PACRA

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Steel

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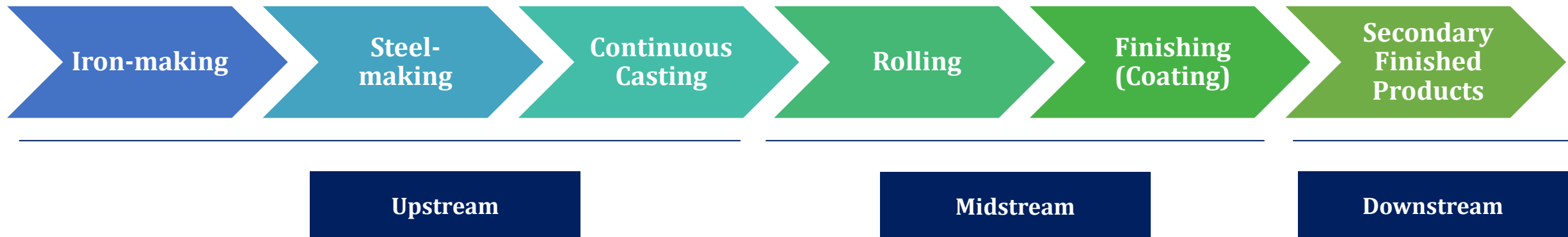
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Introduction

- **Steel** is an alloy of iron and carbon, with other elements such as manganese, chromium and nickel added to achieve specific properties. Steel is one of the most widely used materials in the world due to its versatility, strength, and relatively low cost.
- It is one of the most commonly used metals in the world, with over ~3,500 different grades and serves as a primary input for most of the important sectors of the economy such as construction, energy, automobile, transportation, infrastructure, and machinery, among others.
- **Major raw materials** used in steel production are Iron Ore (a mineral substance which is heated to yield metallic iron and usually makes up ~98.0% of steel weight), Coal (to produce Carbon which is present in small amounts, i.e., ~0.2% to ~2.1%, which is, in turn, used as a hardening element in steel) and Steel Scrap (due to its recyclable nature).
- The growth in demand for steel is largely driven by global urbanization, infrastructure development, industrial growth, advancements in technology, and the push towards sustainability.
- As economies continue to develop and modernize, steel remains a fundamental material across various sectors, ensuring its continued importance and rising demand.

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Value Chain

- The primary value chain of the metal industry can be divided into three segments, as depicted below.
    - **Iron-making** involves production of hot metal by blasting iron, coke and coal or reducing iron ore with natural gas or low-quality coke to produce iron products.
    - **Steelmaking** is a process that uses iron products as inputs (e.g. hot briquetted iron, direct reduced iron, etc.) into the Electric Arc Furnace or Basic Oxygen Furnace to produce crude steel products such as billets and blooms.
    - **Continuous Casting** – process of solidifying molten metal (molten steel) into semifinished slab, billet and bloom.
    - **Rolling** includes shaping and reducing the thickness of steel by passing it through a series of rollers. Long products thus produced include bars, rebars, wire rods and sections, whereas examples of flat products include hot and cold-rolled coils.
    - **Finishing** involves coating steel products with materials to enhance their characteristics (e.g. galvanizing, painting and powder coating etc.).
    - **Downstream segment** involves further processing of finished long and flat products into secondary finished products.

- Pakistan's steel sector operates largely in the mid and downstream segments of the value chain, where steel scrap is recycled to produces the aforementioned long and flat steel products.

Iron-making	Steel-making	Continuous Casting	Rolling	Finishing (Coating)	Secondary Finished Products

Upstream | **Midstream** | **Downstream**

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Types of Technologies

- The two most common methods of steel production are Basic-Oxygen Furnace (**BOF**) and Electric Furnace that includes two further types of technologies, namely, Electric Arc Furnace (**EAF**) and Induction Furnace (**IF**).

- While EAF relies on electricity and recycled metals, BOF depends on raw materials like Iron Ore and Coke as part of a process where oxygen is blown into the furnace at a high velocity, using significantly more energy.

- EAF technology offers a greener alternative by utilizing electricity to melt scrap metal, direct reduced iron (DRI) or hot briquetted iron (HBI). BOF, on the other hand, uses coal-generated heat.

Electric Arc Furnace

Blast Oxygen Furnace

- Moreover, an EAF typically consumes ~400-700kWh of electricity per MT of steel, depending on scrap quality. Additionally, EAFs have the flexibility to shut down and restart quickly, potentially allowing them to take advantage of lower electricity rates during off-peak hours. On average, the technology employs ~710Kg of recycled steel, ~586Kg of iron ore, ~150Kg of coal and ~88Kg of limestone to produce ~1,000Kg of crude steel.

- On the other hand, the BOF uses, on average, ~1,370Kg of iron ore, ~780Kg of coal, ~270Kg of limestone, and ~125Kg of recycled steel to produce ~1,000Kg of crude steel. Pakistan's steel sector predominately uses IF technology (over ~85% production), although a few players have installed EAF technology as well.

- According to IEA's NZE scenario, by CY25, carbon emissions from steel production are forecast to decline to ~1.28MTCO2/MT, from ~1.9MTCO2/MT in CY22. During CY22, emissions from BOF were recorded at ~2.3MTCO2/MT, while those from EAF process were recorded at ~0.68MTCO2/MT
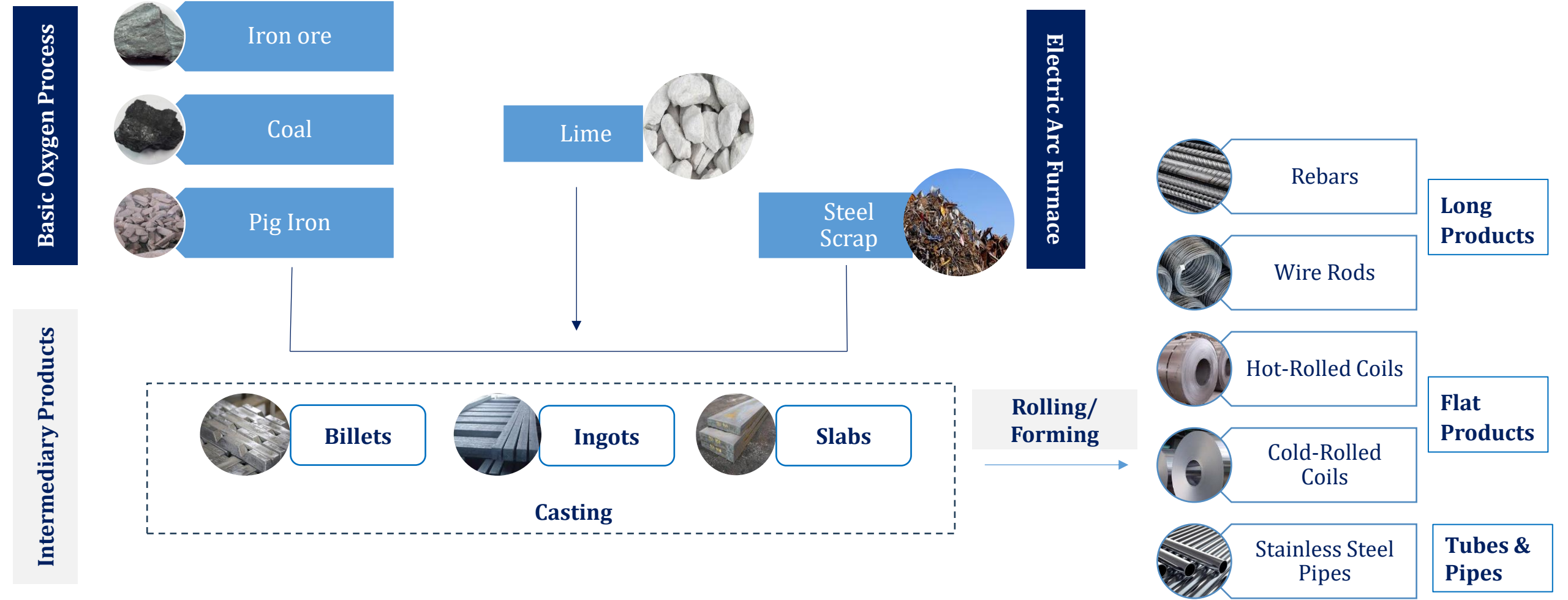
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Technologies | IF vs. EAF

- Induction furnace has advantage over Electric Arc furnace as it can reach high temperatures quickly, making them ideal for smelting processes that require fast melting and precise temperature control.

- The scrap yield is ~90% in EAF, however, the technology allows for cheaper scrap use as compared to IF.

- EAF has lower energy consumption ~425-475kWh/MT, as compared to IF furnace ~700-800kWh/MT.

- Induction furnace is more in line with environmental protection requirements. It produces less exhaust gas, waste residue, and noise. The minimum carbon content of is ~0.02% while that of EAF is ~0.06%.

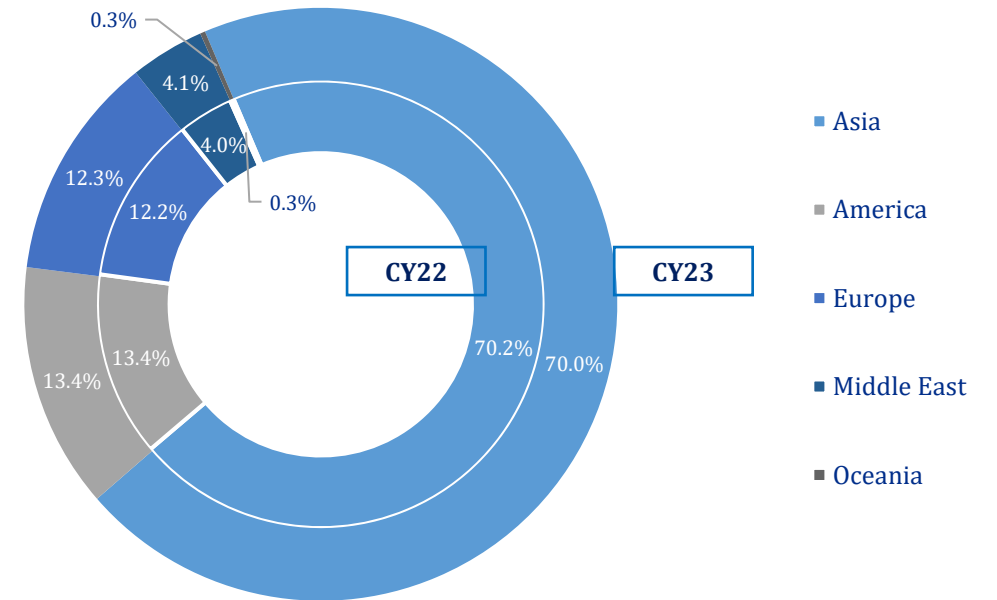| Induction Furnace (IF) vs. Electric Arc Furnace (EAF)		
Parameters	**Induction Furnace**	**Electric Arc Furnace**
Principal	Induction furnaces use the principal of electromagnetic induction to heat and melt steel scrap.	An Electric Arc Furnace use the principal of electric arc to heat and melt steel scrap.
Temperature	High	Low
Electricity Consumption	~700-800kWh/MT	~425-475kWh/MT
Slag Loss	~10-15Kg/MT	~60-70Kg/MT
Melting Loss	~1-2%	~7-10%
Applicable Raw Materials	Scrap iron, scrap steel, sponge iron (pressed into chunks).	Scrap iron, scrap steel, sponge iron (granular), pig iron, iron ore

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Production Process

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Global | Steel-making Capacity

- During CY23, global average steel utilization capacity marginally increased to ~78.5% as global steel production increased to ~1,892mln MT (or ~0.1% YoY). During CY24-26, major steel production capacity is expected to grow by ~157.0mln MT, owing to Chinese investments in Africa, where steel consumption is still below the average world per capita consumption.

- Regionally, Asia made up ~70.0% of global steel-making capacity in CY23. In Asia, China and India, world's top steel producers, accounted for ~41.9% and ~5.8% of global capacity during the year (SPLY: ~41.8%, ~5.1%, respectively) and registered ~1.7% and ~7.8% CAGR between CY18-23. In ASEAN, Indonesia (up ~49.1% YoY or ~7.8mln MT) and Viet Nam (up ~25.6% YoY or ~5.3mln MT) were the only economies to increase steel-making capacities in CY23.

### Global | Steel-making Capacity vs. Utilization

Legend: Capacity | Production | Capacity Utilzation (RHS)
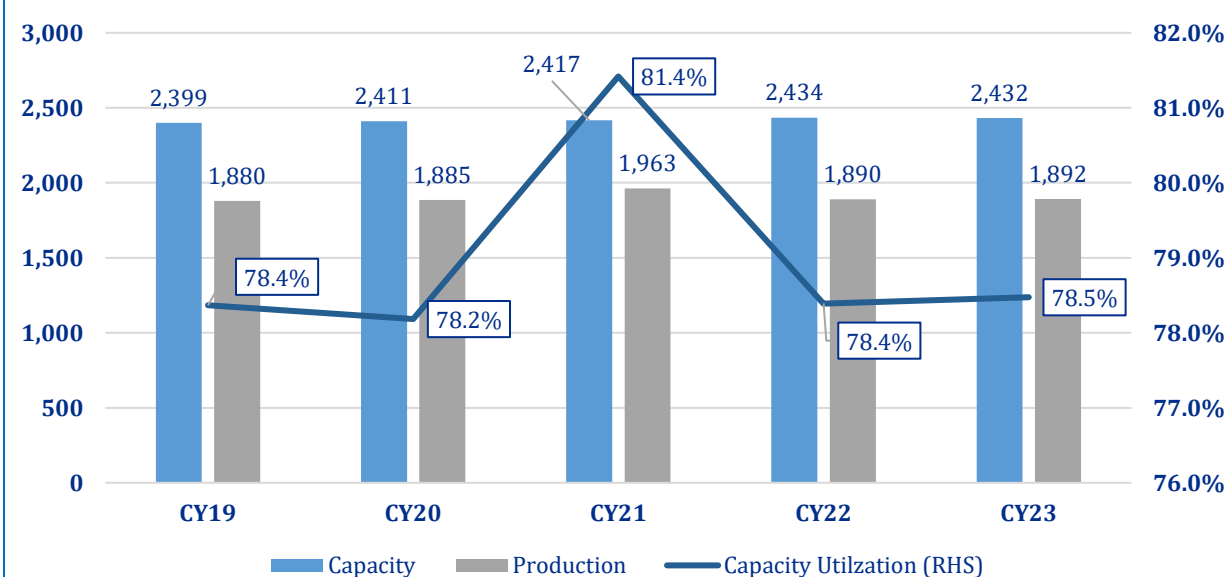
Global | Regional Capacity Utilization (%)

Legend: Asia | America | Europe | Middle East | Oceania

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Global | Production

- During CY23, global crude steel production clocked in at ~1,892mln MT, a YoY increase of ~0.1%. The modest growth came on the back of growth in emerging markets and sustained infrastructure investments while in some countries like China, Germany and Japan demand decreased by ~3.3%, ~13.8 and ~3.1% YoY, respectively, due to economic slowdown.

- China remained the top producer of crude steel during CY23 as its production clocked in at ~1,019mln MT same as last year while India's production increased ~12.3% YoY to ~140.8mln MT, as the government invested in large-scale infrastructure projects including railway, logistics and city-wise development projects. Meanwhile, crude steel production in Japan declined ~2.4% YoY to ~87.0mln MT, owing to subdued demand from construction and manufacturing sectors.

- During Jul'24, global crude steel production clocked in at ~152.8mln MT, down ~4.7% YoY. Meanwhile, China's crude steel production stood at ~82.9mln MT, down ~9.0% YoY, owing to sluggish demand of steel from the construction sector, while South Korea's recorded production also fell ~3.4% YoY due to lower demand from the local manufacturing sector.

Global | Steel Production (mln MT)

Global | Top 10 Steel Producing Countries (%)
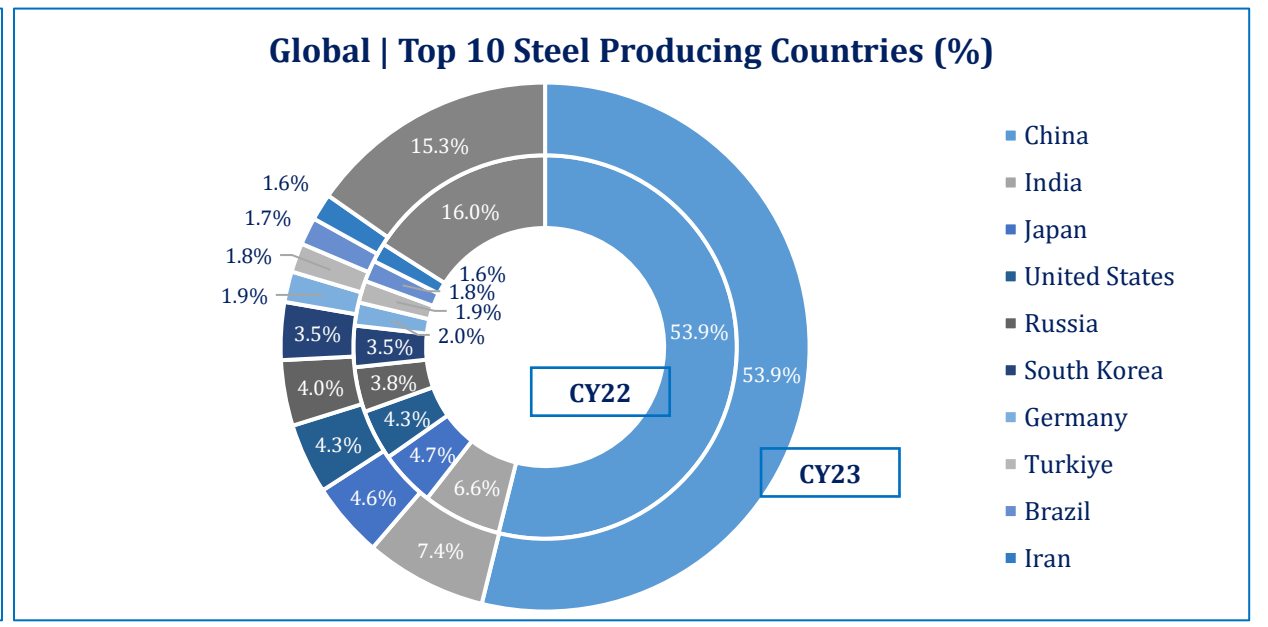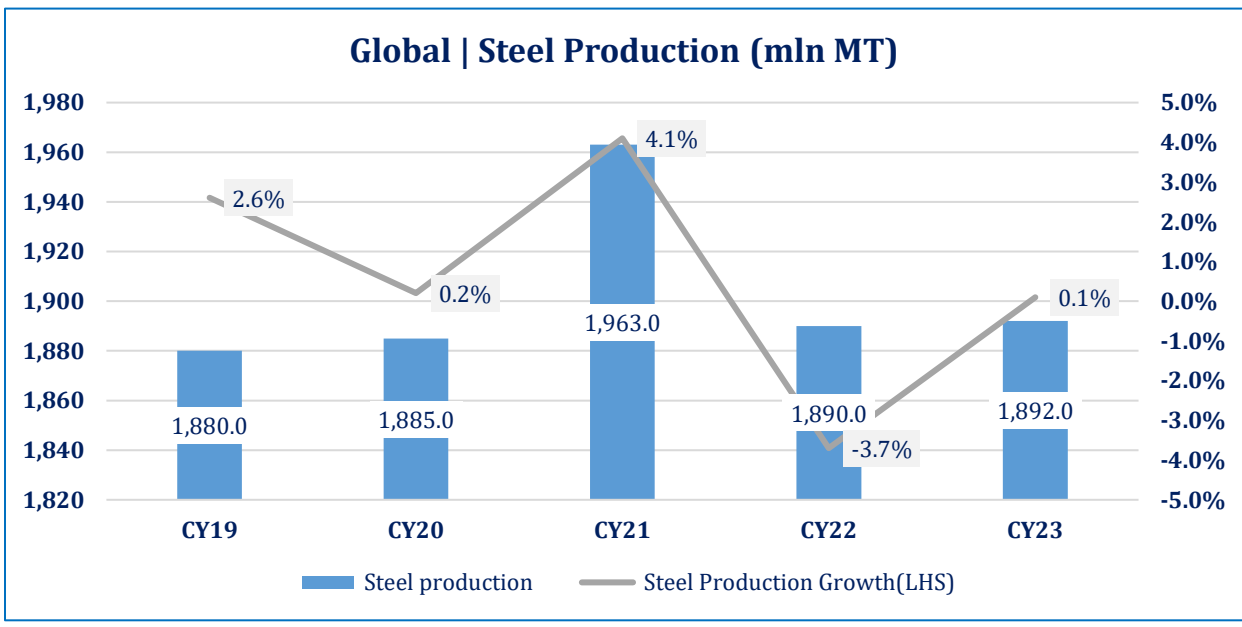
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Global | Production by Process

- During CY23, global crude steel produced through BOF and EAF comprised ~71.1% and ~28.9%, respectively, of the overall production. (SPLY: ~71.5%, ~28.5%, respectively). The share of EAF in global steel production is forecast to increase from 28.5% in CY23 to ~50.0% by CY50.
- In CY23, Asia remained the highest steel-producing region, with production clocking in at ~1,395.2mln MT, up ~0.8% YoY. Of this, ~81.2% was produced using BOF, while ~18.8% was produced using EAF during the year. In China, (~73.0% regional crude production in CY23), the BOF:EAF mix stood at ~90.1%: ~9.9% during the year (~90.5%: ~9.5% in CY22).
- India, with ~10.1% production share in Asia during the period under review, recorded ~56.4% steel produced using EAF and ~43.6% using BOF. The country has ample supply of steel scrap owing to increasing industrialization, infrastructure and urbanization, making EAF a viable option.

Region-wise | Production by Process (%)
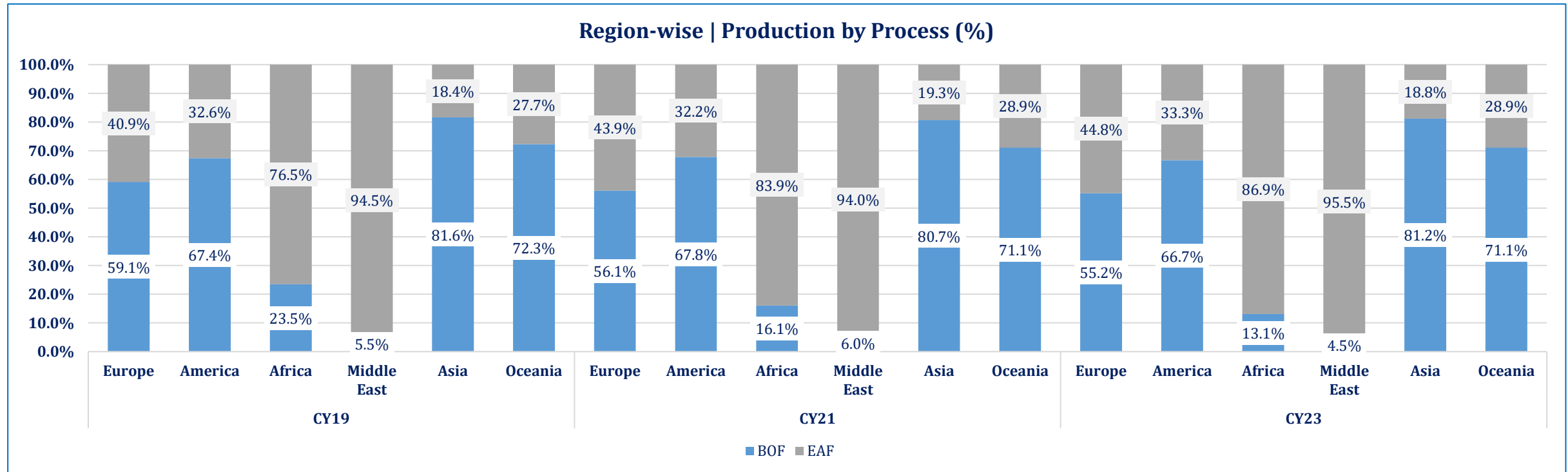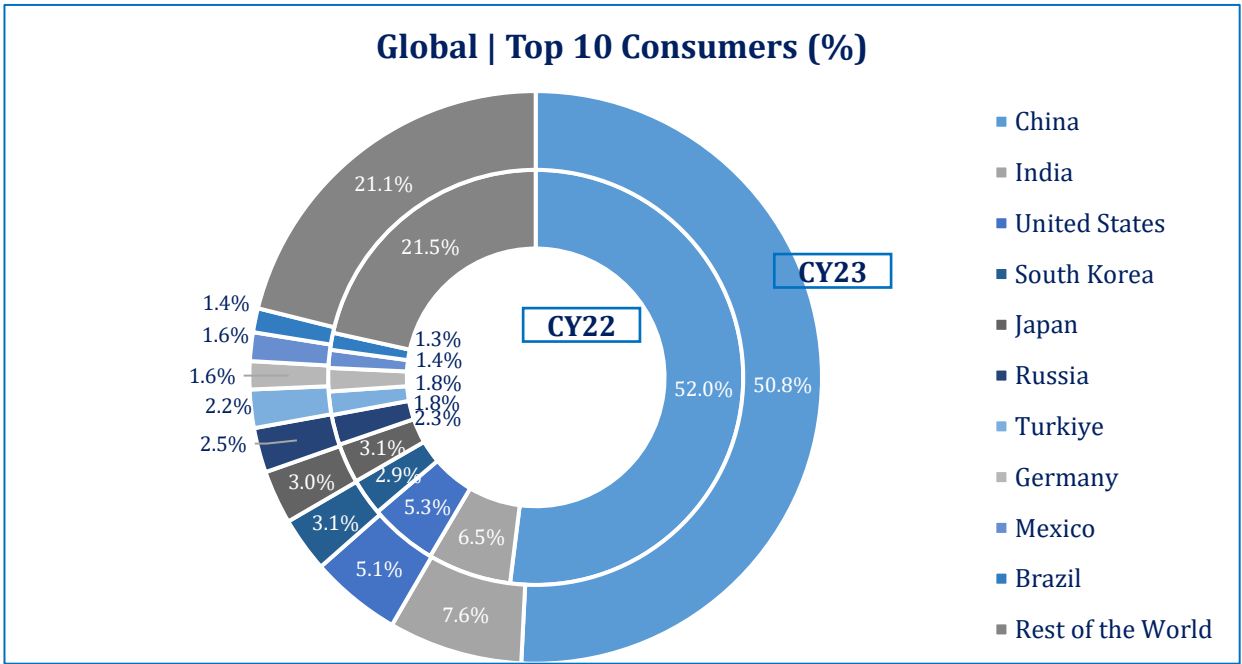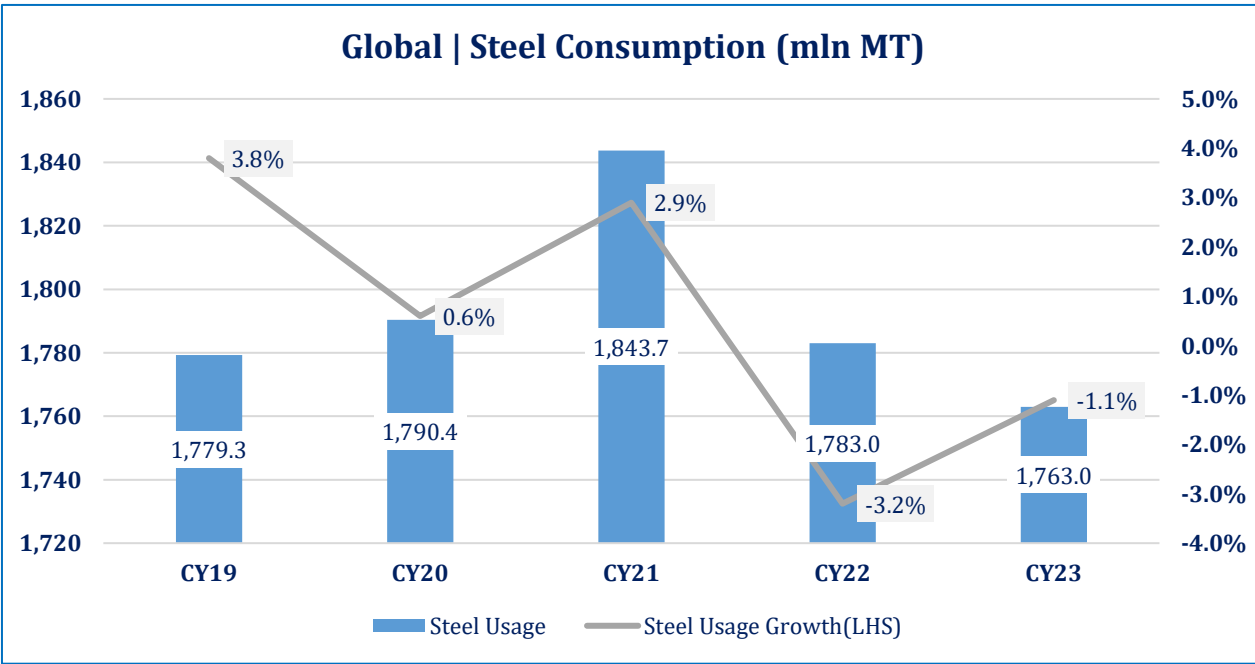
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Global | Top Companies

- During CY23 steel production of global top 10 companies clocked in at ~519.2mln MT (CY22: ~522.5mln MT) a YoY decrease of ~0.6%. Cumulatively, these formed ~27.4% of global steel produced (SPLY: ~27.6%). China was the largest steel producer in CY23 as its contributed ~53.9% in global steel production and almost ~60 percent of the top 10 steel producing companies are from China.
- The largest steel producer, China Baowu Group, produced ~130.8mln MT in CY23, a YoY decrease of ~0.7%. However, it still held the largest market share at ~6.9% during the year (SPLY: ~7.0%). Meanwhile, the second-largest producer, ArcelorMittal production also recorded ~0.6% YoY lower steel production in CY23 and held a market share of ~3.6% (SPLY: ~3.6%). The rest of the world's steel production grew, from ~1,367.6mln MT in CY22 to ~1,372.8mln MT in CY23, a YoY increase of ~0.3%.

Top Steel Producing Companies (mln MT)						
Sr.	Company	Headquarters	CY22	CY23	CY23 (YoY %)	Market Share | CY23 (%)
1	China Baowu Group	China	131.8	130.8	-0.7%	6.9%
2	ArcelorMittal	Luxembourg	68.9	68.5	-0.6%	3.6%
3	Ansteel Group	China	55.7	55.9	0.4%	3.0%
4	Nippon Steel Corporation	Japan	44.4	43.7	-1.6%	2.3%
5	HBIS Group	China	41.0	41.3	0.7%	2.2%
6	Shagang Group	China	41.5	40.5	-2.4%	2.1%
7	POSCO Holdings	South Korea	38.6	38.4	-0.5%	2.0%
8	Jianlong Group	China	36.6	37.0	1.1%	2.0%
9	Shougang Group	China	33.8	33.6	-0.6%	1.8%
10	Tata Steel Group	India	30.2	29.5	-2.3%	1.6%
11	Rest of the World		1,367.6	1,372.8	0.3%	72.6%
	Total Production		1,890.0	1,892.0	0.1%	100.0%

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Global | Consumption

- During CY23, global steel consumption clocked it at ~1,763mln MT, down ~1.1% YoY, owing to high interest rates, inflation which resulted in lower demand across key sectors such as construction and manufacturing.
- Country-wise, China's demand for steel declined to ~895.7mln MT in CY23, down ~3.3% YoY as the country's construction sector remained sluggish in CY23, while India's steel consumption increased to ~133.4mln MT, up ~14.9% YoY, driven by higher infrastructure spending. Meanwhile, steel utilization in the USA clocked in at ~90.5mln MT (CY22: ~94.5mln MT), down ~4.2% YoY, as the construction and manufacturing sectors remained sluggish in CY23.
- By End-CY24, steel consumption is forecast to increase to ~1,793mln MT, or by ~1.7% YoY. China's consumption is expected to remain stable (low demand form construction sector likely to be set off by that from manufacturing sector), while India steel consumption is expected to grow by ~8.0% YoY. The USA, Japan and Korea are also expected to show a recovery in CY24 on the back of easing inflation and policy rate cuts.

Global | Steel Consumption (mln MT)

Year	Steel Usage	Growth
CY19	1,779.3	3.8%
CY20	1,790.4	0.6%
CY21	1,843.7	2.9%
CY22	1,783.0	-3.2%
CY23	1,763.0	-1.1%

Legend: Steel Usage ▬ Steel Usage Growth(LHS)

Global | Top 10 Consumers (%)

CY23 (outer ring) / CY22 (inner ring)

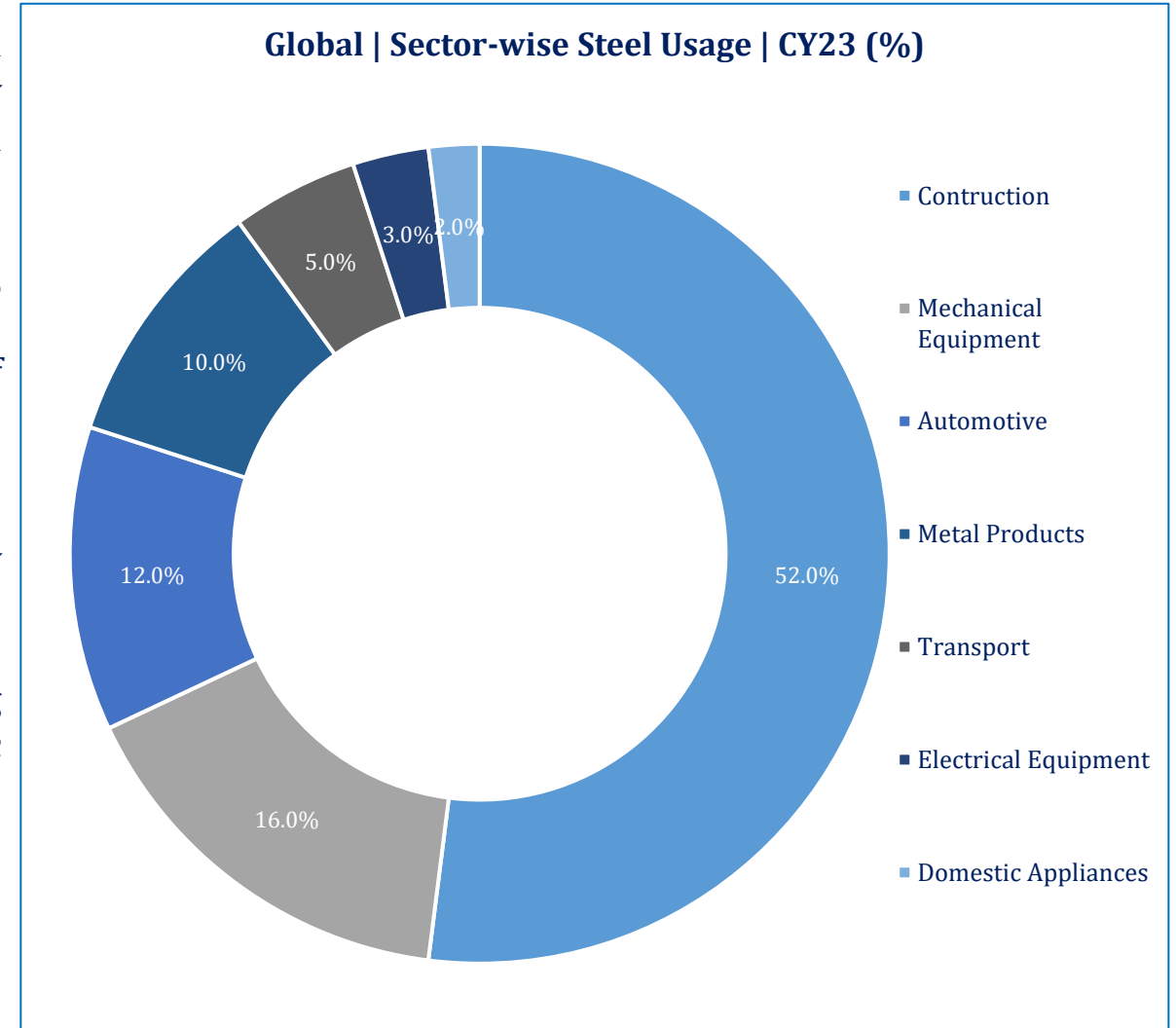| Country	CY23	CY22
China	50.8%	52.0%
India	7.6%	6.5%
United States	5.1%	5.3%
South Korea	3.1%	2.9%
Japan	3.0%	3.1%
Russia	2.5%	2.3%
Turkiye	2.2%	1.8%
Germany	1.6%	1.8%
Mexico	1.6%	1.4%
Brazil	1.4%	1.3%
Rest of the World	21.1%	21.5%

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Global | Per Capita Consumption

- Global average per capita steel consumption was recorded at ~219.3Kg during CY23 (SPLY: ~223.7Kg/capita). South Korea's per capita steel consumption far surpassed the global average, recording at ~1,056.6Kg/capita during the year, up ~6.7% YoY, despite China being the largest consumer of steel owing to latter's greater population.
- South Korea's significant consumption of steel is driven by its highly industrialized economy, with major sectors such as shipbuilding, automotive manufacturing, and construction requiring large amounts of steel. However, during CY22, the country's overall steel consumption declined to ~51.3mln MT, or by ~8.4% YoY, due to economic slowdown and sluggish demand from automobile and shipping sectors.
- Meanwhile, Pakistan recorded per capita steel consumption at ~47.0Kg during CY23 (SPLY: ~48.0Kg/capita), while that for India clocked in at ~93.4Kg/capita (SPLY: ~82.0Kg/capita).

Global	Steel Consumption (Kg/Capita)					
Sr.	Countries	CY19	CY20	CY21	CY22	CY23
1	South Korea	1,027.5	948.9	1,081.2	990.0	1,056.6
2	Taiwan	740.8	788.9	886.1	741.0	725.9
3	China	641.3	707.9	669.3	649.9	628.3
4	Czechia	637.1	599.2	754.2	631.1	534.1
5	Turkiye	312.4	350.4	393.7	380.8	443.8
6	Japan	502.5	420.2	460.7	443.6	432.5
7	Italy	419.8	343.1	447.3	425.8	399.6
8	Austria	448.2	409.7	504.0	459.0	356.5
9	Germany	422.6	376.1	425.7	389.7	336.5
10	Canada	345.8	361.4	379.2	351.6	328.0
	World	229.2	228.4	233.2	223.7	219.3

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Global | Sector-wise Consumption

- During CY23, ~52.0% of the global steel produced was consumed by the construction and infrastructure sector as steel is extensively used in the construction of buildings, bridges, railways tracks and airports.

- Steel is an important material in manufacturing of heavy machinery, agricultural equipment's and industrial tools. During the year, ~16.0% of the total steel was consumed in manufacturing of mechanical equipment's.

- The automotive sector was the third-largest consumer of steel, making up ~12.0% of the total steel consumed. Here, steel is widely used in car bodies, frames, engines and other components.

- While, rest of the ~20% of steel is consumed in the manufacturing of metal products, transport electrical equipment and domestic appliances.
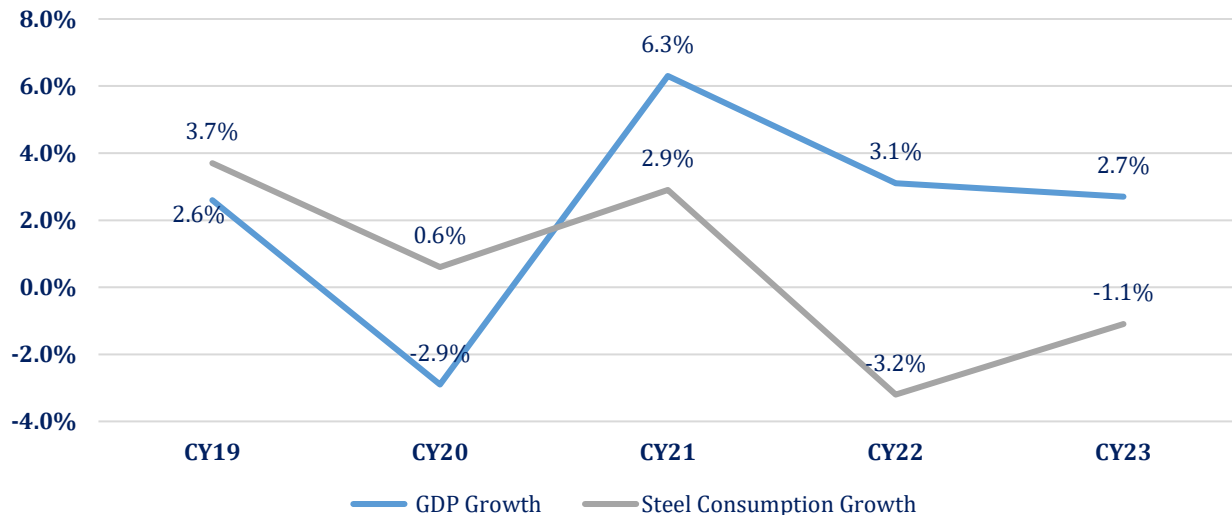
Global | Sector-wise Steel Usage | CY23 (%)

Legend:
- Contruction
- Mechanical Equipment
- Automotive
- Metal Products
- Transport
- Electrical Equipment
- Domestic Appliances

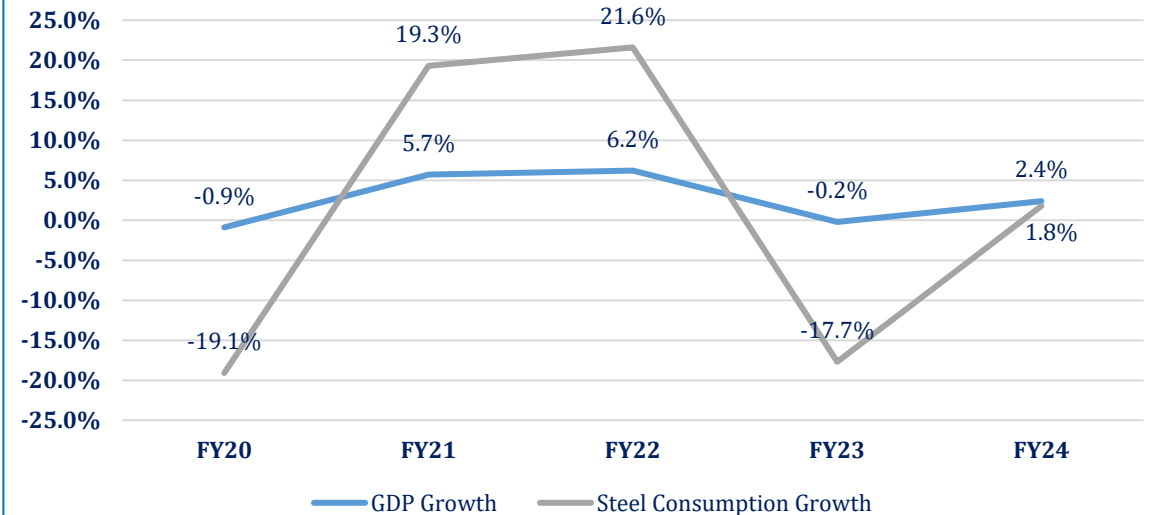Values: 52.0%, 16.0%, 12.0%, 10.0%, 5.0%, 3.0%, 2.0%

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Global vs. Local | Consumption & GDP Growth

- The global GDP growth and steel consumption growth are closely related, as steel serves as a fundamental material in various sectors such as construction and manufacturing which are heavily influenced by economic activity. On the global level, steel consumption and GDP growth have exhibited a correlation factor of ~0.8 over CY13-23, while the same for Pakistan has recorded at ~0.8 during FY18-24.
- During CY23, global steel consumption declined by ~1.1% YoY whereas global GDP growth rate also slowed down to ~2.7% YoY. This was majorly a result of high interest rates and inflation levels. During CY24, global GDP growth rate is projected to increase by ~3.2% YoY, while steel consumption is expected to grow by ~1.7% YoY. Global inflation has picked downward trend and central banks are considering policy rate cuts.
- During FY24, Pakistan's real GDP growth rate clocked it at ~2.4% YoY, while local steel consumption recorded a slight improvement of ~1.8% YoY, as import restrictions on steel scrap imports were lifted in June'23.

Global | GDP vs. Steel Consumption (YoY %) — Line chart showing GDP Growth and Steel Consumption Growth for CY19-CY23. GDP Growth: 2.6% (CY19), -2.9% (CY20), 6.3% (CY21), 3.1% (CY22), 2.7% (CY23). Steel Consumption Growth: 3.7% (CY19), 0.6% (CY20), 2.9% (CY21), -3.2% (CY22), -1.1% (CY23).

Local GDP vs. Consumption (YoY %) — Line chart showing GDP Growth and Steel Consumption Growth for FY20-FY24. GDP Growth: -0.9% (FY20), 5.7% (FY21), 6.2% (FY22), -0.2% (FY23), 2.4% (FY24). Steel Consumption Growth: -19.1% (FY20), 19.3% (FY21), 21.6% (FY22), -17.7% (FY23), 1.8% (FY24).
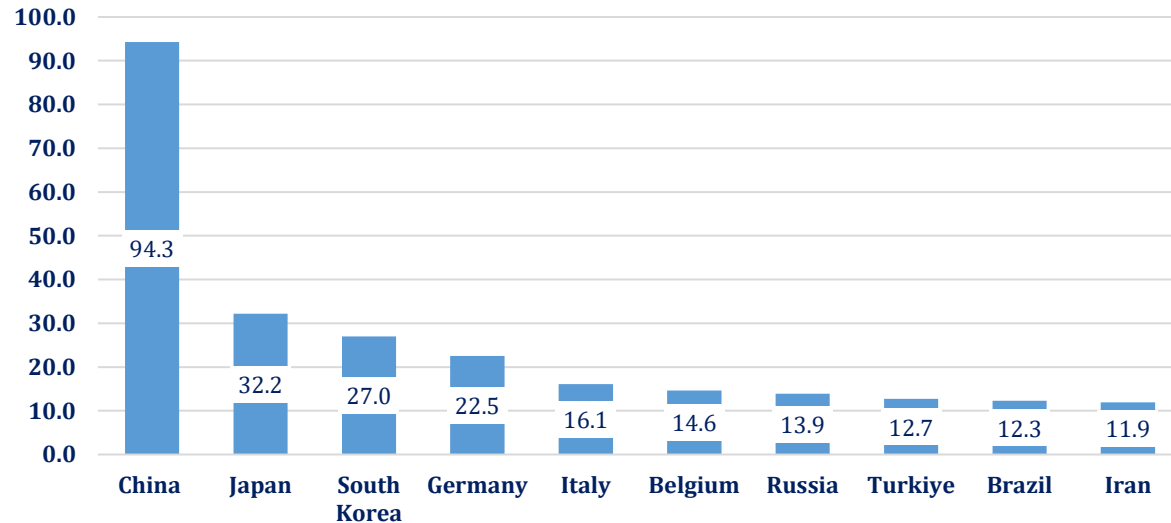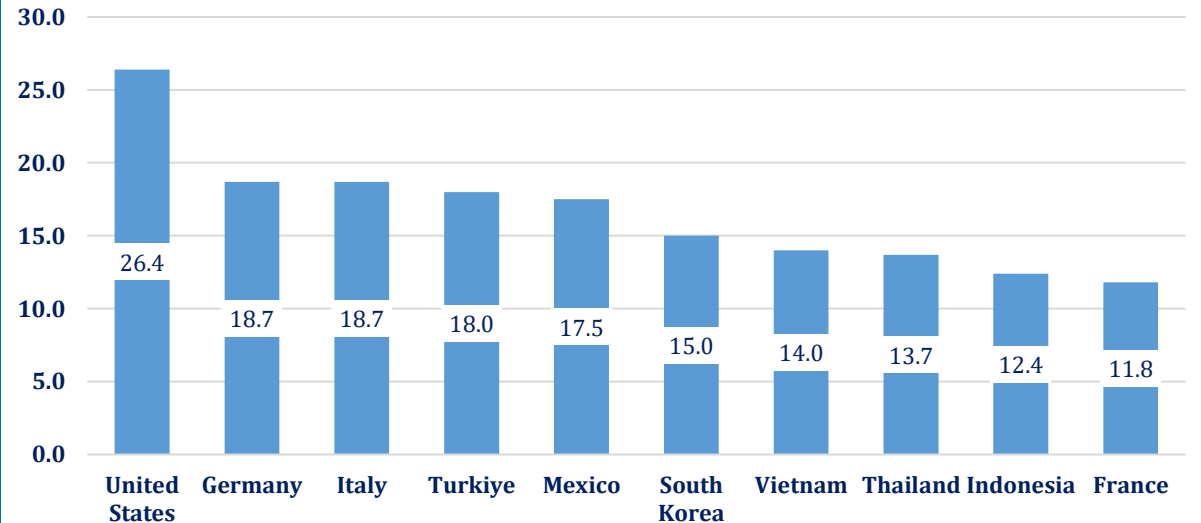
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Global | Trade

- Total global steel products traded during CY23 recorded at ~434.7mln MT (CY22: ~403.0mln MT), a YoY increase of ~7.9%. The top steel products exporters cumulatively comprised ~59.2% share in total exports during the year (SPLY: ~62.7%), while top ten importers formed ~38.2% of global steel products imports (SPLY: ~41.8%).
- Overall steel product exports in CY23 comprised ~35.9% long steel, ~54.1% flat steel and ~10.9% other products (CY22: ~35.8%, ~54.3%, ~9.9%, respectively).
- China was the largest steel-exporting country during the period under review, with ~19.1% share in global exports (CY22: ~16.8%), while the country's overall exports increased by ~38.4% YoY (SPLY: ~2.8% YoY growth). It was followed by Japan with a share of ~7.4% during the same period (CY22: ~7.8%), while the country's steel product exports recorded ~1.5% higher on a YoY basis.
- The USA and Germany were the largest importers of steel products in CY23 with ~6.1% and ~4.3% shares in global imports (SPLY: ~7.1%, ~5.2%, respectively) and recorded ~8.6% and ~10.9% decline, respectively (SPLY: ~2.6%, ~9.8% YoY decline, respectively).

Top 10 Steel Exporters | CY23 (mln MT)

Country	mln MT
China	94.3
Japan	32.2
South Korea	27.0
Germany	22.5
Italy	16.1
Belgium	14.6
Russia	13.9
Turkiye	12.7
Brazil	12.3
Iran	11.9

Top 10 Steel Importers | CY23 (mln MT)

Country	mln MT
United States	26.4
Germany	18.7
Italy	18.7
Turkiye	18.0
Mexico	17.5
South Korea	15.0
Vietnam	14.0
Thailand	13.7
Indonesia	12.4
France	11.8

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Global | Net Trade Position

Net Exporters (mln MT)

Country	Value
China	83.2
Japan	26.3
Russia	12.7
South Korea	12.0
Iran	10.2
Brazil	7.3
Oman	3.8
Germany	3.8
Austria	3.6
Belgium	3.0

Net Importers (mln MT)

Country	Value
USA	17.6
Egypt	15.2
Mexico	14.4
Thailand	12.0
Philippines	6.9
Poland	6.5
Vietnam	5.4
Türkiye	5.2
UAE	4.5
Iraq	4.4
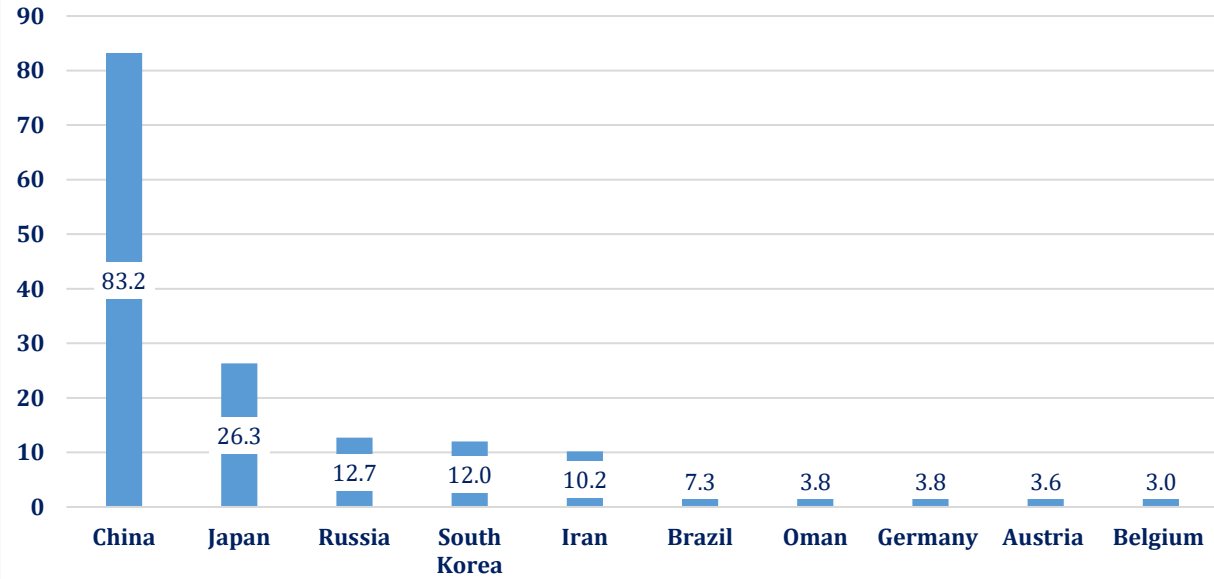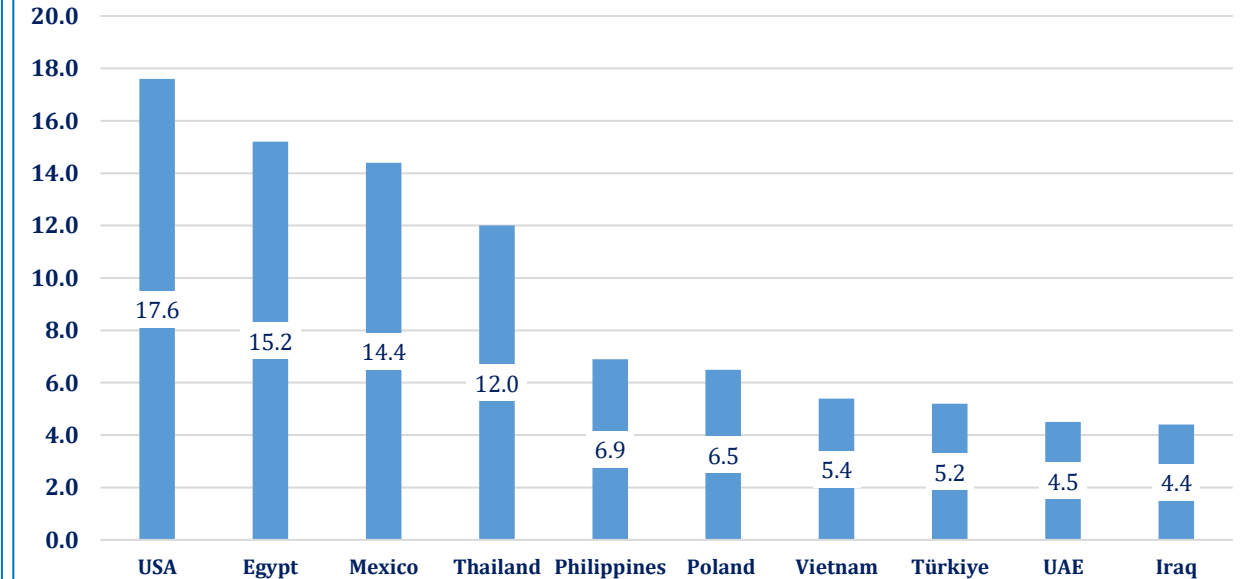
Particulars	CY19	CY20	CY21	CY22	CY23
**Finished Steel	Production** (mln MT)	1,748.9	1,755.8	1,826.3	1,759.6	1,761.4
**Finished Steel Products	Exports** (mln MT)	438.8	405.6	459.1	403.0	434.7
Exports (% of Total Production)	25.1%	23.1%	25.1%	22.9%	24.7%

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Global | Prices

- During CY20-24, HRC prices peaked at USD~1,955/MT in Sep'21, owing to supply chain disruption and increased demand as COVID-19 restrictions were lifted. In Nov'22, HRC prices dipped to USD~648/MT, on the back of slow demand of steel in construction and manufacturing sectors due to interest rate increase.

- In CY23, these averaged at USD~920/MT, down ~9.6% YoY. This largely resulted from weaken demand of steel as interest rates and inflation levels remained elevated during CY23. In 6MCY24, these averaged at USD~829/MT, down ~14.3% YoY. More particularly, in 2QCY24, lower prices reflected oversupply amidst low demand.

- Steel raw material prices i.e., steel scrap and iron ore, averaged, during CY23, at USD~396.1/MT and USD~120.6/MT, respectively (SPLY: USD~444.4/MT, USD~120.6/MT) owing to the aforementioned reasons. In Jun'24, these stood at USD~389.5/MT and USD~108.7/MT, respectively.

- Going forward, steel scrap prices are expected to remain on the lower end, owing to expected electricity tariff hikes in Turkey during Jun-Jul'24 and consequent sluggish demand for steel scrap.

Global Price Trend (USD/MT)

Legend: SteelHRC, Steel Scrap, Steel Rebar, Iron Ore
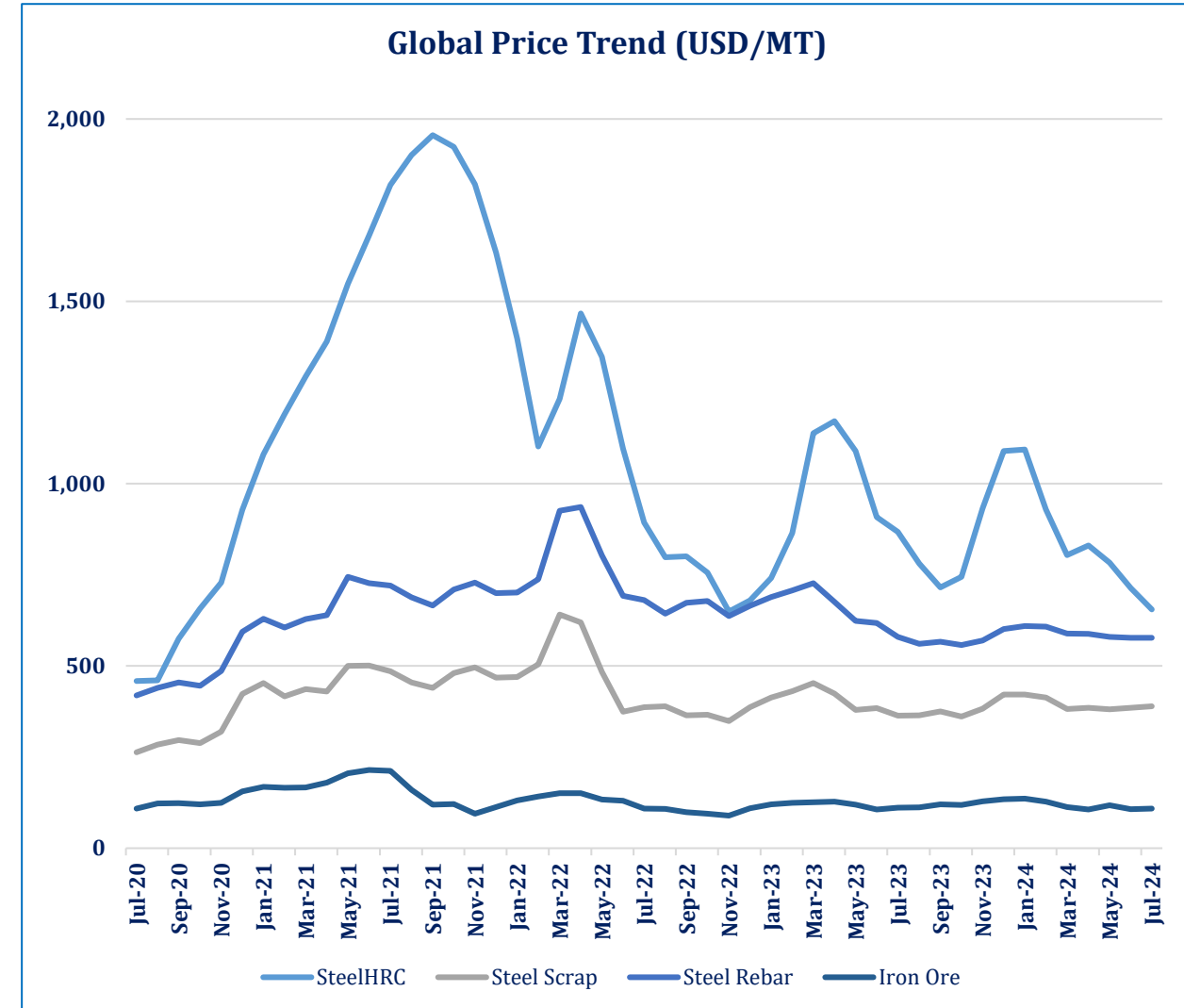
Note: HRC prices reflect N. America data; Scrap prices reflect CFR Turkey and Rebar prices represent FOB Turkey.

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Global | Outlook

- Global scrap demand is forecast to increase at ~3.3% CAGR over the next eight years (CY24-32), while supply will rise at ~3.0% CAGR during the same period. The increase in demand will in part be the result of scrap increasingly becoming a material of choice for steel production, especially as global industries attempt to reduce carbon emissions emanating from raw material use. A few BOF steelmakers are increasing reliance on steel scrap, commonly known as the charge, in the latter part of their manufacturing processes.

- The shortfall in supply against the demand will also influence policymakers' decisions aimed at ensuring that the domestic steel industry is well supplied with raw materials.

- The availability of shredded scrap in the short term will depend on how much metal can be recycled, and since it can take considerable amount of time before new items are ready to be recycled, products made today or in the immediate future will not be useful for EAF steel-making.

- On the other hand, prime scrap, essentially a cleaner by-product of manufacturing continuously recycled from factories, has high-quality applications and is easier to process while also generating fewer CO_2 emissions. However, its supply remains contingent on economic volatility and manufacturing levels. Going forward, demand for prime scrap is likely to come from the increasing need for cleaner scrap to produce high-quality, flat-rolled sheets of steel.

- Currently, ~17.0% of the world's annual scrap supply (~110MMT), is traded globally. Turkey is reliant on the EU, the US, the UK, and Russia for its ~25MMT of lower-grade annual scrap imports. However, steel scrap trade is forecast to moderate significantly, to ~93.0MMT by CY30, as domestic consumption rises and countries reduce exports.

- Countries with high scrap dependency are likely to be adversely impacted unless they secure sufficient scrap of the required grades or ore-based metallics alternatives, such as pig iron, DRI, and HBI.

- On the supply side, global steel excess capacity is set to become increasingly problematic in the coming years. Global steel-making capacity is projected to increase during CY24-26, with ~68mmt of capacity additions underway and an additional ~89mMMT in the planning stage, as of CY24, whereas steel demand is increasing by only ~36MMTPA.
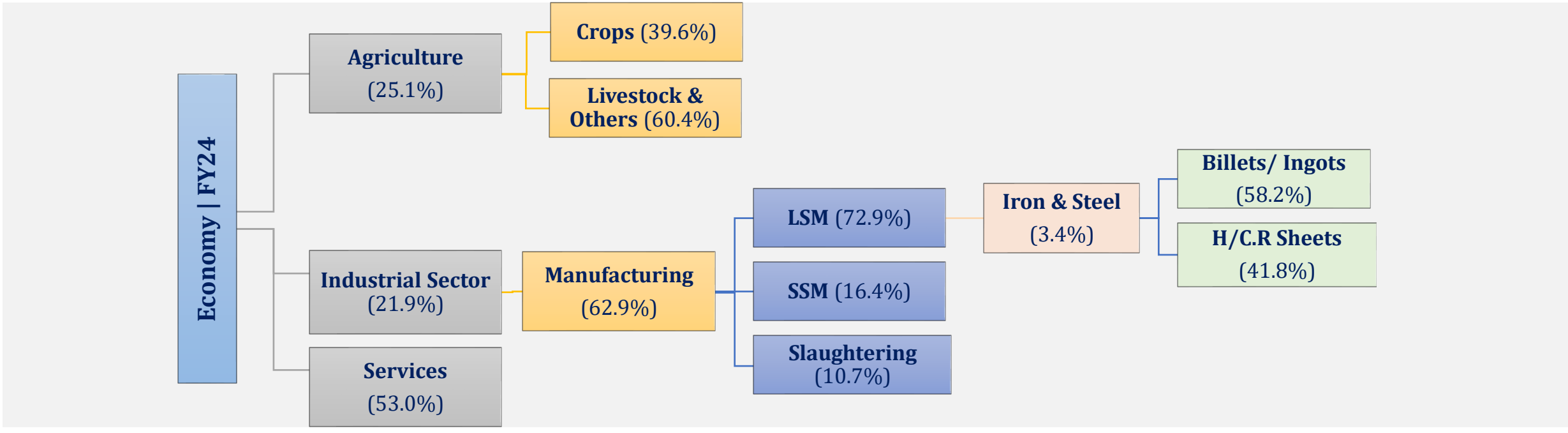
Steel

Global | Outlook

Towards Greener Steel

- China has the largest steel industry globally, accounting for more than half of global production, making de-carbonization of the steel sector crucial to both achieving China's climate targets and mitigating global climate risks. Overall, the shift toward a carbon neutral iron and steel industry is multi-pronged and generally involves the replacement of coal-based BF-BOF capacity with hydrogen-DRI or scrap-based EAF production.
- In 1HCY24, no new coal-based steelmaking projects were permitted for the first time on a half-yearly basis in China, since the country announced its 'dual carbon goals' in Sep'20. To this end, country's provincial governments permitted ~7.1MTPA of steelmaking capacity, all of which comprised EAF projects.
- Moreover, China could potentially mitigate ~200MMT of CO_2 from the steel industry by CY25, compared to the peak in CY20, or ~10% reduction, with measures to reduce steel output and increase scrap-based secondary steel from EAF, which amounts to the same amount as annual emissions from EU's steel sector.
- In CY24, of the total ~774MTPA of steel-making capacity under development, ~223MTPA is in the construction phase. Together, China and India are responsible for ~53% of all developments, but especially dominate as developers of coal-based capacity. India especially emerged as the top developer of BOF capacity in SPLY, and the country is likely to phase out China as the top developer of overall steel capacity globally.
- On the other hand, of the total Carbon Capture and Storage (CCS) projects announced globally, only ~0.5% of capacity is planned for the steel sector over the next 20 years (CY24-54), despite steel being responsible for ~7-9% of global emissions.

Steel

Local | Overview

- In FY24, Pakistan's GDP (nominal) stood at PKR~106.0trn (FY23: PKR~83.9trn) and grew, in real terms, by ~2.4% YoY (FY23: ~-0.3% YoY growth).
- Large Scale Manufacturing (LSM) in Pakistan is essential for the economic growth considering its linkages with other sectors, as it represented ~72.9% value of manufacturing activities in FY24. The country's LSM activity, as depicted by the QIM, showed growth of ~0.9% during FY24, unlike FY23, when it registered a ~10.3% YoY contraction.
- Steel & Iron products are classified under the Industrial Activities segment of the economy. In FY24, sector's weight in the Quantum Index of Manufacturing (QIM) was recorded at ~3.4%. Moreover, sector's performance in QIM experienced ~5.7% YoY negative growth during FY24.

Steel

Local | Snapshot

- During FY24, overall local steel production clocked it at ~8.4mln MT, a YoY decrease of ~5.6%. The production of Billets and Ingots (Long Steel) declined ~7.5% YoY to ~4.9mln MT in FY24, while Coil & Plates (Flat Steel) production clocked in at ~3.5mln MT, down ~2.7% YoY.
- Steel imports increased to ~2.9mln MT in FY24, up ~31.8% YoY, as imports restrictions imposed due to economic imbalances on steel products and scrap in FY23 were lifted in Jun'23.
- The major raw material used in Pakistan steel sector is steel scrap. Pakistan steel sector is highly dependent on imported steel scrap as Therefore, steel scrap imports clocked in at ~2.7mln MT in FY24, a YoY increase of ~8.0%.
- Pakistan's steel sector is highly competitive ~168 members registered with Pakistan Steel Melters Association and ~173 members registered with Pakistan Steel Melters & Re-Rolling Association.
- The sector is mainly driven by private entities since Pakistan Steel Mill, a state-owned steel produce with capacity of ~1.1mln MT, has been non-operational since Jun'15.

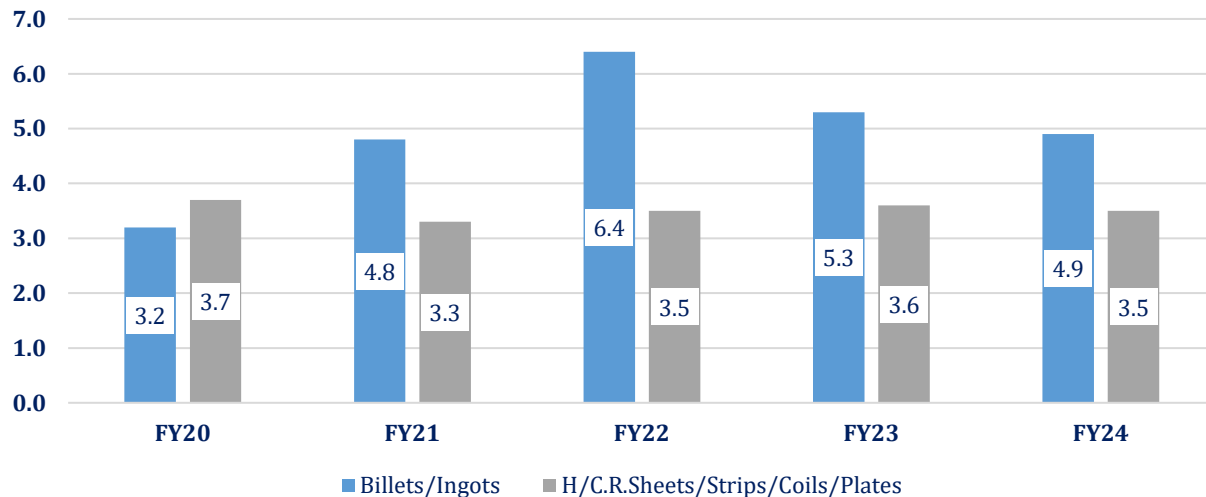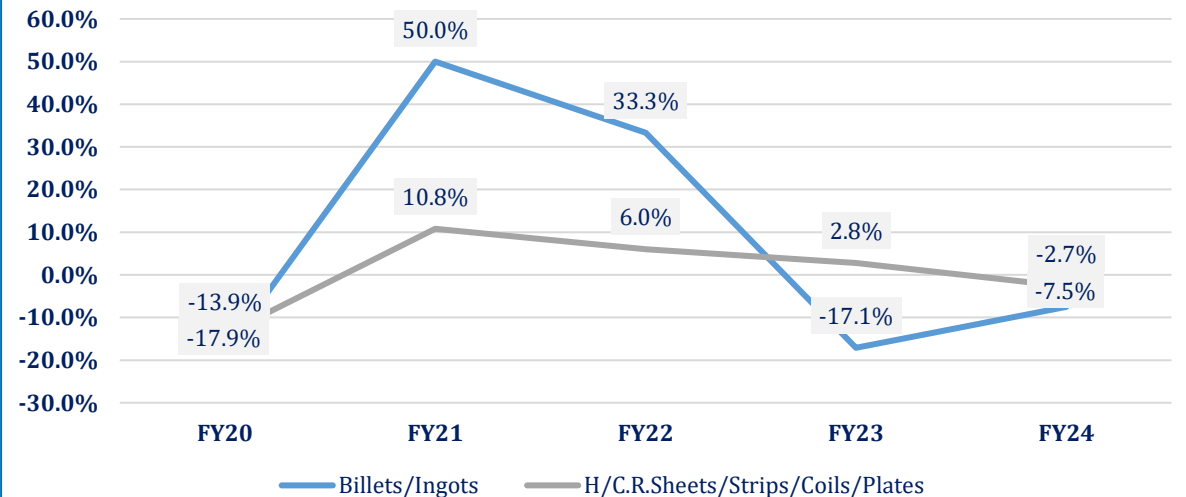| Particulars	FY22	FY23	FY24
Production (mln MT)	**9.9**	**8.9**	**8.4**
Billets/Ingots	6.6	5.3	4.9
Coils & Plates	3.5	3.6	3.5
Billets/ Ingots Growth (%)	33.3%	-17.1%	-7.5%
Coil & Plates Growth (%)	6.0%	2.8%	-2.7%
Contribution to GDP* (%)	0.5%	0.5%	0.4%
Steel Product Imports (mln MT)	**3.6**	**2.2**	**2.9**
Steel Product Imports (USD mln)	1,936	1,869	2,042
Steel Scrap Imports (mln MT)	**3.8**	**2.5**	**2.7**
Steel Scrap Imports (USD mln)	2,305	1,152	1,229
Steel Product and Scrap Imports (% Total Imports)	6.5%	5.5%	5.9%
Structure	Oligopoly		
Associations	Pakistan Steel Melters & Re-Rolling Association Pakistan Steel Melters Association Pakistan Association of Large Steel Producers All Pakistan Steel Traders Association Pakistan Steel Line Pipe Industry Association		

Steel

Local | Supply

- Local steel production stood at ~8.4mln MT in FY24, registering a YoY decline of ~5.6%. The production of Billets and Ingots (Long products) stood at ~4.9mln MT, forming ~58.3% of total steel production (SPLY: ~59.5%), and recording ~7.5% YoY decline, while production of HCR Sheets/Strips/Coils/Plates (Flat Products) declined ~2.7% YoY to ~3.5mln MT, with these forming ~41.7% of total production during the year (SPLY: ~40.5%).
- The sluggish growth in steel production was majorly due to lower demand emanating from complementary sectors such as construction, automobile, electrical equipment and heavy machinery, owing to, in turn, exorbitant interest rates (End-FY24: 20.5%; End-FY23: 22.0%) and high inflation (Avg. FY24: ~23.8%; Avg. FY23: ~29.5%).
- Moreover, during the year, the PKR depreciated by ~14.3% YoY against the USD, resulting in higher raw material costs as the sector is highly dependent on imported raw material, i.e., steel scrap. Meanwhile, global prices of steel scrap remained on the lower end during FY24, averaging at USD~386/MT (SPLY: USD~391/MT) and country's imports recorded ~8.0% YoY increase in volumetric terms (~6.7% higher YoY in value terms).

Local | Steel Production (mln MT)

	FY20	FY21	FY22	FY23	FY24
Billets/Ingots	3.2	4.8	6.4	5.3	4.9
H/C.R.Sheets/Strips/Coils/Plates	3.7	3.3	3.5	3.6	3.5

Local | Steel Production (YoY %)

	FY20	FY21	FY22	FY23	FY24
Billets/Ingots	-13.9%	50.0%	33.3%	-17.1%	-7.5%
H/C.R.Sheets/Strips/Coils/Plates	-17.9%	10.8%	6.0%	2.8%	-2.7%

Steel

Local | Capacity Utilization

- Flat steel actual capacity for the FY23 remained same while its capacity utilization remained low at ~13.6%, while actual capacity of long steel products increased by ~2.8% YoY in FY23 however, its capacity utilization remained low at ~33.3%.
- Tubes & Pipes segment's capacity utilization declined to ~19.0%. This lower utilization of capacities was in line with the import restriction imposed by SBP on steel scrap which is a key raw material used in the production of steel in Pakistan.
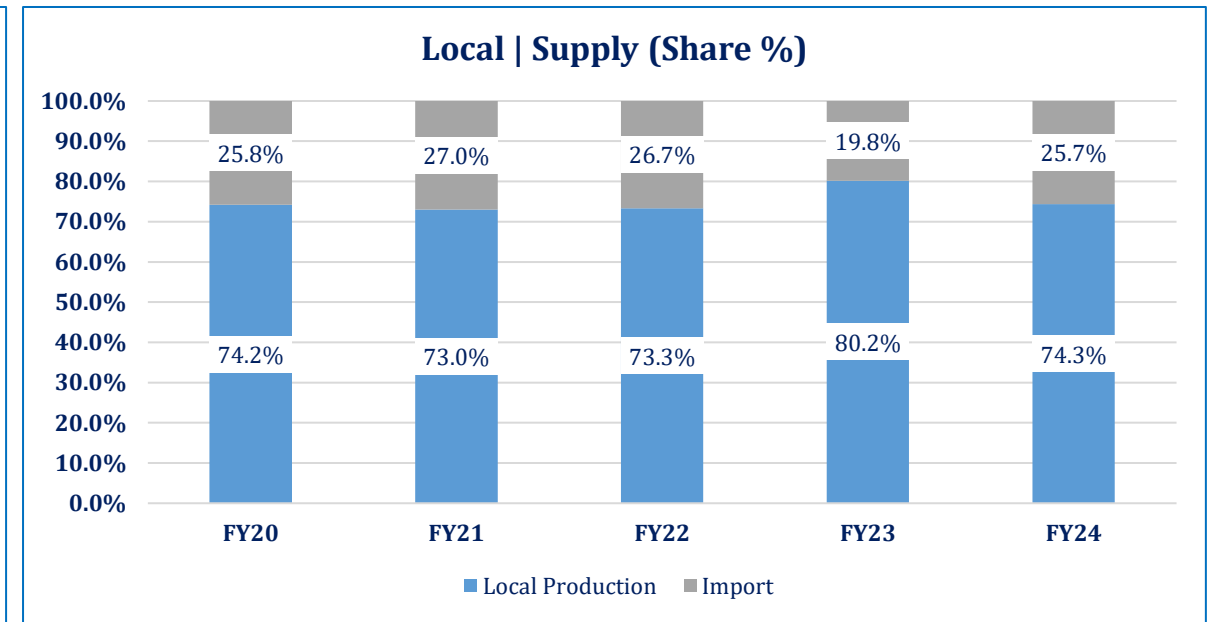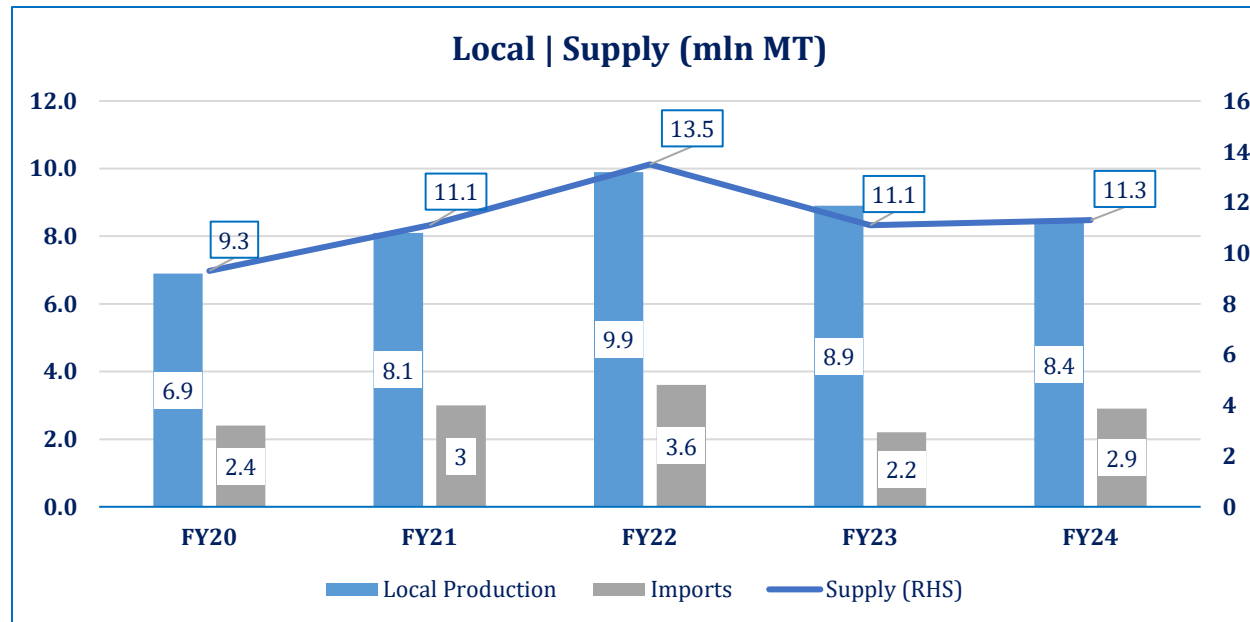
Figures in '000 MT

Actual Capacity vs. Capacity Utilization				
Particulars	**FY20**	**FY21**	**FY22**	**FY23**
Flat Products				
Actual Capacity	1,700	1,700	2,200	2,200
Production	702	863	487	248
Capacity Utilization (%)	41.1%	52.9%	22.7%	13.6%
Long Products				
Actual Capacity	2,950	3,220	3,213	3,303
Production	1,519	1,719	1,791	1,098
Capacity Utilization (%)	50.0%	53.1%	56.2%	33.3%
Tubes & Pipes				
Actual Capacity	824	824	796	796
Production	176	261	216	152
Capacity Utilization (%)	21.3%	31.7%	27.1%	19.0%

Note: Data for Flat and Long Steel Products, as well as that of Tubes & Pipes segment is reflective of ~2, ~5 and ~2 players, respectively..

Steel

Local | Supply

- In FY24, overall local supply of steel products clocked in at ~11.3mln MT (FY23: ~11.1mln MT), a YoY increase of ~1.8%. This was in response to the increase in imports of finished steels by ~31.8% as higher imports shows higher demand and lower local production of steel.

- Local production share in demand decreased to ~74.3% in FY24 (FY23: ~80.2%) while finished steel share in demand increased to ~25.7% (FY23: ~19.8%). As cheaper imported steel mainly from China, made it difficult for local producers to compete, while sluggish demand from automotive, manufacturing and construction sector has also led to reduction in domestic production.

Local | Supply (mln MT)

	FY20	FY21	FY22	FY23	FY24
Local Production	6.9	8.1	9.9	8.9	8.4
Imports	2.4	3	3.6	2.2	2.9
Supply (RHS)	9.3	11.1	13.5	11.1	11.3

Local | Supply (Share %)

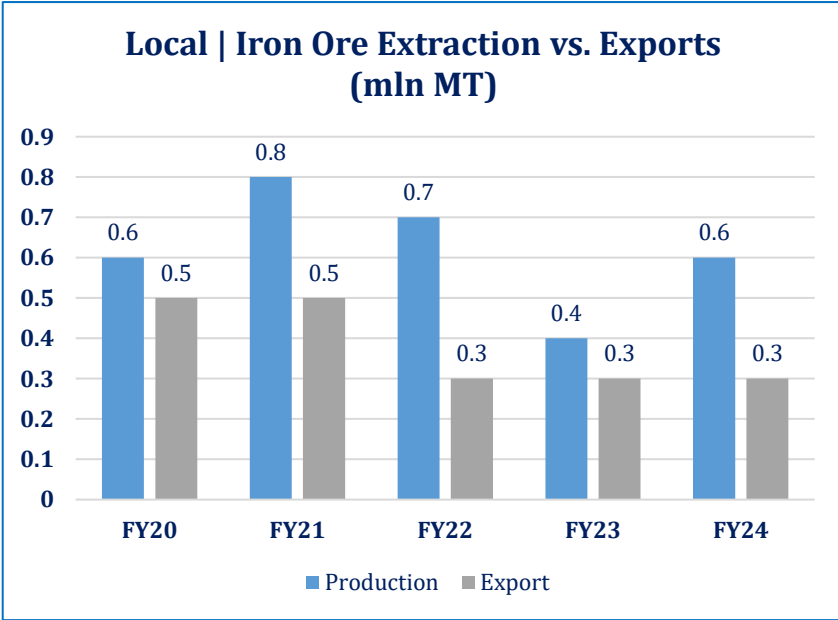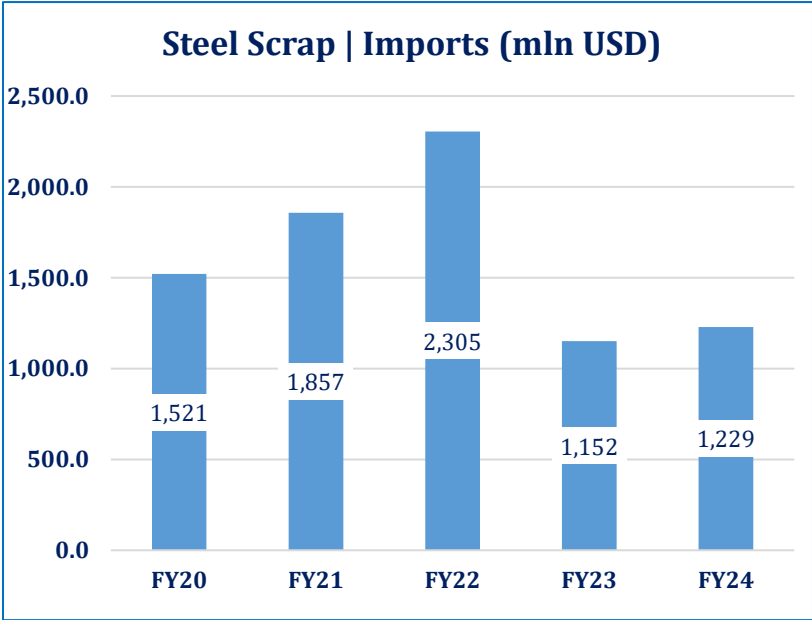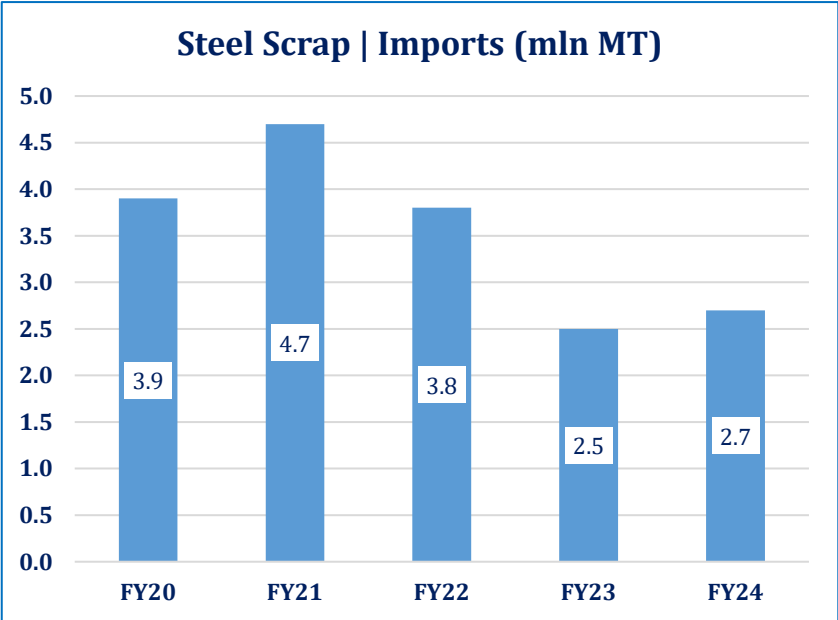|	FY20	FY21	FY22	FY23	FY24
Local Production	74.2%	73.0%	73.3%	80.2%	74.3%
Import	25.8%	27.0%	26.7%	19.8%	25.7%

Note: Data for Imports are representative of HS Codes ~7206.1000, 7207.1110, 7209.1510 and 7213.1010.

Steel

Local | Raw Material

- Pakistan's steel sector is dependent on imported raw material i.e. steel scrap majorly imported from China. During FY24, ~2.7mln MT (FY23: ~2.5mln MT) steel scrap worth USD~1,229mln (FY23: USD~1,152mln) was imported, a YoY increase of ~8.0% (up ~6.7% in value terms). These made up ~2.2% of the total import bill in FY24. During, Jul'24, steel scrap imports clocked in ~0.3mln MT (Jul'23: ~0.2mln MT), up ~15.6% YoY and contributed ~2.3% to the total import bill.
- While finished steel products imports stood at ~2.9mln MT in FY24 (FY23: ~2.2mln MT), a YoY increase of ~31.8%, USD~2,042mln worth of finished steel products were imported in FY24 which contributed ~3.7% to country's total import bill. This increase in imports during FY24 also likely reflected low-base effect as imports restrictions on steel products were lifted in Jun'23.
- During FY24, ~0.6mln MT of iron ore was extracted (SPLY: ~0.4mln MT), up ~63.8% YoY, of which, ~0.3mln MT was exported to China (same as last year).

Steel Scrap | Imports (mln MT)

	FY20	FY21	FY22	FY23	FY24
	3.9	4.7	3.8	2.5	2.7

Steel Scrap | Imports (mln USD)

	FY20	FY21	FY22	FY23	FY24
	1,521	1,857	2,305	1,152	1,229

Local | Iron Ore Extraction vs. Exports (mln MT)

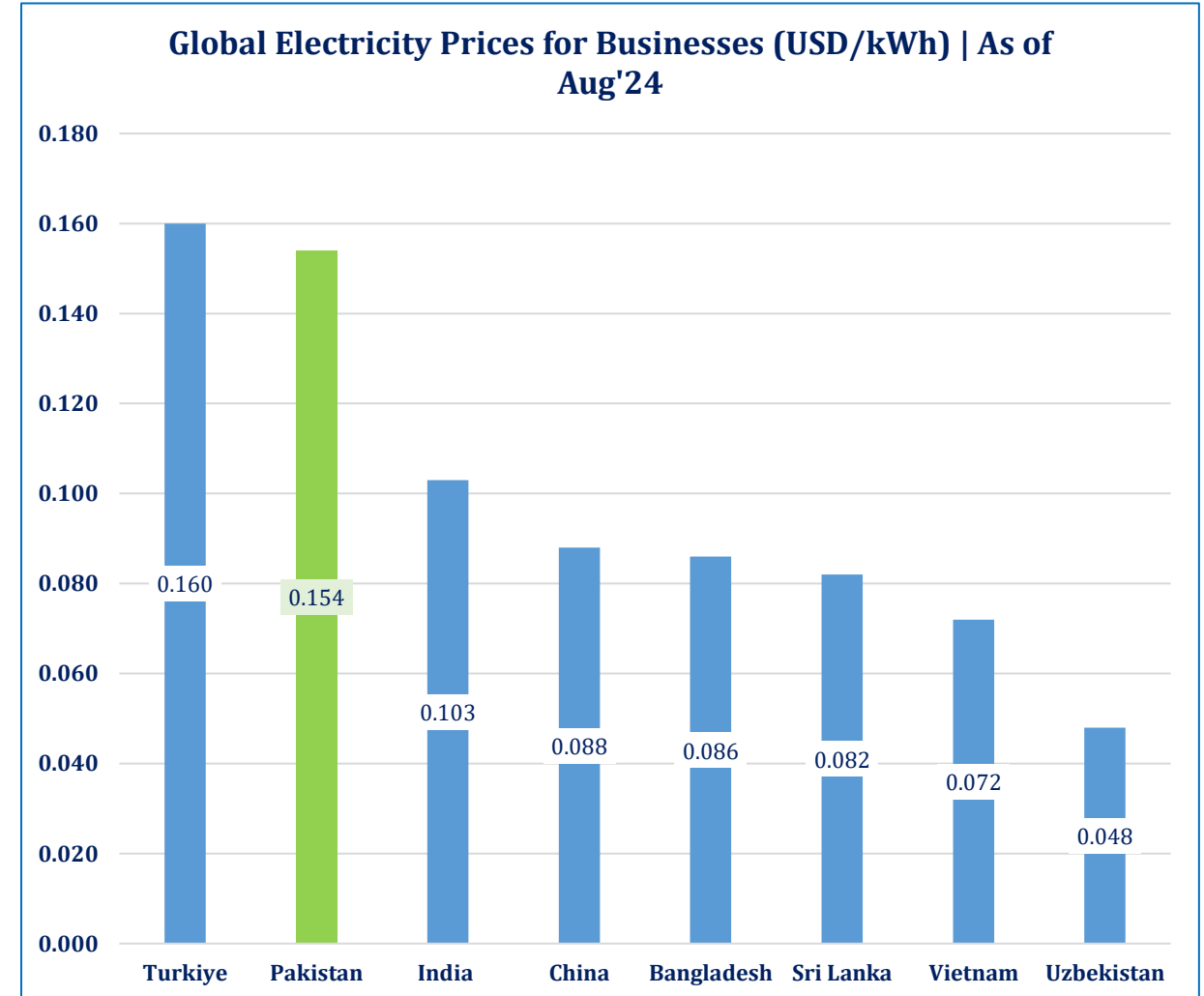|	FY20	FY21	FY22	FY23	FY24
Production	0.6	0.8	0.7	0.4	0.6
Export	0.5	0.5	0.3	0.3	0.3

Note: *Data for Iron Ore Exports includes HS Codes 2601.1100,2601.1200*

Steel

Local | Input Costs

▪ In Pakistan, ~85.0% of the steel is produced using Induction Furnace (IF) technology, that uses electricity as a the primary source of energy. Disruptions in electricity supply from the national grid (loadshedding and fluctuations) due to obsolete infrastructure makes it challenging to rely on these energy supply sources.

▪ Moreover, tariff hikes serve to hinder players' performance, with energy comprising ~9.2% of total costs for long steel sector players and ~2.9% for flat steel players.

▪ NEPRA provides electricity at a total cost of ~15.4 cents/kWh, which is higher when compared with the regional players making Pakistan less competitive.

▪ The rising cost of electricity has led to increased overall production costs for steel manufacturers. This makes it difficult for local producers to maintain profitability as cost of production due to high electricity prices is passed on to consumers in the form of higher steel prices.

Global Electricity Prices for Businesses (USD/kWh) | As of Aug'24

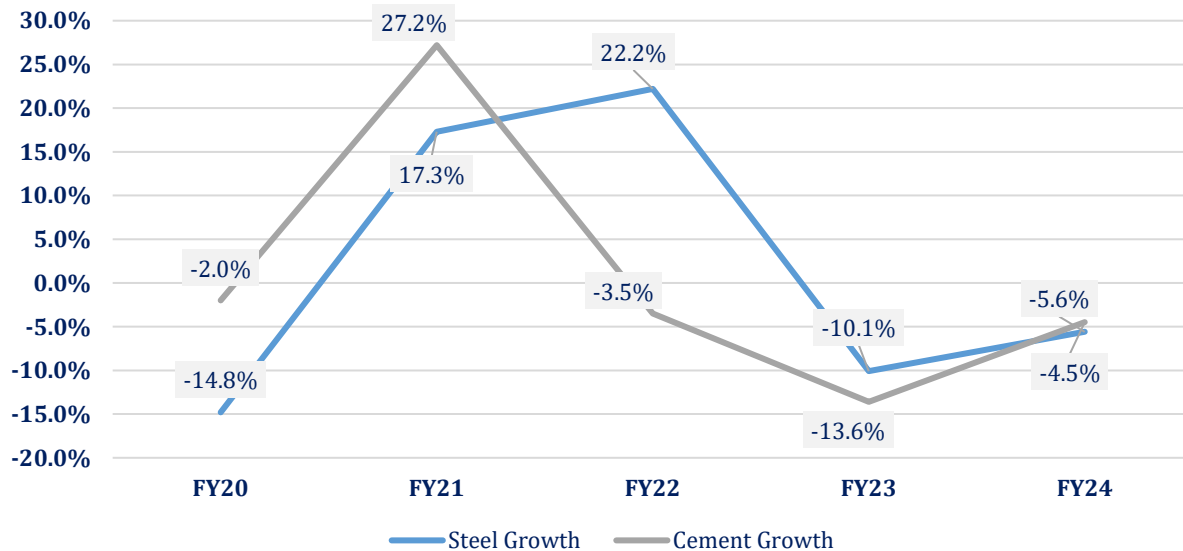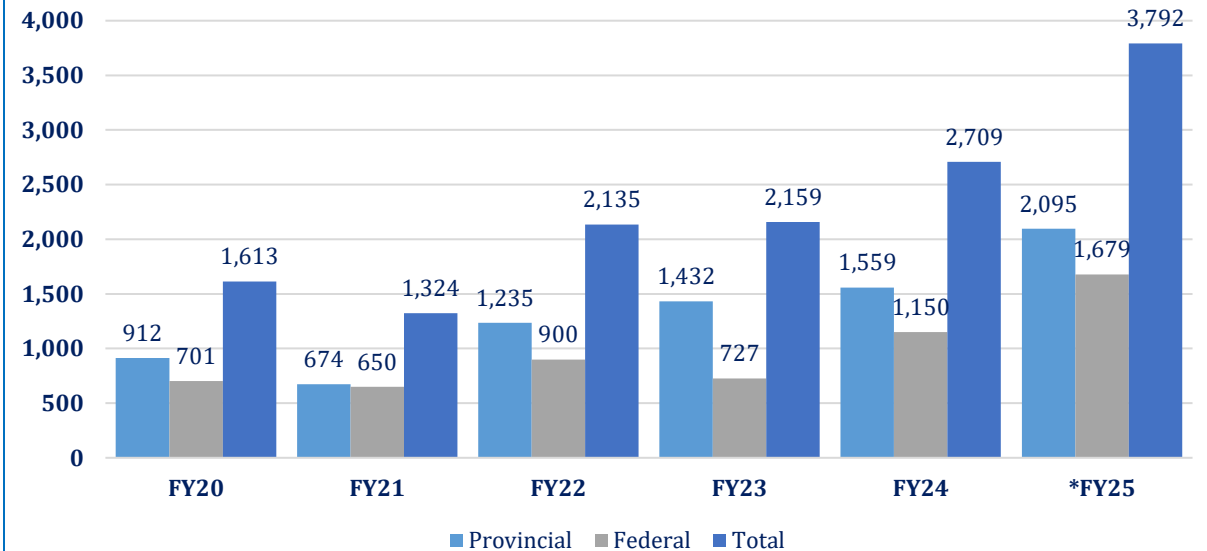| Country	USD/kWh
Turkiye	0.160
Pakistan	0.154
India	0.103
China	0.088
Bangladesh	0.086
Sri Lanka	0.082
Vietnam	0.072
Uzbekistan	0.048

Steel

Local | Demand

- Demand for steel is correlated with construction and infrastructure development as ~52.0% of the steel produced globally is used in the construction sector. In Pakistan, major demand of steel comes from government contracts for building infrastructure. The allocated budget for PSDP for FY25 is PKR~3,792bln, an increase of ~39.9% YoY.
- Moreover, the growth in cement and steel production has remained in tandem during FY20-24 (as depicted), whereas the correlation between the two exhibited a correlation factor of ~0.8 over the last ten years (FY14-24). Moreover, the glass plates and sheets segment also registered ~11.2% YoY decline in FY24.
- During FY24, actual disbursement of PSDP at PKR~2,393bln fell short of the budgeted amount by ~11.6%, while in FY23 the actual disbursement at PKR~2,385bln surpassed budgeted allocation by ~10.5% (federal funding was cut by ~19.2% YoY). Therefore, lower PSDP spending indicates a slowdown in construction activities.

Cement & Steel Production | Growth (%)

Steel Growth: FY20 -14.8%, FY21 17.3%, FY22 22.2%, FY23 -10.1%, FY24 -5.6%
Cement Growth: FY20 -2.0%, FY21 27.2%, FY22 -3.5%, FY23 -13.6%, FY24 -4.5%

Local | PSDP Expenditure (PKR bln)

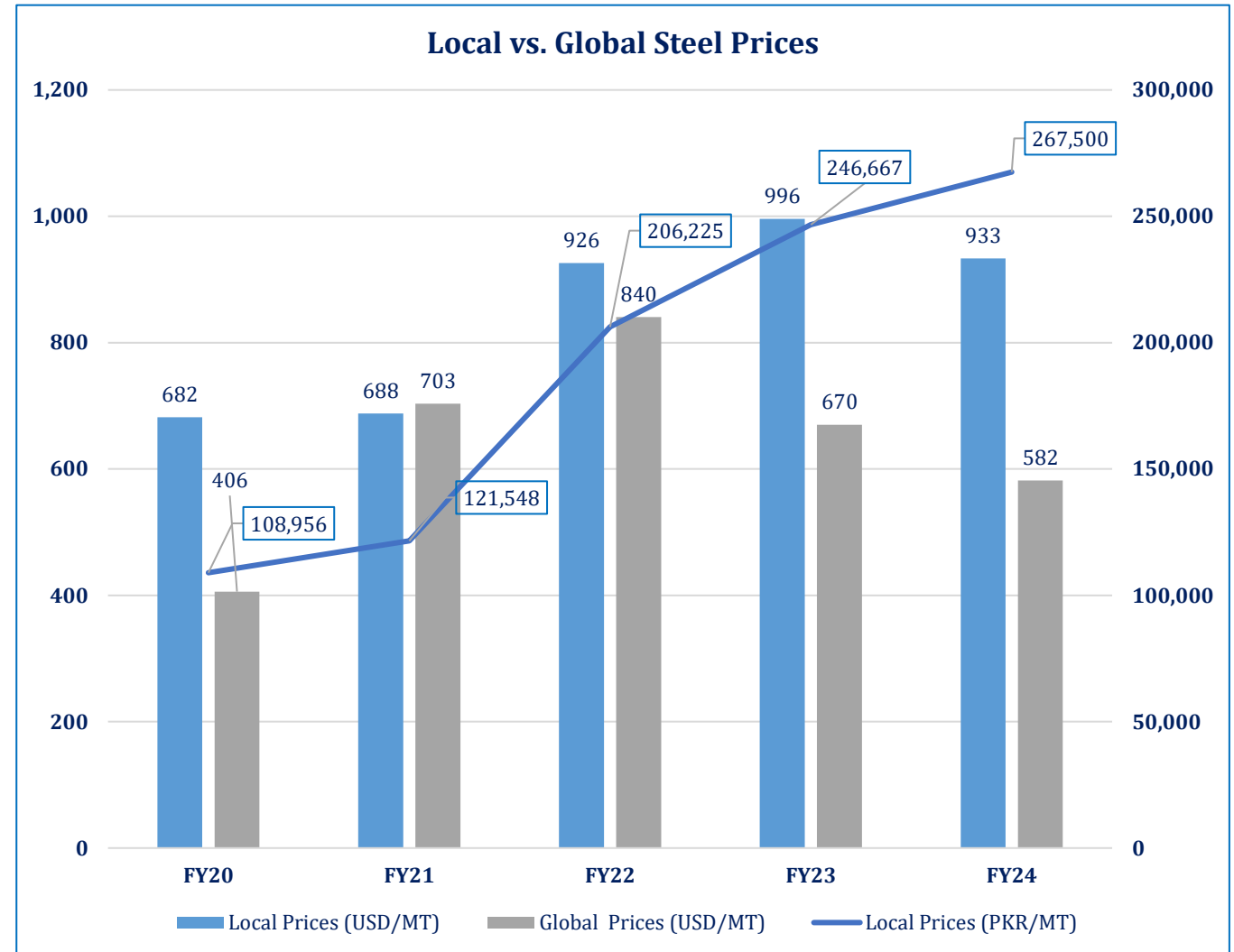|	FY20	FY21	FY22	FY23	FY24	*FY25
Provincial	912	674	1,235	1,432	1,559	2,095
Federal	701	650	900	727	1,150	1,679
Total	1,613	1,324	2,135	2,159	2,709	3,792

Steel

Local | Prices

- Steel rebar price in Pakistan on average have been ~33.8% higher than the global prices over a 5-year period (FY20-24).

- During FY24, average local steel prices stood at USD~933.0/MT, down ~6.3% YoY. The delta between local and international prices increased to ~60.3% in FY24 (FY23: ~28.7%), as the PKR depreciated ~14.1% YoY during the year.

- While, during FY24 steel price in local terms increased to PKR ~267,500/MT (FY23: PKR~246,667/MT) a YoY increase of ~8.4%. This increase in price of steel was on the back of higher cost of raw material due to currency fluctuation , high inflation and interest rates.

- Therefore, during FY25 inflation has start easing and central bank has cut policy rate by ~250bps since Jun'24, it is expected that local steel prices will remain stable.

Local vs. Global Steel Prices

Local Prices (USD/MT): FY20: 682, FY21: 688, FY22: 926, FY23: 996, FY24: 933
Global Prices (USD/MT): FY20: 406, FY21: 703, FY22: 840, FY23: 670, FY24: 582
Local Prices (PKR/MT): FY20: 108,956, FY21: 121,548, FY22: 206,225, FY23: 246,667, FY24: 267,500

Legend: Local Prices (USD/MT) | Global Prices (USD/MT) | Local Prices (PKR/MT)

Long Steel Products
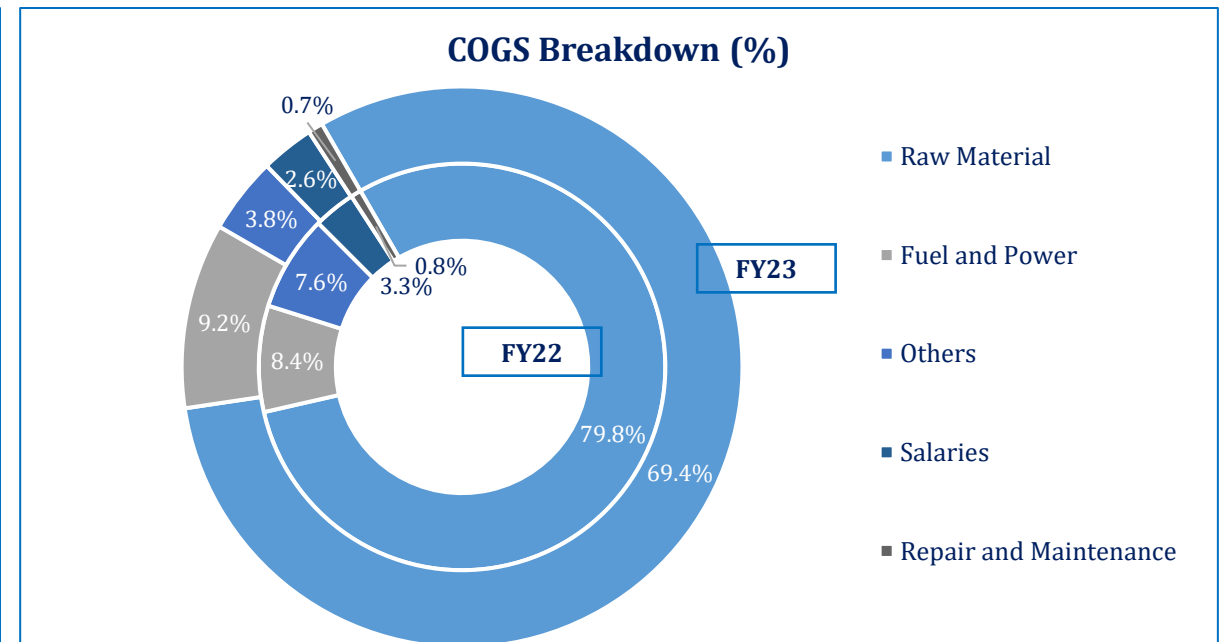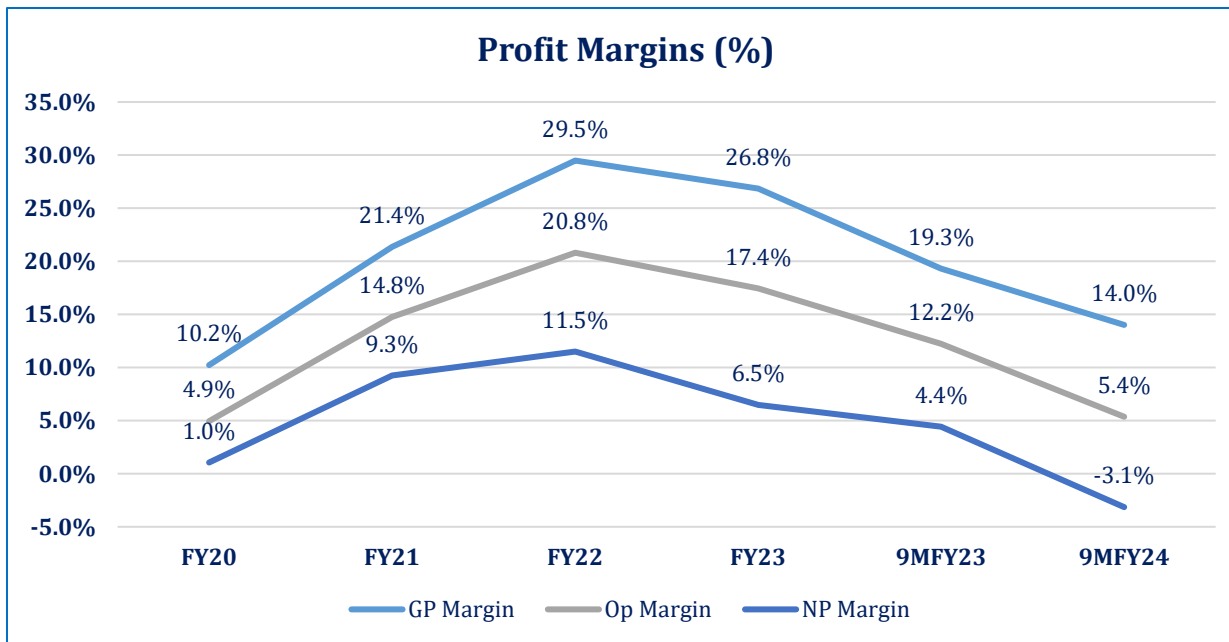
Long Steel Products | Introduction

- Long steel products refer to steel items that have a longer shape and are primarily used in construction, infrastructure, and manufacturing. These products are generally characterized by their length and include items such as bars, rods, beams, and rails.
- **Rebars** are steel bars used to reinforce concrete structures, providing tensile strength to the concrete, which is strong in compression but weak in tension. They are extensively used in the construction of buildings, bridges, roads, and other concrete structures.
- **Wire rods** are hot-rolled and coiled steel products with a circular cross-section and they can be further processed into wire, nails, springs, or mesh. These are used in construction, automotive, and engineering industries for various purposes, including wire drawing, welding, and the production of fasteners.
- **Steel rails** are long steel products used in the construction of railway tracks. They are designed to withstand heavy loads and provide a smooth surface for train wheels. Apart from railway tracks, steel rails are also used in crane runways and other industrial applications.
- **Steel piles** are long steel sections driven into the ground to provide deep foundation support for buildings and other structures. They are commonly used in construction projects, especially in soft or unstable soils, to support bridges, buildings, and other large structures.

Rebars

Steel Rails — Long Steel Products — Wire Rods

Steel Piles
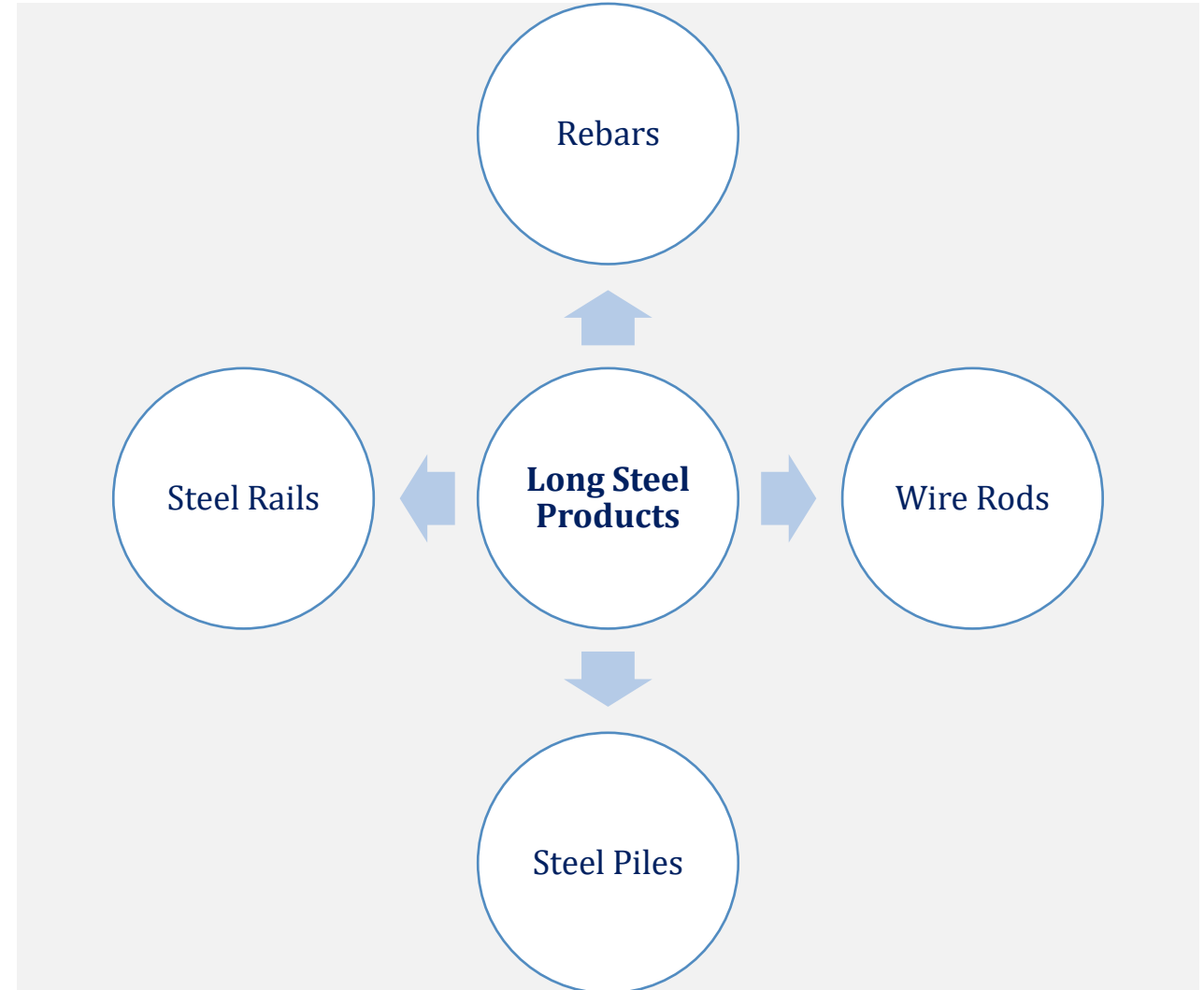
Steel

Long Products | Margins & Cost Structure

- During FY23, segment's gross profit registered ~9.9% YoY decline, on the back of ~12.7% lower sales YoY, This resulted in lower average gross margins, recording at ~26.8% during the year (FY22: ~29.5%). In 9MFY24, gross profit decreased by ~27.3% despite sales increasing by ~8.1% YoY. During the period, the COGS increased by ~13.9% YoY and average gross margins clocked in at ~14.0% (SPLY: ~19.3%).
- Moreover, operating profits declined by ~16.2% YoY during FY23, while net profits decreased by ~93.6% YoY resulting in average net margins to decrease to ~4.4%. During the year finance cost increased by ~64.9% YoY while other income increased by ~ 28.3% YoY.
- The sector relies heavily on raw material as it comprised~69.4% of total cost in FY23. High dependence on imported raw material exposes the sector to changes in international raw material prices and exchange rate fluctuations.
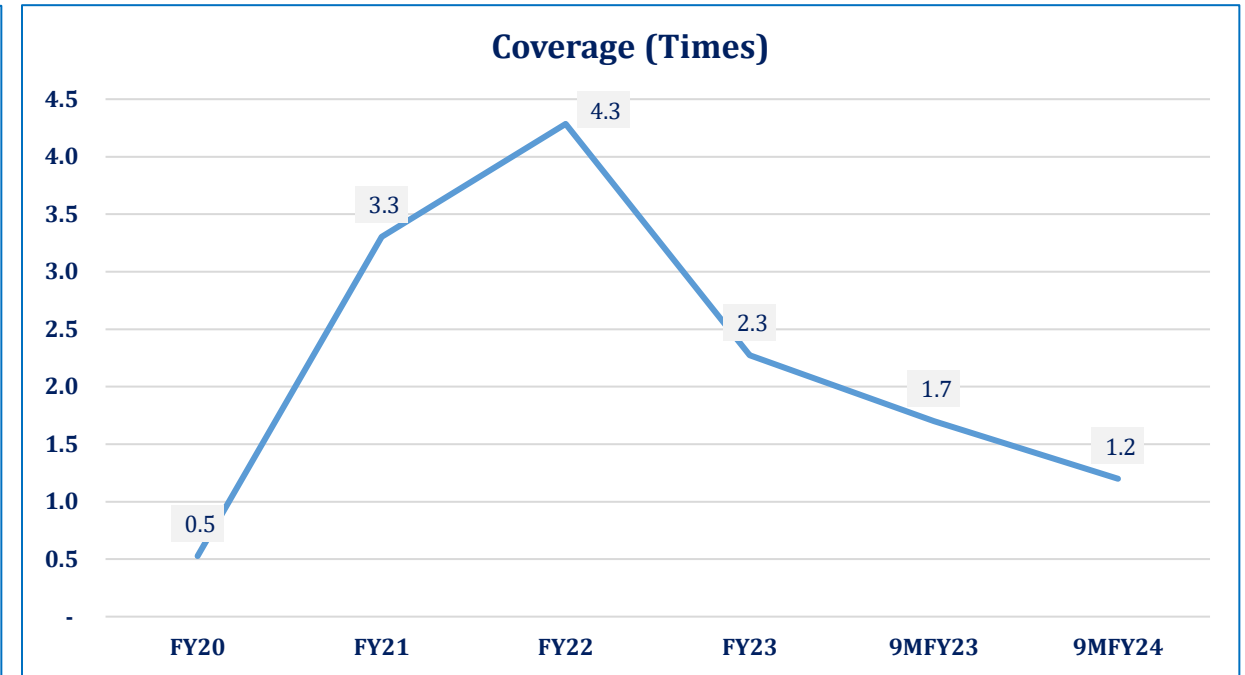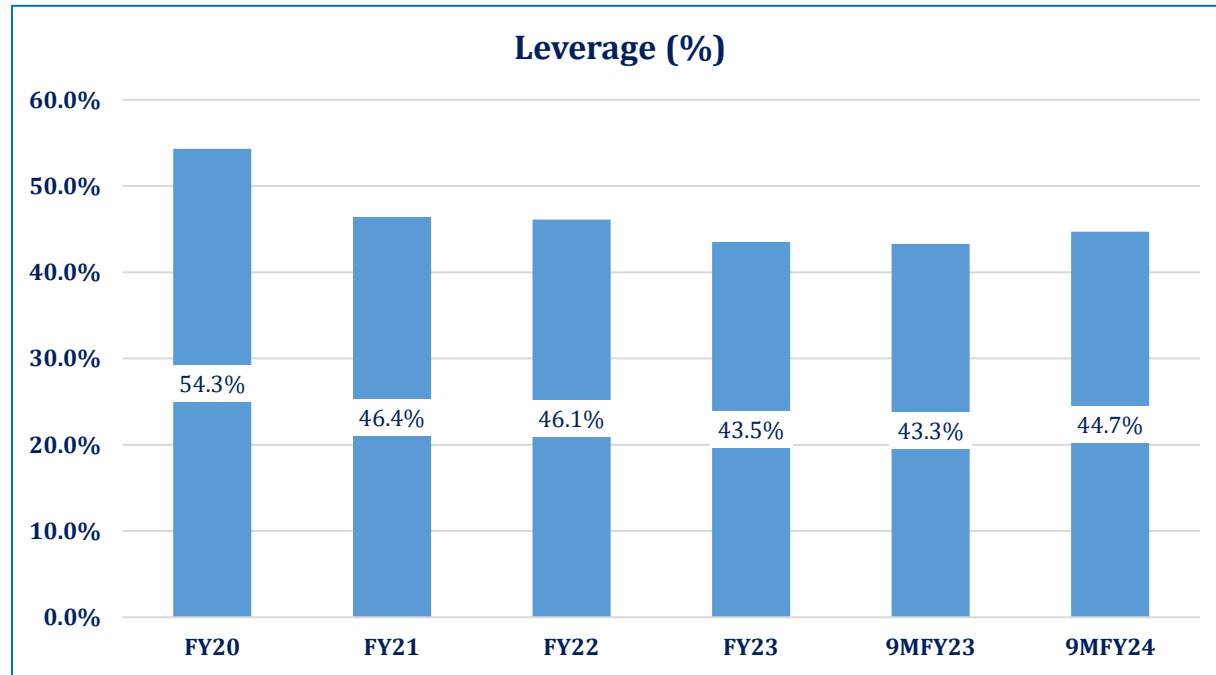

Profit Margins (%) — GP Margin, Op Margin, NP Margin across FY20, FY21, FY22, FY23, 9MFY23, 9MFY24

COGS Breakdown (%) — Raw Material, Fuel and Power, Others, Salaries, Repair and Maintenance (FY22 and FY23)

Steel

Long Products | Leverage and Coverage

- During FY23 the average leverage was lowered to ~43.5% as total borrowings declined by ~6.8% YoY while equity increased by ~8.2% YoY. In 9MFY24, average leverage increased to ~44.7%, as overall borrowing rose ~5.4% YoY and equity decreased by ~0.9% YoY.

- Coverage declined during FY23 to ~2.3x as average finance cost increased by ~64.9% YoY while operating profits decreased by ~16.2% YoY in FY23. However, operating profits further decreased by ~56.0% YoY in 9MFY24 resulting in coverage decline to 1.2x when compared with 9MFY23.

Leverage (%)

FY20	FY21	FY22	FY23	9MFY23	9MFY24
54.3%	46.4%	46.1%	43.5%	43.3%	44.7%

Coverage (Times)

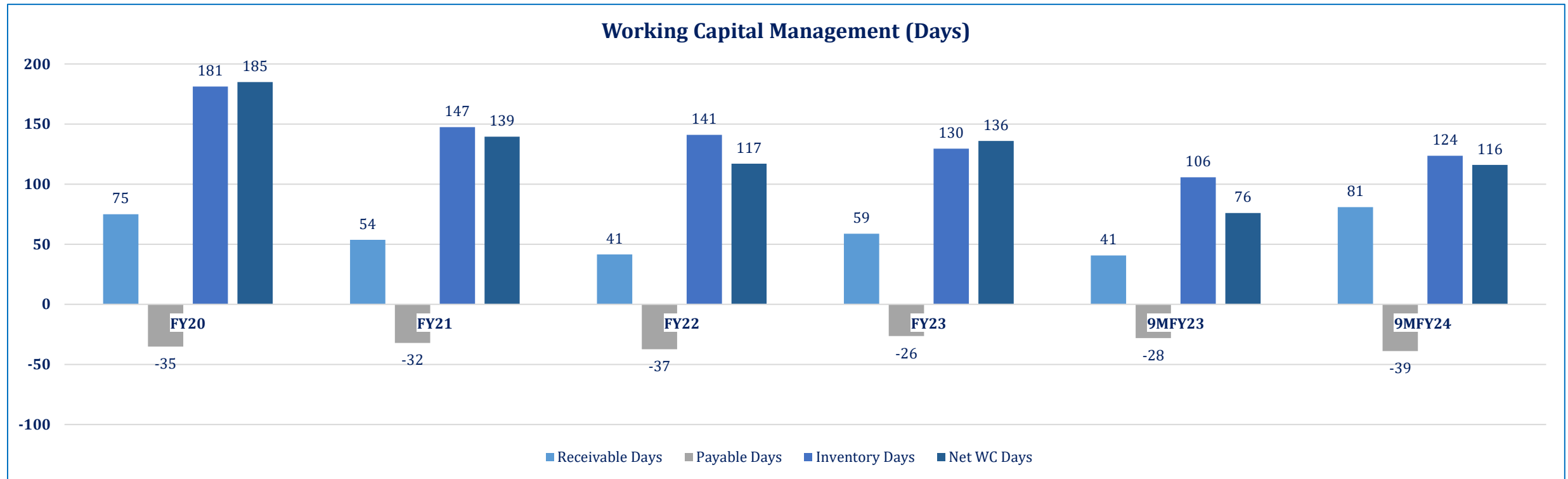| FY20	FY21	FY22	FY23	9MFY23	9MFY24
0.5	3.3	4.3	2.3	1.7	1.2

Note: Data is based on ~5 PACRA-rated/ listed segment players.

Long Products | Working Capital Management

- During FY23 average net working capital days increased to ~136 days in FY23. While, net working capital days increased to ~116 days in 9MFY24.
- Average inventory days decreased to ~130 days (FY22: ~141 days), while average receivable days decreased to ~59 days (FY22: ~41 days), whereas average payable days decreased to ~26 days.
- For 9MFY24, the average inventory days increased to ~124 days (9MFY23: ~106 days) whereas average receivable days increased to ~81 days (9MFY23: ~41 days) and average payable days increased to ~39 days (9MFY23: ~28 days).

Working Capital Management (Days)

Legend: ■ Receivable Days ■ Payable Days ■ Inventory Days ■ Net WC Days

	FY20	FY21	FY22	FY23	9MFY23	9MFY24
Receivable Days	75	54	41	59	41	81
Payable Days	-35	-32	-37	-26	-28	-39
Inventory Days	181	147	141	130	106	124
Net WC Days	185	139	117	136	76	116

Flat Steel Products
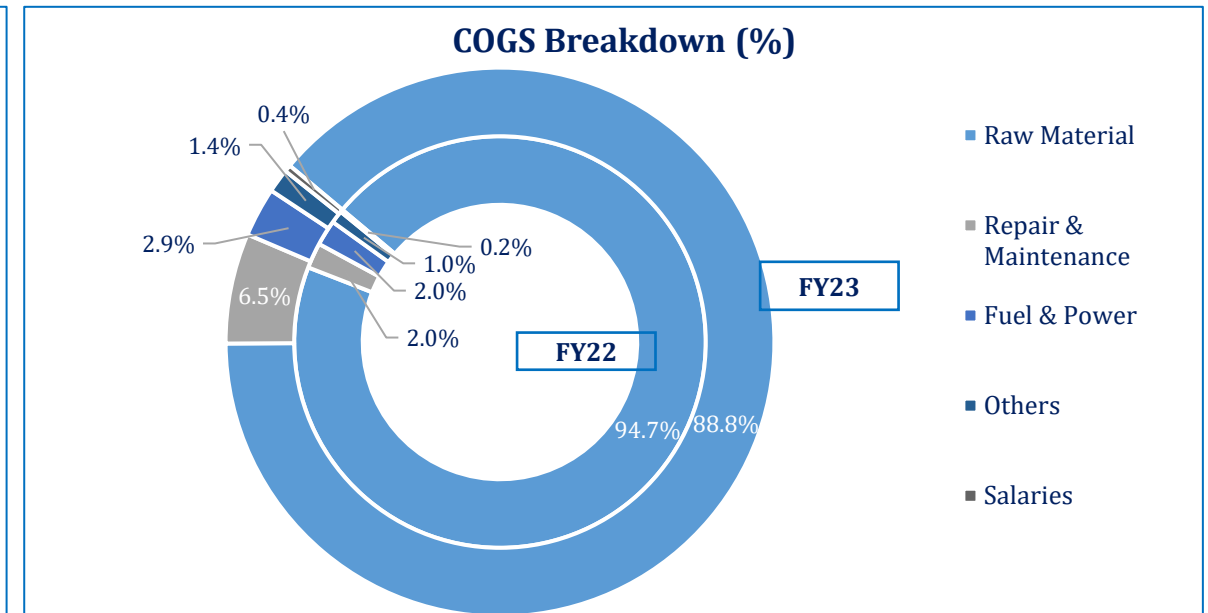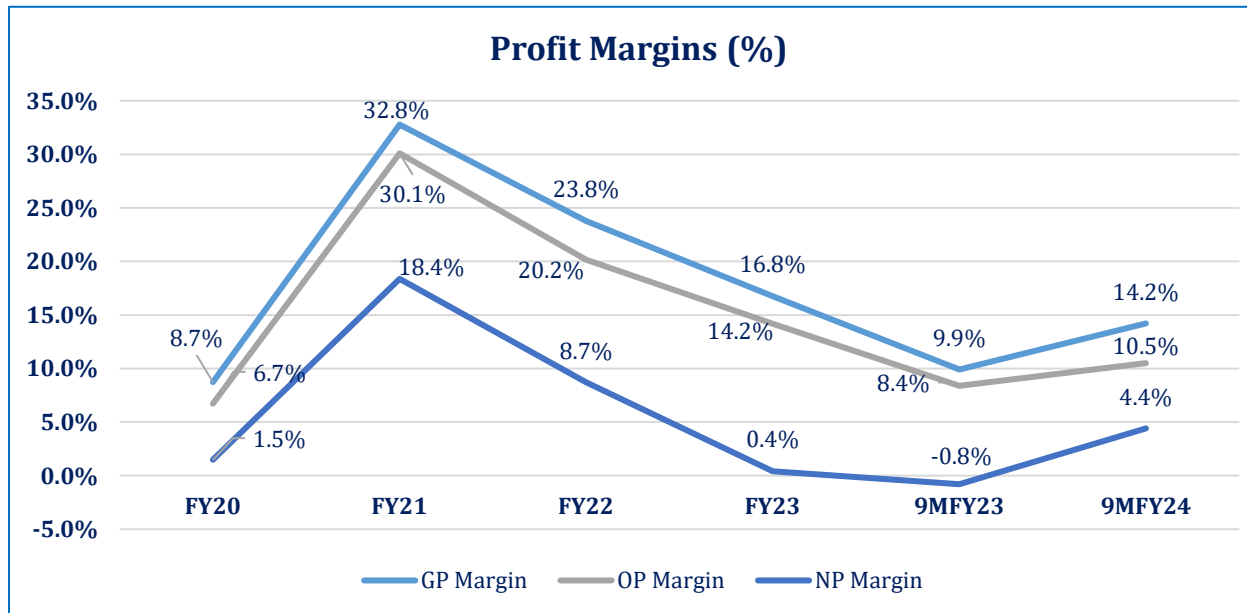
Flat Steel Products | Introduction

- Flat steel products are produced by rolling or pressing steel into thin, flat sheets or strips. These products are widely used in various industries due to their versatility, durability, and formability.
- **Steel plates** are flat, rectangular steel products that are produced by rolling steel into specific thicknesses. They are among the most versatile and widely used steel products due to their strength, durability, and ability to be fabricated into various shapes and sizes.
- **Hot-rolled steel** is produced by heating steel above its recrystallization temperature and then rolling it into flat sheets. The process allows the steel to be shaped into large sizes and thicknesses. It is commonly used in the construction of structural components, such as beams, columns, and bridges. It's also used in the production of pipes, automotive frames, and industrial machinery.
- **Cold-rolled steel** is produced by further processing hot-rolled steel at room temperature. This process increases the strength and improves the surface finish of the steel. Cold-rolled steel is used in applications requiring higher precision and a smooth surface finish, such as in the manufacturing of appliances, furniture, and automotive body panels.
- **Coated steel** involves applying additional protective coatings, such as aluminum and zinc, over galvanized or cold-rolled steel sheets to enhance quality and anti corrosion properties. Coated steel is used in consumer products like household appliances, roofing, and automotive parts where both aesthetics and corrosion resistance are important.

Plates

Hot Rolled Sheets ← **Flat Steel Products** → Cold Rolled Sheets

Coated Sheets
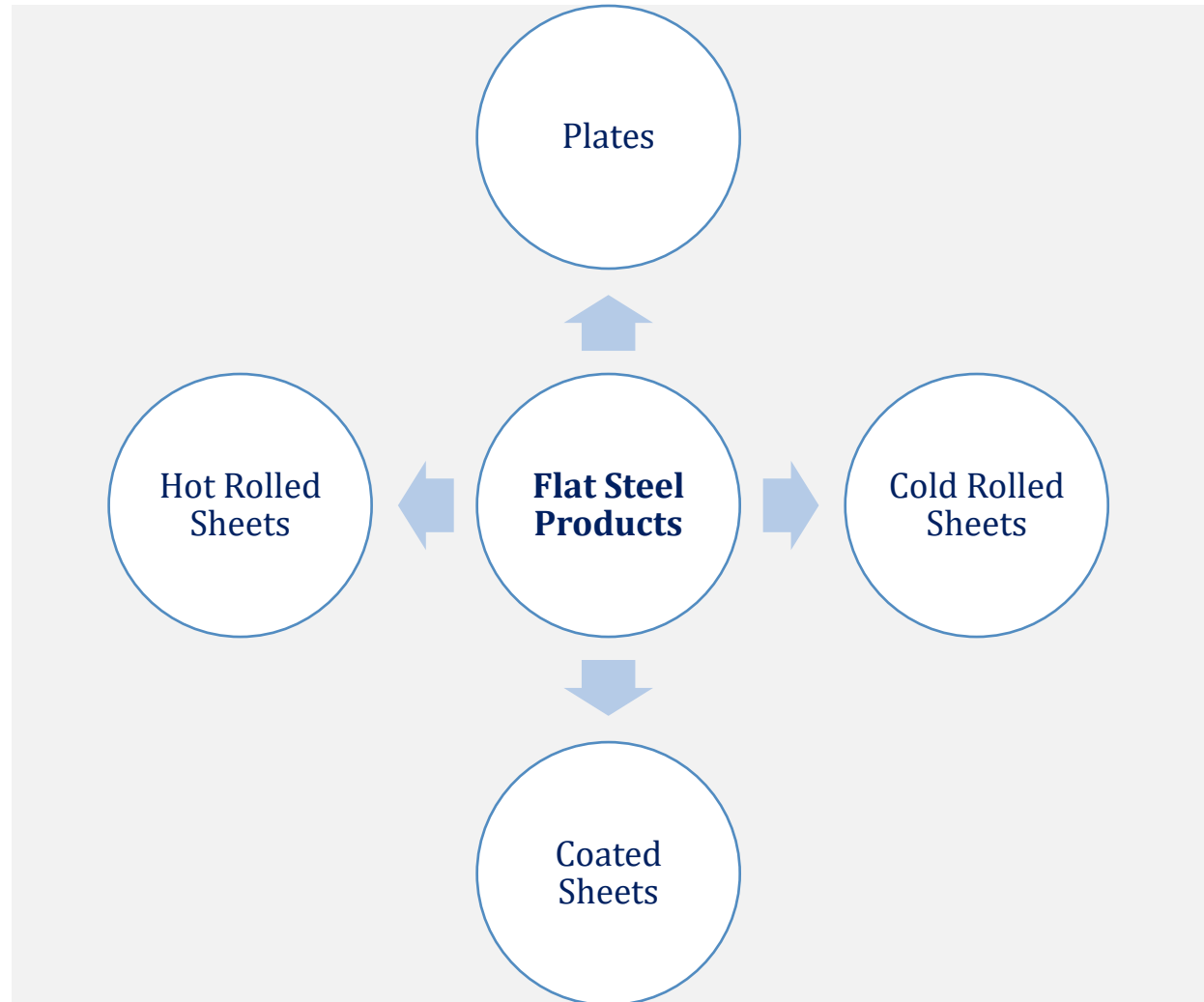
Steel

Business Risk | Margins & Cost Structure

- During FY23, segment's gross profit declined by ~29.5% YoY (FY22: ~27.4%) on the back of ~30.9% lower YoY sales and ~31.1% YoY lower cost of goods. Therefore, average gross margins lowered to ~16.8% in FY23. In 9MFY24, gross profit increased by ~43.9% YoY, with sales and cost of production up ~5.1% YoY and ~1.3% YoY, respectively. Resultantly, average gross margins clocked in at ~14.2% during the period.
- Moreover, operating profits decreased by ~29.6% YoY during FY23 (FY22: ~33.0%), while net profits decreased by ~95.3% YoY (FY22: ~52.5% decline) resulting in average net margins declining to ~0.4% during the year. Meanwhile, finance cost increased by ~63.0% YoY while other income increased by ~2.7% YoY in FY23. During 9MFY24, operating profits increased by ~24.7% YoY, while net profits increased by ~676.6% on the back of ~139.3% YoY increase in other income. Meanwhile, finance cost declined by ~25.1% YoY due to ~34.1% YoY lower borrowings during 9MFY24.
- The sector relies heavily on raw material as it comprised ~88.8% of total cost in FY23. High dependence on imported raw material exposes the sector to changes in international raw material prices and exchange rate fluctuations.

Profit Margins (%)

GP Margin / OP Margin / NP Margin values by year:
- FY20: 8.7%, 6.7%, 1.5%
- FY21: 32.8%, 30.1%, 18.4%
- FY22: 23.8%, 20.2%, 8.7%
- FY23: 16.8%, 14.2%, 0.4%
- 9MFY23: 9.9%, 8.4%, -0.8%
- 9MFY24: 14.2%, 10.5%, 4.4%

COGS Breakdown (%)

FY23: Raw Material 88.8%, Repair & Maintenance 6.5%, Fuel & Power 2.9%, Others 1.4%, Salaries 0.4%

FY22: Raw Material 94.7%, Repair & Maintenance 2.0%, Fuel & Power 2.0%, Others 1.0%, Salaries 0.2%
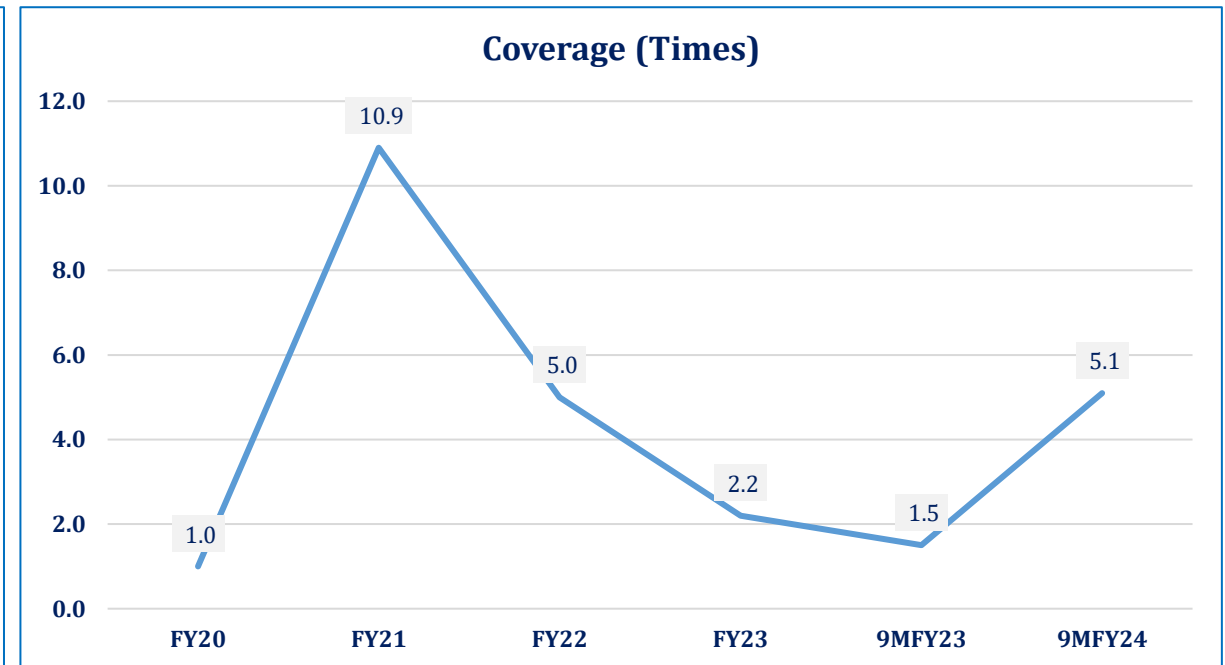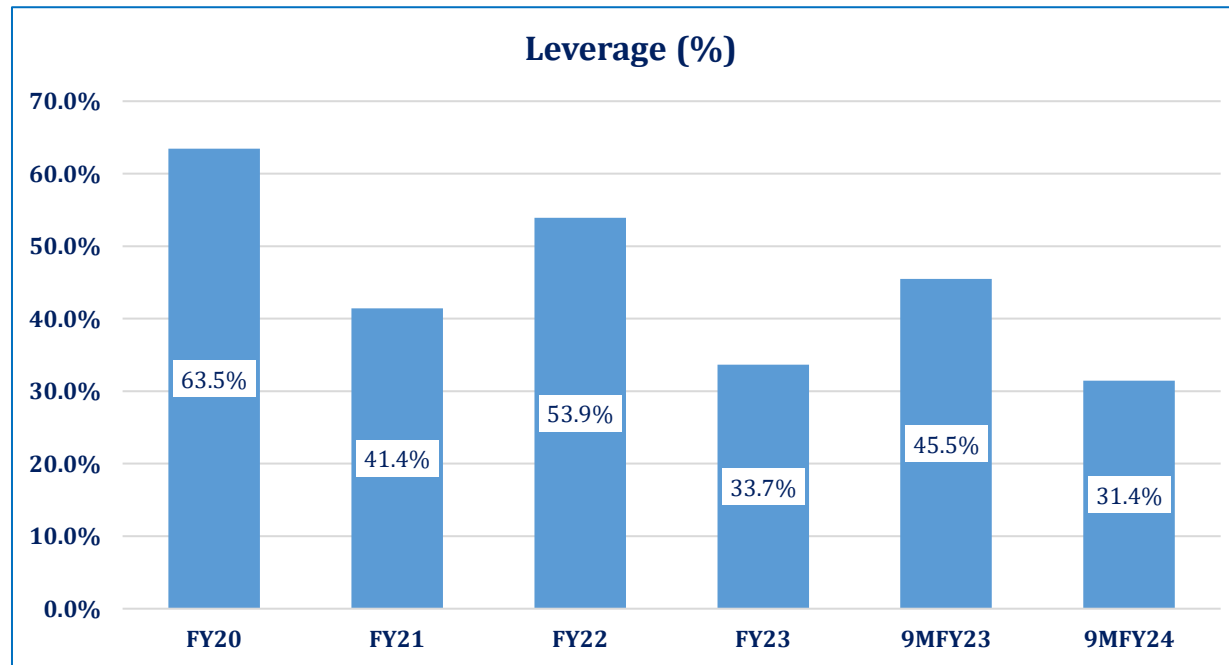
Note: Data is based on ~2 PACRA-rated/ listed segment players. Margins are revenue-weighted.

Steel

Flat Steel Products | Leverage and Coverage

- During FY23, segment's average leverage declined to ~33.7%, as total borrowings were down ~49.9% YoY, while in 9MFY24, average leverage further declined to ~31.4% as overall borrowing further declined by ~51.9% YoY, while equity increased by ~16.2% YoY during the period. Therefore, the segment was moderately leveraged in 9MFY24, as compared to FY22 level of ~53.9%.

- Average coverage declined during FY23 to ~2.2x, as finance cost rose ~63.0% YoY while operating profits declined by ~29.6% YoY in FY23. However, operating profits improved by ~24.7% in 9MFY24 resulting in improved coverage to ~5.1x when compared with SPLY low levels of ~1.5x. Higher operating profit was also supported by lower leverage during the 9MFY24 period.

Leverage (%)

FY	Leverage
FY20	63.5%
FY21	41.4%
FY22	53.9%
FY23	33.7%
9MFY23	45.5%
9MFY24	31.4%

Coverage (Times)

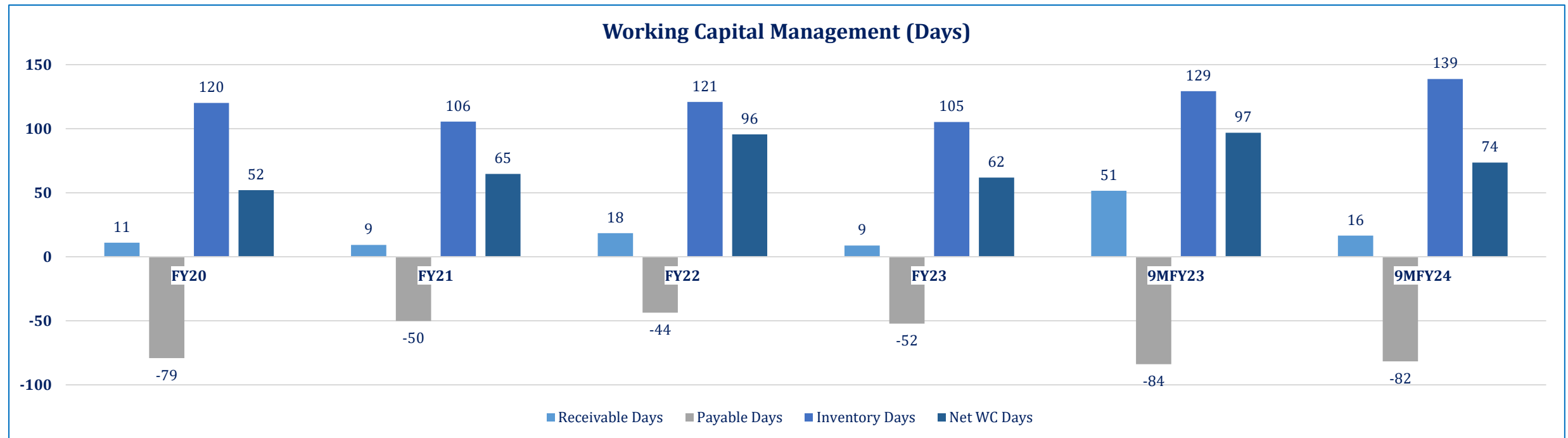| FY	Coverage
FY20	1.0
FY21	10.9
FY22	5.0
FY23	2.2
9MFY23	1.5
9MFY24	5.1

Note: Data is based on ~2 PACRA-rated/ listed segment players.

Steel

Flat Products | Working Capital Management

- During FY23, import restrictions were imposed by the SBP, including on steel scrap, an important raw material used in the production of steel, due to non availability of raw material average net working capital days decreased to ~62 days in FY23. However, net working capital days decreased to ~74 days in 9MFY24.
- Average inventory days decreased to ~105 days (FY22: ~121 days), while average receivable days decreased to ~9 days (FY22:~18 days), whereas average payable days increased to ~52 days.
- For 9MFY24, the average inventory days increased to ~139 days (9MFY23: ~129 days) whereas average receivable days decreased to ~16 days (9MFY23: ~51 days) and average payable days declined to ~82 days (9MFY23: ~84 days).

Working Capital Management (Days)

Legend: Receivable Days, Payable Days, Inventory Days, Net WC Days

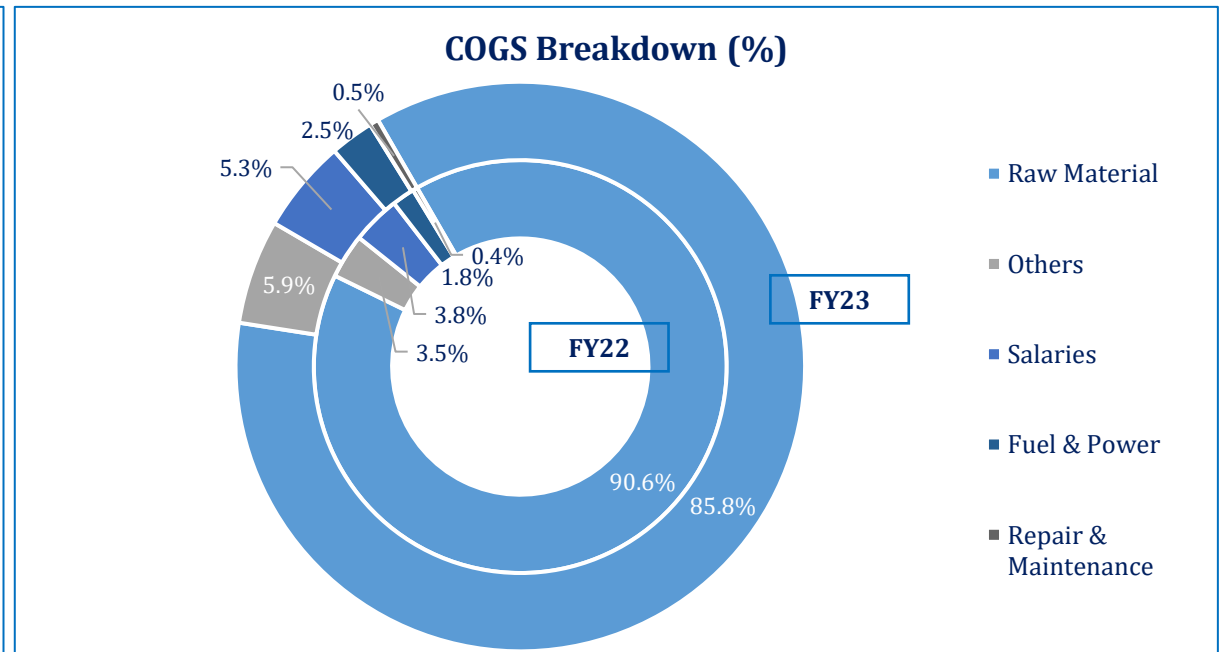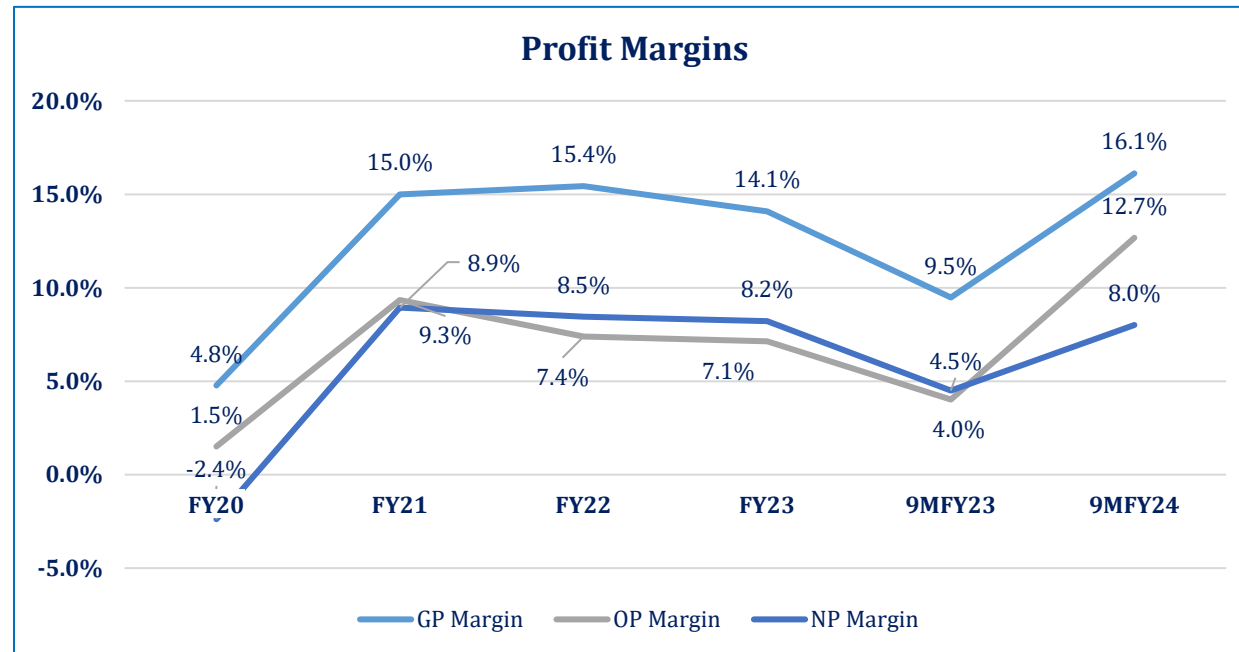|	Receivable Days	Payable Days	Inventory Days	Net WC Days
FY20	11	-79	120	52
FY21	9	-50	106	65
FY22	18	-44	121	96
FY23	9	-52	105	62
9MFY23	51	-84	129	97
9MFY24	16	-82	139	74

Tubes & Pipes

Steel

Tubes & Pipes | Margins

- During FY23, gross profit decreased by ~8.7% YoY on the back of ~30.3% lower sales YoY and ~32.8% YoY lower cost of production, which resulting in lowering average gross margins to ~14.1% in FY23 (FY22: ~15.4%). In 9MFY24, gross profit increased by ~49.1% as sales increased by ~20.5% YoY and average gross margins clocked in at ~16.1%.
- Moreover, operating profits decreased by ~3.4% YoY during FY23(FY22:~20.9), while net profits decreased by ~2.8% YoY(FY22: ~5.4%) resulting in average net margins to decrease to ~8.2%. During the year finance cost increased by ~46.4% YoY while other income decreased by ~ 4.6% YoY.
- The sector relies heavily on raw material as it comprised~85.8% of total cost in FY23, high dependence on imported raw material exposes the sector to changes in international raw material prices and exchange rate fluctuations.
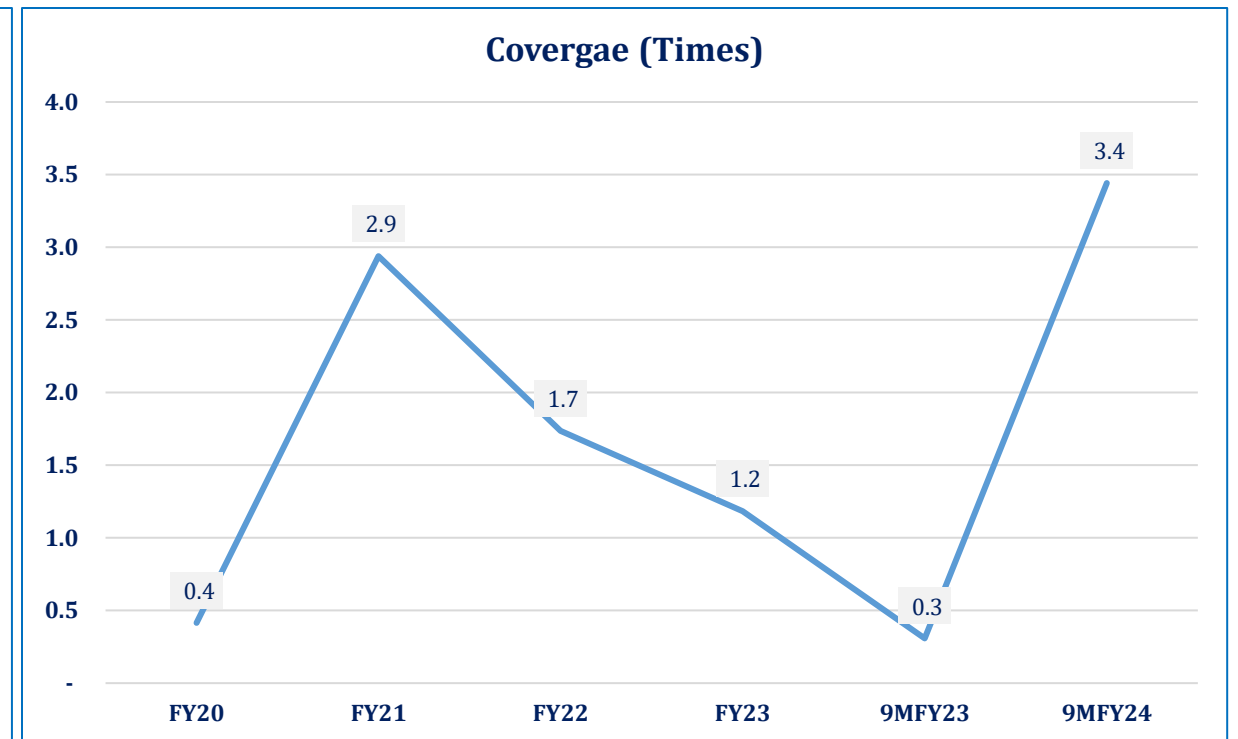
Profit Margins

	FY20	FY21	FY22	FY23	9MFY23	9MFY24
GP Margin	4.8%	15.0%	15.4%	14.1%	9.5%	16.1%
OP Margin	1.5%	8.9%	8.5%	—	4.0%	12.7%
NP Margin	-2.4%	9.3%	7.4%	7.1% (8.2% GP ref)	4.5%	8.0%

COGS Breakdown (%)

FY22 / FY23

- Raw Material: 90.6% / 85.8%
- Others: 5.9% / 3.5%
- Salaries: 5.3% / 3.8%
- Fuel & Power: 2.5% / 1.8%
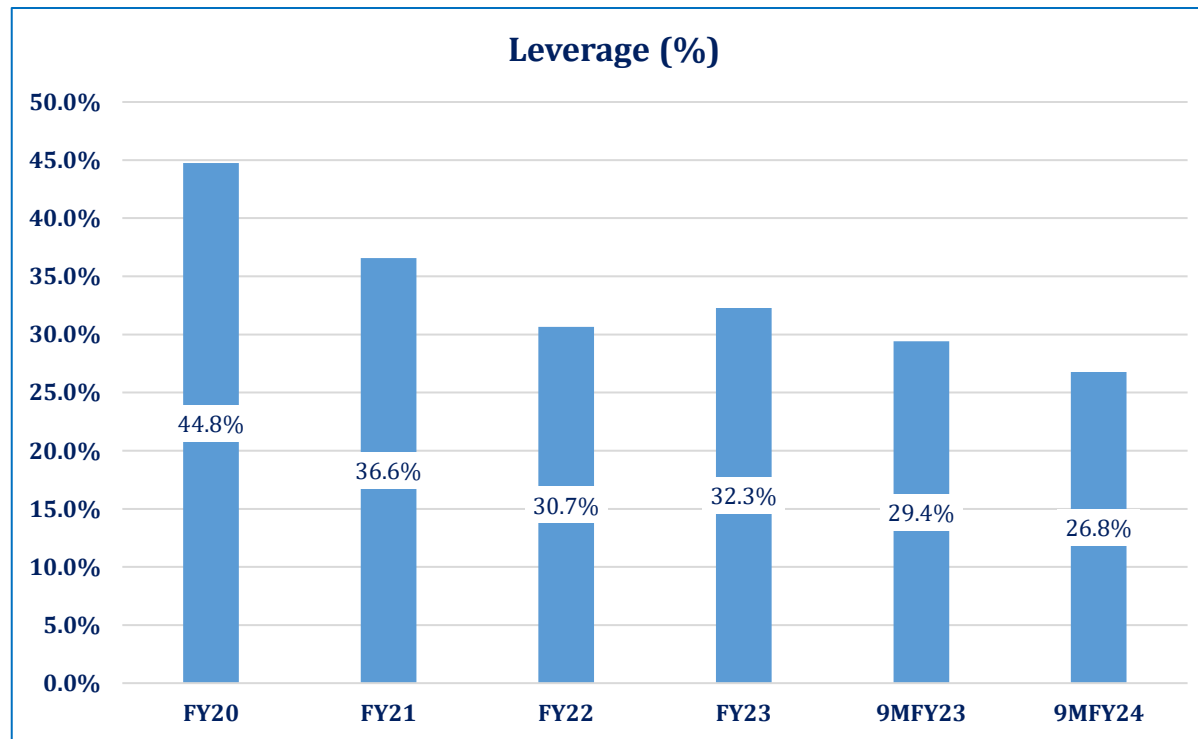- Repair & Maintenance: 0.5% / 0.4%

Note: Data is based on ~2 PACRA-rated/ listed segment players. Margins are revenue-weighted.
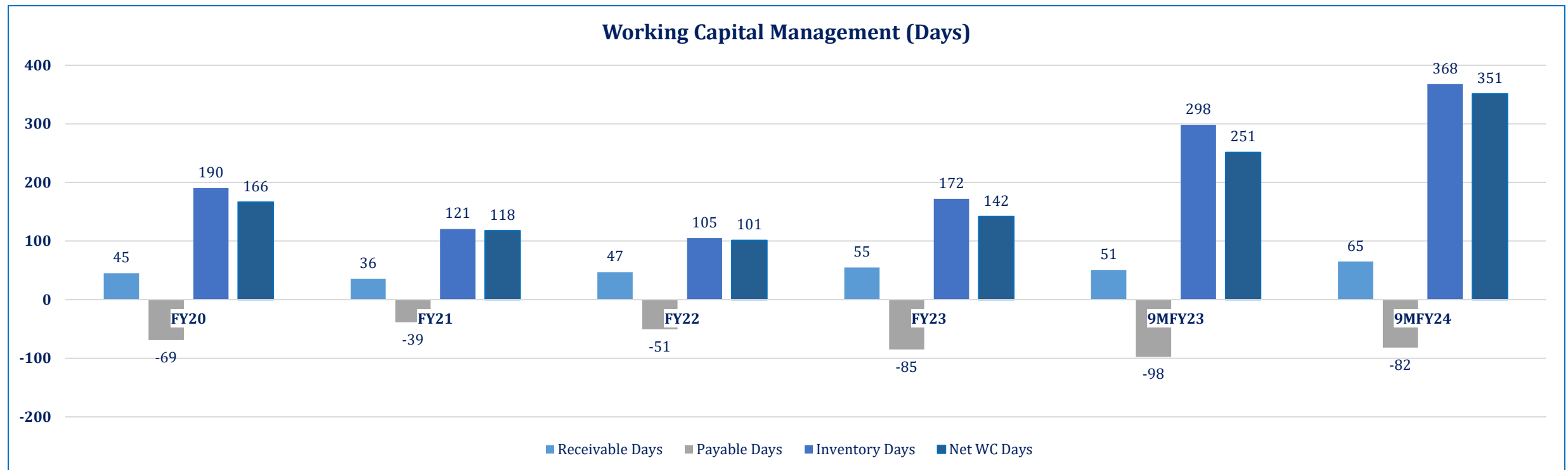
Steel

Tubes & Pipes | Leverage & Coverage

- During FY23, segment's average leverage increased to ~32.3% as total borrowings declined by ~12.0% YoY, while equity increased by ~3.3% YoY. In 9MFY24, average leverage declined to ~26.8% as borrowing lowered by ~6.6% YoY, while equity increased by ~8.7% YoY.

- Average interest coverage declined during FY23 to ~1.2x as segment's finance cost increased by ~46.4% YoY, while operating profits decreased by ~3.3% YoY. However, operating profits improved by ~81.1% YoY in 9MFY24 resulting in improved coverage to ~3.4x when compared with SPLY.

Leverage (%)

FY20	FY21	FY22	FY23	9MFY23	9MFY24
44.8%	36.6%	30.7%	32.3%	29.4%	26.8%

Covergae (Times)

FY20	FY21	FY22	FY23	9MFY23	9MFY24
0.4	2.9	1.7	1.2	0.3	3.4

Note: Data is based on ~2 PACRA-rated/ listed segment players.

Steel

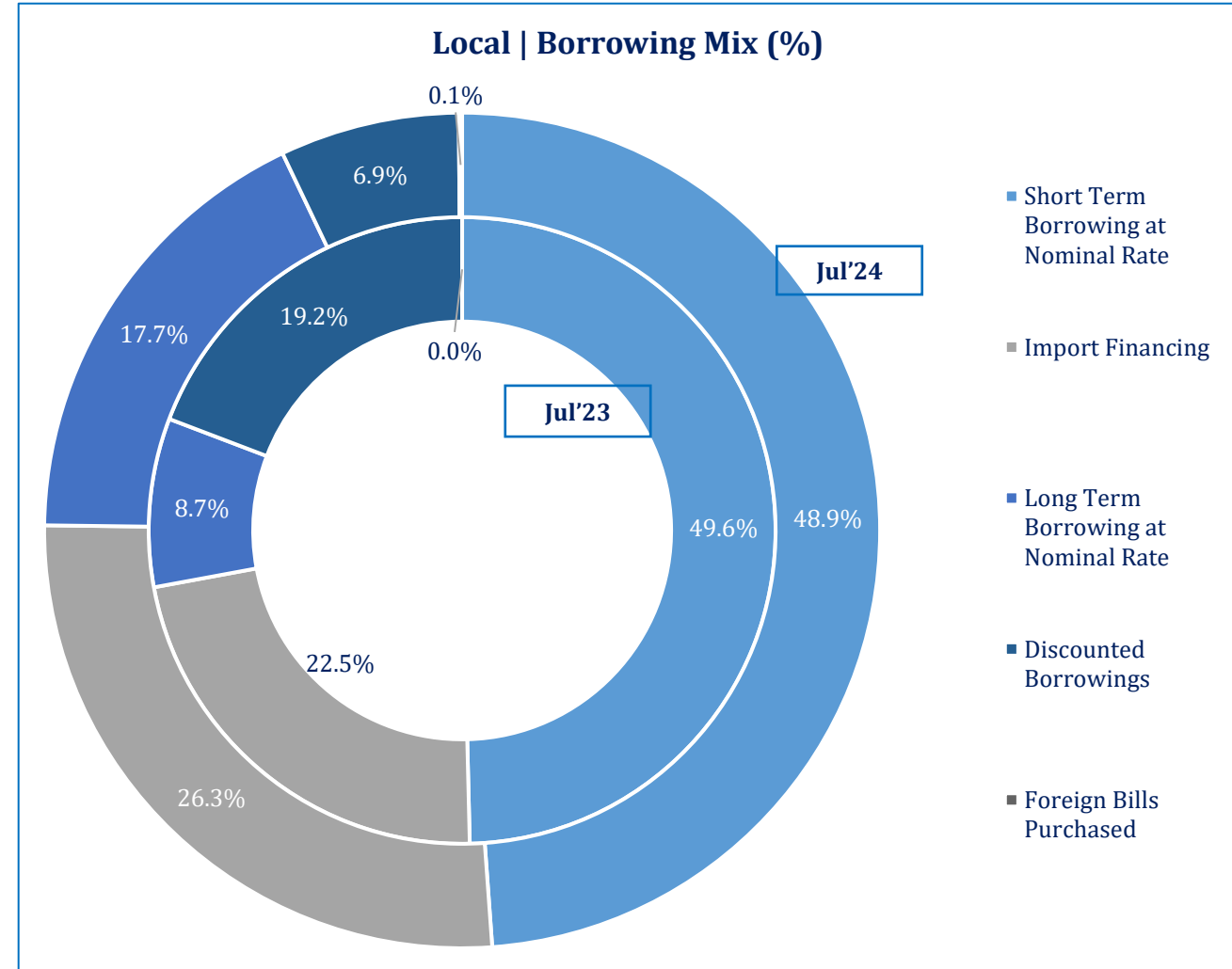## Tubes & Pipes | Working Capital Management

- During FY23 average net working capital days increased to ~142 days in FY23. While, net working capital days increased to ~351 days in 9MFY24.
- Average inventory days increased to ~172 days (FY22: ~105 days), while average receivable days increased to ~55 days (FY22: ~47 days), whereas average payable days increased to ~98 days.
- For 9MFY24, the average inventory days increased to ~368 days (9MFY23: ~298 days) whereas average receivable days increased to ~65 days (9MFY23: ~51 days) and average payable days decreased to ~82 days (9MFY23: ~98 days).

Working Capital Management (Days)

Legend: Receivable Days, Payable Days, Inventory Days, Net WC Days

Year	Receivable Days	Payable Days	Inventory Days	Net WC Days
FY20	45	-69	190	166
FY21	36	-39	121	118
FY22	47	-51	105	101
FY23	55	-85	172	142
9MFY23	51	-98	298	251
9MFY24	65	-82	368	351

Note: Data is based on ~ 2 PACRA-rated/ listed segment players.

Steel

Borrowing Mix

- As of End-Jul24, the sector's overall borrowings stood at PKR~210.3bln, up ~14.5% YoY (End-Jul'23: PKR~183.5bln).

- Short-term borrowings (STBs) at nominal rate stood at PKR~102.7bln, up ~12.8% YoY, and held the largest share in the sector's borrowing mix at ~48.9% (SPLY: ~61.1%).

- Meanwhile, import financing clocked in at PKR~55.4bln (End-Jul'23: PKR~35.2bln), up ~57.3% YoY as of End-Jul'24, and held ~26.3% share in the total borrowing mix during the period.

- Long-term borrowings (LTBs) at nominal rate stood at PKR~37.2bln, down ~9.6% YoY and held a share of ~17.7% in overall borrowings (End-Jul'23: ~27.7%).

- Discounted borrowing (LTFF & EFS) stood at PKR~14.6bln (End-Jul'23: ~15.9bln), down ~8.5% YoY, and held a share of ~6.9% in the overall borrowing mix.

Local | Borrowing Mix (%)

Legend:
- Short Term Borrowing at Nominal Rate
- Import Financing
- Long Term Borrowing at Nominal Rate
- Discounted Borrowings
- Foreign Bills Purchased

Jul'24 ring: 0.1%, 6.9%, 17.7%, 8.7%, 26.3%, 49.6%
Jul'23 inner ring: 19.2%, 0.0%, 22.5%, 48.9%

Steel

Duty Structure

PCT Code	Type	Description	Additional Custom Duty		Custom Duty		Regulatory Duty		Total	
			FY24	FY25	FY24	FY25	FY24	FY25	FY24	FY25
7202.3000, 7204.3000		Waste, Scrap Of Tinned Iron/ Steel	2%	2%	0%	0%	5%	5%	7%	7%
7204.4100, 4900	Scrap	Turnings, shavings, chips; Re-rollable; Waste, scrap of compressors	2%	2%	0%	0%	5%	5%	7%	7%
7204.4990		Other	2%	2%	3%	3%	5%	5%	10%	10%
2601.1100	Iron Ore	Iron Ores	2%	2%	0%	0%	0%	0%	2%	2%
7206.1000, 9000	Semi-finished Long	Ingots	2%	2%	3%	3%	0%	0%	5%	5%
7207.1110		Billets	2%	2%	11%	11%	15%	15%	28%	28%
7209.1510	Finished Flat	Flat-Rolled of secondary quality	6%	6%	20%	20%	10%	10%	36%	36%
7213.1010	Finished Long	Bars & Rods	6%	6%	20%	20%	30%	30%	56%	56%
7214.1010		Others Bars & Rods	6%	6%	20%	20%	30%	30%	56%	56%

Steel

SWOT Analysis

Strengths
- Capital-intensive sector
- Good margins in periods of demand boom.
- Significant Potential demand
- Strong dealership and distribution network
- Non-availability of substitute

Weaknesses
- Heavy reliance on imported raw material
- Exposure to exchange rate volatility
- Seasonality and uncertainty in demand
- Inability to pass on impact of increased cost in times of depressed demand

Threats
- High Production capacity – supply surplus
- Increasing cost of energy
- Inability of the government to spend on PSDP projects

Opportunities
- Low per capita consumption
- Government initiatives to spur construction activities and establish a large number of low cost houses.
- Pakistan GDP recovery and reduced finance costs leading to opportunities for investment
- Initiation of large engineering projects

Steel

Rating Curve

- PACRA rates 7 entities of steel sector. Rating bandwidth is from A+ to CCC. PACRA also rates 3 debt instruments.

Rating Chart | Entities

Rating Chart | Debt Instruments

Steel
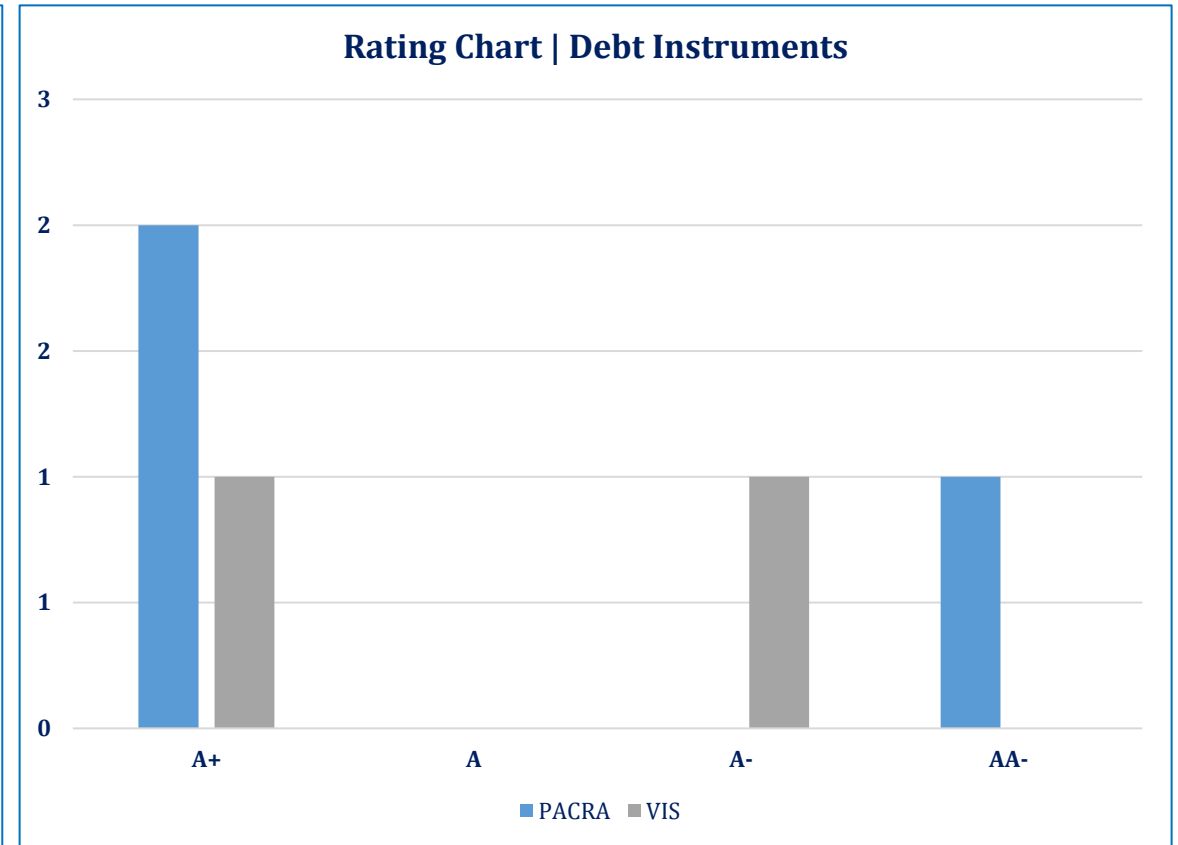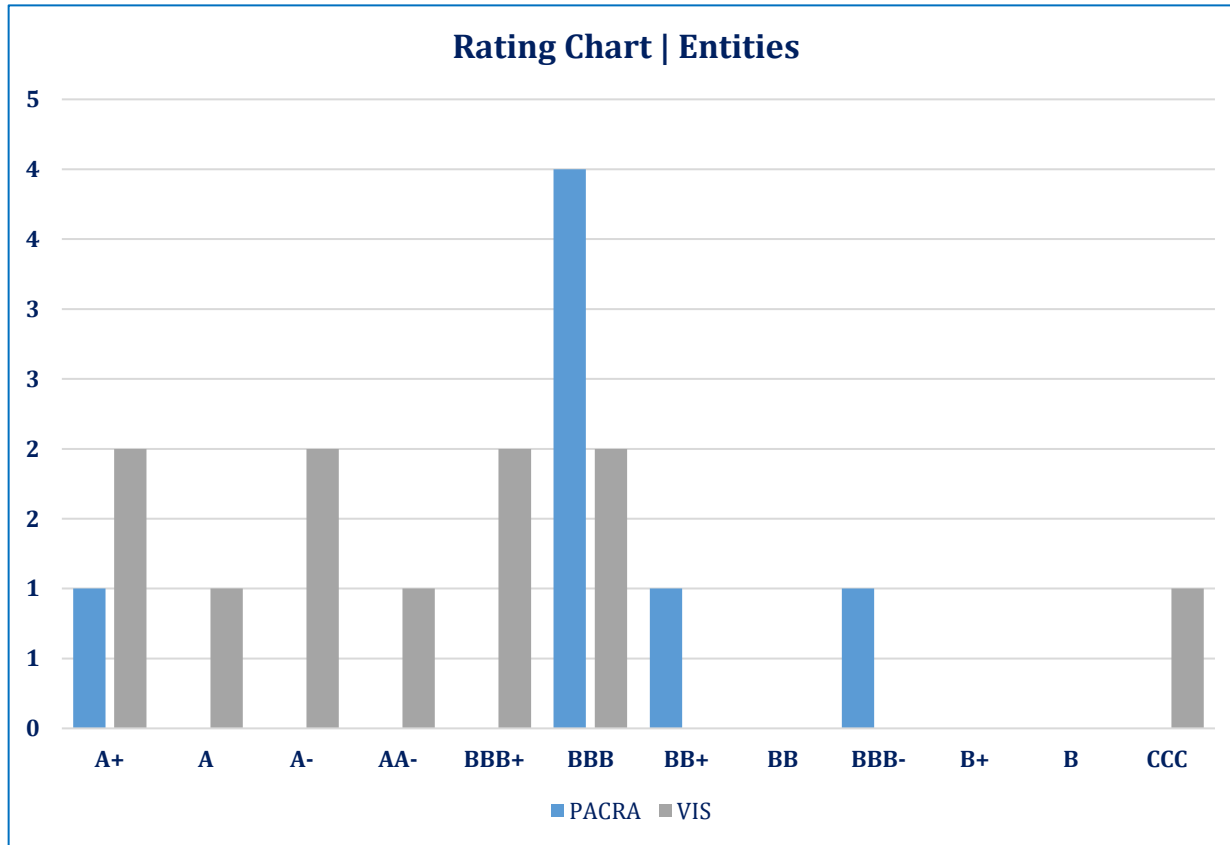
Outlook: Stable

- In FY24, Pakistan's GDP (nominal) stood at PKR~106.0trn (FY23: PKR~83.9trn) and grew, in real terms, by ~2.4% YoY (FY23: ~-0.3% YoY growth). Large Scale Manufacturing (LSM) in Pakistan is essential for the economic growth considering its linkages with other sectors, as it represented ~72.9% value of manufacturing activities in FY24. The country's LSM activity, as depicted by the QIM, showed growth of ~0.9% during FY24.
- Local steel production stood at ~8.4mln MT in FY24, registering a YoY decline of ~5.6%. The production of Billets and Ingots (Long products) stood at ~4.9mln MT, forming ~58.3% of total steel production (SPLY: ~59.5%), and recording ~7.5% YoY decline, while production of HCR Sheets/Strips/Coils/Plates (Flat Products) declined ~2.7% YoY to ~3.5mln MT, with these forming ~41.7% of total production during the year (SPLY: ~40.5%).
- In FY24, overall local supply of steel products clocked in at ~11.3mln MT (FY23: ~11.1mln MT), a YoY increase of ~1.8%. Local production share in demand decreased to ~74.3% in FY24 (FY23: ~80.2%) while finished steel share in demand increased to ~25.7% (FY23: ~19.8%).
- During FY24, average local steel prices stood at USD~933.0/MT, down ~6.3% YoY. The delta between local and international prices increased to ~60.3% in FY24 (FY23: ~28.7%), as the PKR depreciated ~14.1% YoY during the year.
- During FY23, Flat Steel products segment's gross profit declined by ~29.5% YoY (FY22: ~27.4%) on the back of ~30.9% lower YoY sales. In 9MFY24, gross profit increased by ~43.9% YoY, with sales and cost of production up ~5.1% YoY and ~1.3% YoY, respectively.
- During FY23, Long Steel segment's gross profit registered ~9.9% YoY decline, on the back of ~12.7% lower sales YoY. In 9MFY24, gross profit decreased by ~27.3% despite sales increasing by ~8.1% YoY. as the COGS increased by ~13.9% YoY
- During FY23, Tubes and Pipes segment's gross profit decreased by ~8.7% YoY on the back of ~30.3% lower sales YoY and ~32.8% YoY lower cost of production, which resulting in lowering average gross margins to ~14.1% in FY23 (FY22: ~15.4%). In 9MFY24, gross profit increased by ~49.1% as sales increased by ~20.5% YoY and average gross margins clocked in at ~16.1%.
- Going forward, with inflation dropping to ~9.6% YoY in Aug'24 and ~250bps policy cut during (Jun-Jul'24), it is expected that demand for steel will uptick during FY25, GDP growth target of ~3.5% during FY25 is likely to improve performance in construction and manufacturing sectors. However, Steel producers continue to face margin pressures due to increased input costs, including energy prices and imported raw materials

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- Pakistan Stock Exchange (PSX)
- PACRA Database

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