Potential gross capacity additions 2023-25 (mmt)		Capacity in 2025 (mmt)		% change expected (2022e vs 2025)	
	2021	2022 (A)	2022-2021	Underway (B)	Planned (C)	Low (A)+(B)	High (A)+(B)+(C)	Low	High
	Africa	43.5	48.4	11.3	0.8	3.0	49.2	52.2	1.7
Asia	1622.6	1630.6	0.5	35.4	65.3	1666.0	1731.3	2.2	6.2
ASEAN	80.4	80.4	0.0	20.5	7.5	100.9	108.4	25.5	34.8
Other Asia	1542.2	1550.1	0.5	14.9	57.8	1565.0	1622.8	1.0	4.7
CIS	143.9	145.1	0.8	2.8	2.5	147.9	150.4	1.9	3.7
Europe	289.9	291.5	0.6	8.4	9.8	299.9	309.7	2.9	6.2
EU	213.4	213.6	0.1	2.5	1.8	216.1	217.9	1.2	2.0
Other Europe	76.5	77.9	1.9	5.9	8.0	83.8	91.8	7.6	17.8
Latin America	73.9	73.9	0.0	2.7	5.0	76.7	81.7	3.7	10.5
Middle East	89.0	98.3	10.4	7.7	9.6	106.0	115.6	7.8	17.6
North America	157.7	164.9	4.6	2.1	11.0	167.0	178.0	1.3	7.9
Oceania	6.4	6.4	0.0	0.0	0.0	6.4	6.4	0.0	0.0
OECD/EU economies Total	649.6	658.4	1.4	8.7	20.8	667.1	687.9	1.3	4.5
non-OECD/EU economies Total	1777.3	1800.6	1.3	52.0	85.6	1852.6	1938.2	2.9	7.6
World Total	2427.0	2459.1	1.3	59.9	106.2	2519.0	2625.2	2.4	6.8

Note: The capacity data reflect information up to December 2022. The table “Europe” includes both OECD/EU economies and non OECD/EU economies in Europe, as well as Türkiye. Please see Annex C for detailed capacity data by individual economies. Figures for the European Union (EU) include all EU Member States. Estimates regarding steelmaking capacity in 2025 and expected percentage changes are based on gross additions only; as such, the actual capacity levels will be affected by closures that may occur during the period

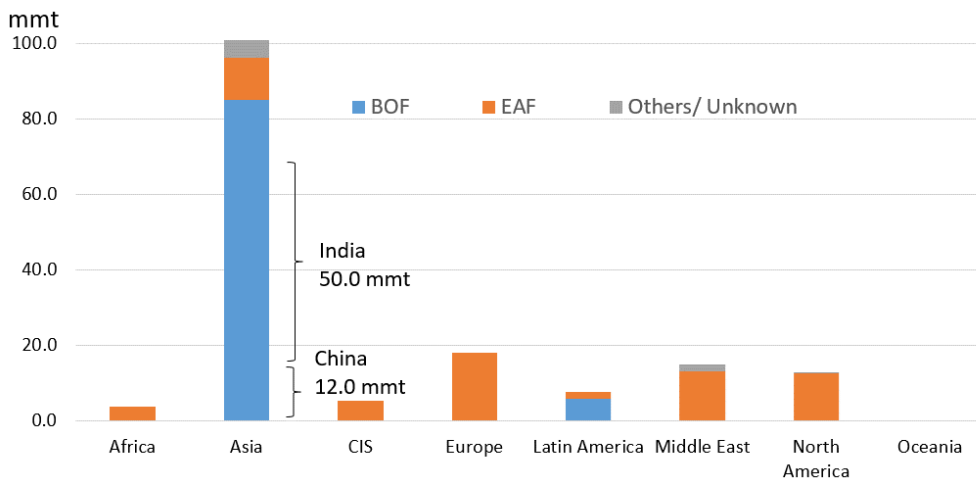
Source: OECD

Figure 4 present potential gross capacity additions by region and equipment types from 2023 to 2025. Of the world total of 166.1 mmt of capacity currently underway or in the planning stages for completion over the next three years, BOF projects account for 55.4% of the total while EAF projects make up 40.6% of the total. The remaining projects, for which the technology is unknown, amount to 4% of the total.

As can be seen in Figure 4, regional investment trends differ considerably in terms of technology. In Asia and Latin America, BOF facilities account for over 73% of the tonnage volume of capacity expansions. Most of the BOF plant installations will take place in India or China. The reader is referred to Annex A for details on each project.

In contrast, investments elsewhere mostly involve the EAF production route, with no new BOF plants expected to start operations in Africa, the CIS, Europe, the Middle East, North America and Oceania during 2023-25.

Figure 4. Potential gross capacity additions by region and equipment types



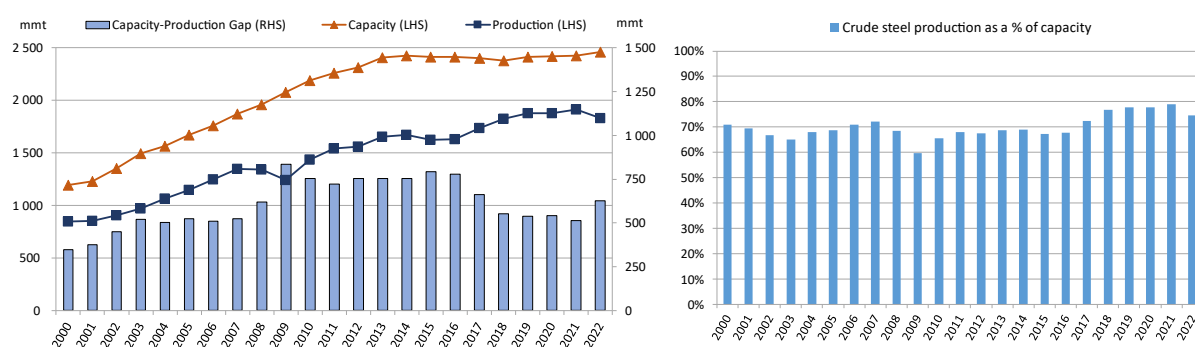
Note: The capacity data contain both underway and planned projects, and do not take into account possible closures that may occur during the period.

Source: Metal Expert, Platts, Kallanish, and steel company website

2.4. The gap between global capacity and production

The gap between global steelmaking capacity and crude steel production surged to 627.7 mmt in 2022 from 512.6 mmt in 2021, reflecting renewed weakness in world steel demand and production, amidst continued growth in capacity. The global capacity utilisation rate declined by 4.4 percentage points in 2022, to 74.5%, also impacted by high energy costs which have led to production stoppages in many steel-producing countries. Utilisation rates this low are not compatible with an economically viable and sustainable steel industry (see Box 1).

Figure 5. Global crude steelmaking capacity and crude steel production



Note: Capacity data reflect information up to December 2022

Source: OECD for crude steelmaking capacity and World Steel Association for crude steel production

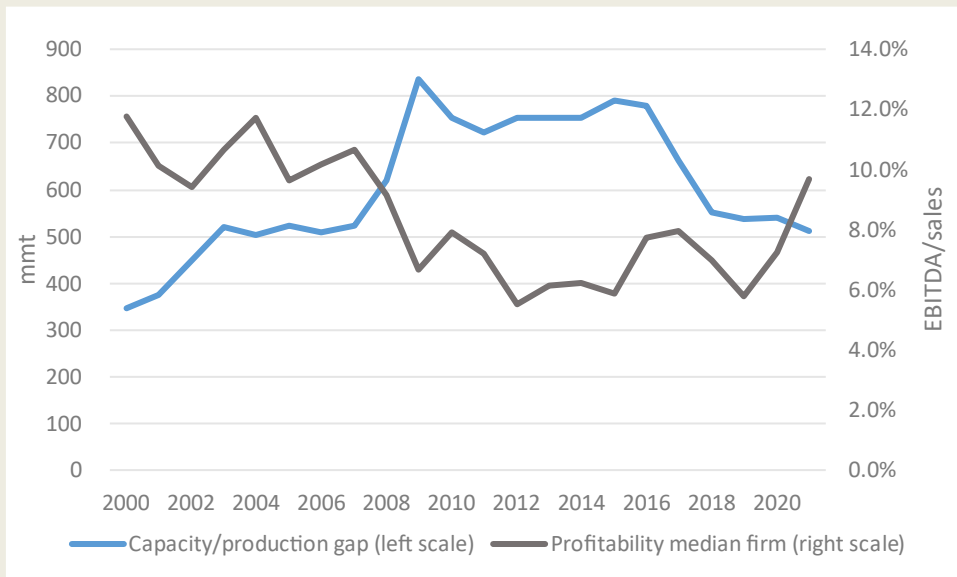
Box 1. The need to reduce excess capacity to ensure the viability of the steel industry

In 2022, the economic environment deteriorated due to the Russian Federation's (hereafter "Russia") invasion of Ukraine, supply chain turmoil associated with the conflict, and rising energy prices and inflation. Economic weakness has had a major impact on steelmakers in many countries, seen in stagnating steel demand and rapid declines in producers' capacity utilisation rates.

Energy costs have had a significant impact on production and competitiveness. Examples can be seen across steel-producing economies, including in Europe, where low demand and high energy costs led a number of steelmakers to stop production in 2022 (S&P Global, 2022^[1]). In Türkiye, steel mills' energy costs rose to 28% of mills' total production costs in 2022, dampening their competitiveness. Steel producers have reduced output in recent months, with some announcing temporary stoppages due to high energy costs, low demand, and pressure from low-priced steel imports (S&P Global, 2022^[2]). Other examples include Malaysia, where steel mills faced a surcharge of MYR 0.2/kWh (USD 0.045/kWh) from 1 January to 30 June 2023. Some market observers suggest that the new surcharge could mean a USD 25/tonne increase in steelmaking costs for EAF mills in Malaysia (Kallanish, 2022^[3]).

Such cost hikes dampen steel production, leading to lower capacity utilisation rates. Moreover, the recent and significant increase in global excess capacity leads to over-supply of steel in international markets, reducing steel prices and potentially dislocating the steel production of efficient steel producers with lower costs. In periods of low-capacity utilisation, economies of scale are not fully exploited and unit costs are higher than they otherwise would be. Low prices due to excess capacity and high unit costs resulting from low capacity utilisation tend to weaken the profitability for the industry as a whole. Figure 6 shows the longer-term negative relationship between the global capacity-production gap and the median profitability in the steel industry. Ensuring the profitability of the industry going forward will require meaningful reductions in global excess capacity.

Figure 6. The negative relationship of capacity/production gaps and profitability in the steel industry



Note: Profitability data for 2022 are not complete yet, and are currently based on a relatively small number of observations. Some caution in interpreting 2022 profitability should therefore be taken.

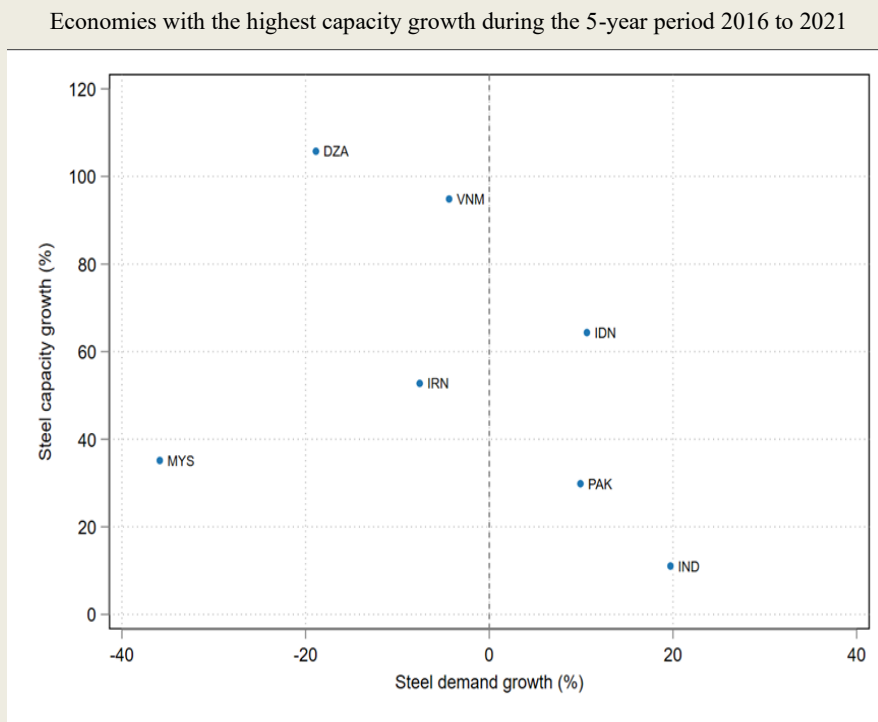
Source: OECD, worldsteel, Refinitiv

Looking ahead – given elevated economic risks and uncertain steel demand prospects – industry and policymakers should limit capacity growth. With a total of 166.1 mmt of underway or planned new steelmaking capacity coming on stream during 2023-25, as highlighted in this document, it is important for the industry and policymakers to consider future demand prospects carefully to make sure that investments do not overshoot demand, triggering future downturns and recessions for the steel industry.

A comparison of steel demand and capacity growth over the last five years, for those economies that experienced the highest growth in capacity (excluding very small producers with less than 5 mmt of capacity), highlights the risks of future capacity expansions as outlined in this paper. Figure 7 plots seven economies with the highest capacity growth over the last five years against their steel demand growth. Malaysia, Iran, Viet Nam and Algeria had capacity growth ranging from 35% to 106%, while domestic steel demand declined significantly in all these economies, most notably in Malaysia where it contracted by 36%. Pakistan and Indonesia experienced growth in demand of approximately 10%, but this was outpaced by capacity growth of 30%-64%, respectively. India is the only major economy within this group where capacity growth was outpaced by domestic demand for steel. Indeed, India's steel demand grew almost two times faster than its capacity.

Maintaining stable conditions for the steel industry in the coming years will require a greater focus on domestic demand considerations when embarking on major capacity expansions. The role of international trade in meeting demand increases should also be considered, to avoid risks of oversupply that yields unsustainably low profitability in all producing economies.

Figure 7. Capacity versus demand growth

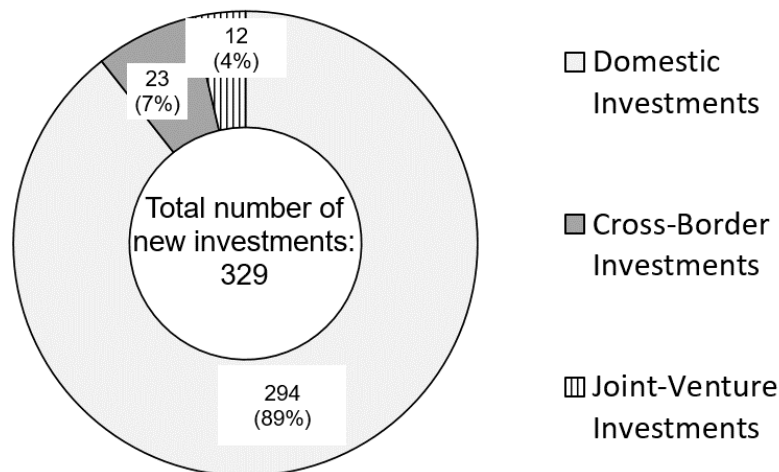


Note: Excluding small steel-producing economies with capacity below 5 mmt.
 Source: OECD for capacity, worldsteel for apparent steel consumption in crude equivalent

2.5. The latest developments in cross-border investments

Figure 8 shows the share of domestic and cross-border (greenfield) investments in steelmaking capacity. In total, there are 329 new steelmaking capacity projects around the world, classified as either underway or planned, which are scheduled to become operational in 2022 or later. This broad number includes projects that have already started operations in 2022, as well as projects for which the start date is not available. Of these projects, domestic steelmakers are the investors/owners in 294 (89%) of the cases. Of the remaining steelmaking capacity projects, 23 (7%) entail cross-border investments, representing an investment that is based wholly on one or on several foreign investors/owners, and 12 (4%) are structured as joint ventures (JV) between domestic and foreign investors/owners.

Figure 8. The share of domestic and cross-border investments in new steelmaking capacity projects starting in 2022 or later



Note: This figure includes all new investment projects that are underway or planned, and which are scheduled to become operational in 2022 or later — including projects that have started operation in 2022, as well as projects for which the start date is not available. It does not include cancelled projects. A cross-border investment represents an investment that is based wholly on one or several foreign investors/owners. A joint venture, on the other hand, involves both foreign investors/owners and domestic counterparts. Please see Annex A for details on the plant-level investments and their respective investors/owners.

Source: OECD

Table 2 lists the cross-border investments by region. Asia is the largest investment destination, accounting for 13 cross-border and 12 joint venture (JV) investments between domestic and foreign investors. Africa attracts four cross-border and one JV investment. North America is the destination of 5 cross-border investments. The CIS, Europe, Latin America and Oceania regions currently do not have any cross-border investments or JV investments.

The Southeast Asia Iron and Steel Institute (SEAISI), representing a region whose steel industries are experiencing significant inward investment, notes that 90.8 mmt of new capacity will raise the region's capacity to 162.6 mmt towards 2030. According to SEAISI, the overcapacity situation stems from rapid capacity expansion in Indonesia, Viet Nam and Malaysia (Kallanish, 2022^[4]).

Table 2. Domestic and cross-border investments in new steelmaking capacity projects

Started in 2022, and underway and planned investments for 2023 or later

Region where the investment is taking place	Domestic Investments		Cross-Border Investments		Joint-Venture Investments	
	Number	Capacity (mmt)	Number	Capacity (mmt)	Number	Capacity (mmt)
Africa	11	9.0	4	5.2	0	0.0
Asia	127	283.5	13	67.3	12	24.5
CIS	17	17.0	0	0.0	0	0.0
Europe	21	25.0	0	0.0	0	0.0
Latin America	6	8.0	0	0.0	0	0.0
Middle East	97	88.5	1	4.0	0	0.0
North America	14	16.8	5	4.7	0	0.0
Oceania	1	0.6	0	0.0	0	0.0
World Total	294	448.4	23	81.2	12	24.5

Note: This table includes all new investment projects that are, underway or planned, and which are scheduled to become operational in 2022 or later — including projects that have started operation in 2022, as well as projects for which the start date is not available. It does not include cancelled projects. A cross-border investment represents an investment that is based wholly on one or several foreign investors. A joint venture, on the other hand, involves both a foreign investor and a domestic counterpart. Please see Annex A for details on the plant-level investments and their respective investors/owners.

Source: OECD

3. Conclusions

Global steelmaking capacity continues to increase at a rapid pace in a period of weakening steel market conditions. A total of 329 steel investment projects are either currently underway or in the planning stages around the world. The three-year period of 2023-25 alone will see an additional 59.9 mmt of capacity coming on stream, with an additional 106.2 mmt potentially being added according to announced plans by steel companies. In total, therefore, gross capacity additions could amount to 166.1 mmt globally from 2023 to 2025.

Excess capacity is a structural issue that continues to dampen prospects for the global steel industry. Governments and industry stakeholders should ensure that capacity investments are driven by market considerations and, given the longevity of the steel plants installed, make sure that the investments will be sustainable in the long run. For example, the installation of very large, integrated plants, described in this report, raise questions about their economic viability if demand conditions turn out to be less favourable than expected. As the industry makes the transition to lower-carbon steel production, it will be important to share best practices on ways to promote the transition without exacerbating excess capacity and creating further problems for the industry.

The OECD Steel Committee will continue to monitor steelmaking capacity developments and publish its results twice a year. The aim is to raise public awareness of capacity trends and any emerging risks associated with these trends.

Annex A. AVAILABLE INFORMATION ON PLANT LEVEL INVESTMENTS AND THEIR OWNERS

Table A A.1. Investment data (highlighted rows indicate replacement of current capacity and not net capacity increases)

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Africa	Algeria	Emarat Dzayer Steel Company	Imetal Group (51%)	plan	?	EAF	?	Metal Expert
Africa	Algeria	Tosyali Holding		plan	2023	EAF	2000	Company HP (tenova)
Africa	Algeria	ETRHB	The ETRHB HADDAD Group	plan	?	EAF	1150	Company HP (Danieli); Metal Expert
Africa	Egypt	EZZ Steel	Ezz Steel	underway	2023	EAF	850	World Steel Capacities
Africa	Egypt	Arabian Steel Industries	Arabian Steel Industries	plan	2024	EAF	1000	Metal Expert, World Steel Capacities
Africa	Egypt	Xin Feng Resources Recycling Investment Holdings	Xin Feng Resources Recycling Investment Holdings	plan	?	EAF	2000	Metal Expert
Africa	Ethiopia	Tadash Steel Manufacturing Industry		underway	2022	EAF	200	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Africa	Kenya	Sinosteel	Sinosteel	plan	?	Steelmaking	1000	Metal Expert; Ministry of Industry, Trade and Cooperatives of Kenya
Africa	Morocco	Riva Industries	Meski Holding	operating	2022	EAF	800	Metal Expert
Africa	Mozambique	Baobab Resources	Baobab Resources	underway	?	EAF	500	World Steel Capacities, WM, Company HP
Africa	Namibia	Groot Group	Groot Group	underway	2022	EAF	1000	Company HP, Metal Expert
Africa	Nigeria	Ajaokuta Steel Company (ASC)	Ajaokuta Steel Company (ASC)	plan	?	BOF	1300	World Steel Capacities; CompanyHP
Africa	Nigeria	Kam Industries		underway	2022	IF	260	Metal Expert
Africa	Zimbabwe	Tsingshan Holding Group	Tsingshan Holding Group	underway	2022	EAF	1200	kallanish
Africa	Zimbabwe	Tsingshan Holding Group	Tsingshan Holding Group	plan	?	EAF	1000	kallanish
Asia	China	Heyuan Derun Iron and Steel		operating	2022	EAF	900	Metal Expert, Ministry of Industry, Trade and

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
								Cooperatives of Kenya
Asia	China	Shanxi Jinnan Iron and Steel	Shanxi Jinnan Iron and Steel	plan	?	BOF	3400	worldmetals
Asia	China	Anshan Iron & Steel	Ansteel Group	plan	?	Steelmaking	10000	Platts
Asia	China	Shaanxi Hanzhong Iron and Steel	Shaanxi Steel Group	plan	?	EAF	700	陕西发展观 察, 汉中时空 网
Asia	China	Jinxi Iron and Steel	Jinxi Iron and Steel (河北津西 钢铁集团)	plan	?	Steelmaking	?	防城港市新 闻网
Asia	China	HBIS Laoting Steel Co., Ltd.	HBIS	plan	?	BOF	7470	Platts, Reuters, Company HP
Asia	China	Baowu Iron & Steel Group	Baowu Steel Group Corporation	plan	?	Steelmaking	?	MySteel (我 的钢铁), Platts, Metal Expert, Government of Jinangsu
Asia	China	Baowu Iron & Steel Group	Baowu Iron & Steel Group	plan	?	Steelmaking	3100	Platts
Asia	China	Chengdu Metallurgy		operating	2022	EAF	2000	Metal Expert, kallanish

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	China	Sanbao Iron and Steel		underway	2024	EAF	1500	Metal Expert, kallanish
Asia	China	Tangyin Iron and Steel		underway	?	BOF	2000	Metal Expert, kallanish
Asia	China	Zenith Iron and Steel Group		underway	2023	BOF	5850	Metal Expert, kallanish
Asia	China	Rizhao Steel Holding Group Co., Ltd.		underway	2022	BOF	2700	Metal Expert
Asia	China	Sichuan Dazhou Iron and Steel		plan	2024	BOF	2300	ME, kallanish
Asia	China	Luoyuan Minguang Steel		plan	2023	BOF	1250	Metal Expert
Asia	China	Linyi Iron and Steel Investment Group Special Steel		underway	2022	BOF	2700	Metal Expert
Asia	China	Rockcheck Iron and Steel		underway	2022	EAF	500	Metal Expert
Asia	China	Tianzhu Iron and Steel		underway	2022	BOF	2870	Metal Expert
Asia	China	Changli Hongxing Industry		underway	2022	BOF	3450	Metal Expert
Asia	China	Xianfu Iron and Steel		underway	2023	BOF	2600	Metal Expert
Asia	China	Jingye Iron and Steel		underway	?	BOF	1500	Metal Expert
Asia	China	Tongcai Industry and Trade		underway	2022	BOF	2000	Metal Expert
Asia	China	Tongcai Industry and Trade		underway	2022	EAF	780	Metal Expert

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	Indonesia	Dexin Steel Indonesia	Delong Holdings (45%)	plan	?	BOF	2500	Metal Expert, kallarish
Asia	Indonesia	Krakatau POSCO	POSCO (70%)	plan	2025	BOF	3000	SEASI Presentation, Metal Expert. Company HP
Asia	Indonesia	PT Gunung Raja Paksi	Gunung Steel Group	plan	?	EAF	500	Platts, Metal Expert, Company HP
Asia	Indonesia	Anshan Iron & Steel Group Corporation	Anshan Iron & Steel Group Corporation	plan	?	Steelmaking	5000	Platts
Asia	Indonesia	Fuhai Group & Ansteel Group	Fuhai Group	plan	?	Steelmaking	1750	The Jakarta Post
Asia	Indonesia	Hebel Bishi Steel Group	Hebel Bishi Steel Group	plan	?	Steelmaking	3000	Metal Expert, American Metal Market
Asia	Indonesia	PT Gunung Raja Paksi	Gunung Steel Group (GSG)	plan	?	Steelmaking	3000	Metal Expert
Asia	Indonesia	Shaanxi Iron and Steel Group	Shaanxi Iron and Steel Group	plan	?	Steelmaking	7500	Metal Expert, 陕西日报 (Shaanxi Daily), China Belt and Road Portal (中国一带一路),

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
								陕西煤业化工集团有 限责任公司;
Asia	Indonesia	Wuhan Iron & Steel (Wugang)	Wuhan Iron & Steel (Wugang)	plan	?	EAF	5000	Platts
Asia	India	Tata Steel BSL Ltd.		plan	2030	BOF	6070	WM
Asia	India	Tata Steel BSL Ltd.		plan	2030	EAF	1550	WM
Asia	India	Tata Steel		plan	2024	BOF	3000	Metal Expert
Asia	India	Tata Steel		underway	?	EAF	750	World Steel Capacities
Asia	India	JSW Steel Limited	JSW Holdings	underway	2024	BOF	5000	Company HP
Asia	India	JSW Steel Limited	JSW Holdings	plan	2026	BOF	1800	WM
Asia	India	JSW Steel Limited	JSW Holdings	plan	2022	EAF	1200	WM
Asia	India	JSW Steel Limited	JSW Holdings	plan	?	EAF	?	Sarralle
Asia	India	NMDC	NMDC	underway	2022	BOF	3000	Company HP
Asia	India	Shree Uttam Steel and Power Ltd	Uttam Galva Steels Ltd(UGSL)	underway	2022	BOF	1550	World Steel Capacities
Asia	India	Shree Uttam Steel and Power Ltd	Uttam Galva Steels Ltd(UGSL)	plan	?	BOF	1550	Metal Expert

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	India	Mono Steel (India) Ltd.		underway	2022	IF	?	World Steel Capacities
Asia	India	Crest Steel (Una) Pvt. Ltd.	Crest Steel	plan	2022	IF	?	Metal Expert, World Steel Capacities
Asia	India	Ramsarup Lohh Udyog Limited (RLUL)		plan	?	EAF	700	World Steel Capacities
Asia	India	Brand Steel and Power Ltd		plan	2025	EAF	450	WM
Asia	India	Aloke Steel Industries		plan	2030	EAF	70	WM
Asia	India	Ankur Udyog Limited		plan	2032	EAF	250	WM
Asia	India	Texcon Steels Ltd		plan	2030	EAF	130	WM
Asia	India	Ultra Mega Steel Project		plan	2025	BOF	9000	WM
Asia	India	Welspun Power and Steel Ltd (WPSL)		plan	2030	BOF	3100	WM
Asia	India	Welspun Power and Steel Ltd (WPSL)		plan	2030	BOF	3300	WM
Asia	India	Xindia Steels		plan	2036	BOF	2500	WM
Asia	India	Xindia Steels		plan	2029	BOF	2500	WM
Asia	India	Kalyani Steel		plan	2025	BOF	500	WM
Asia	India	Kalyani Steel		plan	2025	EAF	40	WM

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	India	Kalyani Steel		plan	2030	BOF	3000	WM
Asia	India	KIC Metaliks		plan	2025	EAF	380	WM
Asia	India	Knovus Steels and Infrastructure		plan	2030	EAF	150	WM
Asia	India	Rungta Mines Limited (RML)		plan	2030	EAF	110	WM
Asia	India	Tata Metaliks (TML)		plan	2038	BOF	3000	WM
Asia	India	Pawanjay Steel & Power Ltd.		plan	2025	EAF	40	WM
Asia	India	Ramsarup Industries Limited		plan	2022	EAF	700	WM
Asia	India	Jindal Steel and Power Ltd. (JSPL)	O.P. Jindal Group	plan	2034	BOF	6000	WM
Asia	India	Jindal Steel and Power Ltd. (JSPL)	O.P. Jindal Group	plan	2024	BOF	6000	WM
Asia	India	Jindal Steel and Power Ltd. (JSPL)		plan	?	BOF	2500	Metal Expert
Asia	India	ArcelorMittal	ArcelorMittal	plan	?	Steelmaking	6000	Metal Expert, Company HP(Annual Report 2018)
Asia	India	Godawari Power and Ispat		plan	2025	BOF	1000	Metal Expert
Asia	India	Tata Steel		plan	2030	BOF	5500	WM
Asia	India	Tata Steel		plan	?	?	?	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	India	Tata Sponge Iron Ltd		plan	2022	BOF	1500	World Steel Capacities
Asia	India	Tata Sponge Iron Ltd		plan	2025	EAF	560	WM
Asia	India	BMM Ispat Limited		plan	2023	BOF	1100	WM
Asia	India	ArcelorMittal Nippon Steel India		plan	2028	BOF	24000	World Steel Capacities, SEASI
Asia	India	ArcelorMittal Nippon Steel India Limited		plan	2025	BOF	6000	World Steel Capacities
Asia	India	JSW Steel Limited		plan	2036	BOF	6000	WM
Asia	India	JSW Steel Limited		plan	2025	BOF	4000	WM
Asia	India	JSW Steel Limited		plan	2032	BOF	3440	WM
Asia	India	JSW Steel Limited		plan	2026	BOF	10050	WM
Asia	India	JSW Bengal Steel		plan	?	BOF	3000	World Steel Capacities
Asia	India	Jindal Maxsteel		plan	?	EAF	1500	World Steel Capacities
Asia	India	Jai Balaji Industries Limited (JBIL)		plan	2030	EAF	5000	WM
Asia	India	Jai Balaji Jyoti Steels		plan	2030	EAF	860	WM
Asia	India	Jindal Steel and Power Ltd. (JSPL)		plan	2023	BOF	3300	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	India	Jindal Steel and Power Ltd. (JSPL)		plan	2025	EAF	3000	Metal Expert
Asia	India	Jindal Steel and Power Ltd. (JSPL)		plan	2023	BOF	4000	WM
Asia	India	Neelachal Ispat Nigam Limited (NINL)		plan	?	BOF	1000	World Steel Capacities
Asia	India	NMDC		plan	2030	BOF	5000	WM
Asia	India	SAIL		plan	2035	BOF	8800	WM
Asia	India	SAIL		plan	2030	BOF	5600	WM
Asia	India	SAIL		plan	2025	BOF	3000	WM
Asia	India	SAIL		plan	2025	BOF	3000	WM
Asia	India	Bhushan Power and Steel Limited (BPSL)		plan	2022	BOF	2800	WM
Asia	India	Bhushan Power and Steel Limited (BPSL)		plan	2022	EAF	900	WM
Asia	India	Bhushan Power and Steel Limited (BPSL)		plan	2030	EAF	3000	WM
Asia	India	Arjas Steel		plan	2030	BOF	620	WM
Asia	India	MSP Steel & Power Ltd (MSPSPL)		plan	2025	EAF	580	WM
Asia	India	MSP Metallics Ltd		plan	?	IF	240	World Steel Capacities

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	India	Visa Steel		plan	2022	EAF	2500	WM
Asia	India	Shyam Steel Industries		plan	?	EAF	320	WM
Asia	India	Action Ispat & Power (P) Ltd.		plan	2024	EAF	680	WM
Asia	India	Chintpurni Steel		plan	2023	EAF	300	WM
Asia	India	Ispat Damodar Ltd.		plan	2025	EAF	190	WM
Asia	India	Jharkhand Ispat Pvt Ltd		plan	2030	EAF	70	WM
Asia	India	Narbheram Power & Steel		plan	2030	EAF	670	WM
Asia	India	OSIL (Odisha Sponge Iron)		plan	2025	EAF	900	WM
Asia	India	Prakash Industries		plan	2025	EAF	1000	WM
Asia	India	Rashmi Metaliks Limited (RML)		plan	2022	EAF	350	WM
Asia	India	Rashi Steel and Power Limited (RSPL)		plan	2030	EAF	240	WM
Asia	India	Jayaswal Neco Industries Limited		plan	2025	EAF	570	WM
Asia	India	AP High Grade Steel	AP High Grade Steel	plan	2024	BOF	1000	Metal Expert, kallarish
Asia	India	AP High Grade Steel	AP High Grade Steel	plan	?	BOF	2000	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	India	Lloyds Metals and Energy		plan	?	IF	250	Metal Expert
Asia	India	JSW Utkal Steel		plan	?	BOF	13200	Kallanish
Asia	Bangladesh	Star Consortium		plan	?	BOF	2000	Company HP
Asia	Bhutan	Druk Metallurgy Limited (DML)	Druk Holding and Investments Limited (DHI)	underway	?	IF	200	Company HP, Platts
Asia	Cambodia	Cambodia Iron and Steel		plan	?	BOF	1000	WM
Asia	Cambodia	Xinjiang Bayi Nanjiang Steel Baicheng Co Ltd-Aksu	Baowu Steel Group Corporation	plan	?	BOF	3100	Reuters, My steel, SEAISI presentation
Asia	Myanmar	Myingyan plant		plan	?	EAF	200	World Steel Capacities
Asia	Myanmar	Kunming Steel	Kunming Iron and Steel Group Company (KISC)	plan	?	BOF	4000	Metal Expert
Asia	Malaysia	Eastern Steel Sdn Bhd	Hiap Teck Venture (HYVB) (55%)	plan	?	Steelmaking	1300	SEAISI
Asia	Malaysia	Kinsteel Bhd		plan	2022	IF	500	Metal Expert, World Steel Capacities

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	Malaysia	Kinsteel Bhd		plan	?	EAF	500	Metal Expert
Asia	Malaysia	New project by The Lion Group	The Lion Group	plan	?	BOF	1600	World Steel Capacities
Asia	Malaysia	Sarawak Iron and Steel	Hebei Xinwuan Steel Group	underway	2024	BOF	10000	Metal Expert, SEAISI
Asia	Philippines	Philippine Iron and Steel Project	SteelAsia Manufacturing	plan	2023	Steelmaking	4500	SEAISI
Asia	Philippines	Philippine Iron and Steel Project	SteelAsia Manufacturing	plan	2026	Steelmaking	3500	SEAISI
Asia	Philippines	Panhua Group	Panhua Group	underway	2024	BOF	10000	Metal Expert
Asia	Philippines	SteelAsia Manufacturing Corporation	SteelAsia Manufacturing	plan	?	EAF	500	Metal Expert
Asia	Philippines	SteelAsia Manufacturing Corporation	SteelAsia Manufacturing	plan	?	EAF	800	Metal Expert, Company HP, Platts
Asia	Philippines	SteelAsia Manufacturing Corporation	SteelAsia Manufacturing	underway	2024	EAF	500	Metal Expert
Asia	Philippines	SteelAsia Manufacturing Corporation	SteelAsia Manufacturing	plan	?	EAF	?	World Steel Capacities
Asia	Philippines	SteelAsia Manufacturing Corporation	SteelAsia Manufacturing	plan	?	EAF	800	Metal Expert
Asia	Philippines	SteelAsia Manufacturing Corporation	SteelAsia Manufacturing	plan	?	EAF	600	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	Philippines	SteelAsia Manufacturing Corporation	SteelAsia Manufacturing	plan	?	EAF	1200	Metal Expert
Asia	Viet Nam	Formosa Plastics Group	Formosa Plastics Group	plan	?	BOF	7000	SEAISI
Asia	Viet Nam	Formosa Plastics Group	Formosa Plastics Group	plan	?	BOF	7000	SEAISI
Asia	Viet Nam	Hoa Sen Group	Hoa Sen Group	plan	?	EAF	800	World Steel Capacities
Asia	Viet Nam	Hoa Sen Group	Hoa Sen Group	plan	?	EAF	500	World Steel Capacities
Asia	Viet Nam	Vietnam Steel Corporation	Vietnam Steel Corporation (VSC)	plan	?	BOF	500	Metal Expert
Asia	Viet Nam	Viet - Trung Metallurgy Company	Vietnam Steel Corporation	plan	?	BOF	500	Company HP
Asia	Viet Nam	Hoa Phat Group		plan	2025	BOF	?	World Steel Capacities
Asia	Viet Nam	Hoa Phat Group		plan	2025	BOF	?	World Steel Capacities
Asia	Pakistan	Ittehad Steel	Ittehad Steel	underway	?	IF	600	Metal Expert
Asia	Pakistan	Indus Consortium Mining & Steel Industry	Mughal Steel, Star Cotton Corporation, Pak Steel, Ittehad Steel Mills	plan	?	BOF	1000	World Steel Capacities
Asia	Pakistan	Naveena Steel Mills		plan	?	IF	80	Metal Expert

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Asia	Pakistan	Century Steel	Fuzhou Julitaihe International Company	underway	?	?	500	Metal Expert
Asia	Pakistan	FF Steel		underway	?	IF	250	Metal Expert
Asia	Pakistan	FF Steel		plan	?	?	?	Metal Expert
Asia	Pakistan	Mughal Steel		underway	?	IF	395	Metal Expert
Asia	Japan	Chubu Steel Plate Co.		plan	2023	EAF	700	Company HP
CIS	Azerbaijan	Baku Steel Company	Baku Steel Company	plan	?	EAF	?	Company HP, Metal Expert
CIS	Russia	Usolye Metallurgical Plant		underway	?	Steelmaking	?	Metal Expert
CIS	Russia	Don-Metal	Don-Metal	plan	2025	EAF	160	Metal Expert, Comments from Russia
CIS	Russia	Hrombur		plan	?	EAF	500	Metal Expert
CIS	Russia	Ishstal plant		plan	?	EAF	300	World Steel Capacities
CIS	Russia	Don-Metal		plan	?	EAF	160	Metal Expert
CIS	Russia	United Metallurgical Company (OMK)		underway	2025	EAF	1800	Metal Expert
CIS	Russia	Novostal-M		plan	2024	EAF	1200	World Steel Capacities

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
CIS	Russia	Surgutskiy MK		underway	2022	EAF	100	Metal Expert
CIS	Russia	Rostov Electrometallurgical Plant / REMZ		underway	2024	EAF	1000	kallanish, Metal Expert
CIS	Russia	Metalloinvest		plan	2023	EAF	1200	kallanish
CIS	Ukraine	Metinvest	Metinvest	plan	2022	BOF	3200	World Steel Capacities, Platts
CIS	Ukraine	Metinvest	Metinvest	plan	2030	EAF	4500	Metal Expert
CIS	Ukraine	Donetsksteel		plan	?	EAF	1800	Platts, Metal Expert
CIS	Uzbekistan	Namangan Steel		operating	2022	EAF	300	Metal Expert
CIS	Kazakhstan	QazSpecSteel		plan	2026	BOF	400	Metal Expert
CIS	Kazakhstan	QazSpecSteel		plan	2026	BOF	400	Metal Expert
Europe	Austria	Böhler Edelstahl GmbH		underway	2022	EAF	205	Company HP, Metal Expert
Europe	Belgium	ArcelorMittal		plan	2030	EAF	?	Company HP, Metal Expert
Europe	Italy	Acciaierie d'Italia		plan	?	EAF	?	Metal Expert,Platts
Europe	Italy	Acciaierie d'Italia		plan	?	EAF	?	Metal Expert,Platts

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Europe	Italy	Kardemir Haddecilik		operating	2022	EAF	1250	Metal Expert, kallanish
Europe	Netherlands	Van Merksteijn International	Van Merksteijn International	plan	?	EAF	1000	Danieli PR
Europe	Poland	Cognor Group	Cognor Group	plan	2022	EAF	200	Company HP, World Steel Capacities
Europe	Romania	Galati Steelworks		plan	?	EAF	4000	Company HP
Europe	Romania	AFV Beltrame		plan	2024	EAF	700	World Steel Capacities
Europe	Türkiye	Asil Celik Ticaret		operating	2022	EAF	180	Metal Expert
Europe	Türkiye	Tosyali Holding	Tosyali Holding	underway	2023	EAF	4545	World Steel Capacities, kallanish
Europe	Türkiye	Izmir Demir Celik		underway	2023	EAF	1400	Metal Expert, kallanish
Europe	Türkiye	Kaptan Demir Celik		plan	2024	EAF	2000	World Steel Capacities
Europe	Türkiye	Ekinciler Demir Celik		plan	2023	EAF	1000	World Steel Capacities
Europe	Türkiye	Icdas		plan	2025	EAF	5000	World Steel Capacities
Europe	United Kingdom	Liberty House	Liberty House Group	plan	?	EAF	?	Company HP
Europe	United Kingdom	South Tees Development Corporation (STDC)		plan	?	EAF	?	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Europe	Sweden	H2 Green Steel		underway	2025	EAF	2500	Metal Expert, Company HP, World Steel Capacities
Europe	Spain	ArcelorMittal		plan	2025	EAF	1100	Company HP
Europe	France	ArcelorMittal		plan	2027	EAF	?	Company HP
Europe	France	ArcelorMittal		plan	2027	EAF	?	Company HP
Latin America	Bolivia	Empresa Siderurgica del Mutun	Empresa Siderurgica del Mutun	underway	2023	EAF	1000	Platts, Company HP, Metal Expert
Latin America	Brazil	ArcelorMittal		underway	2024	BOF	1000	Company HP
Latin America	Brazil	Grupo Simec		underway	2023	EAF	730	Metal Expert, Kallanish
Latin America	Brazil	Usiminas		plan	2023	BOF	4900	Metal Expert
Latin America	Brazil	Grupo Simec		plan	?	EAF	200	Metal Expert
Latin America	Cuba	Empresa Siderurgica Jose Marti		plan	2025	EAF	170	World Steel Capacities
Middle East	Iran	Mobarakeh Steel	IMIDRO	plan	2023	EAF	1500	World Steel Capacities, Platts
Middle East	Iran	Mobarakeh Steel	Morarakeh Steel (65%)	underway	2022	EAF	1000	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Middle East	Iran	Mobarakeh Steel		plan	?	EAF	1000	World Steel Capacities
Middle East	Iran	Khouzestan Oxin Steel		plan	2025	EAF	1200	Metal Expert
Middle East	Iran	Khouzestan Steel		underway	2023	EAF	800	Metal Expert
Middle East	Iran	Esfahan Steel		plan	?	BOF	2280	World Steel Capacities
Middle East	Iran	Esfahan Steel		plan	?	EAF	1650	World Steel Capacities
Middle East	Iran	Khouzestan Steel	Khouzestan Steel	plan	?	EAF	1250	World Steel Capacities
Middle East	Iran	Khouzestan Steel	Khouzestan Steel	plan	?	EAF	1250	World Steel Capacities
Middle East	Iran	Khouzestan Steel	Khouzestan Steel	plan	?	EAF	1250	World Steel Capacities
Middle East	Iran	Khouzestan Steel	Khouzestan Steel	plan	?	EAF	1250	World Steel Capacities
Middle East	Iran	Khouzestan Steel	Khouzestan Steel	underway	2023	EAF	1000	Company HP(IMIDRO), Metal Expert
Middle East	Iran	Khouzestan Steel	Khouzestan Steel	plan	?	EAF	1300	World Steel Capacities
Middle East	Iran	Khouzestan Steel	Khouzestan Steel	plan	?	EAF	1300	World Steel Capacities
Middle East	Iran	Iran Alloy Steel Company (IASCO)		underway	2023	EAF	1000	Metal Expert, World Steel Capacities
Middle East	Iran	Iran Alloy Steel Company		underway	2023	EAF	700	World Steel Capacities

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Middle East	Iran	Iran National Steel Industrial Group (INSIG)		plan	?	EAF	430	World Steel Capacities
Middle East	Iran	Kaavian Steel		plan	?	EAF	700	World Steel Capacities
Middle East	Iran	Mianeh Steel	IMIDRO	underway	2022	EAF	800	Metal Expert
Middle East	Iran	Sabzevar Steel Complex	IMIDRO	underway	?	EAF	800	Metal Expert, World Steel Capacities
Middle East	Iran	Ghaenat Steel Complex	IMIDRO	underway	2022	EAF	800	Metal Expert
Middle East	Iran	Saeb Steel Complex	Daric Investment Group	plan	?	EAF	550	Metal Expert
Middle East	Iran	Shams Iron & Steel Complex		plan	?	EAF	1500	World Steel Capacities
Middle East	Iran	Sabalan Iron and Steel Complex		plan	?	EAF	500	World Steel Capacities
Middle East	Iran	Zonouz steel complex	Daric Investment Group	plan	?	EAF	500	Company HP
Middle East	Iran	Bonab Steel Complex		plan	2025	?	1450	Metal Expert
Middle East	Iran	East Kaveh Steel Company (EKSC)		plan	?	EAF	1000	World Steel Capacities, Metal Expert
Middle East	Iran	Arvand Kaveh Steel		plan	?	EAF	2500	World Steel Capacities

40 | LATEST DEVELOPMENTS IN STEELMAKING CAPACITY 2023

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Middle East	Iran	Makran Steel Complex	IMIDRO	plan	2030	EAF	3200	Metal Expert
Middle East	Iran	Gambron Steel		plan	?	EAF	2000	World Steel Capacities
Middle East	Iran	Jahan Foulad Gharb		plan	2025	EAF	500	WM
Middle East	Iran	Arfa Iron & Steel		operating	2022	EAF	200	World Steel Capacities
Middle East	Iran	Shahrood Steel	Shahrood Steel Co	operating	2022	IF	100	World Steel Capacities, Company HP
Middle East	Iran	Neyriz Ghadir Steel Company (NGHSCO)	Ghadir International Mines and Industries Development Company	underway	2023	EAF	1000	Metal Expert, Company HP, World Steel Capacities
Middle East	Iran	Afa Steel		plan	?	EAF	600	World Steel Capacities, Company HP
Middle East	Iran	Amir Kabir Khazar Steel		plan	?	EAF	500	World Steel Capacities
Middle East	Iran	Arian Steel		plan	?	EAF	550	World Steel Capacities
Middle East	Iran	Arian Steel		operating	2022	IF	500	World Steel Capacities

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Middle East	Iran	Arvand Jahanara Steel Company (AJSCO)	Arvand Jahanara Steel Company	operating	2022	EAF	1200	Metal Expert
Middle East	Iran	Arvand Jahanara Steel Company (AJSCO)	Arvand Jahanara Steel Company	plan	2022	EAF	1200	World Steel Capacities
Middle East	Iran	Azna Steel		plan	?	EAF	700	World Steel Capacities
Middle East	Iran	Bafgh Mineral Complex Iron & Steel Company (B-MISCO)	Bafgh Mineral Complex Iron and Steel Industry Company (B-MISCO)	underway	?	EAF	800	Metal Expert
Middle East	Iran	Boyer Ahmad Steel Complex (Boyer Sanat)		plan	?	EAF	300	World Steel Capacities
Middle East	Iran	Ardakan Steel		plan	?	EAF	1000	World Steel Capacities
Middle East	Iran	Abar Kouh Steel & Rolling	Chadormalu Mining & Industrial Co.	underway	2022	EAF	600	Metal Expert
Middle East	Iran	Eghlid Pars Steel		plan	?	EAF	1000	Metal Expert
Middle East	Iran	Fasa Steel Complex Co (Fasco)		plan	?	EAF	1500	World Steel Capacities
Middle East	Iran	Foolad Alborz Iranian Company (FAICO)		plan	?	EAF	800	World Steel Capacities
Middle East	Iran	MIDHCO		plan	?	EAF	1500	World Steel Capacities

42 | LATEST DEVELOPMENTS IN STEELMAKING CAPACITY 2023

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Middle East	Iran	MIDHCO		plan	?	EAF	1500	World Steel Capacities
Middle East	Iran	Kavir Damghan Steel Complex (KADASCO)		plan	?	IF	200	World Steel Capacities
Middle East	Iran	Kavir Damghan Steel Complex (KADASCO)		plan	?	EAF	?	World Steel Capacities
Middle East	Iran	Khayyam Steel	Khayyam Steel Neyshabour	underway	2023	EAF	500	Metal Expert
Middle East	Iran	Kurdistan Steel Company	IMIDRO	underway	2022	EAF	1000	Platts, Company HP, Metal Expert
Middle East	Iran	Malayer Steel Company		plan	?	IF	300	World Steel Capacities
Middle East	Iran	Malekan Steel	Malekan Steel	plan	?	EAF	400	Metal Expert, World Steel Capacities
Middle East	Iran	Malekan Steel	Malekan Steel	plan	?	EAF	400	World Steel Capacities
Middle East	Iran	Natanz Steel Company	Natanz Steel Industries	plan	?	EAF	850	Metal Expert
Middle East	Iran	Neyshabur Steel Complex		plan	?	EAF	800	World Steel Capacities
Middle East	Iran	North West Steel Industries (NWSI)		plan	?	EAF	800	World Steel Capacities
Middle East	Iran	Orumieh Steel Company	Orumieh Steel Group	plan	?	EAF	1200	World Steel Capacities, Metal Expert,

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
								Company HP
Middle East	Iran	Orumieh Steel Company	Orumieh Steel Group	plan	?	IF	400	World Steel Capacities
Middle East	Iran	Orumieh Steel Company	Orumieh Steel Group	plan	?	EAF	800	World Steel Capacities
Middle East	Iran	Persian Gulf Saba Steel		plan	?	EAF	1500	World Steel Capacities
Middle East	Iran	Persian Gulf Saba Steel		plan	?	EAF	1500	World Steel Capacities
Middle East	Iran	Persian Gulf Saba Steel		plan	?	EAF	1500	World Steel Capacities
Middle East	Iran	Qeshm Steel Development Co.(QE.S.D.Co)	Qeshm Steel Development Co.(QE.S.D.Co)	plan	?	EAF	1500	Platts, Metal Expert, Company HP
Middle East	Iran	Qeshm Steel Development Co.(QE.S.D.Co)	Qeshm Steel Development Co.(QE.S.D.Co)	plan	?	EAF	1500	Platts, Metal Expert, Company HP
Middle East	Iran	Saba Foulad Zagros	Saba Foulad Zagros	underway	2023	EAF	460	Company HP
Middle East	Iran	Sadrfulad complex	Sadr Steel Company	plan	?	EAF	400	World Steel Capacities
Middle East	Iran	Samangan Steel Industries		plan	?	EAF	750	Metal Expert, World Steel Capacities
Middle East	Iran	Samangan Steel Industries		plan	?	EAF	750	Metal Expert, World Steel Capacities

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REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Middle East	Iran	Kabkan Steel Company		operating	2022	EAF	150	Metal Expert, World Steel Capacites
Middle East	Iran	South Rouhina Steel		plan	?	EAF	550	World Steel Capacities
Middle East	Iran	Torbat Heydariyeh Steel	Torbat Heydariyeh Steel	plan	?	EAF	1450	World Steel Capacities, Metal Expert
Middle East	Iran	Torbat Heydariyeh Steel		plan	?	EAF	1450	World Steel Capacities
Middle East	Iran	Brojen Steel		plan	2025	EAF	1000	WM
Middle East	Iran	Kavir Damghan Steel Complex (KADASCO)	Kavir Damghan Steel Complex (KADASCO)	plan	?	IF	200	Metal Expert
Middle East	Iran	Jahan Foolad Sirjan Steel Complex	Golgohar Mining & Industrial Co.	underway	2024	EAF	1300	Metal Expert
Middle East	Iran	National Iranian Steel Company	IMIDRO	plan	?	EAF	800	Metal Expert
Middle East	Iran	North West Steel Industries (NWSI)		plan	?	EAF	800	World Steel Capacities
Middle East	Iran	Kavand Nahan Zamin (KNZ)		plan	?	EAF	100	Metal Expert
Middle East	Iran	Kavir Steel Cooperative		underway	2023	IF	150	Metal Expert
Middle East	Iran	Sepid Farab Kavir Steel		underway	2024	EAF	800	Metal Expert
Middle East	Iran	Gohar Zamin Iron Ore Company		plan	?	EAF	3000	Metal Expert

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
Middle East	Iran	Rad Hamadan Steel		operating	2022	IF	450	Metal Expert
Middle East	UAE	BILDCO		plan	?	EAF	1000	Metal Expert
Middle East	Iraq	State Company for Iron & Steel (SCIS)	United Brothers Holding	underway	2022	EAF	500	Metal Expert
Middle East	Oman	Muscat Steel Industries	Muscat Steel	plan	?	EAF	200	World Steel Capacities
Middle East	Oman	Shumookh Investment and Services (SIS)		plan	?	?	400	Metal Expert
Middle East	Iraq	Van Steel		underway	2022	EAF	500	Metal Expert
Middle East	Saudi Arabia	Al-Qaryan Steel Company	Al-Qaryan Steel Company	plan	?	EAF	300	Metal Expert
Middle East	Saudi Arabia	Al-Yamamah Steel Industries	Private	plan	?	EAF	1000	Platts, Metal Expert
Middle East	Saudi Arabia	Arkan Steel	Al-Watania Group	plan	?	EAF	600	World Steel Capacities
Middle East	Saudi Arabia	Atoun Steel Industry		plan	?	EAF	910	Platts, Metal Expert
Middle East	Saudi Arabia	Gulf Tubing Co	Gulf Tubing Co	plan	?	EAF	600	Company HP
Middle East	Saudi Arabia	Madina Metal		underway	2022	IF	300	World Steel Capacities
Middle East	Saudi Arabia	Essar Group	Essar Group	plan	2025	EAF	4000	World Steel Capacities
NAFTA	United States	Steel Dynamics	Steel Dynamics, Inc.	operating	2022	EAF	2722	Company HP, kalinish

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
NAFTA	United States	U.S. Steel		plan	2024	EAF	2720	Metal Expert
NAFTA	United States	Nucor Corporation	Nucor Steel	operating	2022	EAF	1088	Company HP, Metal Expert
NAFTA	United States	Nucor Corporation		plan	2024	EAF	570	Metal Expert
NAFTA	United States	North Star BlueScope Steel	BlueScope Steel	underway	2022	EAF	850	Company HP
NAFTA	United States	ArcelorMittal USA	ArcelorMittal	underway	2023	EAF	1500	Metal Expert, Company HP
NAFTA	United States	Commercial Metals Company (CMC)		underway	2023	EAF	453	Metal Expert
NAFTA	United States	Commercial Metals Company (CMC)		plan	2025	EAF	453	Metal Expert
NAFTA	United States	JSW USA	JSW Holdings	plan	?	EAF	?	Platts
NAFTA	United States	Liberty House Group	Liberty House Group	plan	?	EAF	?	Company HP
NAFTA	United States	Nucor Corporation	Nucor Steel	operating	2022	EAF	1271	Company HP, Metal Expert
NAFTA	United States	Nucor Corporation		plan	2024	EAF	544	Metal Expert
NAFTA	United States	Nucor Corporation		plan	2024	EAF	2721	Metal Expert
NAFTA	United States	Pacific Steel		plan	2025	Steelmaking	380	Company HP

REGION	ECONOMIES	COMPANY	OWNER (ECONOMIES) except themselves	STATUS	START	EQUIPMENT	CAPACITY	SOURCES
NAFTA	United States	Highbar		plan	2025	EAF	?	World Steel Capacities
NAFTA	Canada	Algoma		plan	2024	EAF	3700	Company HP
NAFTA	Canada	ArcelorMittal		plan	2028	EAF	2400	Metal Expert
NAFTA	Canada	Gerdau Ameristeel		underway	2023	EAF	181	World Steel Capacities
NAFTA	Mexico	Deacero		plan	2024	EAF	?	World Steel Capacities
Oceania	Australia	Liberty One Steel		plan	?	EAF	600	Metal Expert

Source: Company HP (CHP) and media sources in the table

Annex B. AVAILABLE INFORMATION ON PLANT-LEVEL CLOSURES

Table B.1 summarises the plant-level closure information reported by public and commercial sources for the year 2022. Please note that this does not represent an exhaustive list of closures.

Table A B.1. Closure data

Status	Region	Economies	Location	Company	Equipment	capacity (thousand metric tonnes)	Sources
Done	Asia	China	Heyuan, Guangdong	Heyuan Derun Iron and Steel	EAF	920	Metal Expert
Expected	Asia	China	Linfen City, Shanxi	Tongcai Industry and Trade	BOF	2800	Metal Expert
Expected	Asia	China	Qinhuangdao City, Hebei	Changli Hongxing Industry	BOF	3800	Metal Expert
Expected	Asia	China	Zibo City, Shandong	Longsheng Iron and Steel	BOF	2000	Metal Expert
Expected	Asia	China	Tianjin City, Tianjin	Rockcheck Iron and Steel	BOF	1200	Metal Expert
Expected	Asia	China	Tangshan City, Hebei	Tianzhu Iron and Steel	BOF	3790	Metal Expert

Source: Company HP, government HP and media sources in the table.

Annex C. STEELMAKING CAPACITY DATA BY ECONOMY

Table A C.1. Crude Steelmaking capacity developments

	Nominal crude steelmaking capacity					
	2010	2018	2019	2020	2021	2022
Africa	33.6	43.3	44.6	44.7	43.5	48.4
Algeria	3.3	6.8	7.9	9.3	9.3	9.3
Angola	0.0	0.5	0.5	0.5	0.5	0.5
Botswana	0.0	0.1	0.1	0.1	0.1	0.1
Cameroon	0.2	0.2	0.2	0.2	0.2	0.2
Democratic Republic of Congo	0.1	0.1	0.1	0.1	0.1	0.1
Cote d'Ivoire	0.0	0.0	0.0	0.0	0.0	0.0
Egypt	9.5	15.3	15.6	15.6	14.4	15.2
Ethiopia	0.5	0.8	0.8	0.8	0.8	0.8
Gabon	0.0	0.1	0.1	0.1	0.1	0.1
Ghana	0.5	0.5	0.5	0.5	0.5	0.5
Kenya	0.5	0.6	0.6	0.6	0.6	0.6
Libya	1.7	1.7	1.7	1.7	1.7	1.7
Mauritius	0.0	0.0	0.0	0.0	0.0	0.0
Morocco	1.5	2.8	2.8	2.8	2.8	4.4
Mozambique	0.0	0.0	0.0	0.0	0.0	0.0
Namibia	0.0	0.0	0.0	0.0	0.0	1.0
Nigeria	2.7	3.1	3.1	3.1	3.1	3.4
South Africa	12.0	9.4	9.4	8.1	8.1	8.1
Sudan	0.1	0.1	0.1	0.1	0.1	0.1
Tanzania	0.0	0.0	0.0	0.0	0.0	0.0
Togo	0.0	0.0	0.0	0.0	0.0	0.0
Tunisia	0.2	0.2	0.2	0.2	0.2	0.2
Uganda	0.1	0.1	0.1	0.1	0.1	0.1
Zambia	0.1	0.1	0.1	0.1	0.1	0.1
Zimbabwe	0.8	0.8	0.8	0.8	0.8	2.0
Asia	1437.9	1584.6	1616.5	1622.5	1622.6	1630.6
Non-OECD Asia	1229.9	1374.5	1406.4	1412.4	1418.7	1426.6
Bangladesh	3.2	6.1	6.1	7.0	7.3	7.3
Bhutan	0.0	0.0	0.0	0.0	0.0	0.0
Cambodia	0.0	0.0	0.0	0.0	0.0	0.0
China (People's Republic of)	1 057.9	1 122.9	1148.3	1147.9	1146.5	1149.9
Chinese Taipei	26.9	29.4	29.4	29.4	29.4	29.4

	Nominal crude steelmaking capacity					
	2010	2018	2019	2020	2021	2022
Hong Kong (China)	0.0	0.0	0.0	0.0	0.0	0.0
India	84.4	127.0	128.7	128.7	133.9	138.4
Indonesia	10.8	16.0	17.8	19.6	21.3	21.3
Japan	132.0	128.5	128.5	128.5	122.4	122.4
Korea	76.0	81.6	81.6	81.6	81.6	81.6
Democratic People's Republic of Korea	11.2	11.2	11.2	11.2	11.2	11.2
Lao People's Democratic Republic	0.2	0.2	0.2	0.2	0.2	0.2
Malaysia	12.9	19.2	19.2	19.2	19.2	19.2
Mongolia	0.1	0.1	0.1	0.1	0.1	0.1
Myanmar	0.1	0.3	0.3	0.3	0.3	0.3
Nepal	0.3	0.3	0.3	0.3	0.3	0.3
Pakistan	3.1	7.1	7.1	8.6	9.0	9.0
Philippines	1.8	1.8	1.8	1.8	1.8	1.8
Singapore	0.8	0.8	0.8	0.8	0.8	0.8
Sri Lanka	0.2	0.2	0.2	0.2	0.2	0.2
Thailand	9.7	11.4	11.4	11.4	11.4	11.4
Viet Nam	6.5	20.7	23.7	26.0	26.0	26.0
ASEAN-6	42.4	69.8	74.6	78.7	80.4	80.4
CIS	139.6	141.9	143.4	142.6	143.9	145.1
Armenia	0.0	0.2	0.2	0.2	0.2	0.2
Azerbaijan	0.9	1.6	1.6	1.6	1.6	1.6
Belarus	2.8	3.0	3.0	3.0	3.0	3.0
Georgia	0.1	0.1	0.1	0.4	0.4	0.4
Kazakhstan	7.1	7.7	7.7	7.7	7.7	7.7
Kyrgyzstan	0.0	0.0	0.0	0.0	0.0	0.0
Moldova	1.0	1.0	1.0	1.0	1.0	1.0
Russia	77.7	86.7	88.3	88.8	90.1	90.9
Turkmenistan	0.2	0.2	0.2	0.2	0.2	0.2
Ukraine	48.8	40.2	40.2	38.7	38.7	38.7
Uzbekistan	1.1	1.1	1.1	1.1	1.1	1.4
Europe	308.8	295.3	292.5	289.9	289.9	291.5
Non-OECD Europe	13.9	12.9	12.9	12.9	12.9	12.9
EU	235.4	218.7	216.0	213.4	213.4	213.6
Austria	8.5	8.5	8.5	8.5	8.5	8.7
Belgium	15.1	8.9	8.9	8.9	8.9	8.9
Bulgaria	1.2	1.2	1.2	1.2	1.2	1.2
Croatia	0.5	0.3	0.3	0.3	0.3	0.3
Cyprus	0.0	0.0	0.0	0.0	0.0	0.0
Czech Republic	7.8	6.8	6.8	6.8	6.8	6.8

		Nominal crude steelmaking capacity					
		2010	2018	2019	2020	2021	2022
	Denmark	0.0	0.0	0.0	0.0	0.0	0.0
	Estonia	0.0	0.0	0.0	0.0	0.0	0.0
	Finland	5.1	4.5	4.5	4.5	4.5	4.5
	France	22.3	21.8	19.1	19.1	19.1	19.1
	Germany	58.4	58.1	58.1	58.1	58.1	58.1
	Greece	3.7	3.9	3.9	3.9	3.9	3.9
	Hungary	2.0	2.0	2.0	2.0	2.0	2.0
	Ireland	0.0	0.0	0.0	0.0	0.0	0.0
	Italy	38.8	34.7	34.7	34.7	34.7	34.7
	Latvia	0.8	0.9	0.9	0.9	0.9	0.9
	Lithuania	0.0	0.0	0.0	0.0	0.0	0.0
	Luxembourg	3.7	2.4	2.4	2.4	2.4	2.4
	Malta	0.0	0.0	0.0	0.0	0.0	0.0
	Netherlands	7.8	7.8	7.8	7.8	7.8	7.8
	Poland	12.0	12.0	12.0	9.4	9.4	9.4
	Portugal	1.7	1.7	1.7	1.7	1.7	1.7
	Romania	6.0	5.2	5.2	5.2	5.2	5.2
	Slovak Republic	5.5	4.9	4.9	4.9	4.9	4.9
	Slovenia	0.7	0.7	0.7	0.7	0.7	0.7
	Spain	27.9	26.6	26.6	26.6	26.6	26.6
	Sweden	6.0	6.0	6.0	6.0	6.0	6.0
Other Europe		73.4	76.6	76.5	76.5	76.5	77.9
	Albania	0.9	0.9	0.9	0.9	0.9	0.9
	Bosnia Herzegovina	1.8	1.8	1.8	1.8	1.8	1.8
	Iceland	0.0	0.0	0.0	0.0	0.0	0.0
	Macedonia	0.5	0.5	0.5	0.5	0.5	0.5
	Montenegro	0.4	0.4	0.4	0.4	0.4	0.4
	Norway	1.0	1.0	1.0	1.0	1.0	1.0
	Serbia	2.7	2.7	2.7	2.7	2.7	2.7
	Switzerland	1.4	1.4	1.4	1.4	1.4	1.4
	Türkiye	46.1	55.9	55.8	55.8	55.8	57.2
	United Kingdom	18.7	12.1	12.1	12.1	12.1	12.1
Latin America		66.3	73.9	73.9	73.4	73.9	73.9
South America		63.6	72.2	72.2	71.7	72.2	72.2
Non OECD Latin America		62.2	69.8	69.8	69.3	69.9	69.9
	Argentina	6.7	7.3	7.3	7.3	7.3	7.3
	Brazil	44.6	51.4	51.4	50.9	50.9	50.9
	Bolivia	0.0	0.0	0.0	0.0	0.2	0.2
	Chile	2.0	2.0	2.0	2.0	2.0	2.0

	Nominal crude steelmaking capacity					
	2010	2018	2019	2020	2021	2022
Colombia	2.0	2.0	2.0	2.0	2.0	2.0
Costa Rica	0.0	0.0	0.0	0.0	0.0	0.0
Cuba	0.7	0.7	0.7	0.7	0.7	0.7
Dominican Republic	0.4	0.4	0.4	0.4	0.4	0.4
Ecuador	0.6	1.3	1.3	1.3	1.3	1.3
El salvador	0.2	0.2	0.2	0.2	0.2	0.2
Guatemala	0.5	0.5	0.5	0.5	0.5	0.5
Panama	0.0	0.0	0.0	0.0	0.0	0.0
Paraguay	0.1	0.3	0.3	0.3	0.3	0.3
Peru	1.6	2.0	2.0	2.0	2.4	2.4
Puerto rico	0.0	0.0	0.0	0.0	0.0	0.0
Trinidad Tobago	1.0	0.0	0.0	0.0	0.0	0.0
Uruguay	0.2	0.2	0.2	0.2	0.2	0.2
Venezuela	5.6	5.6	5.6	5.6	5.6	5.6
Middle East	38.5	74.8	80.7	84.1	89.0	98.3
Non OECD Middle East	37.9	74.2	80.1	83.6	88.5	97.8
Afghanistan	0.0	0.0	0.0	0.0	0.0	0.0
Bahrain	0.0	1.0	1.0	1.0	1.0	1.0
Iran	22.5	42.5	48.3	50.3	54.8	62.8
Iraq	0.2	2.6	2.6	2.9	3.3	4.3
Israel	0.6	0.6	0.6	0.6	0.6	0.6
Jordan	0.6	1.2	1.2	1.2	1.2	1.2
Kuwait	1.4	1.4	1.4	1.4	1.4	1.4
Lebanon	0.2	0.2	0.2	0.2	0.2	0.2
Oman	0.5	3.0	3.0	4.2	4.2	4.2
Qatar	2.8	3.2	3.2	3.2	3.2	3.2
Saudi Arabia	6.7	11.6	11.6	11.6	11.6	11.9
Syria	0.1	2.6	2.6	2.6	2.6	2.6
United Arab Emirates	2.8	4.8	4.8	4.8	4.8	4.8
Yemen	0.1	0.3	0.3	0.3	0.3	0.3
North America	156.7	157.9	154.2	157.5	157.7	164.9
Canada	18.6	16.5	16.2	16.2	16.2	16.4
Mexico	20.3	27.7	27.7	27.7	27.7	27.7
United States	117.9	113.7	110.4	113.6	113.9	120.9
Oceania	9.1	6.4	6.4	6.4	6.4	6.4
Australia	8.1	5.4	5.4	5.4	5.4	5.4
New Zealand	1.0	1.0	1.0	1.0	1.0	1.0
OECD TOTAL	673.3	661.3	654.8	655.5	649.6	658.4
Non-OECD TOTAL	1517.2	1716.7	1757.3	1765.5	1777.3	1800.6

	Nominal crude steelmaking capacity					
	2010	2018	2019	2020	2021	2022
WORLD TOTAL	2190.5	2377.9	2412.1	2421.0	2427.0	2459.1

Note on China:

The data on nominal crude steelmaking capacity provided for China do not include production capacity by “illegal” (“*违法 Wéifǎ*”) induction furnaces, nor do they reflect any changes in steelmaking capacity associated with those furnaces.

Note on ASEAN-6:

ASEAN-6 denotes the aggregate of member economies of SEAISI (The South East Asia Iron and Steel Institute) in the ASEAN region, i.e. Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam.

Note by Türkiye:

The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of United Nations, Türkiye shall preserve its position concerning the “Cyprus” issue.

Note by all the European Union Member States of the OECD and the European Union:

The Republic of Cyprus is recognized by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Note on Israel:

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD.

Annex D. DATA FOR GLOBAL CRUDE STEELMAKING CAPACITY AND CRUDE STEEL PRODUCTION

Table A D.1. Global crude steelmaking capacity and crude steel production (data from 2010)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Steelmaking Capacity	2 191	2 263	2 316	2 407	2 427	2 415	2 412	2 399	2 378	2 412	2 421	2 427	2 459
Crude Steel Production	1 435	1 540	1 562	1 652	1 674	1 623	1 632	1 735	1 827	1 875	1 880	1 914	1 831
Capacity-Production Gap	755	723	753	755	753	792	780	664	551	537	541	513	628
Crude steel production as a % of capacity	65.5%	68.1%	67.5%	68.6%	69.0%	67.2%	67.6%	72.3%	76.8%	77.7%	77.7%	78.9%	74.5%

Note: Capacity data reflect information up to December 2022

Source: OECD for crude steelmaking capacity and World Steel Association for crude steel production

Annex E. WORKING DEFINITIONS USED

Steelmaking capacity

The OECD Secretariat employs a definition of nominal crude steelmaking capacity based on maximum theoretical equipment capacity¹. This definition does not take into account yield losses, maintenance and other factors affecting the productivity of installed steelmaking equipment. Therefore, steelmaking capacity figures provided by the OECD should not be regarded as effective capacity.

Capacity is defined in volume (tonnes) and annual capacity data figures reflect all existing steelmaking capacity at the end of a calendar year.

Steelmaking equipment

The OECD Secretariat considers as steelmaking equipment any equipment used to produce crude steel. The definition excludes iron-making equipment considered here as upstream, as well as casting, rolling or finishing equipment considered here as downstream. More specifically, the following equipment types are considered as crude steelmaking:

Type	Code
Electric arc furnace	EAF
Energy Optimising Furnace	EOF
Induction furnace	IF
LD Basic Oxygen furnace	BOF
Open hearth furnace	OHF
Steelmaking - not specified	STEELMKG

Assessing capacity developments

Information from the three databases described in Annexes A-C (existing capacity, new investments and closures) in this paper are used to assess capacity developments². More specifically, changes in capacity are derived by taking into account new capacity additions and permanent closures in a given economy. In order to assess potential gross capacity additions in the future, investment projects are classified as “underway” or “planned”. A project classified as “underway” is one which is under construction or for which contracts for equipment have been awarded and a major financial or state commitment has been made. “Planned” projects are more uncertain because they are either at the feasibility or early planning stage, yet to receive financial or state backing, or not scheduled for completion at a specified time. The classification of projects and comments on their progress do not in any way represent a judgement or imply a view on the advisability or feasibility of the projects.

Because closures cannot be forecasted, the tables in this document provide only potential gross capacity additions and do not provide projections of net changes in capacity. It should be noted that planned or underway investments are sometimes altered due to changes in market conditions. Postponements refer to projects that were put on hold for a definite or indefinite period, while cancellations are previously announced projects that will no longer be implemented.

Principle of overestimate

The Secretariat assumes that in the absence of any further information, any projects classified as “underway” with a start date that expired, have since become “operating”. These projects are taken into account for the calculation of the annual capacity aggregate of the corresponding economy. The Secretariat may adjust the data retrospectively if it obtains new information of the status of the specific investment projects.

Steelmaking capacity closures

The OECD Secretariat distinguishes between "permanent" and "temporary" steelmaking capacity closures. Permanent closures of capacity are considered to involve dismantling and scrapping of the equipment used for producing crude steel, or otherwise rendering such equipment permanently unusable for manufacturing crude steel. Temporary closures entail measures other than permanent closures as defined above, whereby production can be resumed in the future. Temporary closures include, for example, the idling of a plant's furnace. Only permanent closures are used for the purpose of calculating existing capacity. In practice, when compiling the database, it is unfortunately not always possible to understand from media sources if a closure is only temporary or permanent. This explains why the field value of “Type of closures” is sometimes set to “Others (unidentified)” in the OECD database on closures.

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Endnotes

¹ This definition is also commonly referred to as nominal, rated or nameplate capacity.

² The list of data sources is available at <http://www.oecd.org/sti/ind/steelcapacity-methodology.htm>