



Global Forum on Steel Excess Capacity (GFSEC):
**Steel exports, trade remedy
actions and sources of excess
capacity**

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Summary: This report examines the destination, volume and characteristics of steel exports from economies with rapid growth in steelmaking capacity. It explores the growth of steel exports over the last two decades, indicating that strong growth has coincided with an expansion of steelmaking capacity and, more recently, with a slowdown in domestic demand. The paper also explores the linkages between excess capacity, steel exports and trade remedies.

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Executive summary

- **Excess capacity is a persistent and growing problem in a number of economies.** Not only does it depress business conditions and create market volatility, but it also contributes to climate concerns and trade frictions.
- This report focuses on steel exports from economies that have, or continue to, experience significant growth in crude steelmaking capacity, examining at this stage the People's Republic of China (hereafter China), India, Indonesia, Malaysia and Viet Nam. With the exception of India, trends observed in these economies include **significant over-investment** in the steel industry, **growing gaps between capacity and steel demand**, and strong **growth in steel exports due to insufficient local demand**. Indian capacity is growing rapidly, but demand prospects are still very bright. However, it may face risks in the future of over-investment.
- **Excess capacity is driven by non-market factors.** While some excess capacity can be related to the commercial decisions of private companies, persistent and structural overcapacity is driven by market-distorting government interventions and other non-market factors.
- **Global excess capacity harms steel industries through the trade channel.** Sources of excess capacity typically seek to sell surplus steel to export markets, often driving down steel prices and profitability of the industry.
- **The growth of steel exports was strong during the last two decades**, coinciding with an expansion of the industry and steelmaking capacity and, more recently, with a slowdown in domestic demand. Steel export growth was concentrated in the Asian region. Significant increases in intra-regional trade in ASEAN were observed, along with a rise in trade flows between ASEAN and China. To a lesser extent, shipments to the European Union and the Middle East from India and China also increased.
- **The exports of steel from the economies examined are often the target of trade remedy measures.** The Facilitator's recently developed Trade Remedy Database reveals a number of interesting trends, but the key finding is that excess capacity appears to be correlated with a greater susceptibility towards unfair trade practices that cause injury on trading partner steel industries. The five sources (or potential sources) of excess capacity accounted for nearly half (48%) of global AD/CVD cases that reached final affirmative decisions during the five-year period of 2019-23.
- **Further work is needed to assess the characteristics of the exporting companies.** This report lists the companies found in the AD/CVD cases of the economies analysed. A cursory examination of the companies indicates that many are large state-owned enterprises, with relatively carbon-intensive production facilities.

1. Introduction

1. GFSEC members have invited the Facilitator to begin substantive work in two major areas of interest. The first area of work intends to inform the GFSEC membership about the destination, volume and characteristics of steel exports from economies with rapid capacity growth which may be sources of global excess capacity. The second area of work examines the impacts of excess capacity on world steel markets.

2. This document presents work-in-progress under the first substantive area. It studies steel exports from economies with rapidly growing capacity growth, to identify the destination and characteristics of the exports. It first discusses developments in the sources of excess capacity that warrant their selection as economies to study in the first step of this exercise. The document then investigates how excess steelmaking capacity relates to exports at the product level.

3. Several linkages are then considered, based on a detailed trade remedy database recently developed by the Facilitator to support the GFSEC's substantive work. This includes examining whether the exported products are subject to anti-dumping (AD) or countervailing (CVD) measures, as well as identifying the steel exporting companies from excess capacity countries involved in unfair trade that has caused injury on trading-partner steel industries. Future work will delve into studying the characteristics of those companies, including whether they are private or state-owned entities (SOEs), their financial performance, their presence in subsidies databases maintained by the OECD and labour issues among others.

4. As part of the substantive work, the Facilitator has developed a steel trade visualisation platform so that members can track frequent data on steel exports from excess capacity sources, their volumes by granular product categories, and their destination. The Facilitator has also developed a detailed Trade Remedy Database for purposes of this substantive work, and may consider adding key statistics from that database on the platform in the future, as well as other data features of interest to members.

2. Developments related to excess capacity in selected economies

5. Excess capacity constitutes a fundamental challenge facing the global steel industry. Not only does it depress business conditions and create market volatility, but it also contributes to climate concerns and trade frictions. Some of the excess can be the result of market-based decisions, but most of it is driven by non-market factors.

6. Indeed, the opening and closure of steel plants in GFSEC economies is typically based on the commercial decisions of private companies. However, in some other economies government interventions that stimulate investments in new plants, with capacities that often exceed underlying market demand for steel, or which keep inefficient plants in the market that would otherwise exit, are non-market factors that drive excess capacity.¹ Moreover, state-owned enterprises that invest in new plants, at home or abroad,

¹ Recent OECD analysis shows extensive steel subsidisation particularly, particularly outside of the OECD area. Indeed, between 2008 and 2020, steel companies in non-OECD economies obtained an average of 10.7 times more subsidies per crude steel production capacity unit than their counterparts in OECD countries. Moreover, “capacity extension”, “new investment”, and “capital equipment” are prominent stated purposes of the subsidies. For more details, see Mercier, F. et L. Giua (2023), « Subsidies to the steel industry : Insights from the OECD data collection », *OECD Science, Technology and Industry Policy Papers*, n° 147, Éditions OCDE, Paris, <https://doi.org/10.1787/06e7c89b-en>.

or maintain existing capacities, may do so because of subsidies received or government direction that is not necessarily aligned with the market.²

7. As a result, the capacity that emerges in these latter cases is excessive with respect to the underlying market demand for steel; thus, steel is oversupplied and prices and profitability are lower than what normal market conditions would dictate. In other words, the excess capacity is *market distorting*. In economies where markets are allowed to function properly, any excess capacity is mitigated by the exit of inefficient firms and the tendency to make capacity investments only when they are economically viable, thus avoiding new capacity that is not needed in the market.

8. The notion of excess capacity, therefore, is inherently linked with market-distorting government interventions and other non-market factors. It is not simply a comparison of a country's capacity and production, or defined as a low capacity utilisation rate. A government that subsidises its steel industry heavily may see its industry enjoy a high utilisation rate, even though the plants producing that output would not be economically viable were it not for the special conditions, subsidies or support they received from the government. Conversely, countries functioning under market conditions may see the output of their efficient and non-subsidised steel producers being displaced by import surges from excess capacity economies, such as China, thus leading to domestically low utilisation rates. The low utilisation rates in these importing countries should not be misconstrued as excess capacity, as they are the result of distortions in competition.

9. An example is the situation in China in the second half of the previous decade. This was a period when China enjoyed relatively high capacity utilisation rates relative to other GFSEC members, despite the extensive underlying excess capacity that still prevailed in its economy. The review process of the GFSEC clearly indicated that China's excess capacity was grounded in market-distorting government interventions and other non-market factors.³

10. Excess capacity also has an impact on other steel industries through the *trade channel*. In the early 2000s, Chinese overinvestment in the steel industry – linked with government interventions – became visible as capacity growth far exceeded growth in domestic demand for steel (Figure 1). Figure 1 shows that prior to 2005, China was a net importer of steel. A surge in steelmaking capacity then took hold, which pulled production levels persistently above domestic demand for steel. Slowdowns in steel demand did not seem to impact capacity or production, and instead have resulted in growth in net exports of steel. The financial and economic crisis of 2008/09 thus preceded a surge in excess capacity, which has since persisted. This has been associated with a flood of Chinese exports of steel on world markets, bringing down prices and the profitability of steel producers all around the world, at times exceeding 100 million tonnes annually, equivalent to the production level of a major steel-producing economy.

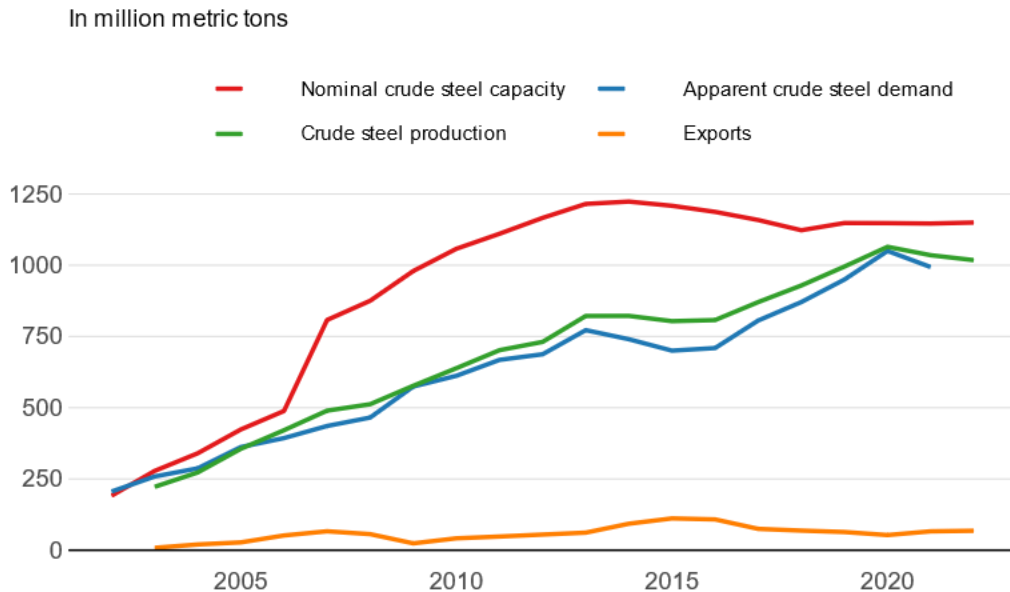
11. Although capacity growth within China has recently moderated, the capacity level is still alarming high at 1 173 mmt, or 47% of the world's capacity. Of concern is that Chinese steel demand faces significant risks reflecting the steep downturn taking place in the real estate and manufacturing sectors. Moreover, the sources of Chinese excess capacity (for instance subsidies) have not been addressed and the legacy of excess capacity persists. At the same time, the moderation in capacity growth within China is being offset by

² According to recent OECD research, Chinese steel SOEs received more subsidies per metric tonne compared to private counterparts. For a summary, see an OECD presentation delivered at the 92nd Steel Committee meeting at: https://www.oecd.org/industry/ind/SOEs_September_2022.pdf.

³ These are reflected in the various GFSEC ministerial reports in sections that summarise exchanges among GFSEC members on subsidies and other types of support by government and government-related entities.

investments abroad by Chinese companies, many being SOEs that tend to be heavily subsidised.⁴ This is generating non-market excess capacity outside of its borders, notably in Southeast Asia.

Figure 1. Chinese overcapacity trends have correlated with exports



Note: Exports include finished and semi-finished steel products.
Source: Facilitator calculations based on OECD and worldsteel data.

12. In recent years, risks of overinvestment have become increasingly apparent in Southeast Asia, parts of the Middle East and Africa, where such capacity increases exceed local demand for steel by a very wide margin (Figure 2). Ultimately, these trends may also contribute to an increase of steel exports to international markets, creating new trade disturbances, trade-action responses by trading partners, and eventually difficult trade relations between countries. To the extent that the capacity growth in these regions is supported by subsidies and other non-market interventions, then they can be considered as sources of non-market excess capacity.

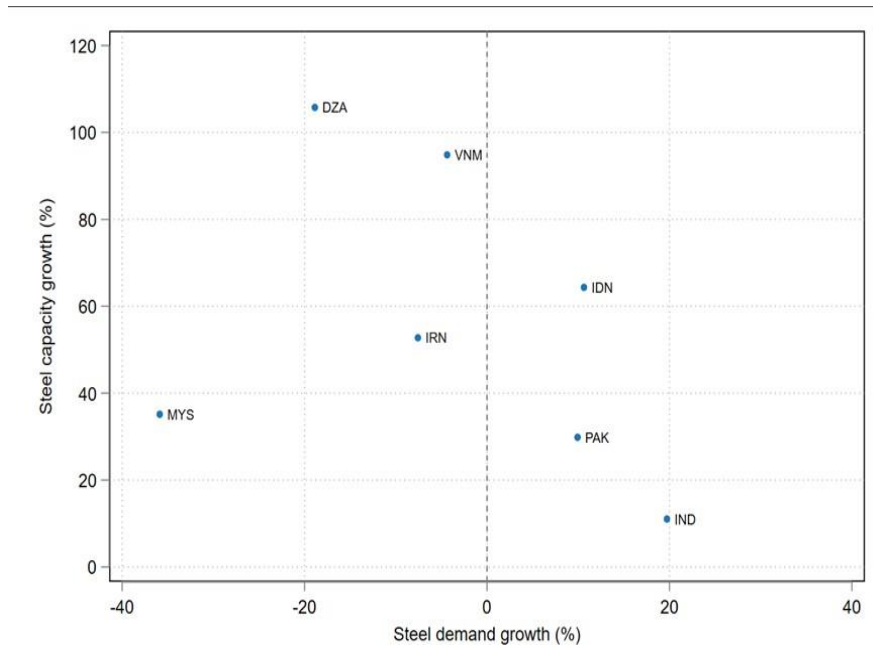
13. Figure 2 shows that Viet Nam, Indonesia and Malaysia have experienced capacity growth rates in excess of 35% to 95%, while steel demand has either declined or increased marginally. This raises concerns about the non-market nature of this growth, including inward investments by Chinese SOEs.⁵ Figure 2 also shows that certain other economies in

⁴ See an OECD presentation delivered at the 92nd Steel Committee meeting at: https://www.oecd.org/industry/ind/SOEs_September_2022.pdf.

⁵ For example, the GFSEC 2020 Ministerial Report notes that members identified cases of raw material support in Indonesia. See [gfsec-ministerial-report-2020.pdf \(steelforum.org\)](https://www.gfsec.org/2020-report).

the Middle East, South Asia and Northern Africa are also registering imbalanced growth (e.g., Iran, Pakistan and Algeria) but these remain outside the scope of the current paper.

Figure 2. Crude steel capacity growth versus local steel demand growth in economies with the fastest growing capacity, 2016-21

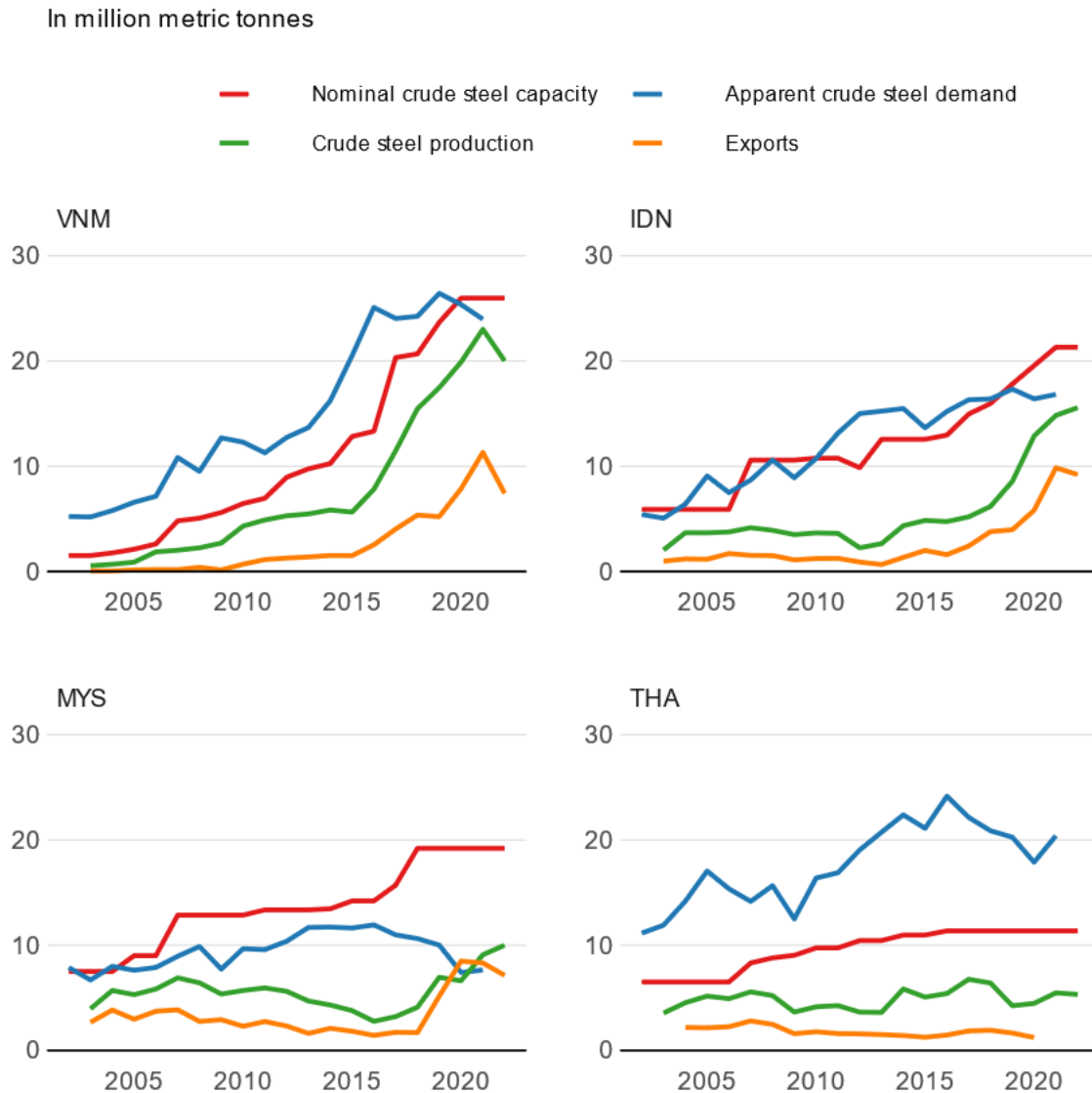


Note: DZA denotes Algeria, IDN Indonesia, IND India, IRN Iran, MYS Malaysia, PAK Pakistan and VNM Viet Nam. Excluding small steel-producing economies with capacity below 5 mmt.

Source: OECD for capacity, worldsteel for apparent steel consumption in crude equivalent

14. Figure 3 shows a panel of four Southeast Asian economies and developments in capacity, production, demand and exports. Of these, Viet Nam, Indonesia and Malaysia stand out in terms of rapidly rising capacity against a background of declining or flattening demand conditions, with exports increasing in response. Thailand is shown for contrast, where steel demand is still outpacing capacity. The difficulties currently being experienced by domestic steel industries in Viet Nam, Indonesia and Malaysia should serve as a clear signal to other countries in the region, notably Thailand and the Philippines, to avoid the same overinvestment patterns that have depressed steel prices and profitability in neighbouring economies.

Figure 3. Excess capacity trends in selected ASEAN economies

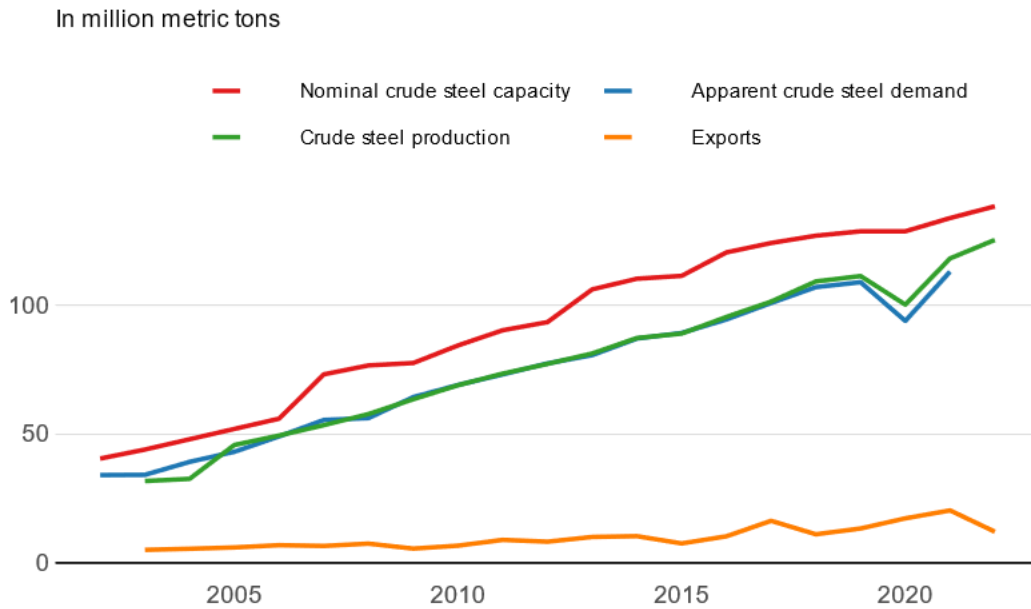


Note: Exports include finished and semi-finished steel products.

Source: Facilitator calculations based on OECD and worldsteel data.

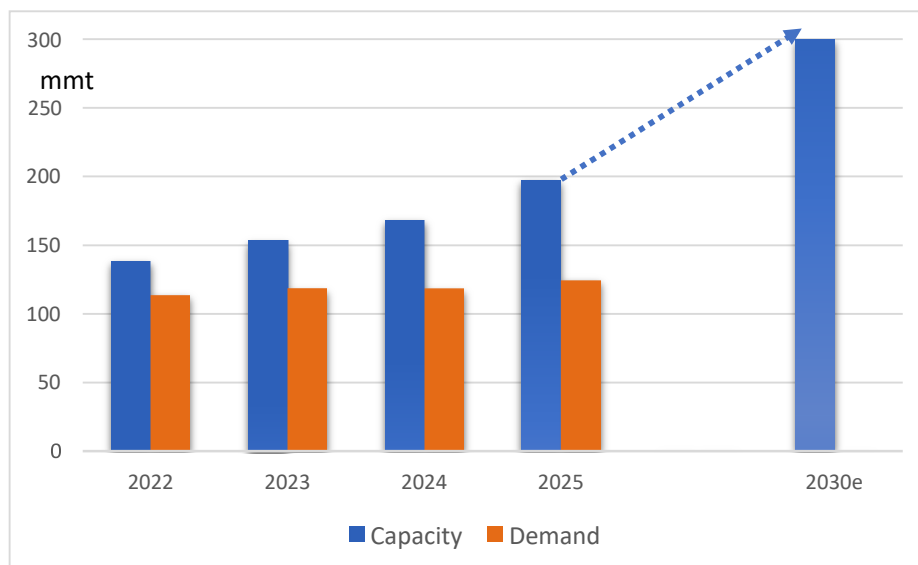
15. India is a different story, as steel demand growth has been robust in the past five years and faster than capacity growth, as shown in Figure 4. Exports are gradually climbing, with so far only a limited number of AD/CVD cases taken against India. Steel demand could absorb most of the growing level of capacity in the near term. However, there could be risks of emerging overcapacity in the medium to longer term, if demand expectations are not met. Indeed, during the 2022-25 period, capacity is projected to outpace demand, and over the long-term it could reach extremely high levels, according to government projections (Figure 5). As such, India is considered a potential source of excess capacity in the future.

Figure 4. Indian steel market developments



Note: Exports include finished and semi-finished steel products.
 Source: Facilitator calculations based on OECD and worldsteel data.

Figure 5. Risk of future excess capacity in India



Source: OECD for capacity until 2025, India’s National Steel Policy (2017) for 2030 capacity, and CRU for demand.

3. Where is the excess capacity exported to?

16. The growth of steel production capacity for the group of countries analysed in this document was accompanied by strong increases in steel export flows (Table 1). While, for China and India exports grew at a higher rate in the first decade of the 2000s, in the case of the selected ASEAN countries the export surge is more recent, only starting from 2015.

17. However, the considerable growth in export flows across countries hides important differences in the export structures of each country. In the larger economies such as China and India, the steel industry mainly serves domestic demand, while the ASEAN economies are more integrated into the regional value chain. There are also differences with respect to the degree of diversification of export destinations and the steel products exported, which shows heterogeneous forms of integration in global steel chains.

Table 1. Exports of steel products

In thousand tonnes

Country	Exports, annual average					Difference	
	2000-2005 (1)	2006-2011 (2)	2011-2015 (3)	2016-2019 (4)	2020-2023 (5)	(5) vs (1)	(5) vs (4)
CHN	13375	49143	73926	78485	66454	53079	-12031
IND	3907	6546	8609	12429	14845	10938	2416
VNM	153	1078	2458	4317	8345	8192	4028
IDN	1092	1477	1250	3008	8286	7194	5278
MYS	2761	3723	2114	2486	7638	4877	5152

Note: For the calculation of average exports for 2020-2023, annualized values of 2023 export flows were considered according to the latest monthly data available for each country. Figures for Vietnam for the years 2016-2023 correspond to mirrored data.

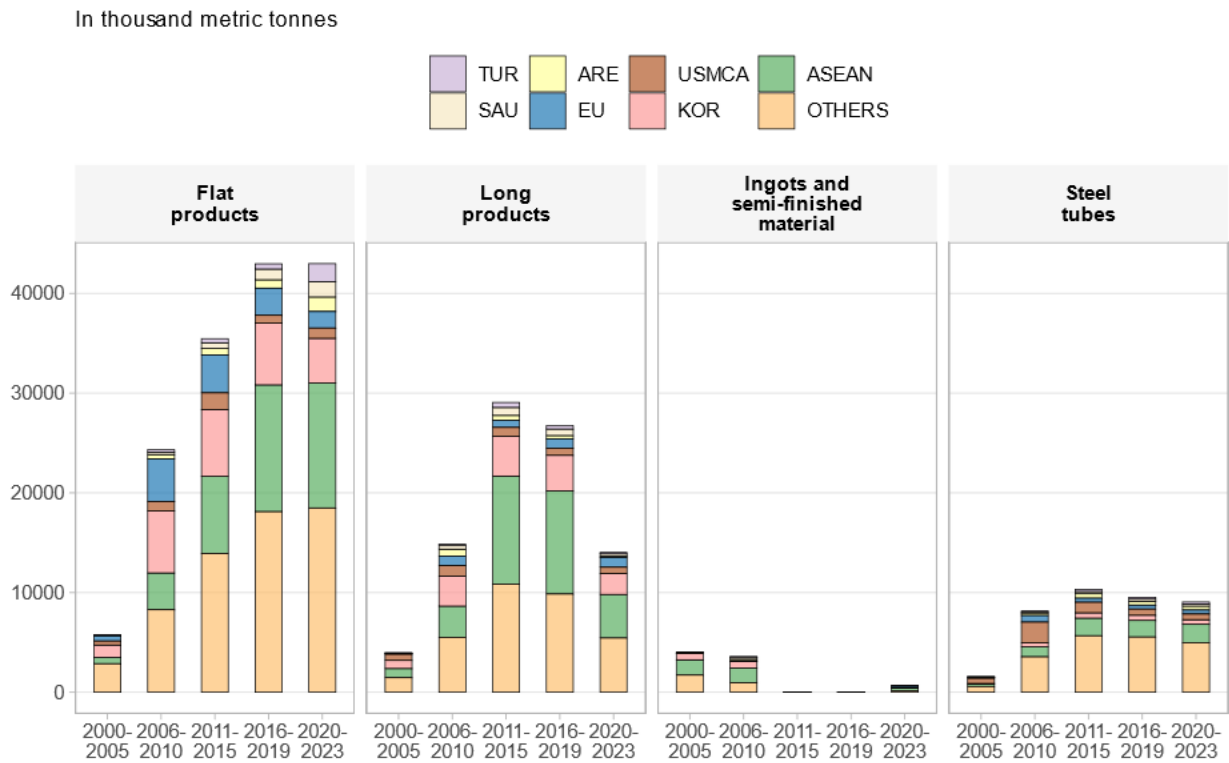
Source: Facilitator calculations based on COMTRADE and ISSB

China

18. Coincident with a strong expansion of production capacity, steel exports in China experienced rapid growth in the early 2000s, from 8 mmt in 2003 to 66 mmt in 2007, which was interrupted by the slump in world demand in the context of the global financial crisis. From 2010 onwards, external sales resumed the growing trend to reach a peak in 2015 of approximately 112 mmt, with domestic demand already showing signs of stagnation since 2013 (see Figure 1). Towards the most recent period, exports regained 2012-2013 levels.

19. Export growth throughout the period was dominated by shipments of flat and long products mostly to ASEAN and Korea (40% of total exports) and to a much lesser extent the EU and USMCA in flat products (Figure 6). Towards the years 2020-2023, while flat products remained at historically high values, long products principally to ASEAN economies decreased. Also in the most recent period, Middle East destinations showed greater relevance accounting for 10% of total exports.

Figure 6. China: exports of steel products by main destination markets



Note: For the calculation of average exports for 2020-2023, annualized values of 2023 export flows were computed, based on the latest monthly data available for each country.

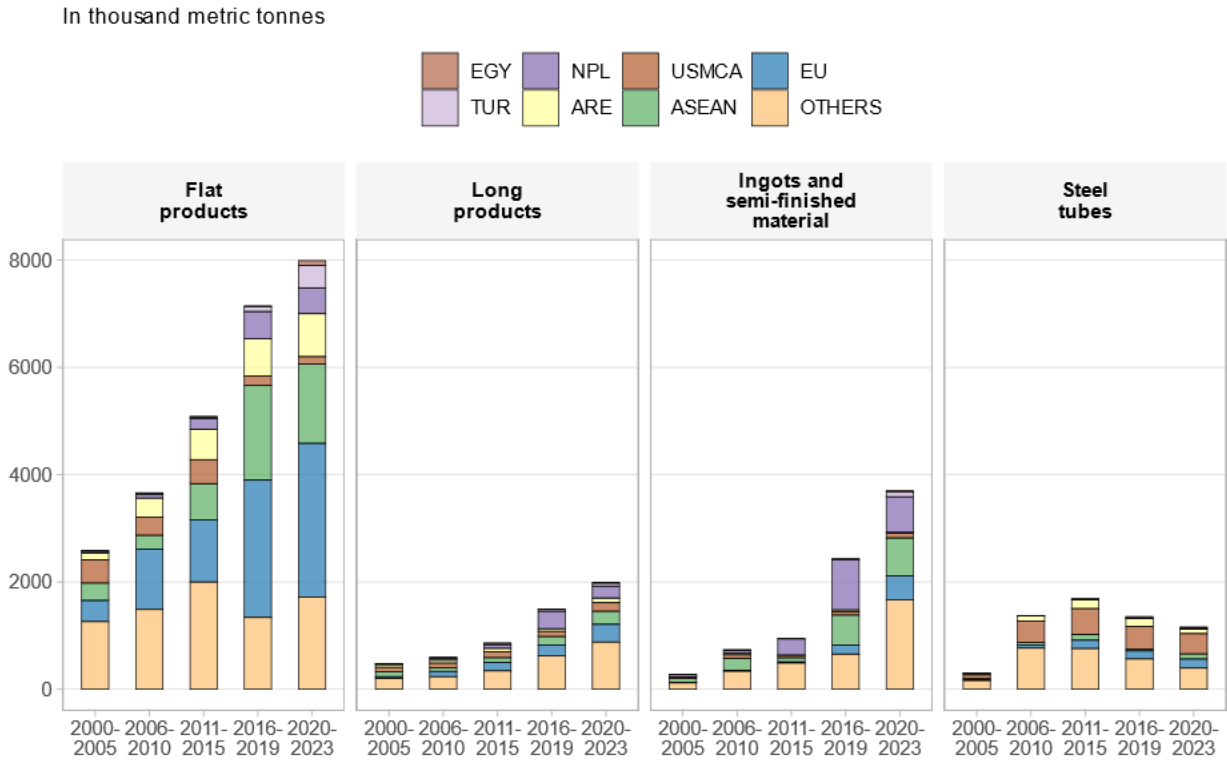
Source: Facilitator calculations based on COMTRADE and ISSB

India

20. India's steel exports largely replicated the strong sustained growth of the local industry. Shipments increased from 5 mmt in 2003 to a peak of 20 mmt reached in 2021.

21. Export growth was mostly concentrated in flat products, with a lower relevance for semi-finished products, long products and steel tubes. Flats and semi-finished products were mostly shipped to ASEAN and the EU. These destinations together accounted for 30% of the total exports in the period 2020-2023 and were followed by Nepal, United Arab Emirates, USMCA and Türkiye, which together also represent 30% of the total. Steel tubes were mostly exported to the USMCA and the EU.

Figure 7. India: exports of steel products by main destination markets



Note: For the calculation of average exports for 2020-2023, annualized values of 2023 export flows were computed, based on the latest monthly data available for each country.

Source: Facilitator calculations based on COMTRADE and ISSB

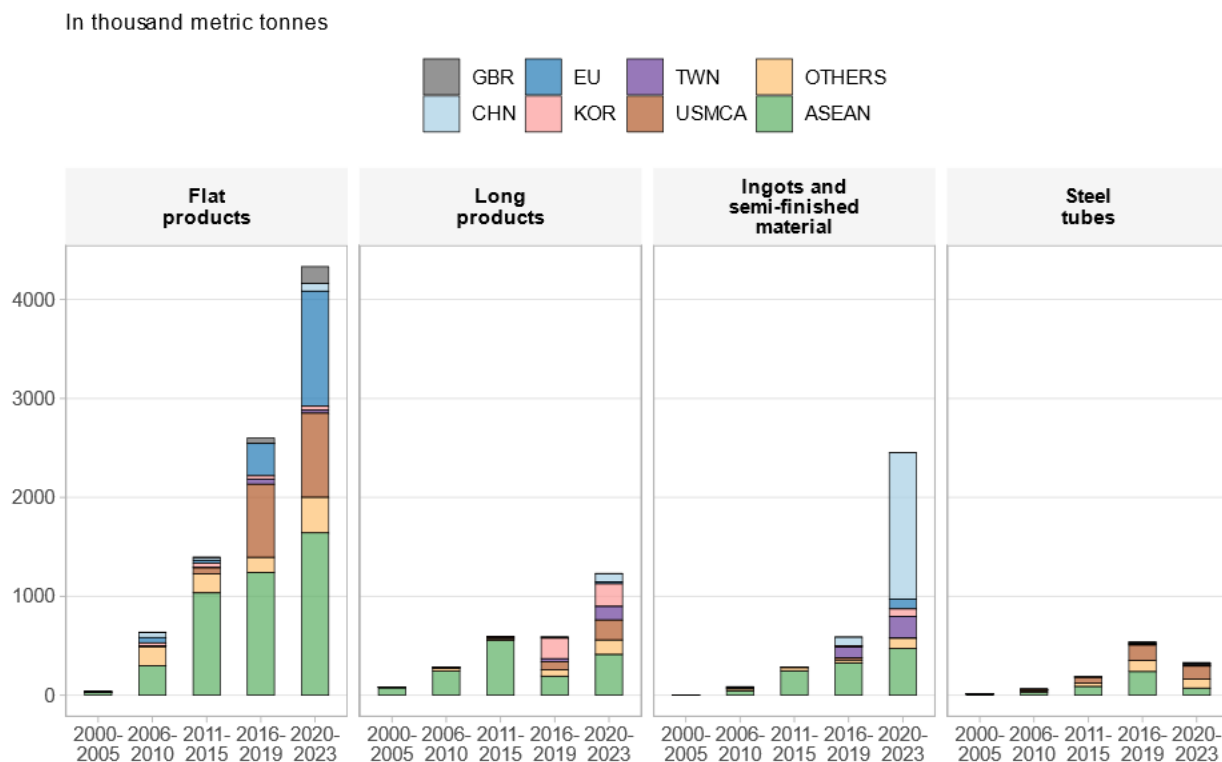
Viet Nam

22. Along with a strong increase in production capacity, Viet Nam's steel exports surged from just over 1.5 mmt in 2015 to a peak of 11.3 mmt in 2021, before falling back to 7.4 mmt in 2022. Like other ASEAN countries, the steel industry in this country is significantly export-oriented, with foreign shipments accounting for a large share of total production.

23. During the analysed period, export growth was concentrated in a relatively small number of destinations. Flat products are the biggest export category, with ASEAN (37.8%), the EU and the United Kingdom (30.8%) and the USMCA (19.6%) accounting for a total of 88% of flat product exports.

24. The growth in shipments of semi-finished products to China is also very significant, representing 60% of total semi-finished exports in the 2020-2023 period.

Figure 8. Vietnam: exports of steel products by main destination markets



Note: For the calculation of average exports for 2020-2023, annualized values of 2023 export flows were computed, based on the latest monthly data available for each country.

Source: Facilitator calculations based on COMTRADE and ISSB

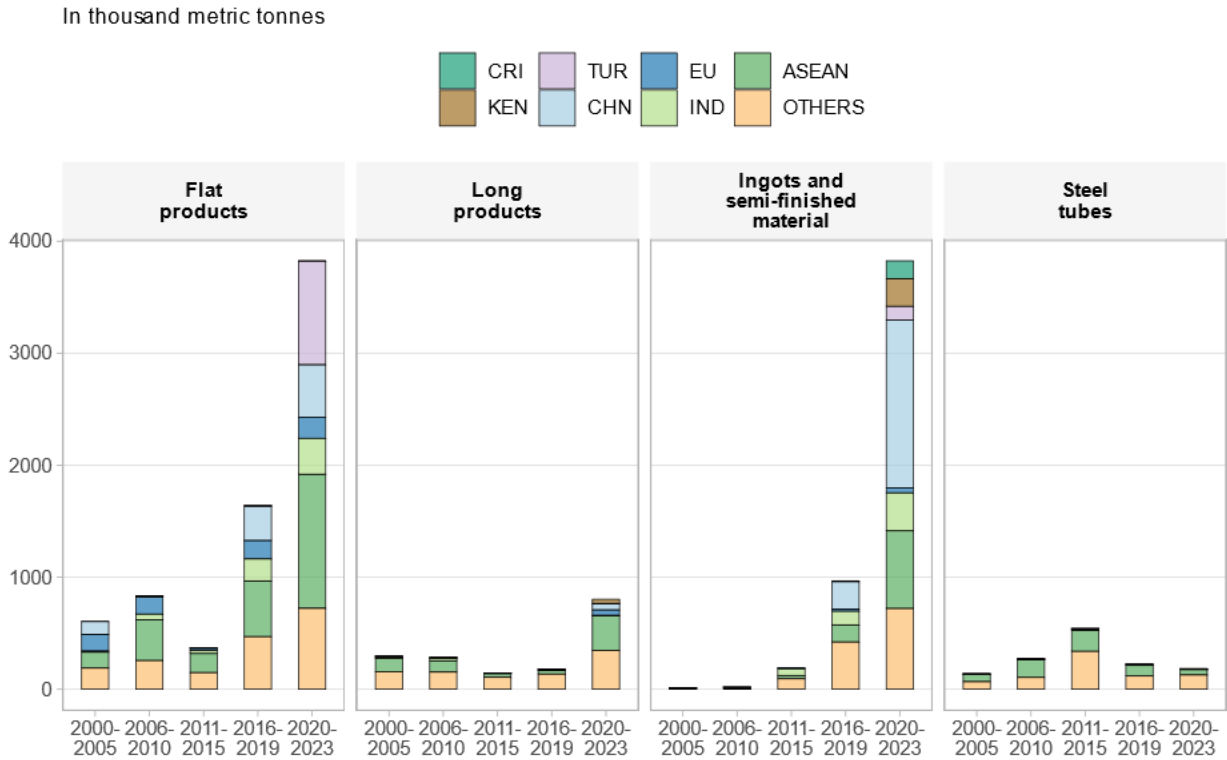
Indonesia

25. Indonesia's steel exports showed a significant surge towards the mid-2010s like several other countries in ASEAN, and steady growth from then onwards, from 1.6 mmt exported in 2016 to 9.9 mmt in 2021.

26. Export growth was mostly concentrated in flat and semi-finished products with an average of about 3.8 mmt for each in 2020-2023.

27. Export destinations are strongly concentrated. Indonesia participates in the steel value chain in China and the rest of ASEAN through the sale of semi-finished products. Likewise, flat end-products are mostly shipped to the rest of ASEAN, Türkiye and India.

Figure 9. Indonesia: exports of steel products by main destination markets



Note: For the calculation of average exports for 2020-2023, annualized values of 2023 export flows were computed, based on the latest monthly data available for each country.
 Source: Facilitator calculations based on COMTRADE and ISSB

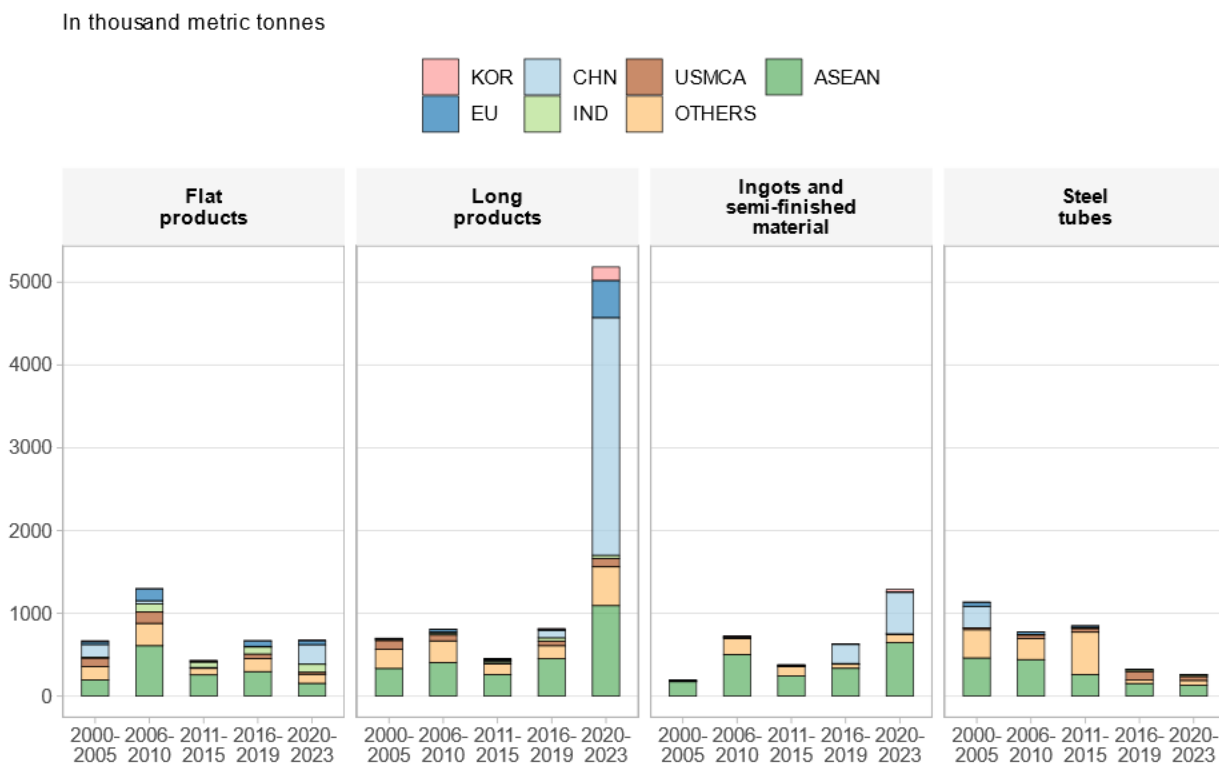
Malaysia

28. Malaysia's steel exports have registered strong growth in recent years, rising from 1.7 mmt in 2018 to 8.5 mmt in 2020. Despite being an export-oriented industry, the upward trend in its exports coincides with a general decline in domestic demand (see Figure 3).

29. Unlike the rest of the ASEAN countries, Malaysia's export growth was mainly driven by the trade relationship with China (50% of total exports), with shipments of long products, and to a lesser extent, semi-finished products.

30. Integration with the rest of ASEAN ranked second, also with shipments of long and semi-finished products.

Figure 10. Malaysia: exports of steel products by main destination markets



Note: For the calculation of average exports for 2020-2023, annualized values of 2023 export flows were considered according to the latest monthly data available for each country.

Source: Facilitator calculations based on COMTRADE and ISSB

4. Trade remedy actions

31. To shed light on whether the exported products from the steel producing economies discussed have a history of being subject to anti-dumping (AD) or countervailing (CV) measures, the Facilitator has recently built a detailed database of trade remedy actions in force against unfair trade practices (see Box 1).

Box 1. Delivering tangible tools for the GFSEC: a trade visualisation platform and the Trade Remedy Database

As part of the substantive work, the Facilitator developed a steel trade visualisation platform so that members can track steel exports from excess capacity sources, their volumes by granular product categories, and their destination. The Facilitator is also considering adding additional features to the platform, for example monthly indicators of steel demand and capacity, to enable close monitoring of potential market imbalances as they develop in real time. Other key information from the Trade Remedy Database that has been recently developed for purposes of the GFSEC substantive work could also be considered. The Trade Remedy Database identifies antidumping and countervailing duty cases that have reached a positive final determination, the relevant steel products at the HS-6 level of disaggregation, the duties imposed, all relevant dates concerning each investigation, the alleged companies, and the official sources of the notifications. Currently the database covers the 2019-2023, but the Facilitator aims to go back in time to 2016.

32. The mechanism by which excess capacity typically leads to dumped and subsidised exports is the following. In some economies, certain steel plants are only viable during the upswing or peak of the cycle marked by high demand and prices. When steel demand starts slowing, production should be brought in line with demand in order to avoid a collapse of prices. However, this would push up unit costs of steel production. To cover fixed costs, inefficient steel producers, whose fixed costs are higher than those of efficient producers, will have to maintain a level of production above market demand. Instead of bringing production in line with demand, the gap between demand and supply is widened and the surplus sold in international markets at conditions that accelerate the decline of prices (i.e. at prices lower than market value, or dumping) and negatively influences the financial health of all steel producers.

33. The problem is that the market does not work properly in such countries. If market forces worked well, then, during a market downturn, steel producers would try to minimise their fixed costs by scaling back on capacity, thus making excess capacity a short-run phenomenon. However, governments often intervene, primarily via various forms of subsidisation and/or other market distorting measures, to prevent the needed adjustment. In addition, high social and environmental costs can act as a barrier to this adjustment. As a result, inefficient capacity remains in place and the problem of excess capacity can persist over time, supported by government support measures. The cycles continue, with inefficient and subsidised capacity operators continuing to dump steel exports on international markets during periods of renewed market slowdowns.

34. The Facilitator's Trade Remedy Database reveals a number of interesting trends, but the key finding is that excess capacity appears to be correlated with allegations of unfair trade practices that cause injury on trading partner steel industries. Indeed, the five sources (or potential sources) of excess capacity accounted for nearly half (48%) of global AD/CVD cases that reached final affirmative decisions during the five-year period of 2019-23.

35. China alone accounted for 27% of all AD/CVD cases. Viet Nam and Indonesia together accounted for another significant share (17%) of global AD/CVD cases, while Malaysia and India each accounted for only minor shares (of only 2%). Indeed, the Malaysian and Indian shares are similar to those of many GFSEC member countries that do not contribute to global excess capacity, as per the outcomes of the GFSEC review process in past GFSEC ministerial reports. Table 2 presents the AD/CVD summary for the economies discussed and all other economies.

Table 2. Number of AD/CVD measures by exporting economies between 2019-2023

		2019	2020	2021	2022	2023	SUM	SHARE
Economies with rapidly growing capacity	CHN	9	14	5	6	2	36	27%
	VNM	4	6	2	1	0	13	10%
	IDN	2	4	3	0	0	9	7%
	MYS	0	2	1	0	0	3	2%
	IND	0	1	1	0	0	2	2%

Other Economies	KOR	3	7	5	0	1	16	12%
	RUS	1	3	4	0	0	8	6%
	TWN	2	3	1	0	1	7	5%
	TUR	3	1	1	1	1	7	5%
	EU	0	2	2	0	0	4	3%
	DEU	0	1	1	0	1	3	2%
	SGP	1	1	1	0	0	3	2%
	JPN	1	0	1	0	1	3	2%
	EGY	0	2	0	0	0	2	2%
	GBR	0	0	1	0	1	2	2%
	CAN	1	0	0	0	1	2	2%
	CZE	0	1	0	0	0	1	1%
	UKR	0	1	0	0	0	1	1%
	ARG	0	0	1	0	0	1	1%
	MEX	0	0	1	0	0	1	1%
	BRA	0	0	1	0	0	1	1%
	ITA	0	1	0	0	0	1	1%
	DZA	0	1	0	0	0	1	1%
	OMN	0	1	0	0	0	1	1%
	ESP	0	0	1	0	0	1	1%
NLD	0	0	0	0	1	1	1%	
BLR	0	1	0	0	0	1	1%	

Note: Measures that have reached final affirmative decisions.
Source: Facilitator's Trade Remedy Database.

36. On a product category basis, flat products are the most frequently targeted products in China, Viet Nam, Indonesia, and India. In contrast, in Malaysia, long products are much more targeted than flat products (see Table 3). Typical flat products targeted in China include hot and cold-rolled steel, tinplate, aluminium galvanised steel plate, painted steel flats, and stainless-steel products. With respect to tubes and pipes, seamless tubes are prominent, whereas targeted long products in China usually involve wire rod, and concrete reinforcement bar.

37. The distribution of trade remedy actions reflects the trade structures above, with a focus on exporting flat products in the economies examined, with the exception of Malaysia. It may also stem from greater subsidisation for segments of production where value-added is greater, from policies to support the emergence national champions that are usually are very large integrated producers that manufacture flat products, or to otherwise bail out large integrated producers that are “too big to fail” through grants, low-interest loans, free land, low-priced energy and other raw material inputs.

38. The product breakdown of AD/CVD cases for the economies analysed is relatively similar to the global trend. Table 3 shows that flat products are typically the most prominent steel products in global AD/CVD cases (68%) followed by tubes and pipes (17%) and long products (15%). These results may Table 4 shows the breakdown for all countries by product category.

Table 3. Number of AD/CVD measures per product category by exporting countries (five excess capacity countries) between 2019-2023

	Flat products	Tubes and Pipes	Long products
CHN	24	8	4
VNM	11	1	1
IDN	8	0	1
MYS	1	0	2
IND	2	0	0

Note: Measures that have reached final affirmative decisions.

Source: Facilitator's Trade Remedy Database.

Table 4. Number of all AD/CVD measures by product category by all exporting countries between 2019-2023

	Flat products	Tube and Pipes	Long products	Flat products	Tube and Pipes	Long products
CHN	24	8	4	27%	36%	20%
KOR	12	4	0	13%	18%	0%
VNM	11	1	1	12%	5%	5%
IDN	8	0	1	9%	0%	5%
RUS	3	4	1	3%	18%	5%
TWN	7	0	0	8%	0%	0%
TUR	5	0	2	6%	0%	10%
EU	4	0	0	4%	0%	0%
DEU	2	0	1	2%	0%	5%
MYS	1	0	2	1%	0%	10%
SGP	1	0	2	1%	0%	10%
JPN	3	0	0	3%	0%	0%
IND	2	0	0	2%	0%	0%
EGY	1	0	1	1%	0%	5%
GBR	1	0	1	1%	0%	5%
CAN	2	0	0	2%	0%	0%
CZE	0	1	0	0%	5%	0%
UKR	0	1	0	0%	5%	0%
ARG	0	1	0	0%	5%	0%
MEX	0	1	0	0%	5%	0%
BRA	1	0	0	1%	0%	0%
ITA	0	0	1	0%	0%	5%
DZA	0	0	1	0%	0%	5%
OMN	0	0	1	0%	0%	5%
ESP	0	0	1	0%	0%	5%
NLD	1	0	0	1%	0%	0%
BLR	0	1	0	0%	5%	0%
SUM	89	22	20	100%	100%	100%

Note: Product categories are defined as follows: Semies are HS7206, 7207, 7218, 7224, Long products are HS 7213-7216, 7221, 7222, 7227, 7228, 7301, 7302, Flat products are HS 7208-7212, 7219, 7220, 7225, 7226, and Tubes and pipes are HS 7304-7307

Source: Facilitator Trade Remedy Database

5. Characteristics of the companies exporting from the economies analysed

39. An interesting area of future analysis will be to examine the characteristics of the companies exporting from the economies analysed, and whose exports are dumped or subsidised. Characteristics of interest include whether or not the companies are state owned (i.e. whether they are SOEs), their presence in OECD's databases of subsidies, the volumes of their steel exports (e.g., as proxied by the difference between total revenue and domestic sales), their financial situation (to ascertain, among others, whether they have experienced losses for a sustained period of time, indicating uneconomic or unviable firms), the technologies they employ, their employment, productivity and other labour-related factors, as well as other characteristics of interest.

40. Through the Facilitator's newly developed Trade Remedy Database, a first step is to identify exporting companies from the AD/CVD duty public notifications and the published investigation reports. Table 5 lists the companies, broken down into broad steel product categories. It should be noted that all major exporting companies are not necessarily listed because these notifications only specified the companies which had responded to the AD/CVD investigations and/or those that had been sampled by the authorities.

41. Table 5, based on AD/CVD notifications, indicates a large number of large state-owned Chinese companies are involved in unfair exports of steel. Moreover, the production facilities of many of these companies are based on relatively carbon-intensive production technologies.

Table 5. Exporting companies subject to the AD/CVD measures by country and product

Flat products	CHN	Angang Lianzhong Stainless Steel Corporation, Angang Steel Company Limited, Angang Steel Company Limited, Baoshan Group (Baoshan Iron & Steel Co., Ltd., Shanghai Meishan Iron and Steel Co., Ltd.), Baoshan Iron & Steel Co., Ltd., Baosteel Zhanjian Iron & Steel Co., Ltd., Bazhou Jinshangyi Metal Products Co., Ltd., Bengang Steel Plates Co., Ltd., BX Steel Postco Cold Rolled Sheet Co., Ltd, Fujian Dingxin Technology Co., Ltd, Fujian Fuxin Special Steel Co., Ltd, Fujian Ton Yi Tinplate Co., Ltd., GDH Zhongshang Group Group (GDH Zhongyue (Zhongshan) Tinplate Industry Co., Ltd., GDH Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd.), GDH Zhongyue (Zhongshan) Company.Tinplate Industry Co., Ltd., Handan Jintai Packing Material Co., Ltd., Inner Mongolia Baotou Steel Metal Manufacturing Co., Ltd., Inner Mongolia Baotou Steel Union Co., Ltd, Inner Mongolia Baotou Steel Union Co. Ltd., Jiangsu Tiangong Tools Company Limited, Jiangyin Xingcheng Special Steel Works Co., Ltd, Jiangyin Zongcheng Steel Co., Ltd, Jiashilun, Laiwu Steel Yinshan Section Co., Ltd, Laiwu Steel Yinshan Section Co., Ltd., , Maanshan Iron Steel Co., Ltd., Minmetals Yingkou Medium Plate Co., Ltd, Nanjing Iron and Steel Co., Ltd, Nanyang Hanye Special Steel Co., Ltd, No Data, GDH Zhongyue (Zhongshan) Tinplate Industry Co., Ltd. Shougang Jingtang United Iron & Steel Co., Ltd., Qinhuangdao Shouqin Metal Materials Co., Ltd, Rizhao Baohua New Materials Co., Ltd, SD Steel Rizhao Co., Ltd., Shandong Bofeng New Material Co., Ltd., Shandong Iron & Steel Co., Ltd, Jinan Company, Shanghai Meishan Iron & Steel Co., Ltd. , Shanxi Taigang Stainless Steel Co., Ltd, Shanxi Taigang Stainless Steel Co., Ltd (Tianjin Taigang & TPCO Stainless Steel Co., Ltd., Shanxi Taigang Stainless Steel Precision Strip Co. Ltd), Shougang Jingtang United Iron & Steel Co., Ltd, Shougang Jingtang United Iron & Steel Co., Ltd., Shougang Jingtang United Iron & Steel Co., Ltd. , Taiyuan Taigang Daming Metal Products, Tianjin Angang Tiantie Cold Rolled Sheets Co. Ltd., Tianjin, Tianjin TISCO & TPCO Stainless Steel Co. Ltd , Wuhan Iron & Steel Co., Ltd., Wuhan Iron and Steel Co., Ltd, Wuyang Iron and Steel Co., Ltd, Wuyang New Heavy & Wide Steel Plate Co., Ltd, Xiangshui Defeng Metals Co., Ltd, Xinyu Iron & Steel Co., Ltd, Yieh Phui Technomaterial Co., Ltd. , Zhangjiagang Shajing Heavy Plate Co., Ltd, Zhangjiagang Yangtze River Cold Rolled Sheet Co., Ltd., Zhejiang Huada New Materials Co., Ltd.
	VNM	China Steel and Nippon Steel Vietnam Joint Stock Company, Formosa Ha Tinh Steel Corporation, Hoa Phat Steel Sheet Co., Ltd, Hoa Phat Steel Sheet Company, Hoa Sen Group, Hoa Sen Group Joint Stock Company, Maruichi Sun Steel Joint Stock Company, Nam Kim Steel Joint Company, Nam Kim Steel Joint Stock Company, No Data, Others, Pomina Flat Steel Co., Ltd., Posco Vietnam Company Limited, POSCO VST Co., Ltd., Southern Steel Sheet Co., Ltd., Tan Phuoc Khanh Trading & Manufacturing Coil Steel JSC, Tay Nam Steel Manufacturing & Tradign Co., Ltd., Tay Nam Steel Manufacturing & Trading Co., Ltd., Ton

		Dong A Corporation
	IDN	PT. IMR ARC Steel, PT Indonesia Guang Ching Nickel and Stainless Steel Industry, PT Indonesia Tsingshan Stainless Steel, PT Indonesia Tsingshan Stainless Steel (PT Indonesia Guang Ching Nickel and Stainless Steel Industry, PT Indonesia Ruipu Nickel and Chrome Alloy), PT. Indonesia Guang Ching Nickel and Stainless Steel Industry, PT. Indonesia Ruipu Nickel and Chrome Alloy, PT. Indonesia Tsingshan Stainless Steel (Tsingshan Group), PT. Indonesia Ruipu Nickel and Chrome Alloy, PT. Jindal Stainless Indonesia
	MYS	Bahru Stainless SDN. BHD
	IND	Chromeni Steels Private Limited, Jindal Stainless Limited, Jindal Stainless Hisar Limited
Tube and Pipes	CHN	Dalian Steelforce Hi-Tech Co., Ltd, Foshan Vinmay Stainless Steel Co., Ltd. , Guangdong Sumwin New Material Group Co., Ltd., Jiangsu Wujin Stainless Steel Pipe Group Co., Ltd., Iluadi Steel Group Co.,Ltd., No Data, Wenzhou Sodo Stainless Steel Manufacturing Co., Ltd., Yantai Aoxin International Trade Co., Ltd, Zhejiang Bangnuo Steel Pipe Co., Ltd., Zhejiang HongQuan Stainless Steel Co., Ltd., Zhejiang Jiuli Hi-Tech Metals Co.,Ltd., Zhejiang Tsingshan Steel Pipe Co.,Ltd., Zhejiang Yi Jia Wang Steel Tube Co., Ltd.,Zhejiang Yinlai Steel Tube Co., Ltd, Zhejiang Yinlong Stainless Steel Co., Ltd. , Zhejiang Huatian Stainless Steel Manufacturing Co., Ltd.
	VNM	Inox Hoa Binh Joint Stock Company, OSS Dai Duong International Joing Stock Company, Sonha SSP Vietnam Sole Member Company Limited
Long products	CHN	Jiangsu Lianfeng Industrial Co., Ltd, Jiangyin Ruihe Metal Products Co., Ltd, Jiangyin, Jiangyin Xicheng Steel Co., Ltd, Jiangyin , Valin Group, Zhangjiagang, Jiangsu Yonggang Group Co., Ltd, Zhangjiagang, Zhangjiagang Hongchang High Wires Co., Ltd, Zhangjiagang, Zhangjiagang Shatai Steel Co., Ltd
	VNM	Hoa Phat Dung Quat Steel Joint Stock Company
	SGP	Natsteel Holdings Pte Ltd
	IDN	PT Putra Baja Deli

Notes: The company names are listed in alphabetical order. The names of the companies are presented exactly as they appear in the AD/CVD public notifications and investigation reports. Also please note that there might be potential duplication in the listing, including cases where parent and subsidiary companies are both mentioned.

Source: Facilitator Trade Remedy Database.

6. Conclusions

42. This study presents preliminary work under the first substantive area of GFSEC work focussed on the destination, volume and characteristics of steel exports from economies with rapid capacity growth and/or which are sources of global excess capacity. The initial results show that non-market excess capacity is either a persistent or growing problem in a number of economies. It is also associated with growing exports, particularly to GFSEC markets, often characterised by injurious dumping or subsidisation.

43. Future work will improve this analysis and delve into studying the characteristics of the companies that export steel from the economies analysed, including whether they are private or state-owned entities. Other characteristics of interest might include their financial performance, their presence in subsidies databases maintained by the OECD, the technologies of the steel production facilities they own, labour-related factors, and other variables of interest.

44. GFSEC delegations are invited to continue providing suggestions for future avenues of research in the area of steel exports. Comments and suggestions will help guide this work and ensure it reflects the most fruitful analysis to serve the Forum's members.